Project Scheduling with Liquid Planner

American Society for Quality

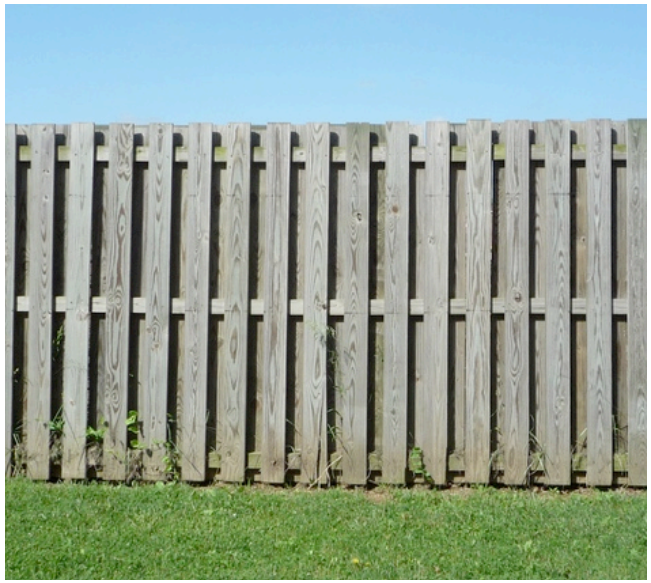
January 25, 2012

Lisa Sieverts, PMP

Project Scheduling

Let’s Review the Basics

The Triple Constraint



Scope

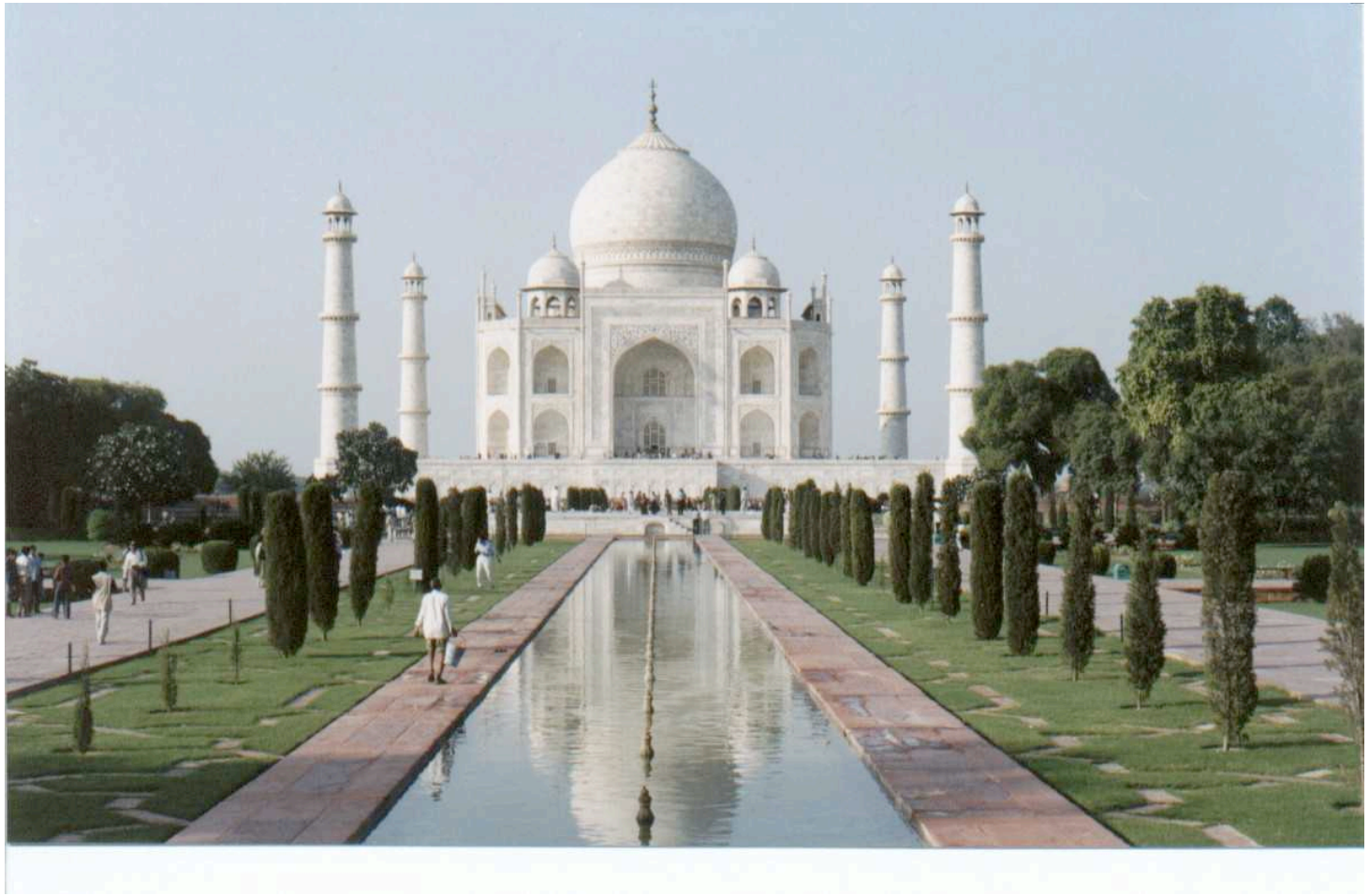
Time

Resources

Good Schedules begins with Good Scope

Are we building a log cabin…

Or the Taj Mahal



Work Breakdown Structure

An organized list of project deliverables

Deliverable

A tangible result

For Example

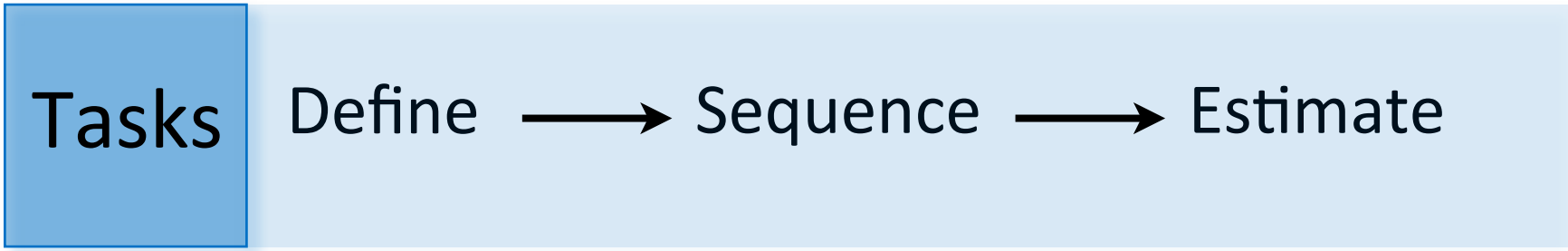
- Hardware or software
- Planning documents
- Widgets
- Process documents
- Test cases
- Meeting minutes

