Project Management Basics Review

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Project Management Basics Review

Purpose of this Presentation

Definitions
PM Iron Triangle
Organizational Dimensions

Key Challenges of PM

Project Lifecycle Spirals

Project Management by Gallagher

BUREAUCRACY

The mortal fear that someone, somewhere, is working efficiently and without your permission

Purpose/Philosophy

Refresher discussion of basic PM concepts

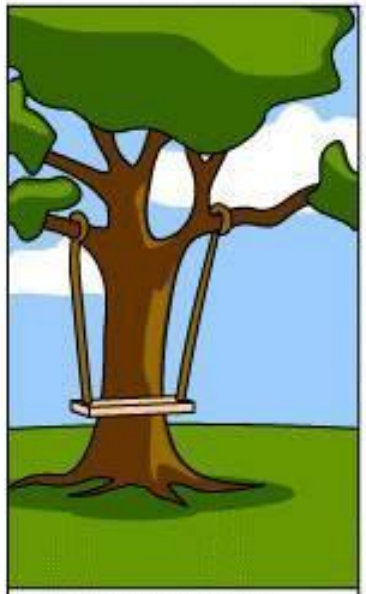
Baseline conceptual language for (a) further instruction and for (b) operational use in practicum

PM oriented to the needs of *analytics* projects and the IAA practicum

> …NOT to replicate administrative PM systems likely to be encountered in your careers
>
> …just enough administrative burden to support excellent analytic work…and nothing more

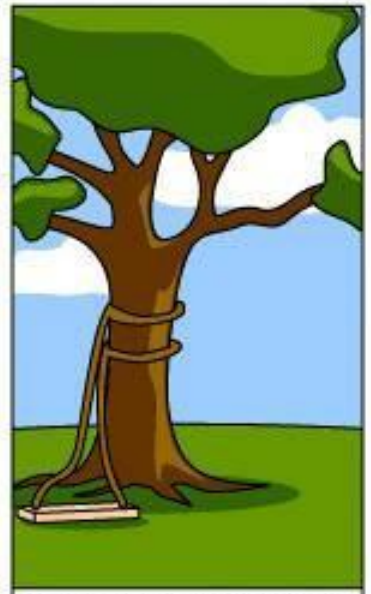
Develop a Project Manager's "conscience"

