Making Project Planning a Success -

BECoP Workshop
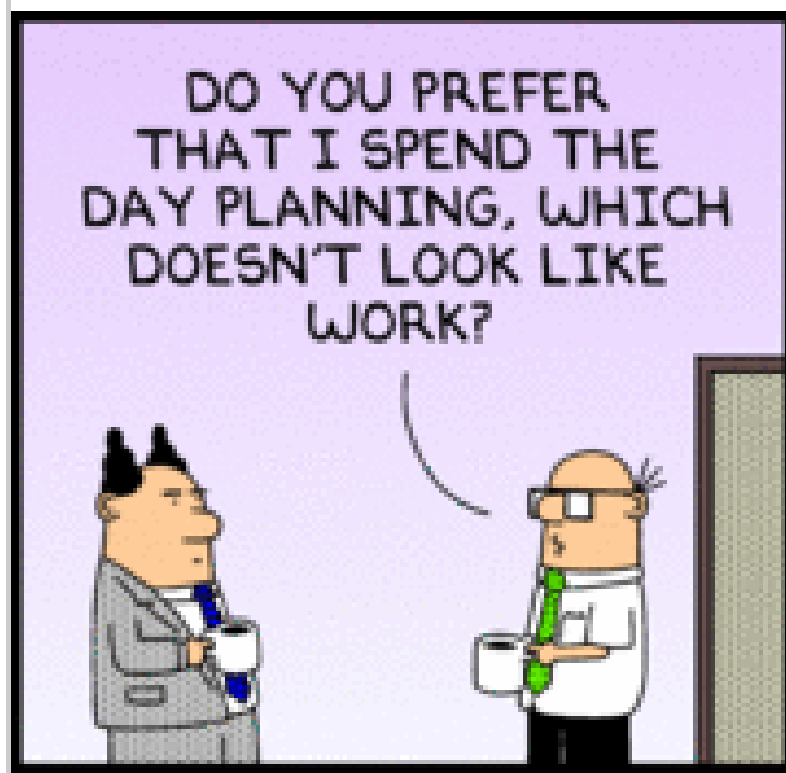
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March 26, 2018

Agenda

- Background

- Concepts

- Practice exercise

- Metrics

- Key Project Reports

- Benefits

The Dilemma

If you fail to plan, you are planning to fail!

~ Benjamin Franklin

What is ITS PRO?

It is a comprehensive methodology, a set of standards/guides, and a world-class project management, collaboration, time tracking, and reporting tool set.

Time is our most precious resource

How will this help?

Time-tracking and managing our projects in a common location will help ITS to:

- Improve the collection and analysis of data and our reporting on it

- Manage (project) timelines better

- Deliver outcomes in a repeatable, deliberate fashion

- Increase team effectiveness and collaboration across projects and services

- Identify and understand common roadblocks

- Gain insight into ideal work processes and continuous improvement efforts

Planning a Project

Must have components of a project plan:

- Project Charter

- Deliverables (Objects)