The Party Project

Major Deliverables

- Party
  - Guests
  - Entertainment
  - Venue
  - Food
  - Project Management

Scheduling Process



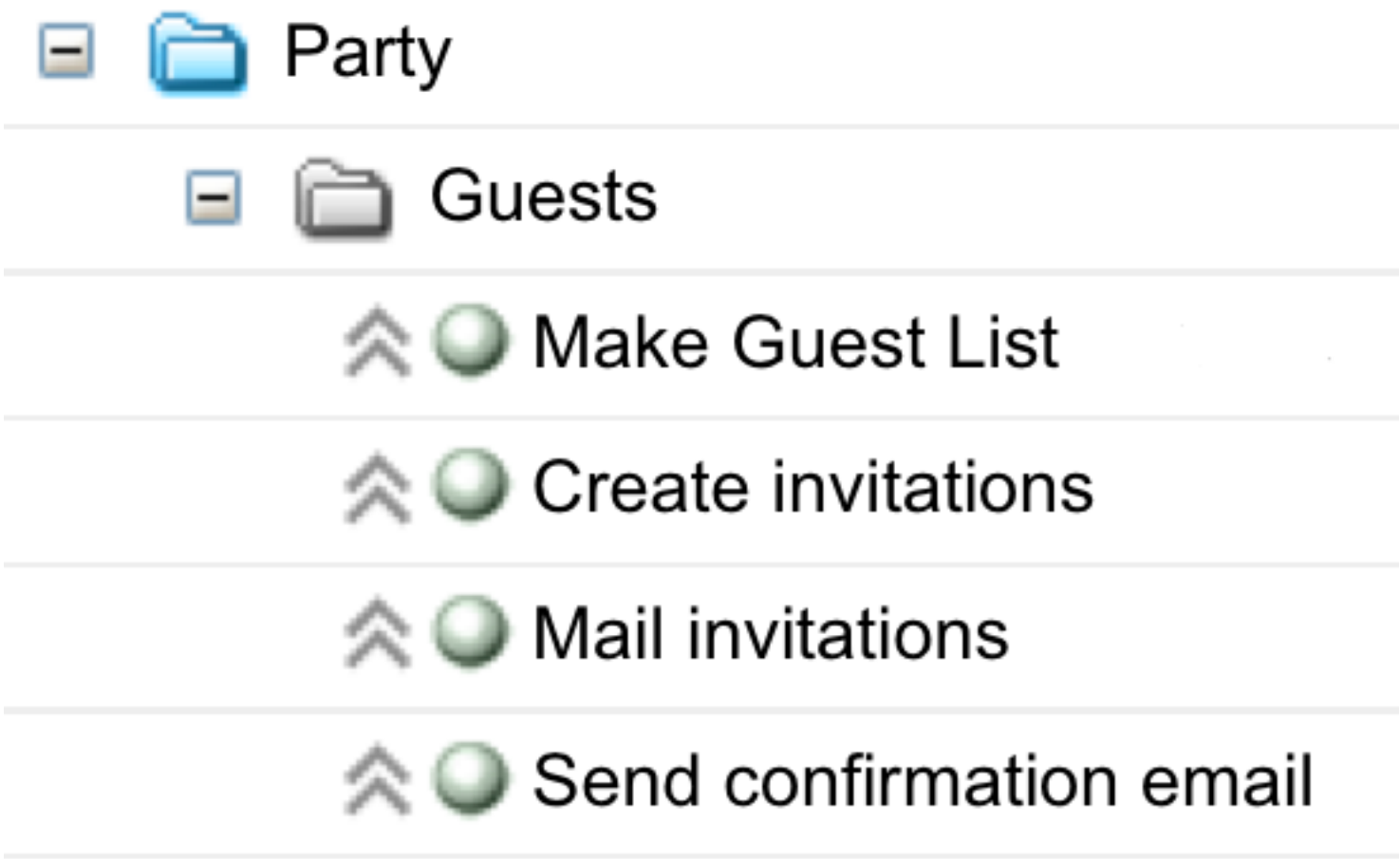
Tasks

Task = Work to meet a deliverable.

For Example

- Order materials
- Design widget
- Test subassembly
- Draft document
- Organize meetings
- Print meeting notes

Tasks: Define and Sequence



Tasks: Estimate