How the customer explained it



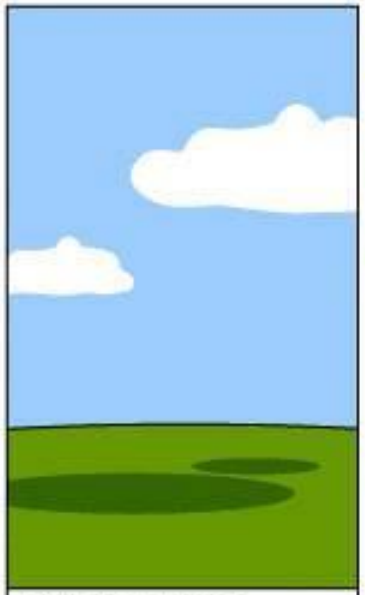
How the Project Leader understood it

How the Analyst designed it

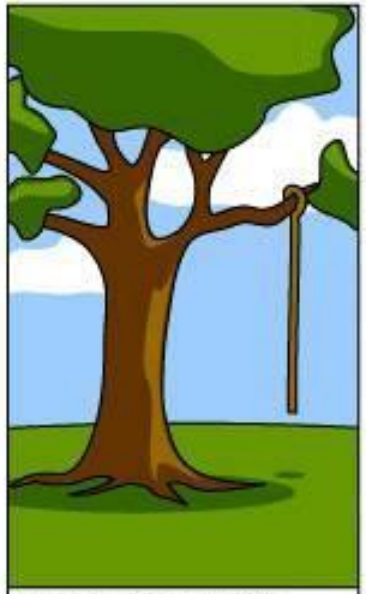


How the Programmer wrote it

How the Business Consultant described it