- Tasks

- Phases

- Milestones

Project planning tools

Object types

Objects

MILESTONES

Metrics

Project Ontology
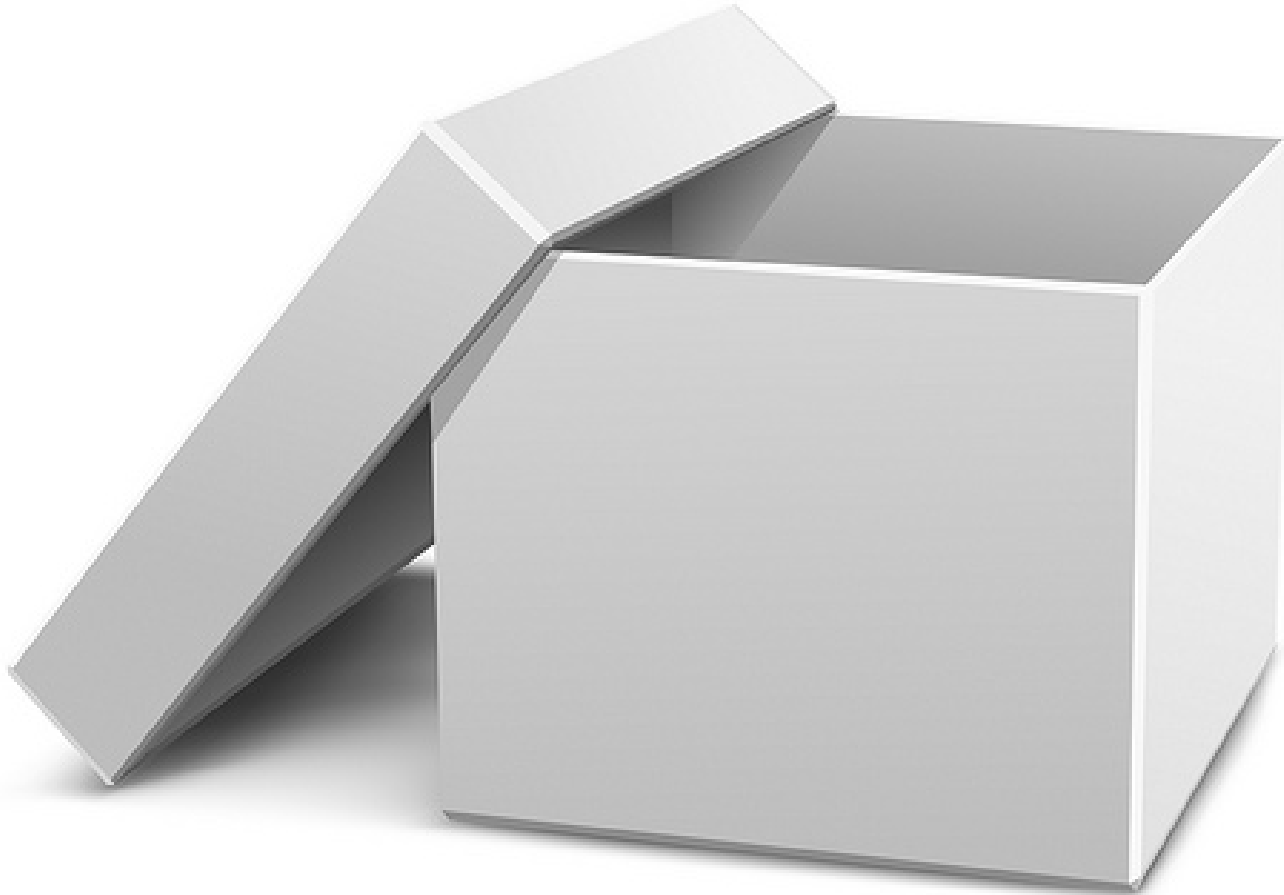
Phases

tasks

Time tracking

variance

Agile/Waterfall

$$\sigma^2 = \frac{1}{N} \sum_{i=0}^{N} \left(X_i - \overline{X} \right)^2$$

Object = Project Deliverables
"Nouns"

An Object answers the Question:

- "**What**" is being delivered?

- tangible or **concrete**

- Can be **independently** assessed by multiple assessors
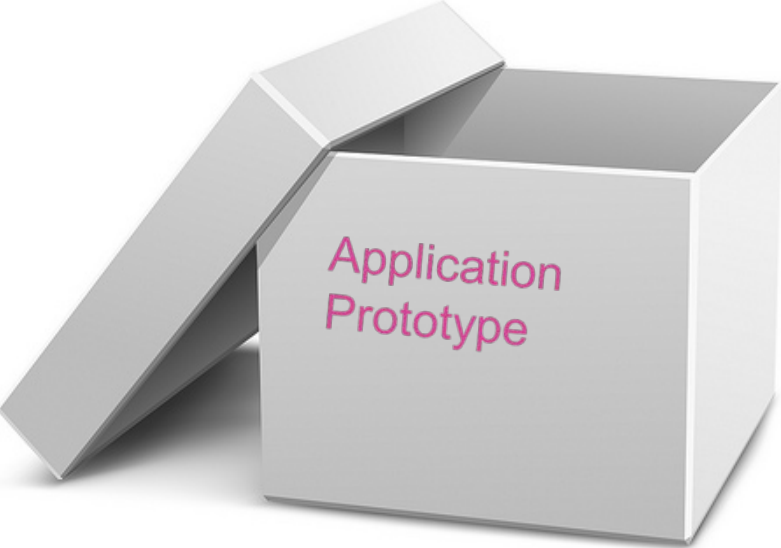
Object Examples

