

Agile Estimation (Planning Poker)



**“No plan survives
contact with the enemy”**

**Field Marshal
Helmuth Graf von Moltke
Prussia (later Germany)
Years of service: 1822-1888**

Project Planning – Basic Questions

- 1. What am I getting ?**
- 2. When will I get it ?**
- 3. How much will it cost ?**

***A good plan is one that supports
reliable decision making***

Planning



“The plan is nothing; the planning is everything”

- ❑ Dwight Eisenhower
- ❑ Allied supreme commander during World War II
- ❑ 34th President of United States (1953-61)

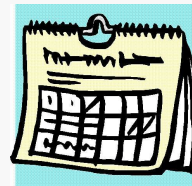
3

Project Planning

Cost (Budget)



Time (Schedule)



*The
Project
Triangle*

Functionality (Scope)

Business Value



4

Planning

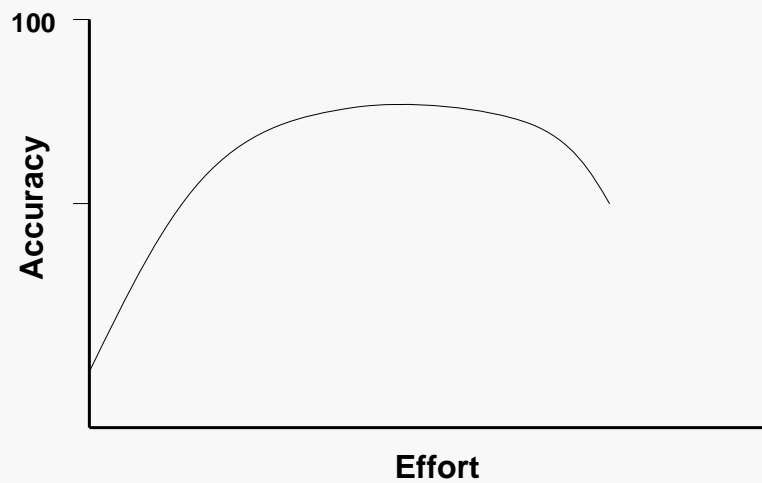


“A good plan violently executed now is better than a perfect plan executed next week” –

General George S. Patton

5

Estimation Accuracy



6

Project Scheduling

- Identify tasks
- Estimate tasks
- Allocate resources to tasks
- Schedule tasks
- Define product delivery schedule

7

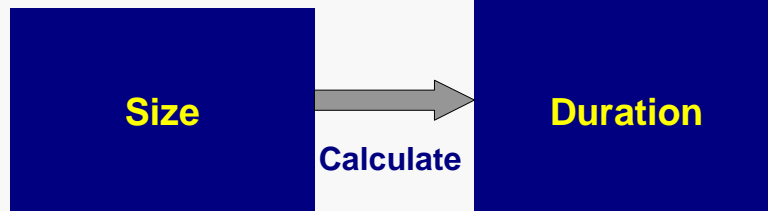
How Long Will it Take?

- To read the latest Harry Potter book?
- To drive to Niagara Falls?
- To do your calculus homework?



8

Size & Duration



Lines of Code (LOC)
Distance
Words

LOC/Hour
Speed
Words/Min

Hours
Days
Weeks
Months

Answering the Right Question

- Size = 80 Java source lines
- Rate = 10 Lines/Hour
- Duration = ??

Ideal time = 8 hours

There are 40 hours in a work week, so the task will be completed on Monday!

but – On Mon/Tues there were three hours of meetings, two hours of emails and three hours of field support

Elapsed time = two days

Velocity

$$\frac{\text{Ideal Time (8 hrs)}}{\text{Velocity (0.5)}} = \text{Elapsed Time (16 hrs)}$$

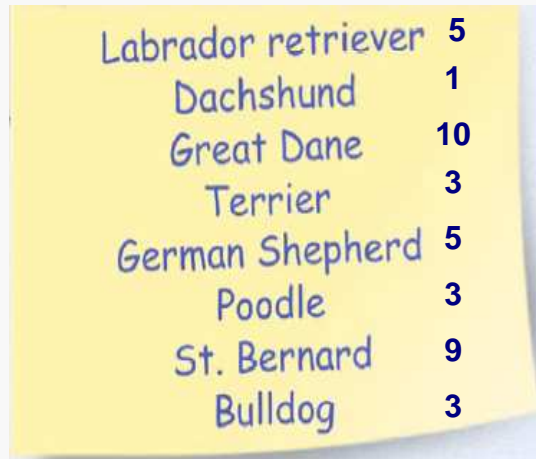
11

Agile Estimating

- Estimate by analogy
 - Compare features or “stories” being estimated with one another.
 - “This story is a little bigger than that story”
 - aka Triangulation
- Evidence that we are better estimating relative size than absolute size
- Unit-less estimates also known as “story points”