Party	
Guests	
Make Guest List	[0.1h - 1h]
Create invitations	[0h - 2.5h]
Mail invitations	[1h - 2h]
Send confirmation email	[0.1h - 2h]

Best Case

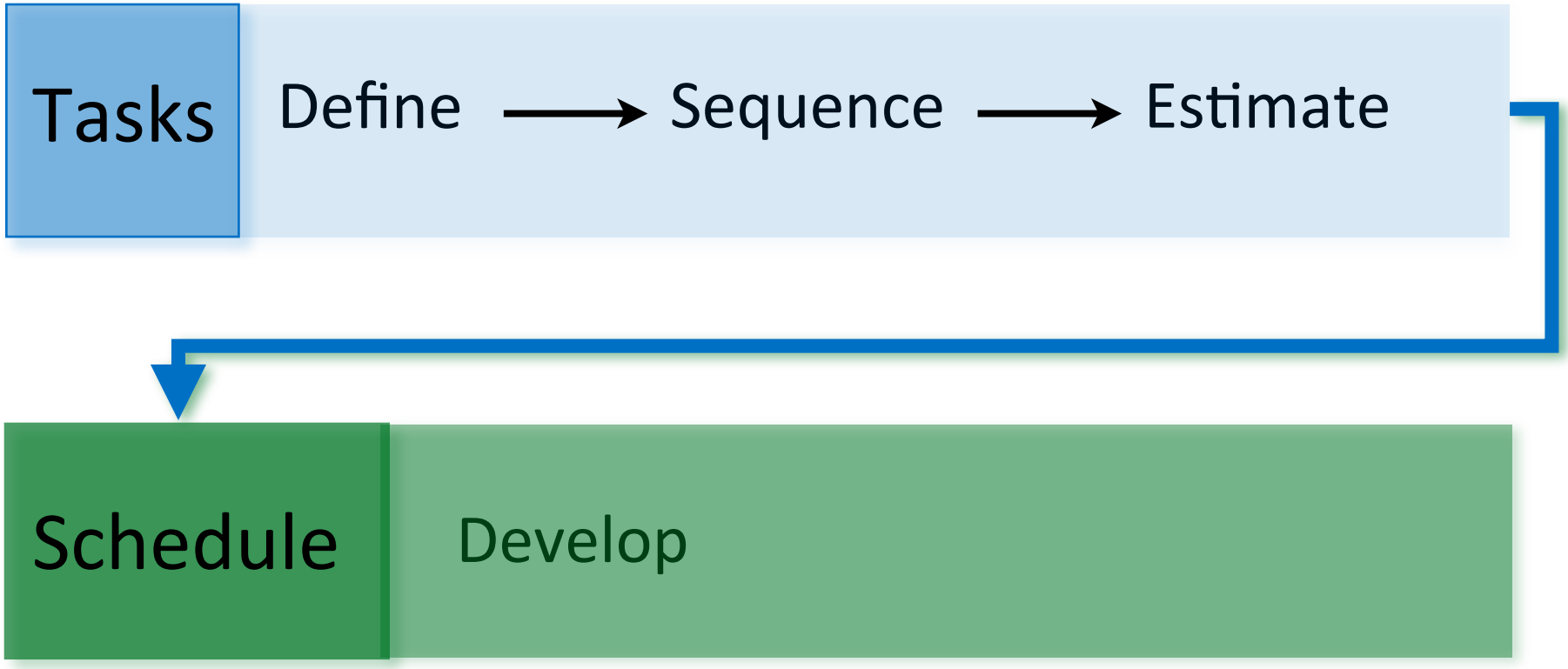
Worst Case

Roll-up Estimates

Party	[33.99h - 47.76h]
Guests	[2.64h - 6.06h]
Make Guest List	[0.1h - 1h]
Create invitations	[0h - 2.5h]
Mail invitations	[1h - 2h]
Send confirmation email	[0.1h - 2h]

So What?