Requirement Specification Doc

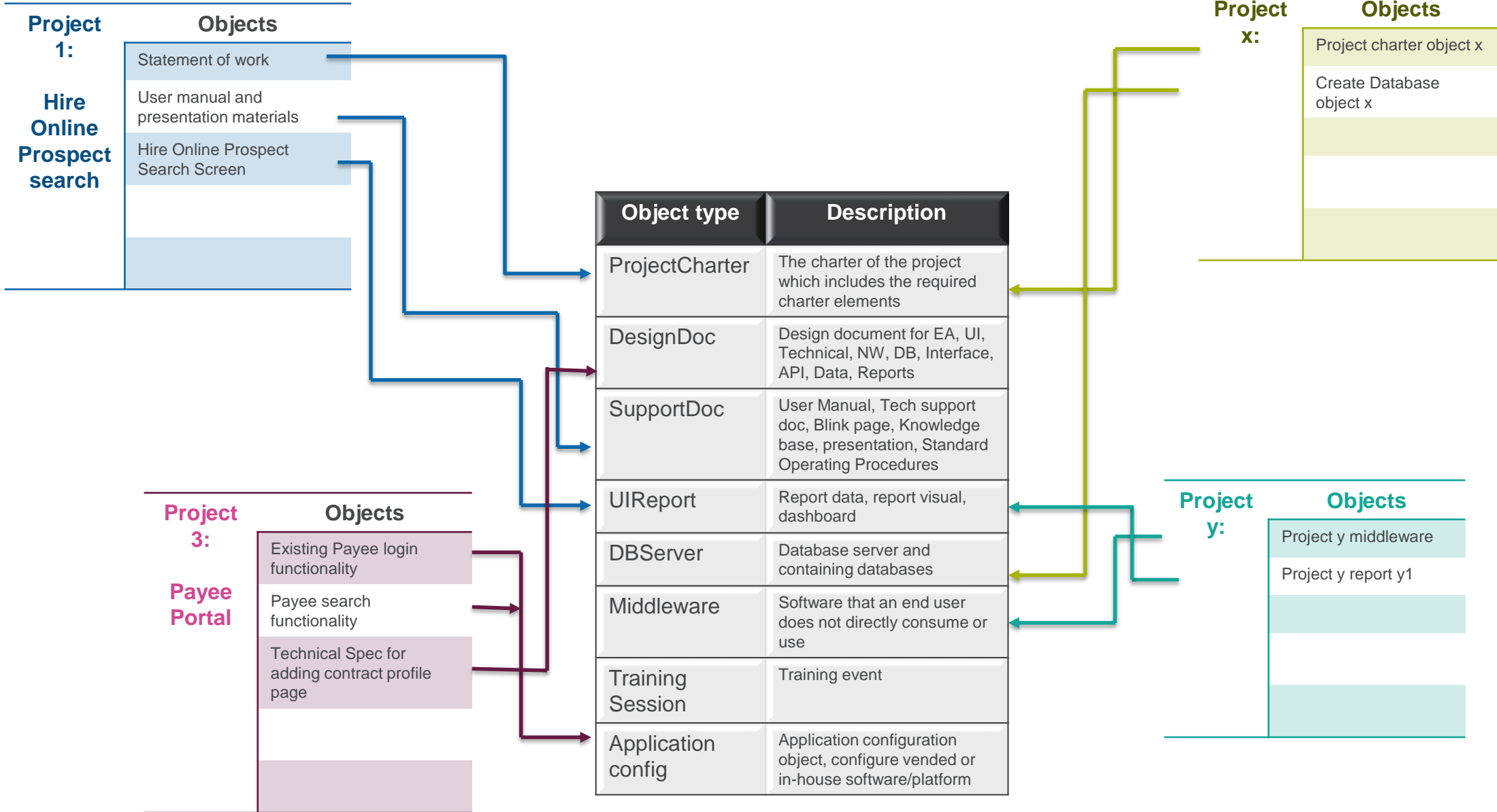Unit Test Plan

Test Report

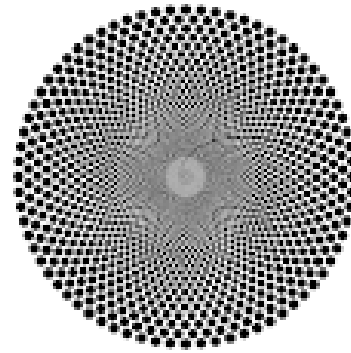Application Prototype

Communication Plan

OBJECT TYPES - https://collab.ucsd.edu/display/PPMO/Object+Types

Object category	Object Type Friendly name	Object type	Description	Sample task	Example (s)
Application	Microservice	Microservice	A software component, not directly related to a screen or report. Includes modular widget, SW development, business logic, reusable function, unit test of the component.	Write a reusable module to validate financial index number.	Example (s)
Application	App Configuration	AppConfig	Application configuration object, configure vended or in-house software/platform	Configure ServiceNow to display the full customer record on the request screen.	Example (s)
Application	App Customization	AppCustomization	Changes to existing apps, functionality, or collections of UI objects, requires code deploy. Customization to vended, open source, or in-house software.	Add calculated leave balances per team member on the Approval screen of the MyTime application	Example (s)
Application	Report object	UIReport	Report data, report visual, dashboard	Create the student enrollment waitlist report in Cognos	Example (s)
Application	User interface screen	UIScreen	A user interface object that handles data entry tasks. Includes front-end UI development, directly related business logic, data connection, unit test of the code.	Develop the new advanced query screen for financial transaction lookup	Example (s)
Applicaton	App Instance	AppInstance	Install and setup vended or in-house instance of app	Install Tableau Web Server on production servers	Example (s)
Data management	BI Object	BIObject	Data warehouse, BI tool metadata management	Create the STUDENT_STATS_PER_TERM curated view in the student activity hub	Example (s)
Data management	Data Movement Object	DataMovementObject	Script, ETL, system-system interface, or any data movement/transformation service between systems	Develop the Informatica objects to move data from the Slate API to the Student Activity Hub. Push data from Orbis co-curricular system to Parchement student transcript system via APIs.	Example (s)
