Dr. Dan Patterson PMP, Acumen CEO

Improving Schedule Quality with Acumen Fuse
// Agenda

- Overview of Acumen Fuse
- Schedule diagnostics
- Advanced logic analysis
- Project forensics
- Q&A
// Acumen
Proven Project Analytics

- Project Management Software
- Focus on analytics
- Core Concepts
  - Project success requires a sound plan
  - Forecasting requires risk consideration
- Recognition
  - 2012 Planning Innovation of the Year
  - 2012 Inc.500 Award
Acumen Software

Summary

**Acumen Fuse**
*Diagnóstics*
- Improved Schedule Quality

**Acumen 360**
*Scenario Generation*
- Acceleration/Deceleration

**Acumen Risk**
*Risk Analysis*
- Simplified Cost/Schedule

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**Build Schedule Basis**

- **S1** // Schedule Basis
  - Acumen Fuse®: Project Diagnostics
- **S2** // Critiqued
  - Acumen Risk™: Risk Analysis & Register
- **S3** // Risk-Adjusted
  - Acumen 360™: Project Optimization
- **S4** // Optimized
- **S5** // Team Approved
  - Team Validation and Buy In

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February 4, 2013
Better Planning = Project Success

Proven Correlation

Probability of On-Time Completion vs. Fuse Schedule Index™
Benefit:
- Insight into shortcomings
- Improved project quality
- Reliable project plans

Audience:
- Schedulers / Planners
- Project Controls
- Forensic Analyzers

Features:
- Industry standard metrics
- Forensic analysis
- Dashboards & reports
- Industry Benchmarking

Acumen Fuse® pinpoints, and more importantly, resolves project shortcomings in a matter of minutes.
### Types of Project Metrics

#### Fuse Metric Libraries

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Cost</th>
<th>Performance</th>
<th>Characteristics</th>
<th>Earned Value</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Logic</td>
<td>• Overrun</td>
<td>• Status</td>
<td>• Level of detail</td>
<td>• CPI/SPI</td>
<td>• Exposure</td>
</tr>
<tr>
<td>• Float</td>
<td>• Capacity</td>
<td>• Completed</td>
<td>• Constrained</td>
<td>• Trending</td>
<td>• Hot spots</td>
</tr>
<tr>
<td>• Duration</td>
<td>• Burn rates</td>
<td>• Delayed</td>
<td>• Riding Data Date</td>
<td>• Earned schedule</td>
<td>• Hidden paths</td>
</tr>
</tbody>
</table>

- Project management best practices
- Industry/corporate standards: PMI, AACE, NDIA
- Fuse-specific: Logic Density™, Hotspot, Redundancy
- Compliance: DCMA 14 Point, DoD
- Create your own!
// Customizable Metrics
Fuse Metric Editor

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Name</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>Negative Float</td>
<td>Total number of activities with total finish float less than 0 working days.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Negative float is a result of an artificially accelerated or constrained schedule. Negative float indicates that a schedule is not possible based on the current completion dates. Compare this metric to other metrics to determine which activities (with negative floats) are being impacted by constraints. Ideally, there should not be any negative floats in the schedule. Includes...</td>
<td></td>
</tr>
<tr>
<td>Metric Type</td>
<td>Activity Count</td>
<td>Applies To Ribbons</td>
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<tr>
<td>Primary Formula</td>
<td>Secondary Formula</td>
<td>Tripwire Formula</td>
</tr>
<tr>
<td>Inclusions</td>
<td>Activity Status</td>
<td>Activity Type</td>
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<tr>
<td>Filters</td>
<td>Field Op</td>
<td>Field or Value</td>
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<tr>
<td></td>
<td>Total Float</td>
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</tr>
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</table>

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**Acumen-Specific Metrics**

**Advanced Project Insight**

- **Finish Compliance™**
  - Accurate measure of performance

- **Insufficient Detail™**
  - Activity V project duration

- **Milestone Ratio™**
  - Detail V reporting

- **Broad Risk Range**
  - Check for erroneous risk input

- **Logic Density™**
  - Measure of complexity/completeness

- **Logic Hotspot™**
  - Timely start?

- **Float Ratio™**
  - Degree of flexibility per day of work

- **Redundancy Index™**
  - Non-needed logic
## Baseline Compliance Index™

**Performance Analysis**

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<th>4</th>
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<tr>
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<td>1</td>
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<td>3</td>
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<td>1</td>
<td>4</td>
<td>4</td>
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</tbody>
</table>
Finish Compliance Index™

Execution Performance

4 February 2013

Acumen
- Circular logic
- Logic Density™
- Redundancy Index™
- Logic Sensitivity™
- Out of sequence
- Dangling activities
逻辑敏感性™
The Nudge Test

- Validation of logic
- Delay analysis
- Pinpoint changes
- Contractor updates
- Determine trends
- Calendar manipulation
- New Window Analysis™
Schedule Cleansing

- Review & address issues directly in Fuse
- Push updates directly back to P6 and MS Project
- Analyze impact of cleanse using Fuse metrics!
Acumen Fuse™ Demonstration