Portfolio Analysis using Project Server 2010 (and 2013)

Presented by Neall Alcott, Vibrant Fusion
Agenda

- Introduction
- Business Drivers
  - Overview
  - Explanation
  - Demonstration
- Portfolio Analyses
  - Overview
  - Explanation
  - Demonstration
Introduction
The Benefits of Project Portfolio Management

• With higher visibility into their strategic value, projects receive the backing needed to succeed.
• Ensures that funds are directed to the projects that return the most value to the organization.
• Resources are allocated optimally across the portfolio by prioritizing the needs of various skillsets with the strategic importance of the projects.
• Resource needs are forecasted over a longer period and shortfalls are recognized and escalated sooner.
Why is Effective Portfolio Management Important?

Portfolio Management
Enables organizations to identify and select the investments that will maximize business value.

50% Value Realized
50% Value Lost

Ability to identify business value potential

Ability to *realize* business value potential

Project Management
Helps ensure organizations successfully deliver the selected investments and realize the business value.

66%
75%
Unified Project and Portfolio Management

Key benefits of Project Server 2010

- Common streamlined user interface
- Shared platform/architecture
- Leverages scalable queue architecture
- All data available via read/write Project Server Interface (PSI)
- Final selection decisions published to Reporting Database (RDB)
- No gateway required
- New Resource Analysis
Project Server 2010: Portfolio Analysis Process Overview

Business Drivers Definition

Business Drivers Prioritization

Aligning Projects/Proposals to Business Drivers

Projects/Proposals Prioritization

Portfolio Analysis (cost, resource)
Business Drivers
Business Driver Observations

• Some organizations have them already defined (possibly in a business plan, prospectus, etc.)
• Some organizations don’t have anything defined…
• Business Drivers must be specific and measurable
• Can be very difficult to define and gain consensus amongst executives
Business Driver

- Business Drivers represent an organization’s business objectives in Project Server 2010
- Create drivers in the Business Driver Library
- May be associated with zero or more Departments
- Drivers are prioritized to reflect organization’s perceived business impact and importance

<table>
<thead>
<tr>
<th>Driver Name</th>
<th>Department</th>
<th>Status</th>
<th>Created Date</th>
<th>Created By</th>
<th>Modified Date</th>
<th>Modified By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand into new markets and segments</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Customer satisfaction score</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Employee satisfaction</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/25/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Product Quality</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
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</tr>
<tr>
<td>Increase market share in existing markets</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce Expense Base</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standardize and streamline cross-functional processes</td>
<td>Active</td>
<td>7/31/2009</td>
<td>8/19/2009</td>
<td>Contoso Administrator</td>
<td></td>
<td></td>
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</tbody>
</table>
Driver Prioritizations

• Two ways to prioritize business drivers:

• **Calculated**: Each driver will be compared to every other driver within the prioritization using a fixed seven-point scale. Once every driver has been rated the system will automatically generate relative priority scores

• **Manual**: Manual prioritizations allow users to specify priority values for each driver directly
Calculated Driver Prioritization

- User performs a pairwise comparison
- System calculates the *consistency ratio*
- Inconsistent prioritizations may make sense in some instances but should be reviewed carefully
Portfolio Analyses
Portfolio Analyses

• Portfolio analyses are a collection of projects that will compete for selection based on their cost relative to their strategic value.

• Prioritization of Projects:
  - By Business Drivers
  - By Custom Field
Unified Project and Portfolio Management
Further considerations

• Three data points feed into the portfolio analysis process:
  • Proposal/project impact on business drivers
    • Departments are supported to “filter” related Business Drivers
  • Cost (Number Custom Field) – e.g. Proposal Cost
  • Time-phased resource requirements
    • Proposal will need a Resource Plan or Project Plan
Using Business Drivers

• Could use:
  • Business drivers impact statements

• Project custom fields with values and relative priorities (manually calculated by user)
Using business drivers impact statements