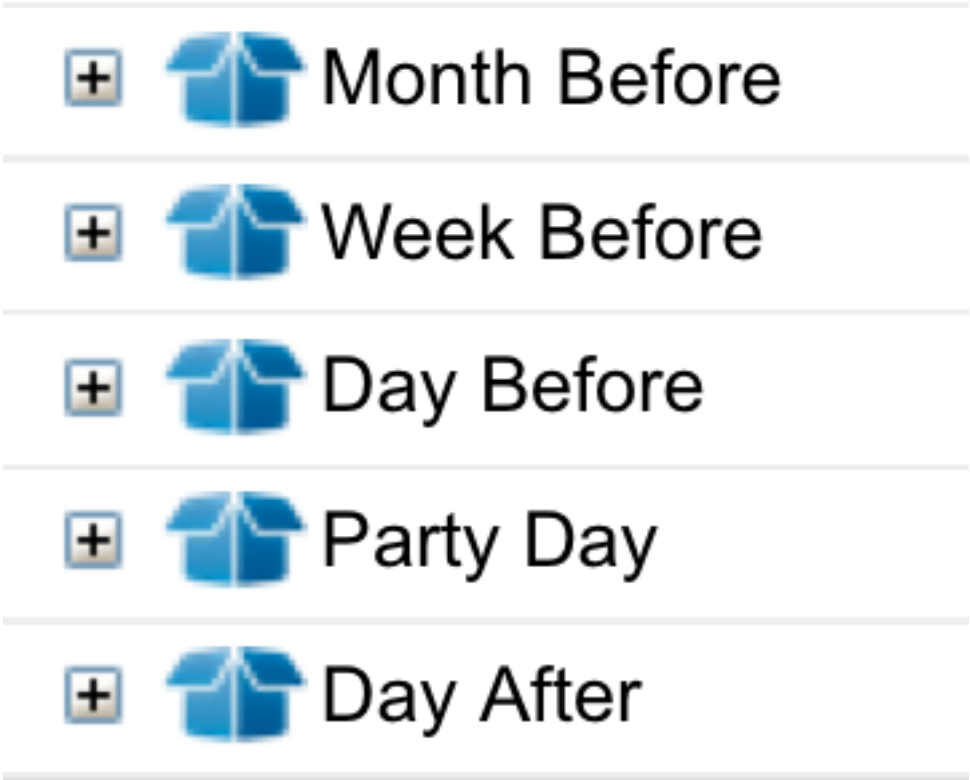
Scheduling Process



Party	[34.22h - 47.94h]
Guests	[2.64h - 6.06h]
Make Guest List	[0.1h - 1h]
Create invitations	[0h - 2.5h]
Mail invitations	[1h - 2h]
Send confirmation email	[0.1h - 2h]
Entertainment	[0.18h - 0.58h]
Confirm entertainment	[0.1h - 0.5h]
Pay Entertainment	[0.05h - 0.1h]
Venue	[10.29h - 16.02h]
Determine theme	[0.5h - 2h]
Plan Decorations	[1h - 5h]
Buy dishes and utensils	[0.1h - 1h]
Identify clean-up crew	[0.1h - 2h]
Buy Decorations	[1h - 2h]

