



Acumen Annual Summit

PMI Practice Standard for Scheduling

September 18, 2012



Mike Mosley

Director, Project Management Processes



Standards Overview Presentation



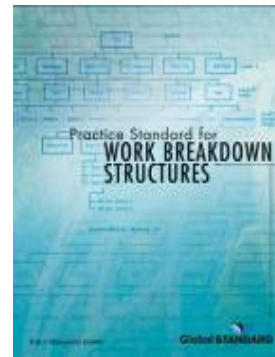
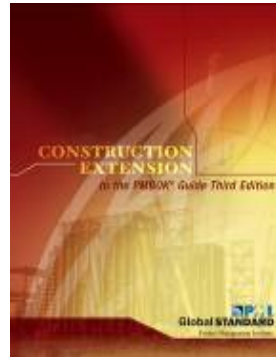
- Preliminary planning team is organized
- Charter/Scope is finalized and approved
- Volunteers are on-boarded onto the team
- Content is developed
- Exposure Draft
- Appeals Body
- Consensus Body Balloting
- Publication!

PMI Standard - *A document established by consensus and approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.*

Voluntary Consensus

- Written in a open environment by professionals from both the private and public sector
- Follows a process based on openness and balance leading to consensus

- **1969 – PMI founded**
- **1983 – PMI Special Report on Ethics, Standards, and Accreditation – the Standards portion was *The Project Management Body of Knowledge (PMBOK)***
- **1987 – *PMBOK* Standard was published**
- **1996 – *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* [first edition] published**
- **1998 – PMI accredited as a Standards Development Organization (SDO) by ANSI**
- **2000 – The *PMBOK® Guide - 2000 Edition* [second edition] published**
- **2004 – The *PMBOK® Guide - Third Edition* published**
- **2008 – 25th Anniversary of the *PMBOK® Guide* [fourth edition published]**
- **2012 – The *PMBOK® Guide - Fifth Edition* targeted for publication**



- Research is conducted to identify possible new standards for development, or, if existing standards need updating
- Research is validated by PMI, the Standards MAG and others
- Budget is written up and approved
- Draft Charter and Scope Statement are developed
- Voluntary Project Manager (Chair) is hired

- Preliminary planning team is organized
- Charter/Scope is finalized and approved
- Volunteers are on-boarded onto the team
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Committee – Eight Members

- Qualifications:
 - Eight PMP
 - Five PMP-SP
 - One PMI-RMP
- Geographic:
 - Five – North America (four states, coast to coast)
 - One – EMEA (Lithuania)
 - Two – Asia Pacific (Israel and India)
 - Two – Latin America (Curacao & Brazil)

Note – This totals more than eight as there was movement of the members during the course of the effort.



Practice Standard for Scheduling – Second Edition




- Project chartered to define revision and recommend updates to the Practice Standard for Scheduling for consensus review and publication as a second edition.
- Charter signed at PMI Leadership Meeting - January 2010
- Development Process:
 - First Meeting – February 2010
 - Development - February thru August 2010
 - PMI Edits, Exposure Draft Prep – August thru October 2010
 - Exposure Draft – October thru December 2010
 - Exposure Draft Comment Adjudication – December thru February 2011
 - Appeals Process – February 2011
 - Publication July 2011





Final Statistics (not counting editorial comments):

- Total comments 837
 - Accepted 22.8%
 - Accepted w/Mods 65.9%  88.7%
- Incorporated
 - Deferred (8) 0.01%
 - Rejected 3.6%
- One Appeal received, Adjudicated as Accepted





The Committee –
The Practice Standard for Scheduling – Second Edition
Team photo at lessons learned meeting, with published Standard.



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Key Points:



- Schedule – What do you want?
- What is “critical?”

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Have you been asked to provide:

- A schedule
- In electronic format
- In native format

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PMI Defines a schedule as:

The planned dates for performing schedule activities and the planned dates for meeting schedule milestones.