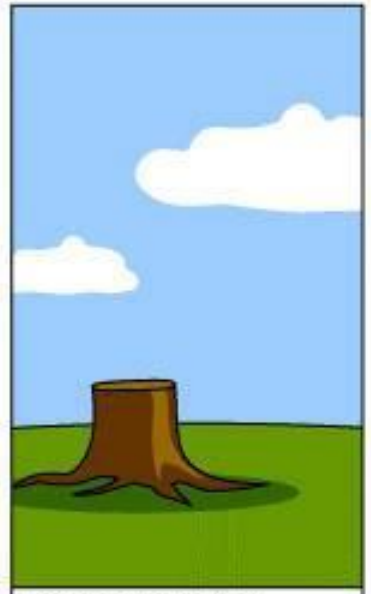


How the project was documented

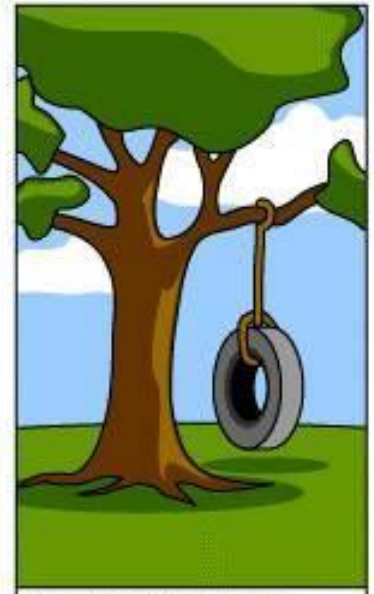


What operations installed

How the customer was billed



How it was supported

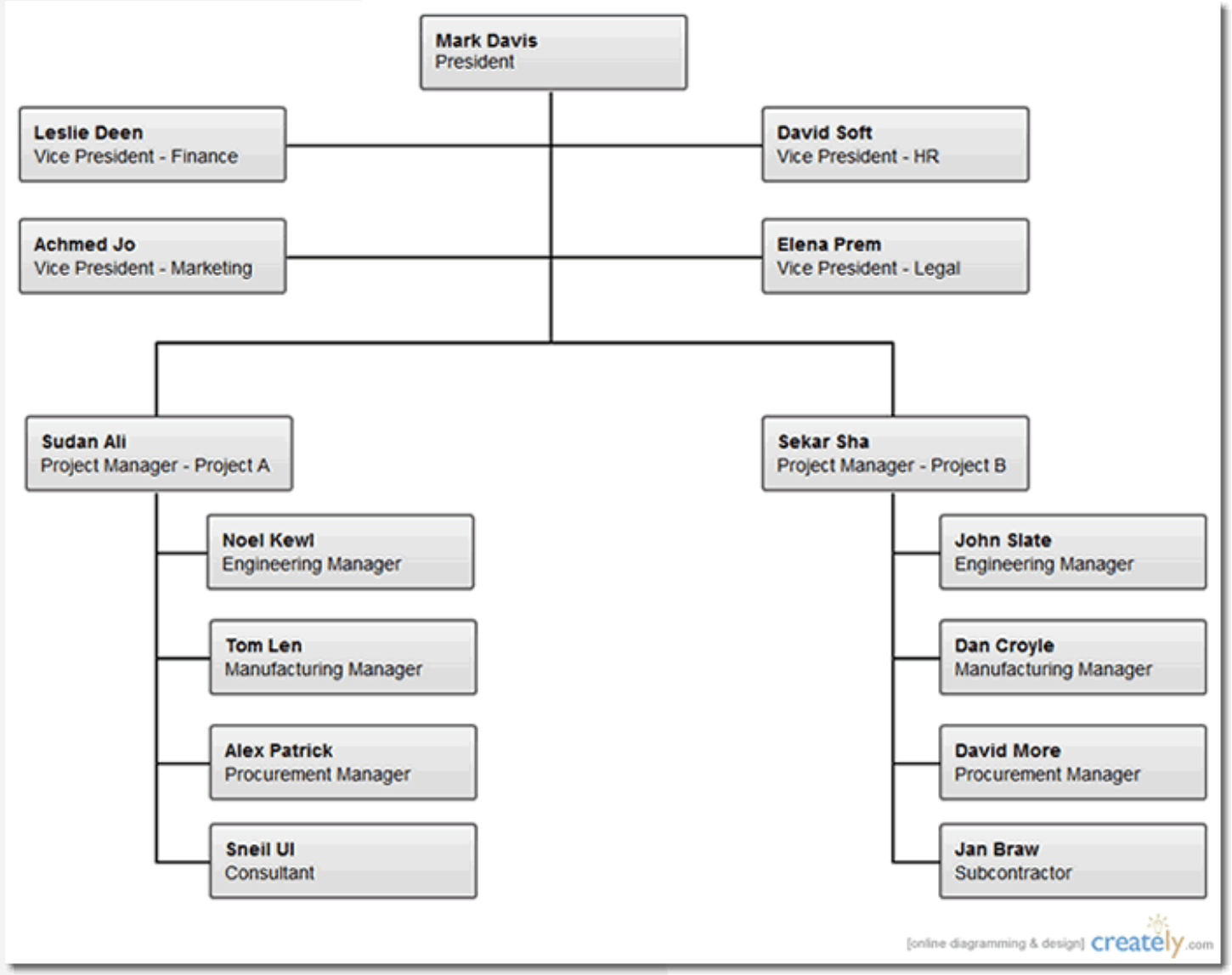