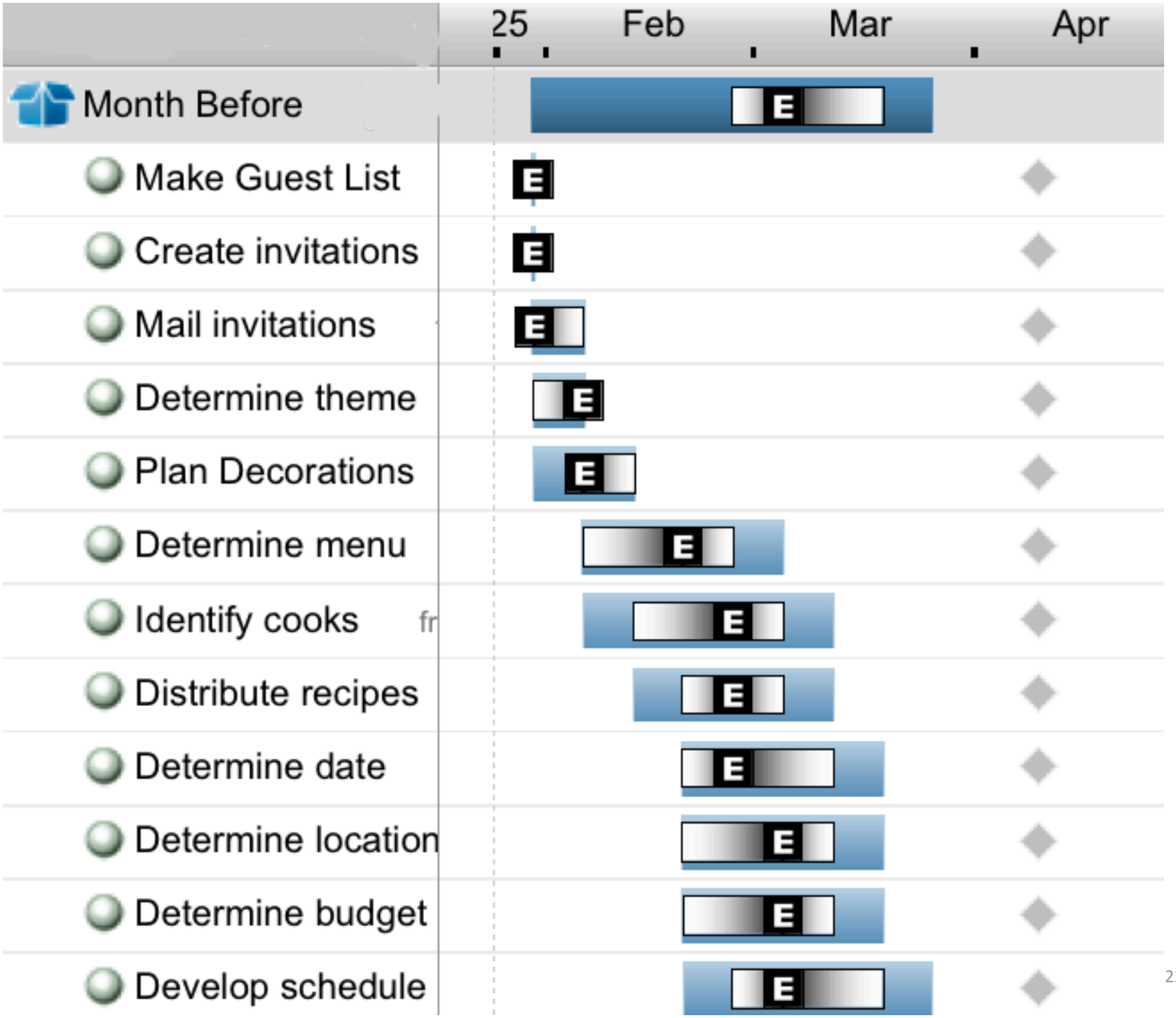
Think about TIME

Packages = Folders of TIME



Develop Schedule

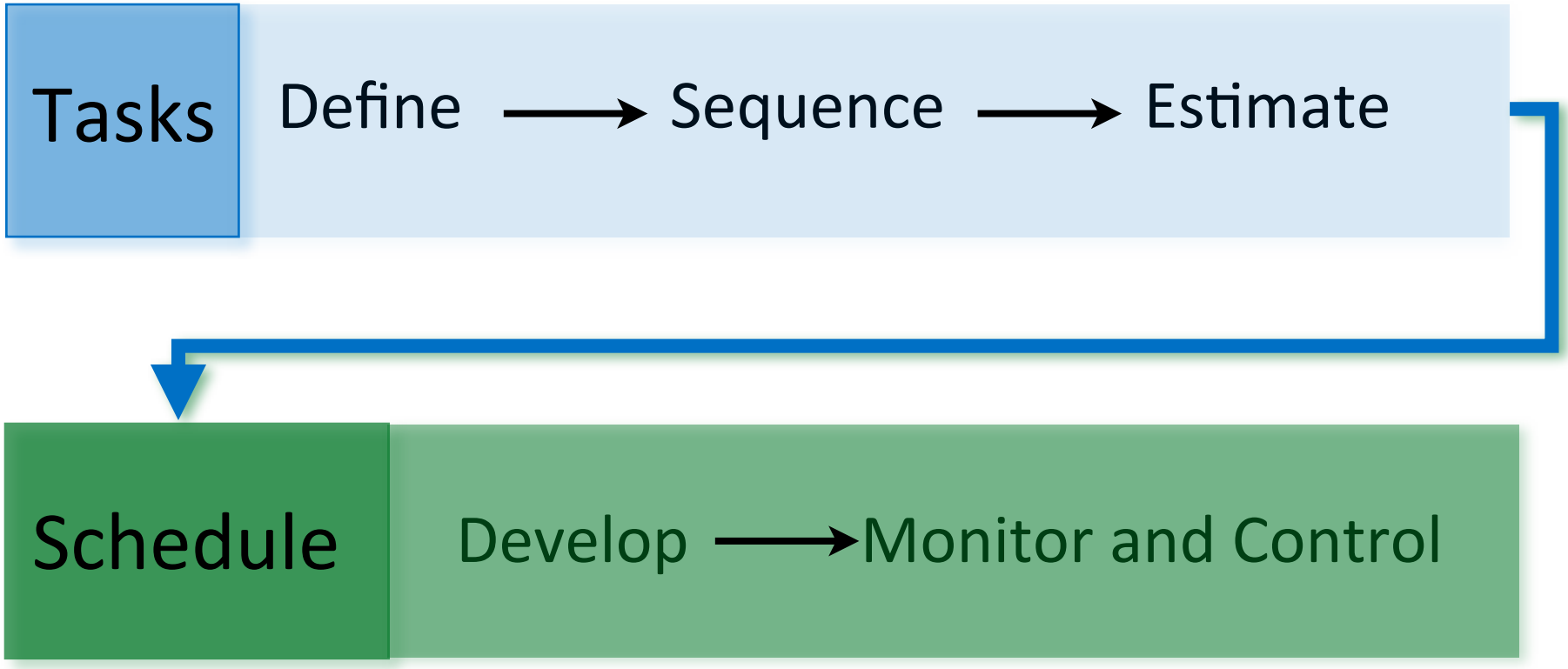
- Week Before
  - Send confirmation email
  - Confirm entertainment
  - Buy dishes and utensils
  - Identify clean-up crew
  - Buy Decorations


