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Work is organized around our customers and integrated solutions.

Enables us to:

- Turn feedback from customers into action – delivering on expectations
- Provide a single point-of-contact
- Provide value-driven services
- Work together as an ePMO team
TXDOT ePMO - Key Focus for Sections

Customer Service

BUSINESS PARTNERING

Focus on partnering with customers to deliver solutions and fulfill unique needs.

PM Practices

STANDARDS, RISK & INNOVATION

Focus on developing initiative and policy design, as well as sharing PM best practices.

Process Delivery

REPORTING & OPERATIONS

Focus on reporting/analyzing and maintaining PM tools.

ePMO
Structural Integrity of a CPM Schedule

- How can we check if a CPM schedule is built using appropriate scheduling techniques?
- What components do we analyze to ensure quality?
- How do we measure quality within the schedule framework?

DCMA 14 Point Assessment
What is DCMA 14 point assessment?

- Becoming an industry standard for schedule quality checks and measuring performance.
- Assess quality and structural integrity through 14 metrics:
  1. Logic
  2. Leads
  3. Lags
  4. Relationships
  5. Hard Constraints
  6. High Float
  7. Negative Float
  8. High Duration
  9. Invalid Dates
  10. Resources
  11. Missed Activities
  12. Critical Path Test
  13. CPLI
  14. BEI
What are the Benefits?

- Measure 14 metrics; Proven CPM Scheduling Techniques
- Compares and evaluates baseline schedule with status updates.
- Provides a consistent approach to schedule analysis.
- Provides more rigor to the schedule review process.
- Increases the likelihood of completing the project “on-time”. 
What are the 14 Points?

Relationships and Logic Checks:

1. Logic
2. Leads
3. Lags
4. Relationships
What are the 14 Points?

Constraints, Float, Duration, and Schedule Path Analysis:

5. Hard Constraints
6. High Float
7. Negative Float
8. High Duration
What are the 14 Points?

Project Performance Checks:

9. Invalid Dates
10. Resources
11. Missing Activities
Critical Path Tests:

12. Critical Path Test
13. The Critical Path Length Index
14. Baseline Execution Index
How can we perform this Analysis?
What is the ePMO currently doing?

1. Developing QA procedure for pre-construction scheduling.
2. Increase the probability of successful letting dates.
3. Implementing software to run 14 point Assessment (Acumen Fuse).
4. Developing training for QA metrics and use of Acumen Fuse.
# Logic Checks

## Task Name and Predecessors

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Predecessors</th>
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<tbody>
<tr>
<td>Start</td>
<td></td>
</tr>
<tr>
<td>Activity 1</td>
<td>1</td>
</tr>
<tr>
<td>Activity 2</td>
<td>1</td>
</tr>
<tr>
<td>Activity 3</td>
<td>1</td>
</tr>
<tr>
<td>Activity 4</td>
<td>1</td>
</tr>
<tr>
<td>Activity 5</td>
<td>5, 4, 2</td>
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<tr>
<td>End</td>
<td>6</td>
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## Time Line

- **1/24, '10**: Start
- **1/26**: Activity 1 begins
- **1/31, '10**: Activity 2 begins
- **2/7, '10**: Activity 3 begins
- **2/9**: Activity 5 begins
- **2/9**: End

## Ribbon Analyzer

<table>
<thead>
<tr>
<th>Ribbons / Phases</th>
<th>Time Line</th>
<th>Ribbon Analyzer</th>
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<td>1/24/2010</td>
<td>1. Logic</td>
</tr>
<tr>
<td>Activity 1</td>
<td>1/24/2010</td>
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</tr>
<tr>
<td>Activity 2</td>
<td>1/31/2010</td>
<td>1</td>
</tr>
<tr>
<td>Activity 3</td>
<td>2/7/2010</td>
<td>0</td>
</tr>
<tr>
<td>Activity 4</td>
<td>2/9</td>
<td>0</td>
</tr>
<tr>
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<td></td>
<td>0</td>
</tr>
<tr>
<td>Start</td>
<td></td>
<td>0</td>
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## Logic Density

- **Activity 1**: 0 (0%)
- **Activity 2**: 1 (100%)
- **Activity 3**: 0 (0%)
- **Activity 4**: 0 (0%)
- **Activity 5**: 0 (0%)

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**Schedule Quality Assurance**
Float and Duration Checks

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Total Slack</th>
<th>Predecessors</th>
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<tbody>
<tr>
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<td>Tue 1/26/10</td>
<td>Tue 1/26/10</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>50 days</td>
<td>Tue 1/26/10</td>
<td>Mon 4/5/10</td>
<td>0 days</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
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<td>Tue 4/6/10</td>
<td>Mon 6/14/10</td>
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<td>2</td>
</tr>
<tr>
<td>3</td>
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<td>Tue 1/26/10</td>
<td>Mon 3/8/10</td>
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</tr>
<tr>
<td>4</td>
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<td>Tue 1/26/10</td>
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</tr>
<tr>
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<td>Tue 2/23/10</td>
<td>Mon 4/5/10</td>
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<td>6</td>
</tr>
<tr>
<td>7</td>
<td>20 days</td>
<td>Tue 4/6/10</td>
<td>Mon 5/3/10</td>
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<td>7</td>
</tr>
<tr>
<td>Finish</td>
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<td>Mon 6/14/10</td>
<td>Mon 6/14/10</td>
<td>0 days</td>
<td>3, 5, 8</td>
</tr>
</tbody>
</table>

- **Ribbons / Phases**
  - Path #1
  - Path #2
  - Path #3

- **Time Line**
  - 1/2010
  - 2/2010
  - 3/2010
  - 4/2010
  - 5/2010
  - 6/2010

- **Ribbon Analyzer**
  - 6. High Float: 0 (0%), 2 (100%), 0 (0%)
  - Rem. Dur.: 100 (45%), 50 (23%), 70 (52%)
  - Ribbon Length: 139
  - 1. Logic: 0 (0%), 0 (0%), 0 (0%)
  - 5. Hard Constr: 0 (0%), 0 (0%), 0 (0%)
DMCA 14 Point Assessment

- Provides a consistent approach to analyzing technical components of a schedule.
- Measures quality against proven CPM scheduling metrics.

Ensuring quality of a schedule increases probability of “on-Time” success!
Questions?

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