Document	Project Charter	ProjectCharter	The charter of the project which includes the required charter elements	Conduct interviews to collect data for the project charter	Example (s)
Document	Requirements	RequirementsDoc	An document containing system, functional and user requirements	Create the use case document	Example (s)
Document	Design Doc	DesignDoc	Design document for EA, UI, Technical, NW, DB, Interface, API, Data, Reports	Review and edit the design document	Example (s)
Document	Project Plan	ProjectPlan	Planning documents for Project, Object Tasks Lists (OTL), Work breakdown, Estimates, Communication, Training, Deployment	Enter the project plan in ITS-Pro	Example (s)
Document	Test Plan	TestPlan	Test plan, test cases, test script	Document the required sequence of test activities	Example (s)

Object Types

Project 1:

Hire Online Prospect search

Objects
- Statement of work
- User manual and presentation materials
- Hire Online Prospect Search Screen

Project x:

Objects
- Project charter object x
- Create Database object x

Project 3:

Payee Portal

Objects
- Existing Payee login functionality
- Payee search functionality
- Technical Spec for adding contract profile page

Project y:

Objects
- Project y middleware
- Project y report y1

Object type	Description
ProjectCharter	The charter of the project which includes the required charter elements
DesignDoc	Design document for EA, UI, Technical, NW, DB, Interface, API, Data, Reports
SupportDoc	User Manual, Tech support doc, Blink page, Knowledge base, presentation, Standard Operating Procedures
UIReport	Report data, report visual, dashboard
DBServer	Database server and containing databases
Middleware	Software that an end user does not directly consume or use
Training Session	Training event
Application config	Application configuration object, configure vended or in-house software/platform

Object Complexity

SIMPLE?   COMPLEX?