25
Feb
Mar
Apr
Month Before
Make Guest List
Create invitations
Mail invitations
Determine theme
Plan Decorations
Determine menu
Identify cooks
Distribute recipes
Determine date
Determine location
Determine budget
Develop schedule

Useful Information

	Early Start	Latest Finish
Month Before	01/30/12	03/26/12
Week Before	02/27/12	04/02/12
Day Before	04/05/12	04/05/12
Party Day	04/06/12	04/09/12
Day After	04/09/12	04/09/12

Scheduling Process



Tracking: ID Task Status

- Should have started
- Should have completed
- Are “in progress”

Tracking: Questions to Ask

- When did you start the task?
- When did you finish?
- Hours spent so far?
- Hours needed (best case/ worst case) to finish the task?

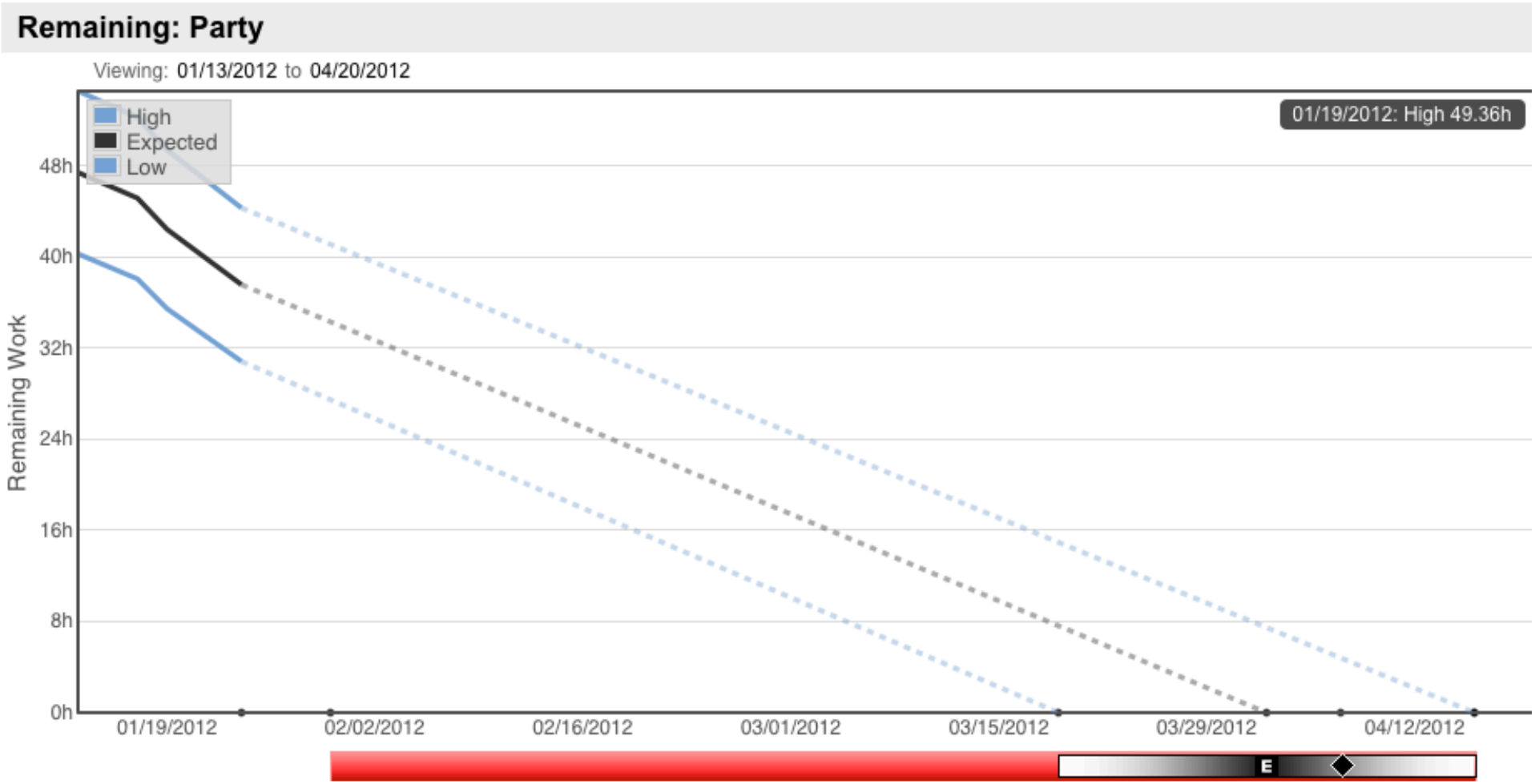
Task Didn’t Go As Planned?