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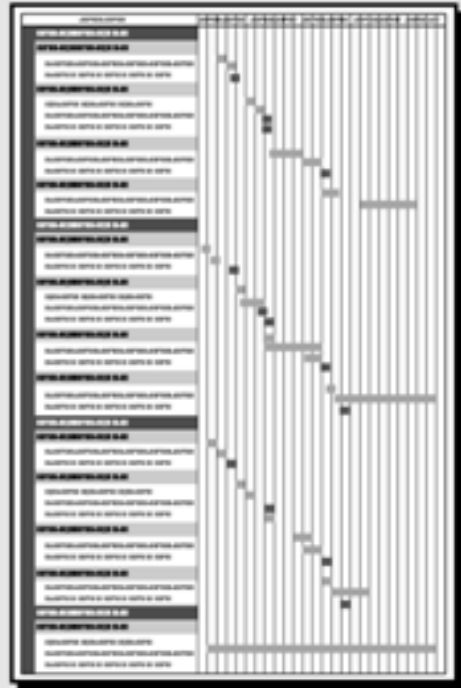




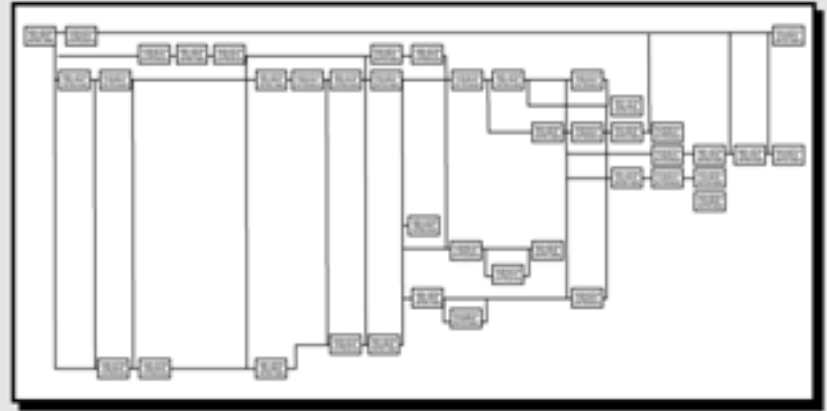
Examples of Project Schedules:

Activity Name	Start Date	End Date
ACTIVITY 1	01/01/2014	01/01/2014
ACTIVITY 2	01/01/2014	01/01/2014
ACTIVITY 3	01/01/2014	01/01/2014
ACTIVITY 4	01/01/2014	01/01/2014
ACTIVITY 5	01/01/2014	01/01/2014
ACTIVITY 6	01/01/2014	01/01/2014
ACTIVITY 7	01/01/2014	01/01/2014
ACTIVITY 8	01/01/2014	01/01/2014
ACTIVITY 9	01/01/2014	01/01/2014
ACTIVITY 10	01/01/2014	01/01/2014
ACTIVITY 11	01/01/2014	01/01/2014
ACTIVITY 12	01/01/2014	01/01/2014
ACTIVITY 13	01/01/2014	01/01/2014
ACTIVITY 14	01/01/2014	01/01/2014
ACTIVITY 15	01/01/2014	01/01/2014
ACTIVITY 16	01/01/2014	01/01/2014
ACTIVITY 17	01/01/2014	01/01/2014
ACTIVITY 18	01/01/2014	01/01/2014
ACTIVITY 19	01/01/2014	01/01/2014
ACTIVITY 20	01/01/2014	01/01/2014
ACTIVITY 21	01/01/2014	01/01/2014
ACTIVITY 22	01/01/2014	01/01/2014
ACTIVITY 23	01/01/2014	01/01/2014
ACTIVITY 24	01/01/2014	01/01/2014
ACTIVITY 25	01/01/2014	01/01/2014
ACTIVITY 26	01/01/2014	01/01/2014
ACTIVITY 27	01/01/2014	01/01/2014
ACTIVITY 28	01/01/2014	01/01/2014
ACTIVITY 29	01/01/2014	01/01/2014
ACTIVITY 30	01/01/2014	01/01/2014
ACTIVITY 31	01/01/2014	01/01/2014
ACTIVITY 32	01/01/2014	01/01/2014
ACTIVITY 33	01/01/2014	01/01/2014
ACTIVITY 34	01/01/2014	01/01/2014
ACTIVITY 35	01/01/2014	01/01/2014
ACTIVITY 36	01/01/2014	01/01/2014
ACTIVITY 37	01/01/2014	01/01/2014
ACTIVITY 38	01/01/2014	01/01/2014
ACTIVITY 39	01/01/2014	01/01/2014
ACTIVITY 40	01/01/2014	01/01/2014
ACTIVITY 41	01/01/2014	01/01/2014
ACTIVITY 42	01/01/2014	01/01/2014
ACTIVITY 43	01/01/2014	01/01/2014
ACTIVITY 44	01/01/2014	01/01/2014
ACTIVITY 45	01/01/2014	01/01/2014
ACTIVITY 46	01/01/2014	01/01/2014
ACTIVITY 47	01/01/2014	01/01/2014
ACTIVITY 48	01/01/2014	01/01/2014
ACTIVITY 49	01/01/2014	01/01/2014
ACTIVITY 50	01/01/2014	01/01/2014