What the customer really needed

High Level Perspectives

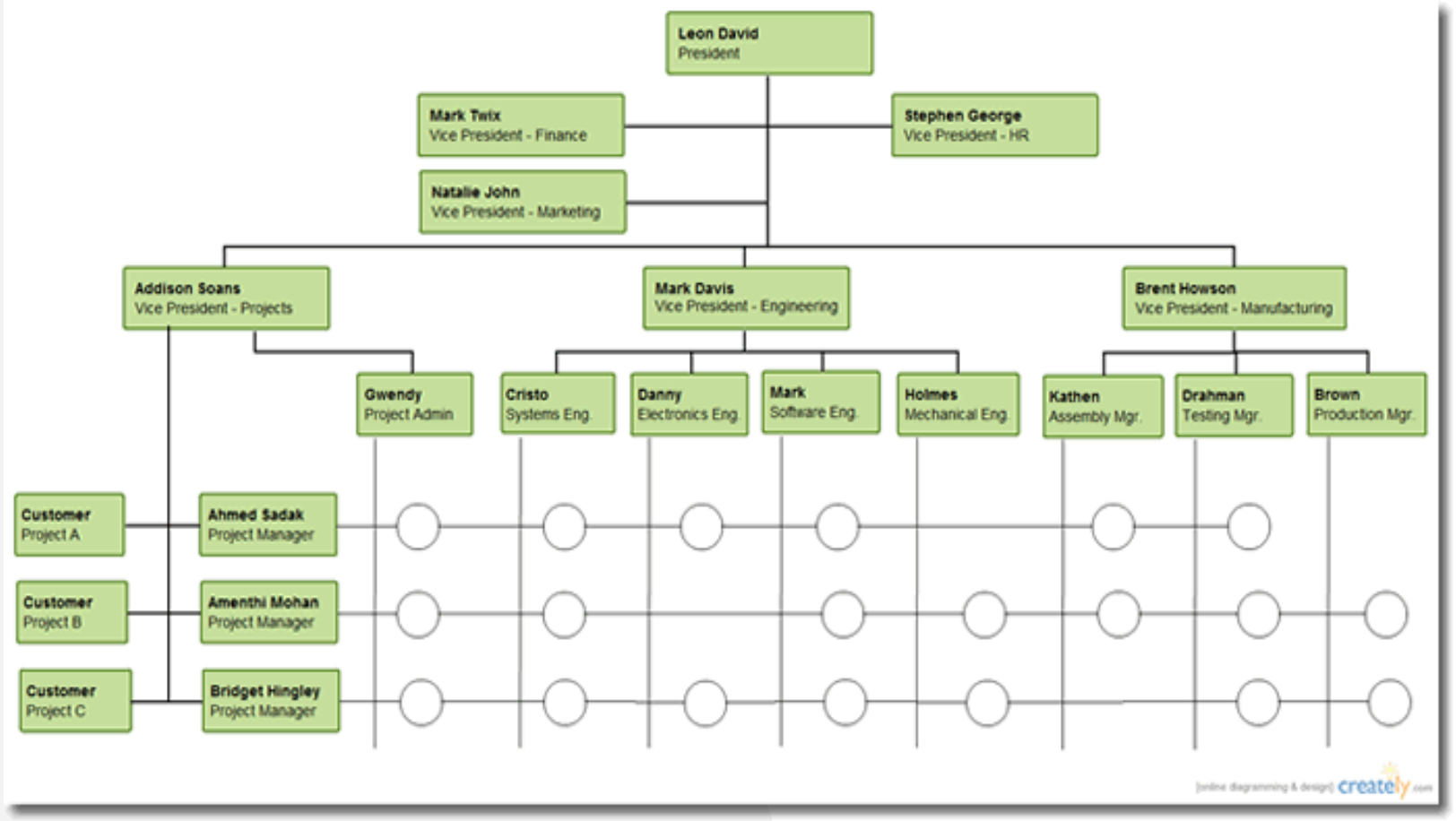
Project: "…a temporary endeavor that has a defined beginning and end…creating a unique product, service, or result…requiring progressive elaboration"