Re-estimate
&
Re-schedule

Recently Reported Tasks Last two weeks

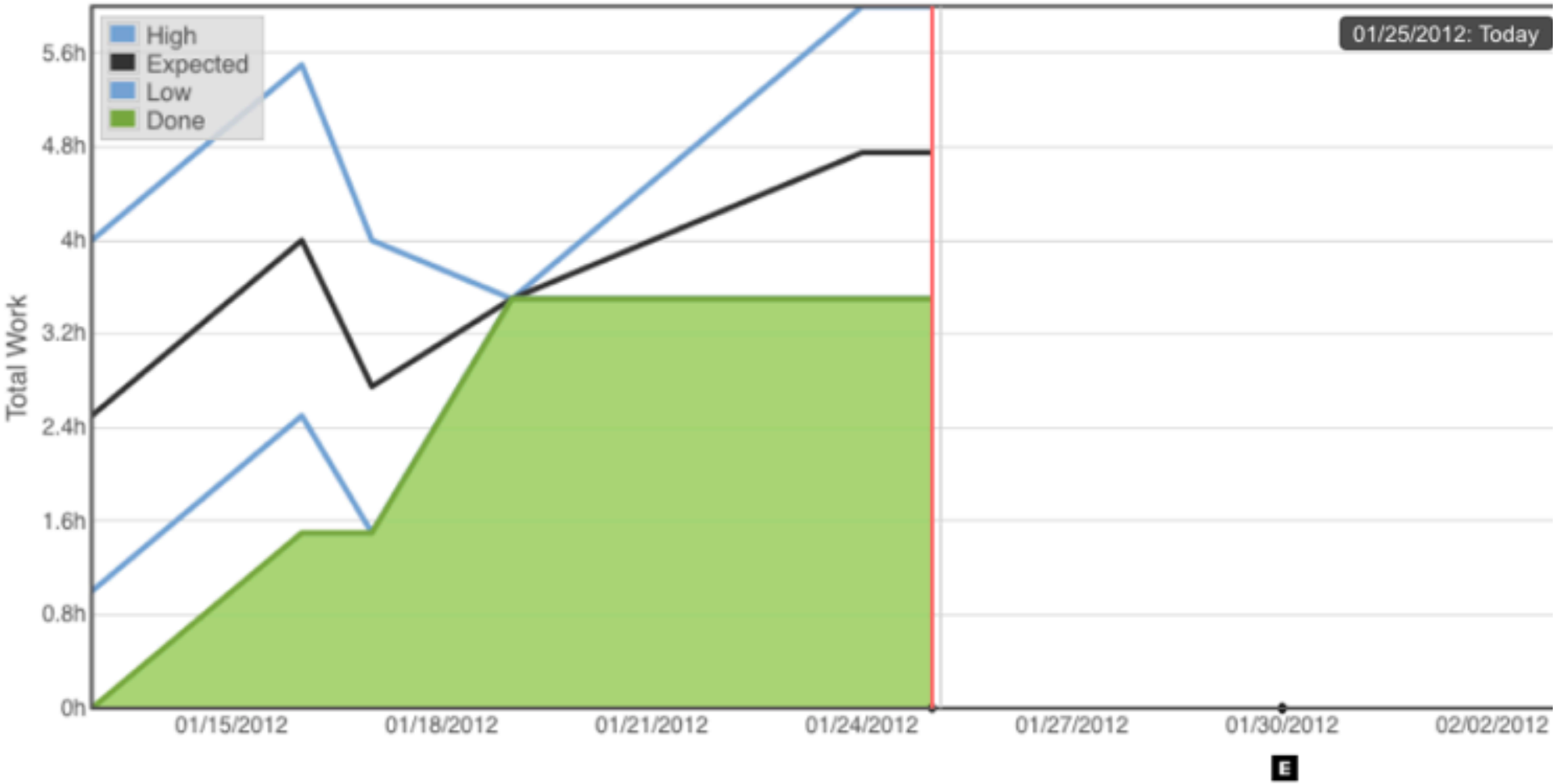
FacChange	Reported Work	Last Reported
Determine theme Party > Venue | Month Before	0.5h	01/24/12
Develop short list of options Party > Entertainment | Month Before	3h	01/24/12
Decide on entertainment Party > Entertainment | Month Before	1h	01/24/12
Rent tables Party > Venue | Month Before	0.1h	01/24/12
Hire entertainment Party > Entertainment | Month Before	1h	01/24/12
Mail invitations Party > Guests | Month Before	0.25h	01/19/12
Create invitations	3.5h	01/19/12

