

# Agile Measurement Workshop

## Software Development Metrics

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Master Planner in Agile and Traditional methods



# Agenda

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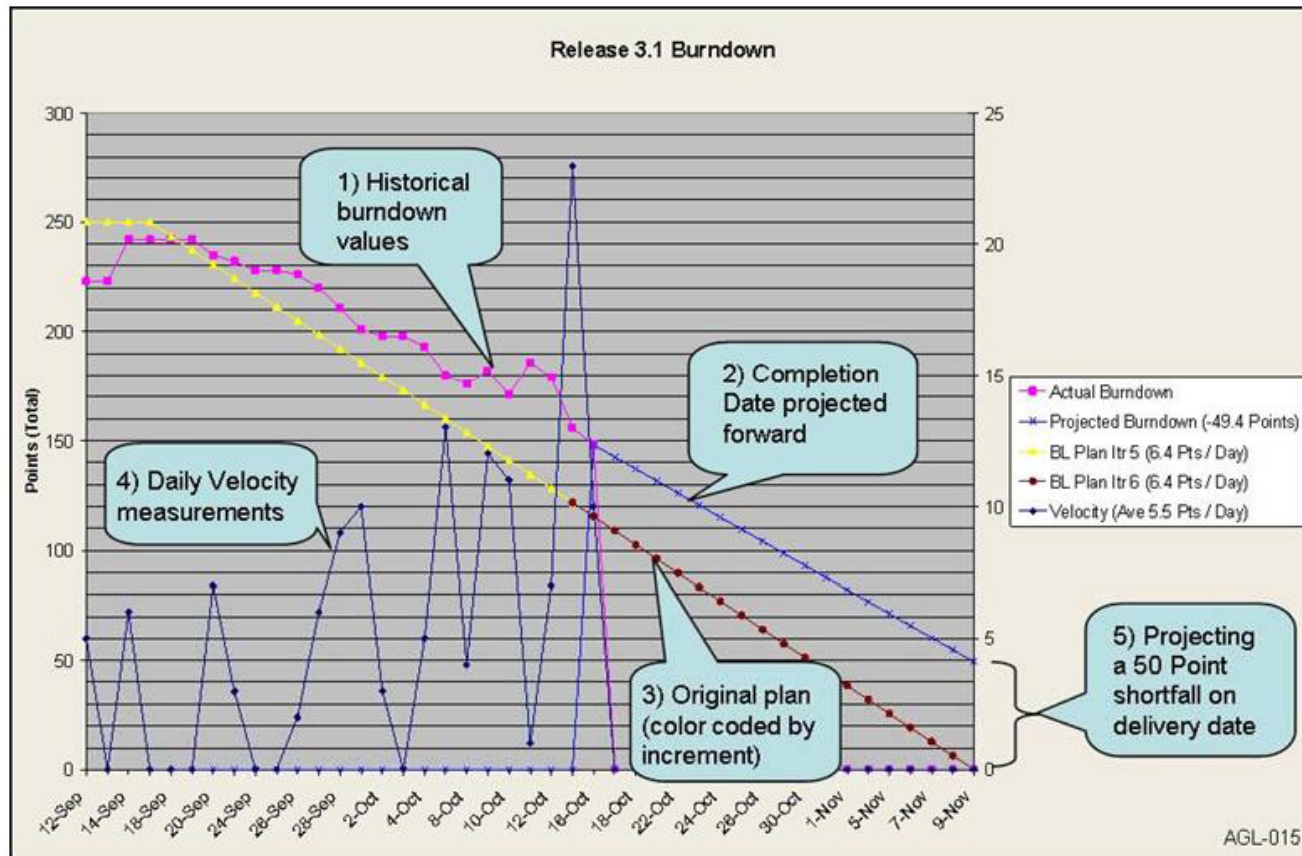
- Introductions
- Agile life cycle overview
  - Establish a common vocabulary, metrics overview, break
- Planning measures
  - Stories, estimation, exercise
- Execution metrics & monitoring
  - Burn down, velocity, exercise, break
- Retrospectives
  - Impounds, predicting next iteration

## Participants

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Peter Baxter,	David Brach
Harpal Dhama,	Jennifer Fischer
Llya Lipkin,	George Mack
Shally Malhotra,	Greg Mazourek
Sunita Moonka,	Antonio Moya
Myyoung Shim,	Tori Shu
Craig Stauffer,	Shelby Stone
Peter Thomas,	Dan Beisel

# Execution Metrics & Monitoring - Burndown



Typical burndown chart (Spreadsheet tool\*)

1. Daily burndown
2. Projected completion. Average, nothing fancier
3. Original Plan by iteration
4. Daily Velocity
5. Projected shortfall prompts interesting discussions.

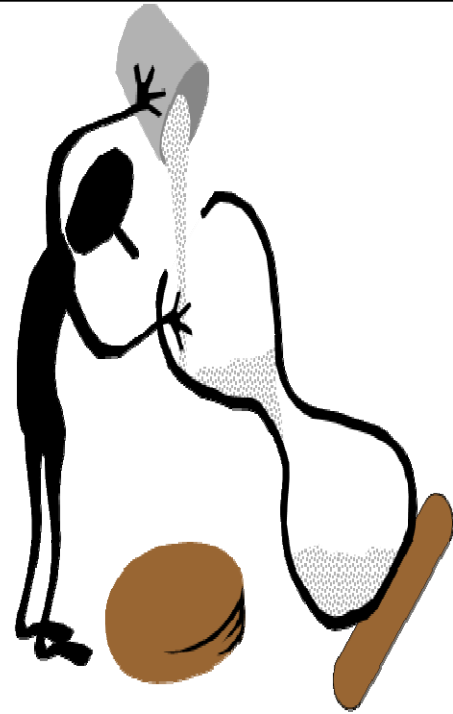
Other considerations:

1. Recommend ***daily*** velocity & hours collection.
2. ESLOC collection useful for comparison to non-agile programs.

\* <http://www.userstories.com/products>

Burndown metrics provide rapid status for everyone (all shareholders)

# Forecast Delivery margin / shortfall example

Agile Method	Measureable items are "Points" directly correlated to work products. A simple set of reports reflect position and contingency (slack) of time now and the through the future forecast . These same reports are the basis for "What If" analysis.	
A Few Traditional Methods	Slack Process Shortfall	
Margin Task(s) in plan	Single collection point(s) within Schedule (high probability failure). How to determine Risk verses Rate of Consumption for each task (if baseline duration is 20 days, what remaining duration value represents a "Yellow" rating).	
Three Point TEs (Time Estimates)	$(a + (4*m) + b)) / 6$ , Few take the initiative to collect historical verses plan and determine true 3 points (to much time)	
Baseline the "Late Dates", work to the Early Dates	Words from previous experience "I am not late, until I hit the baseline date". Unfortunately the contingency time is not retained but consumed automatically.	
Extract a contingency percentage	Speaking an a Master Planner/ Scheduler, if the Lead(s) know this is your plan, they will add 10%. If not, once you extract the percentage, the Leads will argue that you "do not have an achievable plan" and "lose" their buy-in.	
Genuine Earned Value	Tracking the number and rate of hours consumed in relation to the work preformed is sound but the measured item is Hours verses dates, not Products Developed verses dates.	

Working with the trees in the forest, not each green leaf

***NORTHROP GRUMMAN***



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