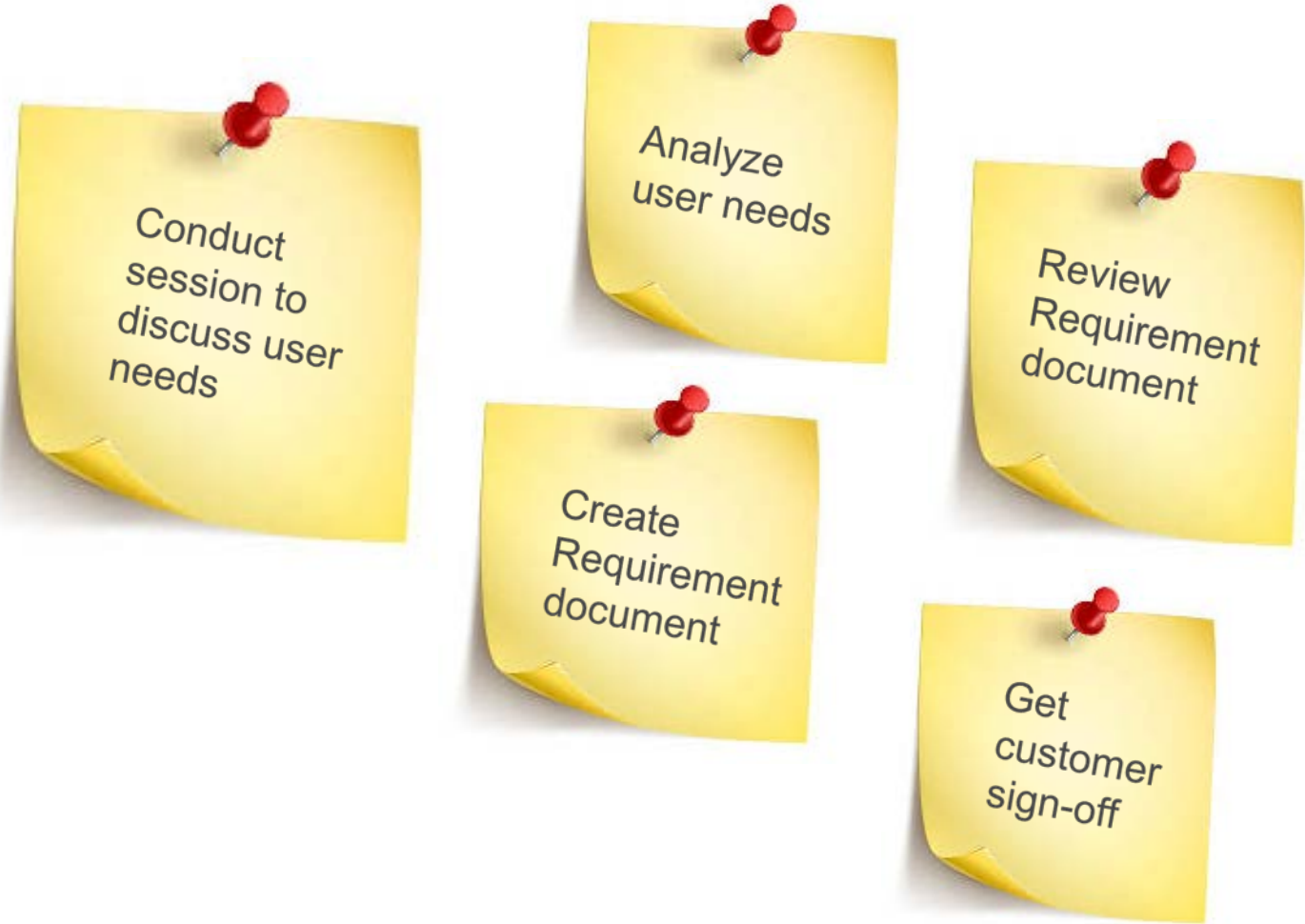| Object Complexity	Description
Simple	Easy to accomplish, has been done before, requires minimum coordination, effort and resources.
Average	Takes a moderate amount of effort, similar work can be leveraged, requires coordination and multiple resources.
Complex	Unique problem, requires research, review, and a high level of coordination

https://collab.ucsd.edu/display/PPMO/Object+Complexity

Task = Activities
"Verbs"

- A Task answers the Question: **"How"** its being delivered?

- **4-30 hours** in length with an average of **<12 being excellent**

To-do list

Task Examples

Requirement Specification Doc

Conduct session to discuss user needs

Analyze user needs

Review Requirement document

Create Requirement document

Get customer sign-off

On completion of each task, team members close task and log actual time spent

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PHASE = State Of Work

Project Phase	Example objects/activities
Initiation	Charter (proposal, business case, value, alignment, scope), project type (R&D, POC, product)
Definition	Project space, project plan, resourcing, timeline, dependecies, requirements (functional, operational), RACI, plans (test, training, communication)
Design	Technical, NW, DB, BI, UI designs, sketches, POC, process flow, UML
Development	In-house and vended programming, installation, configuration, integration, API, UI, system setup, DB setup
Test	Unit test, QA, user acceptance, functional, integration
Deployment	Deployment, orchestration, change management, service transition, guides, user manuals, training, help page, technical support docs, handbook
Control	Monitor, progress reports, keep project on track (scheduling, resourcing), KPI metrics, measure
Closeout	Lessons learned, evaluation, retrospective, control plan, celebrate