Work Remaining = Burn Down



Total Trend: Create invitations

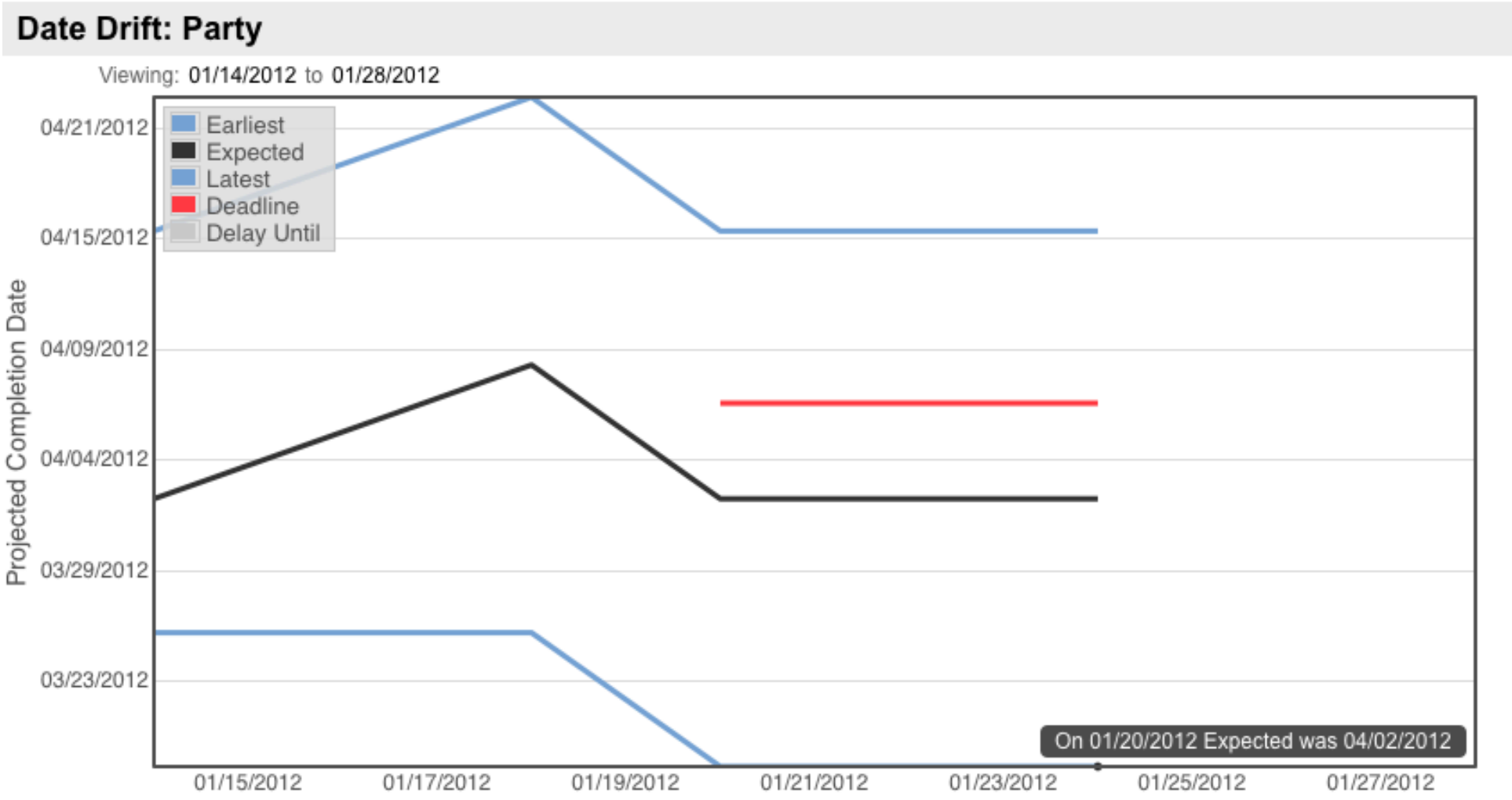
Viewing: 01/13/2012 to 02/03/2012



Estimation History (in hours)

Date	Person	Done	Remaining Est. Low	Remaining Est. High	Total Est. Low	Total Expected	Total Est. High
01/13/12	FacChange	0	1	4	1	**2.5**	4
01/17/12	FacChange	1.5	0	2.5	1.5	**2.75**	4
01/19/12	FacChange	3.5	0	0	3.5	**3.5**	3.5

Date Drift


Date Drift: Party
Viewing: 01/14/2012 to 01/28/2012
Earliest
Expected
Latest
Deadline
Delay Until
Projected Completion Date
04/21/2012
04/15/2012
04/09/2012
04/04/2012
03/29/2012
03/23/2012
On 01/20/2012 Expected was 04/02/2012
01/15/2012
01/17/2012
01/19/2012
01/21/2012
01/23/2012
01/25/2012
01/27/2012

January 23 - 29	40.71h
January 30 - February 5	31.3h
Feb 6 - 12	46.27h
February 13 - 19	23.33h
February 20 - 26	28.88h
February 27 - March 4	53.9h
March	64.1h
April	70.52h
May	74.35h
June	92.3h
July	49.98h
August	35.27h
September	63.5h
October	72.32h
November	62.7h
December	59.3h

June is Full

Project Scheduling

Q and A