Project Management	vs.	Operational Management
People		People
Limited Resources		Limited Resources
Planned, executed, controlled		Planned, executed, controlled
Temporary		Ongoing
Unique		Repetitive
Progressive Elaboration		Concentrated Initial Elaboration



The Nature of Project Management

Hierarchical vs. Matrixed Organizations



The Nature of Project Management

Hierarchical vs. Matrixed Organizations

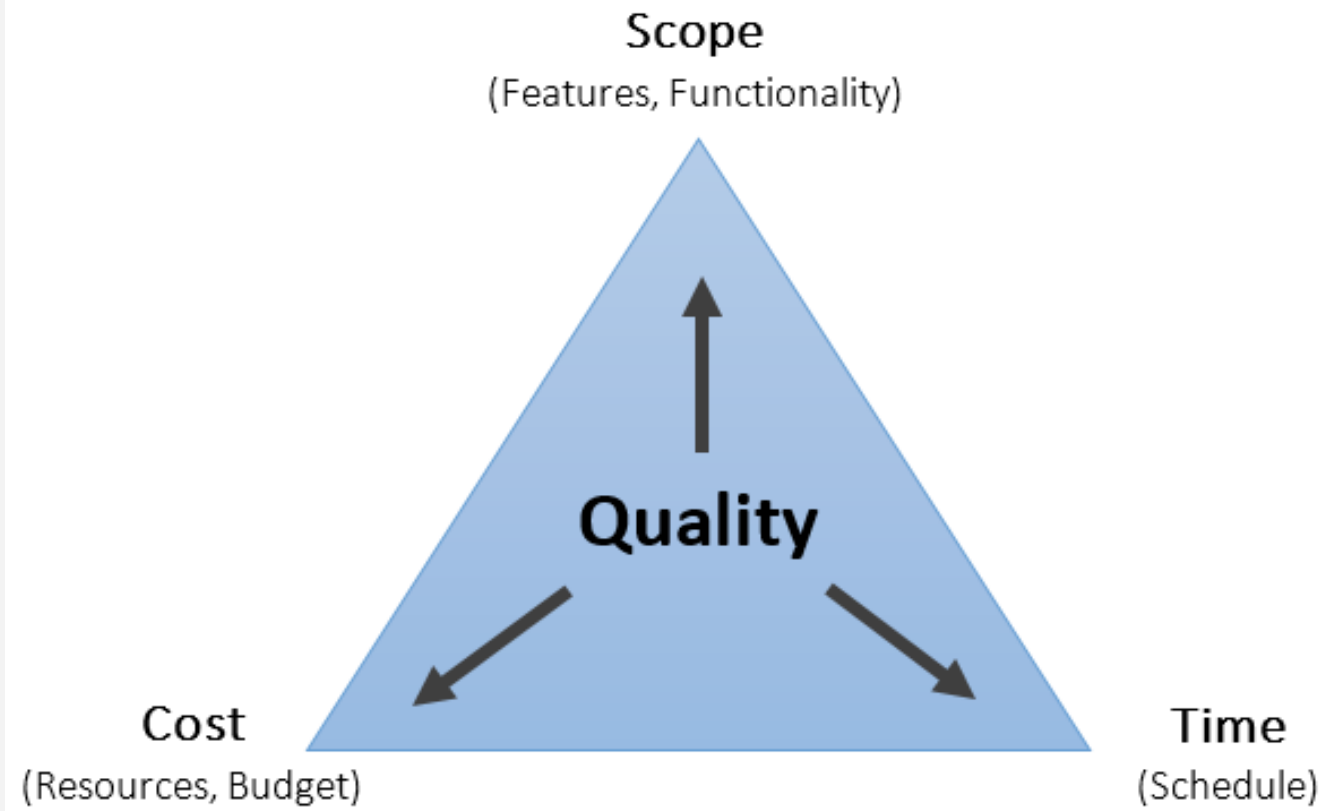
High Level Perspectives

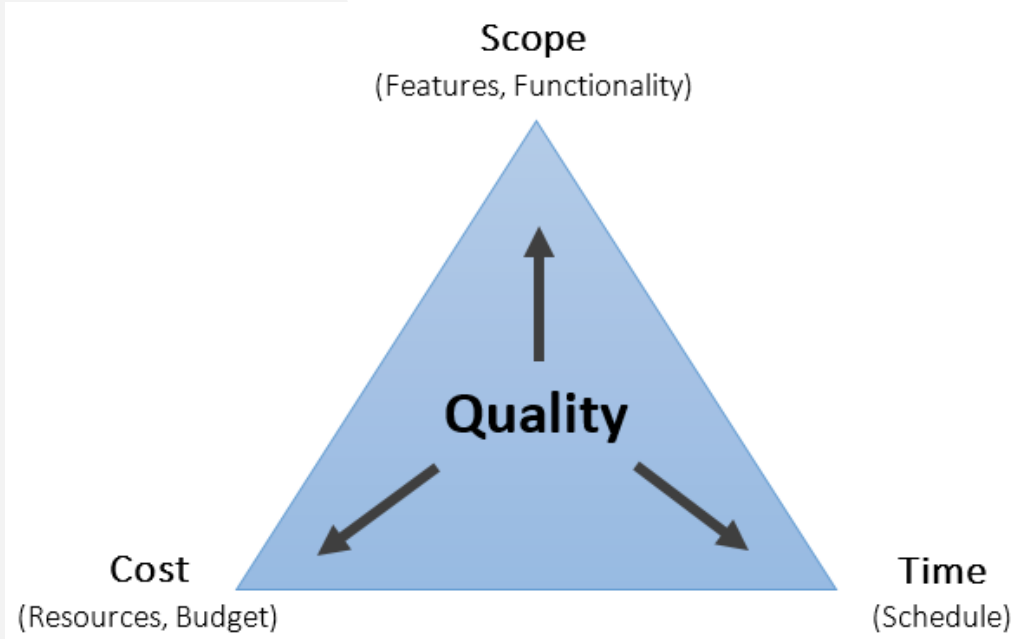
Project Management: “…application of knowledge, techniques, skills to execute projects effectively and efficiently…a strategic competency”

The Iron Triangle Of Project Management …+ 1 or 2

Ideal	Operational Instrument
Time	Schedule
Cost	Budget
Quality	Scope/Specifications

Explicit and Implicit Customer Expectations
Explicit and Implicit Stakeholder Expectations


Scope
(Features, Functionality)
Quality
Cost
(Resources, Budget)
Time
(Schedule)


Scope
(Features, Functionality)
Quality
Cost
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Time
(Schedule)