Activity List



Bar Chart



Network Diagram





Do the following serve:

- **Excel**
- **Visio**
- **PDF**

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Do the following serve:

- **Excel**
- **Visio**
- **XER or MPP**

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How About a Schedule Model:



PMI Defines a schedule model as:

“A dynamic representation of the plan for executing the project’s activities developed by the project stakeholders applying the schedule method to a scheduling tool using project specific data such as activity lists and activity attributes.”

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How About a Schedule Model:



Dynamic:

The model reacts to inputs as the project team expects the project to react.

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How About a Schedule Model:



PMI Defines Activity Attributes:

“Multiple attributes associated with each schedule activity that can be included within the activity list. Activity attributes include activity codes, predecessor activities, successor activities, logical relationships, leads and lags, resource requirements, imposed dates, constraints, and assumptions.”

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Define Critical:



“CPM in Construction Management” (James O’ Brien/Fred Plotnick):

“The classic definition of critical, as on the critical path, is where total float equals zero.”

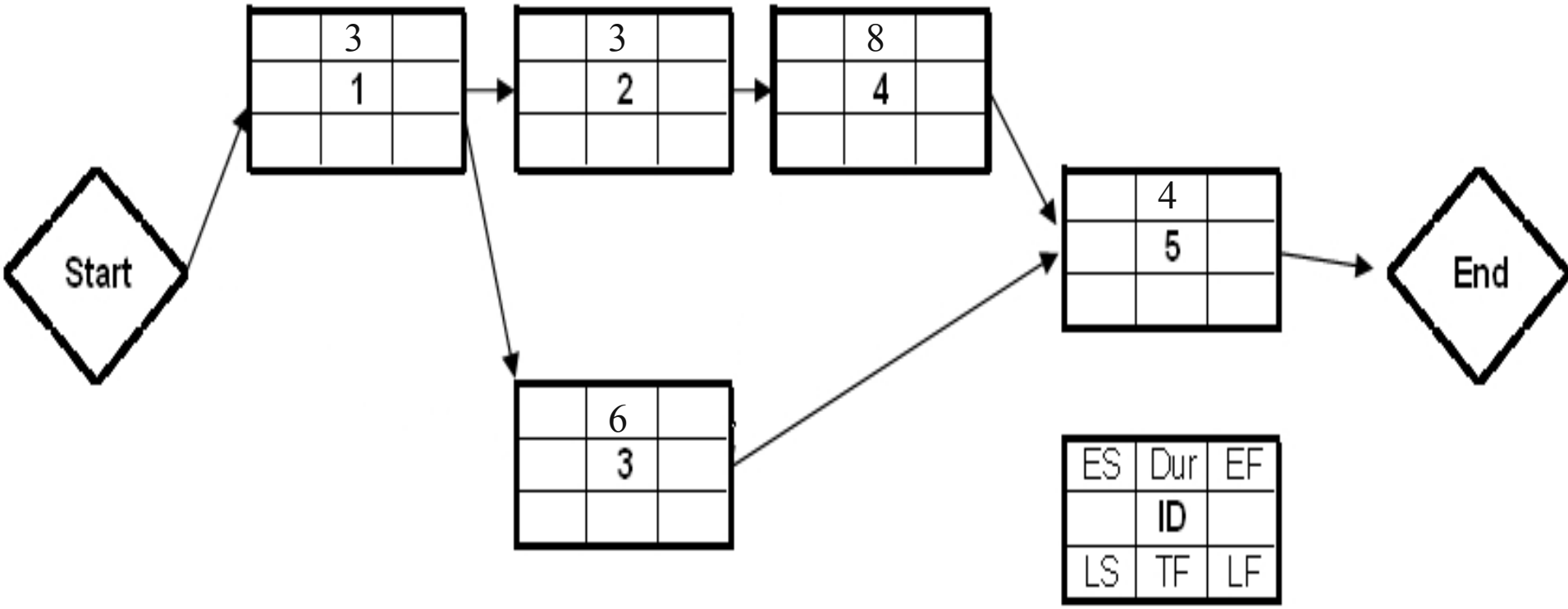
PMI describes the critical path:

“It is the longest path through the project.”

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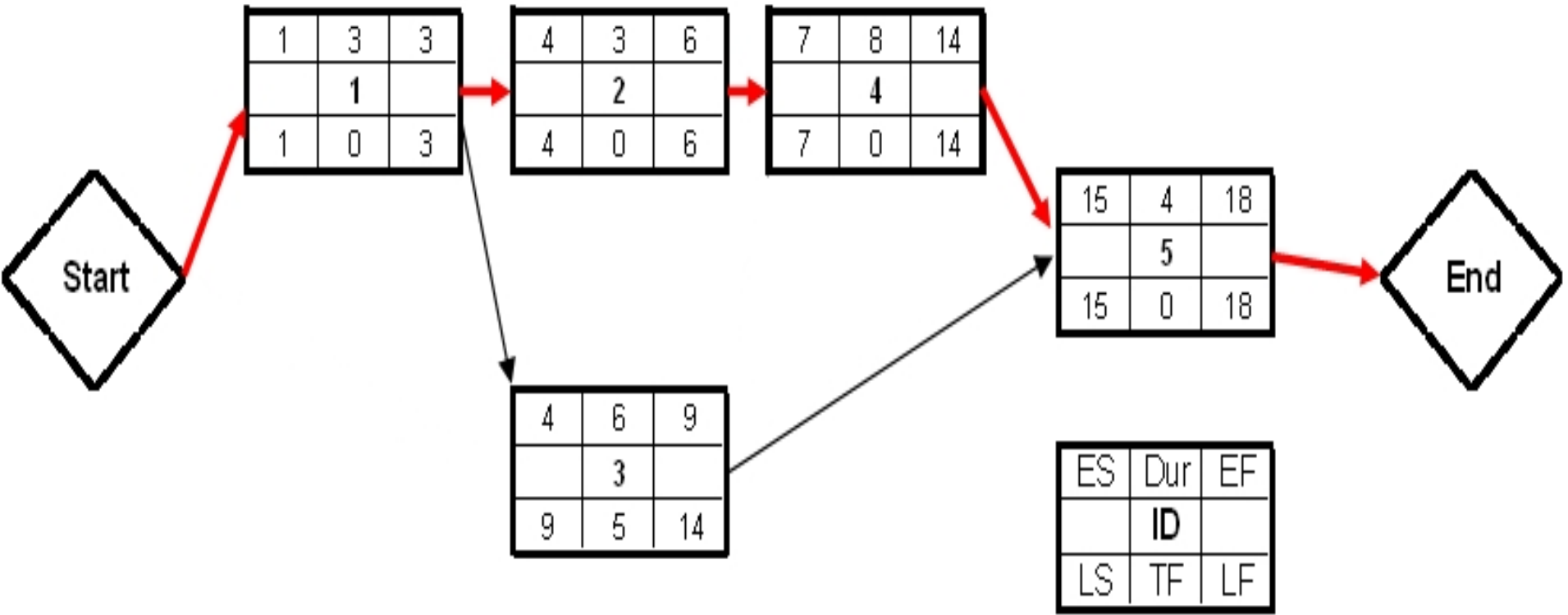
Schedule Calculations Network Logic