- **Fill** the impact matrix with the numeric values
- **Multiply** matrix with driver priorities
- **Normalize** resulting absolute values to 100% to derive relative priorities

<table>
<thead>
<tr>
<th>Driver A</th>
<th>Driver B</th>
<th>Driver C</th>
<th>Driver D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project 1</strong></td>
<td>None</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Project 2</strong></td>
<td>Extreme</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Project 3</strong></td>
<td>Low</td>
<td>Moderate</td>
<td>None</td>
</tr>
<tr>
<td><strong>Project 4</strong></td>
<td>None</td>
<td>Low</td>
<td>None</td>
</tr>
<tr>
<td><strong>Project 5</strong></td>
<td>Low</td>
<td>Strong</td>
<td>None</td>
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Using business drivers impact statements

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<tr>
<td>Project 1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Project 2</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Project 3</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Project 5</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>0</td>
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</table>

Driver priorities:
- A: 41%
- B: 25%
- C: 22%
- D: 12%
Using business drivers impact statements

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Driver priorities

- A: 41%
- B: 25%
- C: 22%
- D: 12%

Project priorities

- P1: 20%
- P2: 42%
- P3: 15%
- P4: 4%
- P5: 19%
Project Interdependencies

• Project dependency relationship will be respected during portfolio selection scenario calculations

• There are following types of interdependencies:
  • **Dependency**: If Project A selected, Project B must be selected
  
  • **Mutual Inclusion**: For a set of projects, if one project is selected, all projects in the set must be selected.
  
  • **Mutual Exclusion**: For a set of projects, only one project in the set can be selected (Alternatives).
  
  • **Finish to Start**: Used in Resource Constraint Analysis for identifying scheduling constrains
Cost Constraint Analysis
Constraint Optimization

The need for optimization

- Available budget: $100
- Request: chose the projects that provide maximum value to the business
Force In/Out

• A portfolio may contain projects that must be either selected or not selected, regardless of their cost/value ratio or their dependencies on other projects.

• Aliases available for “Force In/Out” per analysis

• Examples:
  • A non-strategic project that must be implemented because of legal compliance issues will need to be “forced in” the portfolio.
  • A very costly project might need to be “forced out” of a portfolio to free up resources for other projects and improve the portfolio’s overall ROI
Resource Constraint Analysis
Resource Constraint Analysis
Related Portfolio Analysis Configuration

- Specify the resource custom field that defines role
- Specify the planning horizon dates and granularity
- Filter resources by department or RBS value
- Consider proposed bookings when calculating capacity for projects outside the analysis (advanced)
- Specify how project dates are set
  - Respect the project resource plan setting which allows pulling resource requirement data from the project schedule, the resource plan, or a mixture of the two
  - Use project date custom fields to specify dates
Resource Constraint Analysis
Simplified Algorithm – Resource Allocation

• Portfolios may also be analyzed by their high-level resource requirements combined with their prioritization.

• Higher priority projects are resourced first, lower priority projects are resourced last.

• If resource availability does not meet a given project’s demand for any period for any role, that project is not resourced and the project with the next lowest priority is examined.
Portfolio Comparison using Scenarios

• Portfolio selections scenarios should be adjusted and recalculated until a scenario is reached that should be finalized or compared with other scenarios.

• Portfolios may be compared with each other by:
  • Projects Selected
  • Strategic Value
  • Custom Fields (example: ROI)

<table>
<thead>
<tr>
<th>Compare Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Selection Scenario Name</td>
</tr>
<tr>
<td>Baseline Portfolio Selection Scenario</td>
</tr>
<tr>
<td>SPC Analysis</td>
</tr>
</tbody>
</table>
Commit Portfolio Analysis Decisions

• Once you have completed your portfolio analysis, the final step is to commit your portfolio

• Optionally, committed portfolios may kick off a workflow
Summary

• Business Drivers
  • Overview
  • Explanation
  • Demonstration

• Portfolio Analyses
  • Overview
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