+ Customer


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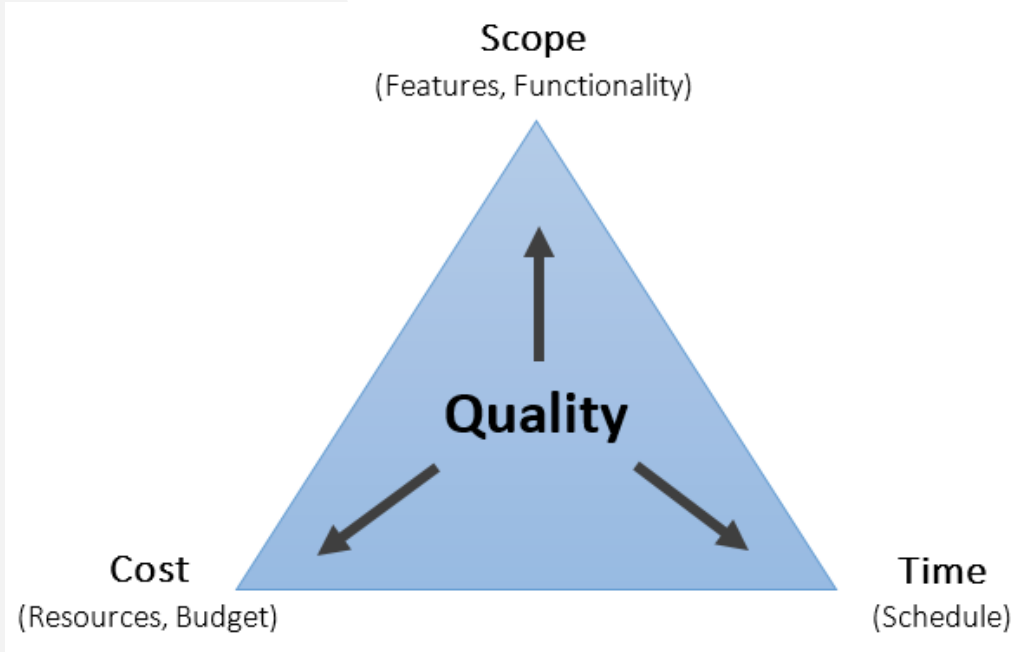
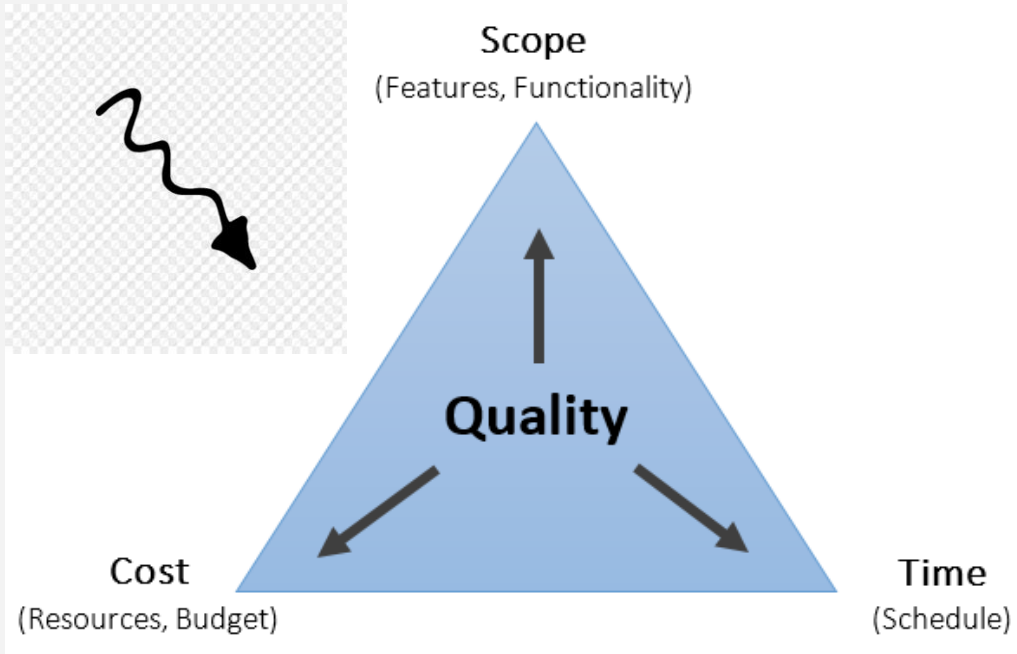


+ Customer

+ Stakeholder



+ Customer

+ Stakeholder

Project Stakeholders

Customer/Sponsor (across the org chart)

Project Team

Larger organization (across the org chart)

2nd and 3rd order customers

Investors/suppliers/unions/contractors

Community

Government and regulatory agencies

Media

External environment

Your mom

More Specific Terms/Tools

Scope - Disambiguation - Decomposition - Work Breakdown Structure: GANTT Chart, Backlog, Glorified To-Do List, MECE, etc…

[Project Name]

[Company Name]