Note: All relationships are FS
All Durations in Weeks



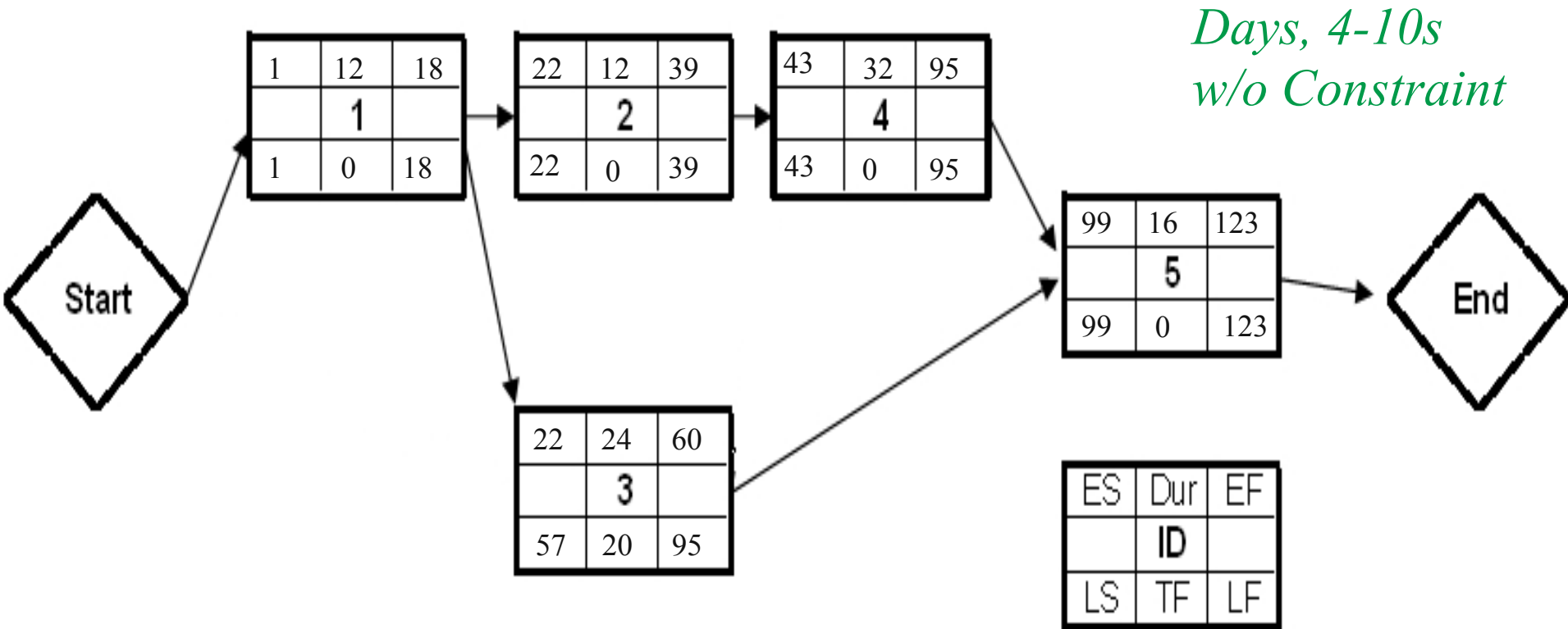
Schedule Calculations Network Solution



Note: All relationships are FS



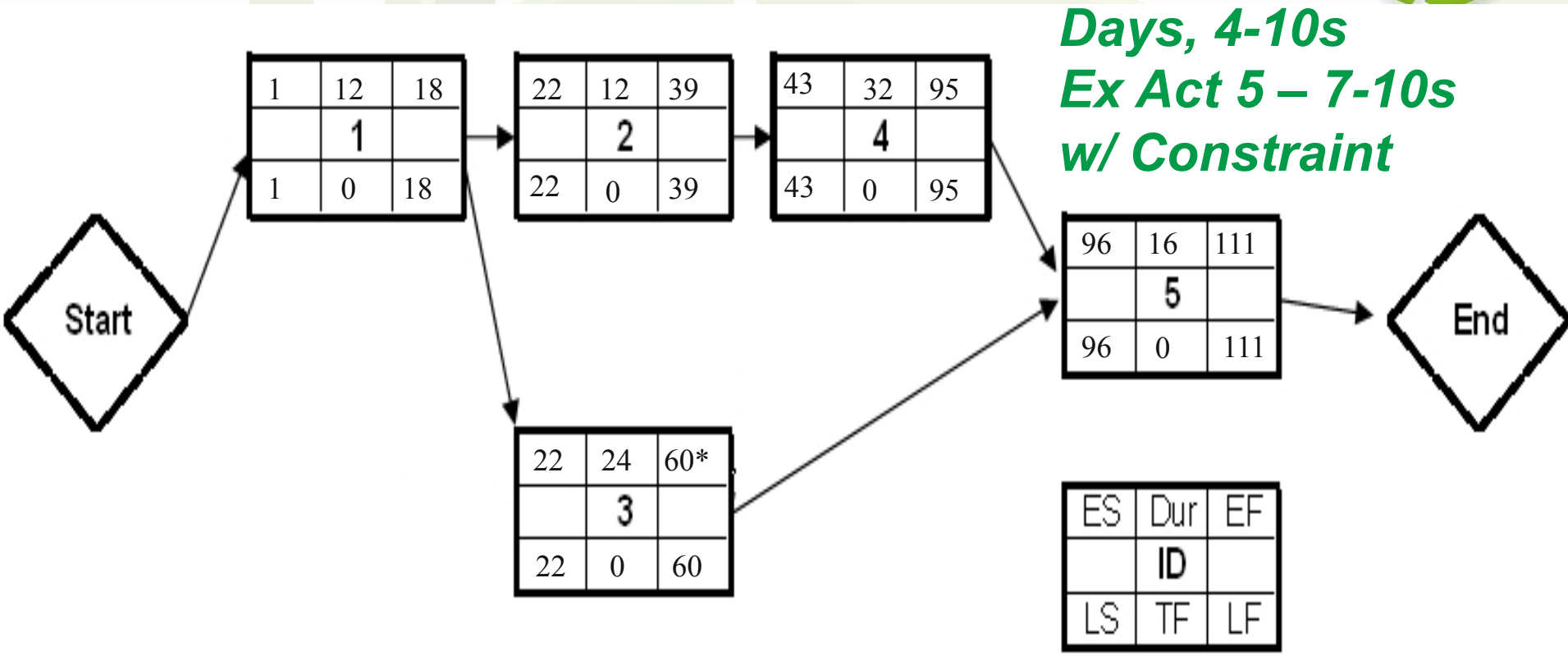
Schedule Calculations Network Logic



Note: All relationships are FS



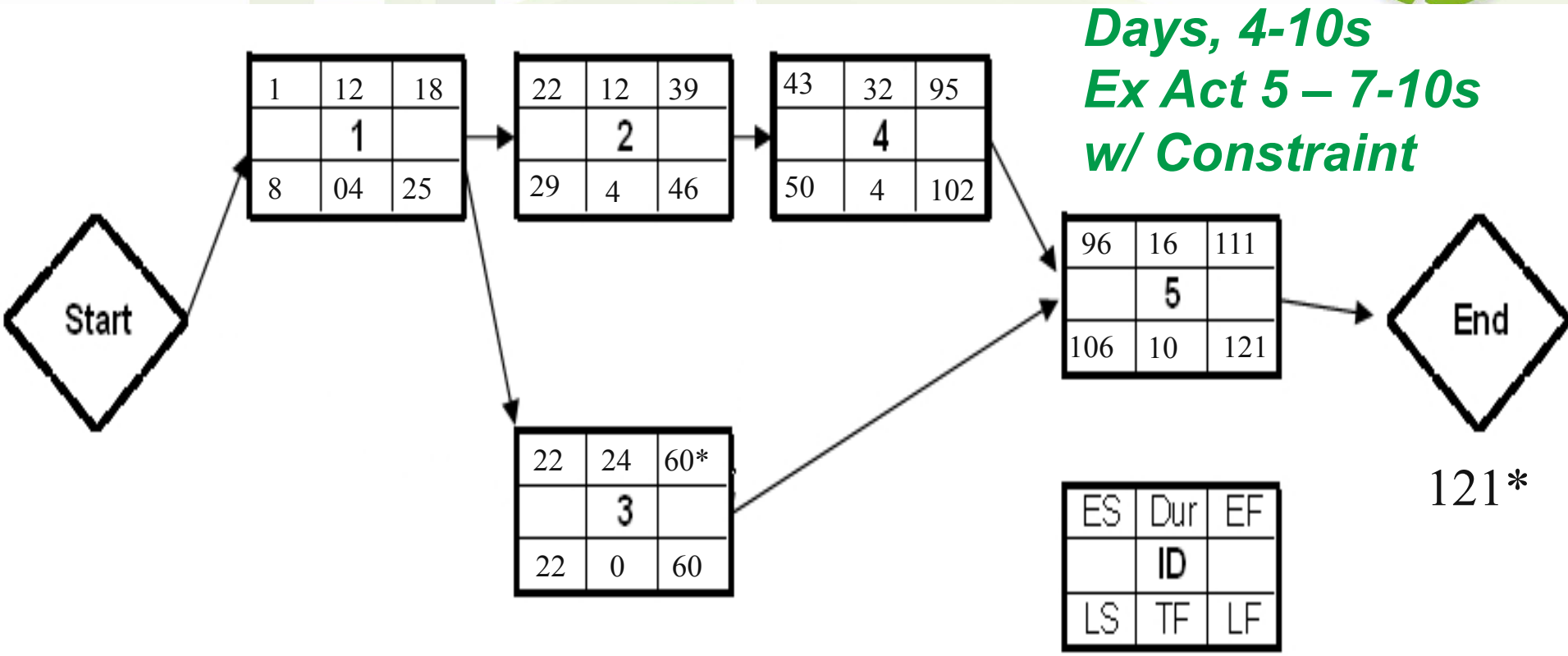
Schedule Calculations Network Logic – Ex. 4



Note: All relationships are FS



Schedule Calculations Network Logic – Ex. 5



Note: All relationships are FS

LF Constraint on End= 121



Refined Definitions for Critical



Consider these points from the earlier definitions:

- An activity with zero float
- Determines the project finish date, either by total float or longest path

Zachry definitions:

Critical Activity - Any schedule activity on a critical path in a project schedule.

Critical Path - The path of activities that determine the date of a critical milestone. “**The**” critical path is usually to the constrained milestone upon which liquidated damages will be assessed. “**A**” critical path could be to another, selected milestone signifying the completion of a substantive portion of the work; such as boiler hydro, first fire, etc.

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Thank You!



Harold “Mike” Mosley, Jr., P.E., PMP
Director, Project Management Processes
Zachry Industrial, Inc.

San Antonio, TX

mosleym@zhi.com

(210) 588-5411



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