12

Assign “Dog Points” to these breeds:



Labrador retriever	5
Dachshund	1
Great Dane	10
Terrier	3
German Shepherd	5
Poodle	3
St. Bernard	9
Bulldog	3

13

Planning Poker

- Wideband Delphi Technique (circa 1946)
- Allows groups to quickly reach consensus
- Everyone’s voice is heard
- Exposes important project questions
- Emphasize relative estimation

14

Playing Poker

- ❑ One member of the team reads the feature story to be estimated
 - *“Customer logs in to the reservation system”*
 - *“Customer enters search criteria for a hotel reservation”*
- ❑ Each member selects a card without revealing their estimate (1,2,3,5,8,13,20,40)
- ❑ Cards are simultaneously displayed
- ❑ High and low estimates are explained, short discussion ensues
- ❑ Repeat as needed until estimates converge

15

Planning poker - an example



Estimator	Round 1	Round 2
Susan	3	5
Vadim	8	5
Ann	2	5
Chris	5	8

Copyright Mountain Goat Software, LLC

16

Remodel Your Room

- Install ceiling fan in existing electrical fixture
- Hang three shelves
- Paint four walls
- Paint trim
- Replace broken glass in window
- Paint ceiling
- Hang four posters
- Set-up desktop computer and monitor
- Shampoo carpet
- Hang plasma monitor
- Install door lock
- Assemble new desk

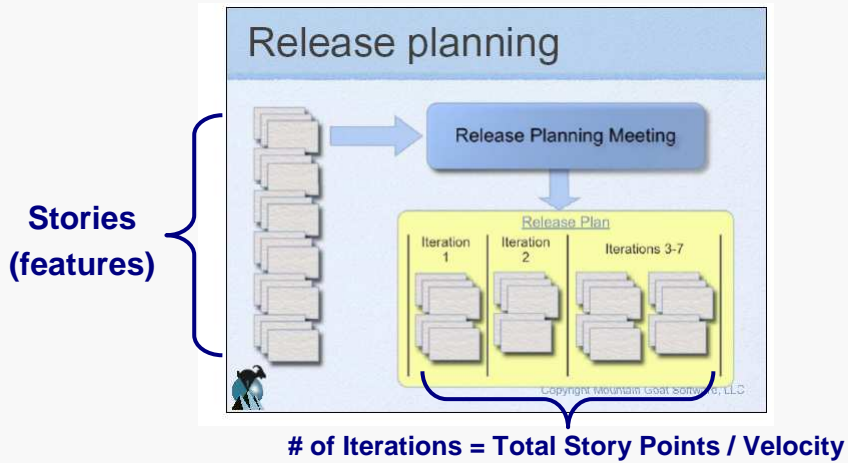
17

Velocity

- Relative estimates for each story
- Customer identifies priority
 - *Each completed story has a business value*
- Developers identify dependencies
 - *Shampoo the carpet after painting*
- Run the first iteration (two weeks), determine how many stories were completed.
- The total of story points is the team's velocity

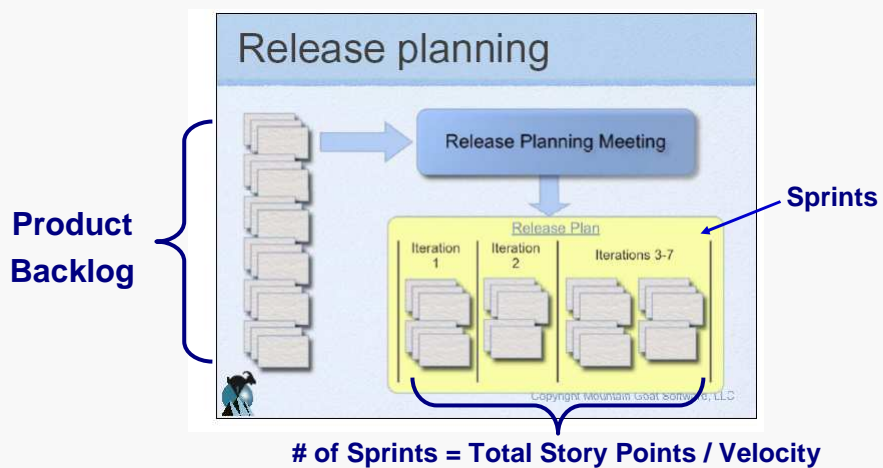
18

Back to Planning....



19

Scrum Planning....



20

Important caveats

- ❑ Successful projects deliver working software frequently that gives the customer business value.
- ❑ The project schedule is reviewed after each iteration and velocity is updated as needed.
- ❑ The agile approach requires a big commitment on the customer's part to provide details for each story.
- ❑ Other planning techniques exist. Learn about several approaches and pick the one that best fits your project's needs.