Today's Date: 2/24/2009 Tuesday

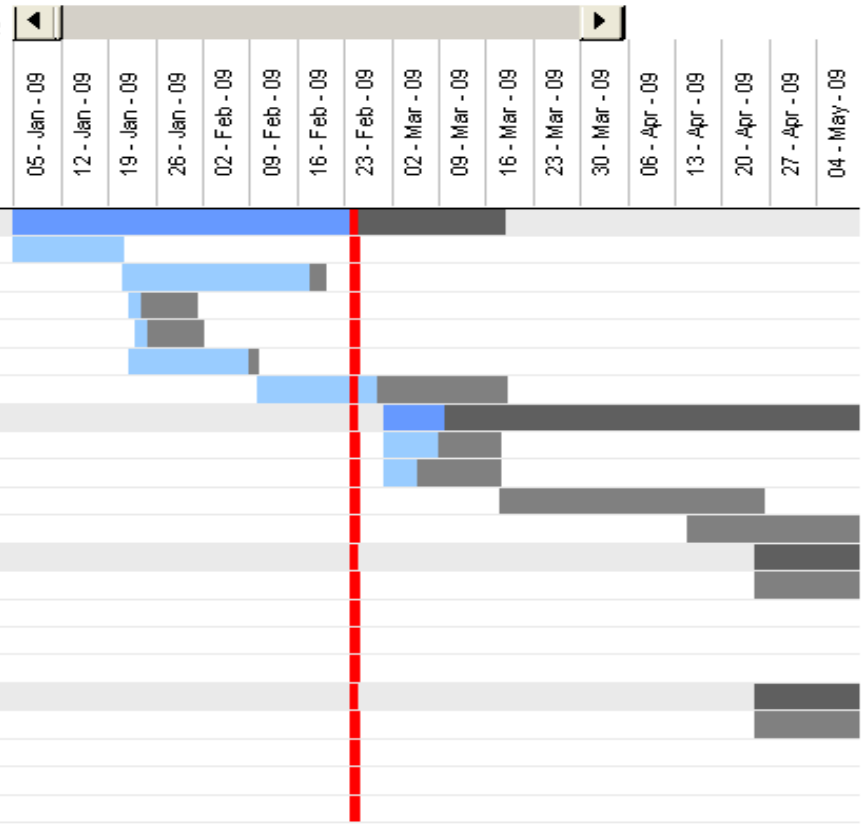
(vertical red line)

Project Lead: John Doe

Start Date: 1/5/2009 Monday

First Day of Week (Mon=2): 2

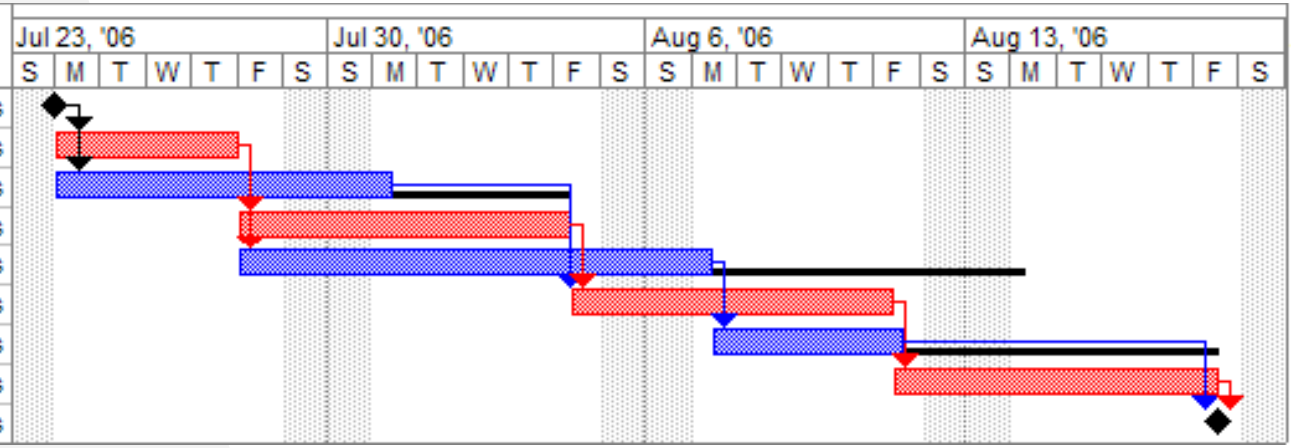
WBS	Tasks	Task Lead	Start	End	Duration (Days)	% Complete	Working Days	Days Complete	Days Remaining
1	**Task Category 1**	John	1/03/09	3/18/09	75	70%	53	52	23
1.1	Sub Task level 2		1/03/09	1/20/09	18	100%	12	18	0
1.2	Sub Task level 2		1/21/09	2/19/09	30	95%	22	28	2
1.2.1	Sub Task level 3		1/22/09	1/31/09	10	20%	7	2	8
1.2.2	Sub Task level 3		1/23/09	2/01/09	10	20%	6	2	8
1.3	Sub Task level 2		1/22/09	2/09/09	19	95%	13	18	1
1.4	Sub Task level 2		2/10/09	3/18/09	37	50%	27	18	19
2	**Task Category 2**	Jane	3/01/09	5/12/09	73	13%	52	9	64
2.1	Sub Task level 2		3/01/09	3/17/09	17	50%	12	8	9
2.2	Sub Task level 2		3/01/09	3/17/09	17	30%	12	5	12
2.3	Sub Task level 2		3/18/09	4/25/09	39	0%	28	0	39
2.4	Sub Task level 2		4/15/09	5/12/09	28	0%	20	0	28
3	**Task Category 3**	Bill	4/25/09	8/02/09	100	0%	70	0	100
3.1	Sub Task level 2		4/25/09	5/11/09	17	0%	11	0	17
3.2	Sub Task level 2		5/12/09	5/28/09	17	0%	13	0	17
3.3	Sub Task level 2		5/29/09	7/05/09	38	0%	26	0	38
3.4	Sub Task level 2		7/05/09	8/02/09	29	0%	20	0	29
4	**Task Category 4**	Bill	4/25/09	8/02/09	100	0%	70	0	100
4.1	Sub Task level 2		4/25/09	5/11/09	17	0%	11	0	17
4.2	Sub Task level 2		5/12/09	5/28/09	17	0%	13	0	17
4.3	Sub Task level 2		5/29/09	7/05/09	38	0%	26	0	38
4.4	Sub Task level 2		7/05/09	8/02/09	29	0%	20	0	29



More Specific Terms/Tools

Task Dependency – Can it be performed in isolation from other tasks? In parallel conjunction with other tasks? Only after a specific prerequisite task is completed. Lead. Lag. Slack/Float.
Critical Path – Chain of linked dependent tasks that determine overall project time-length

ID	Task Name	Predecessors	Duration
1	Start		0 days
2	a	1	4 days
3	b	1	5.33 days
4	c	2	5.17 days
5	d	2	6.33 days
6	e	3,4	5.17 days
7	f	5	4.5 days
8	g	6	5.17 days
9	Finish	7,8	0 days



More Specific Terms/Tools

Backlog or Burndown List

More Specific Terms/Tools

Scope change control/management – the process of identifying, documenting, reviewing, and approving changes to project scope

Progressive Elaboration – continuous and iterative revising and improving the project plan getting more precise as collaborative learning and creativity take place

Technical Debt: extra development work that arises when code that is easy to implement in the short run is used instead of applying the best overall solution

Lessons Learned – periodic discussion, documentation, and sharing of lessons learned

Feature Driven Development – An agile software centric PM methodology that can be useful in analytics contexts

Project Status Report – *Visualization* tool that periodically communicates the status of the project to stakeholders internally and externally – makes progress and issues transparent to all – and provokes action

General Project Spirals/Lifecycle

Initiation: project selection – scope documentation (proposal) – team selection/authority - project support guidelines – internal working agreement – sponsor background research – kickoff meeting – transfer the data

Planning: scope elaboration/refinement – work breakdown structure – scheduling/assignment – scope documentation/settling (mid-term)

Executing: DO THE ANALYTIC WORK – interim deliverables

Monitoring and Controlling: weekly progress reports – faculty review meetings

Closing: report – presentation – other final deliverables – sponsor feedback

The Basics

Necessary foundation to support an agile approach that will enable the analytics to get done.

Necessary so that you develop/have a “Project Manager’s Conscience”

Development of a vocabulary that enables work to be decomposed, assigned, scheduled within a team, and is expected by employers (even in job interviews)

Next up: Analytics Project Management…

Nature of small-team, analytics focused projects

Agile vs. Traditional

Scrum roles, artifacts, and terms

5 critical questions of any project management system >> progress reports