Milestones

Project milestones are planned accomplishments, established during the project definition phase, and used to manage the project and **report meaningful status to project stakeholders.**
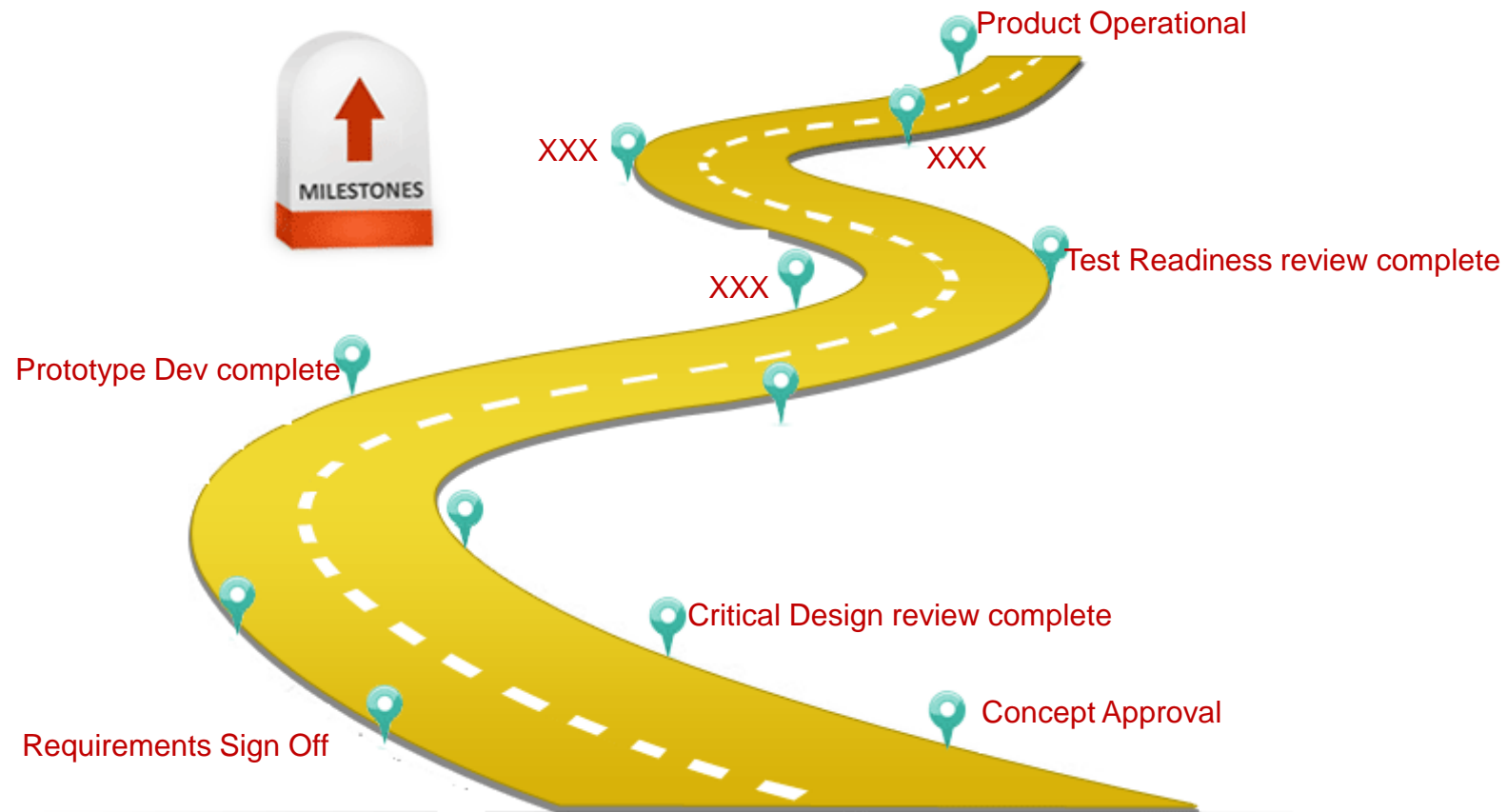
Let's do this!

Every project tells a story about its goals, team, timing, and deliverables.

Gleaning the health of the Project - Metrics

- V1 – Measures how well the teams are hitting the estimates

- V2 – Measures how much project plan is changing

- V3 – Measures how well the teams are hitting deadline dates

- V4 – Measures how much deadline dates are changing

- V5 – Measures how smoothly or erratically resources spend time on tasks

- V6 – Measures how well teams are hitting milestones

- V7 – Measures how much milestones are changing

V1 - Project Teams hitting estimates ?

For each COMPLETED task Task variance is (actual - estimate)^2

Task1v: (actual - estimate)^2
Task2v: (actual - estimate)^2
...
TaskXv: (actual - estimated)^2

Project variance **V1** = **(Task1v + Task2v +...+ TaskXv)**
Number of tasks (X)

V1 - Project Teams hitting estimates ?

### V1 - Variance Between Estimated Time and Actual Time for Tasks

estimate — actual — V1
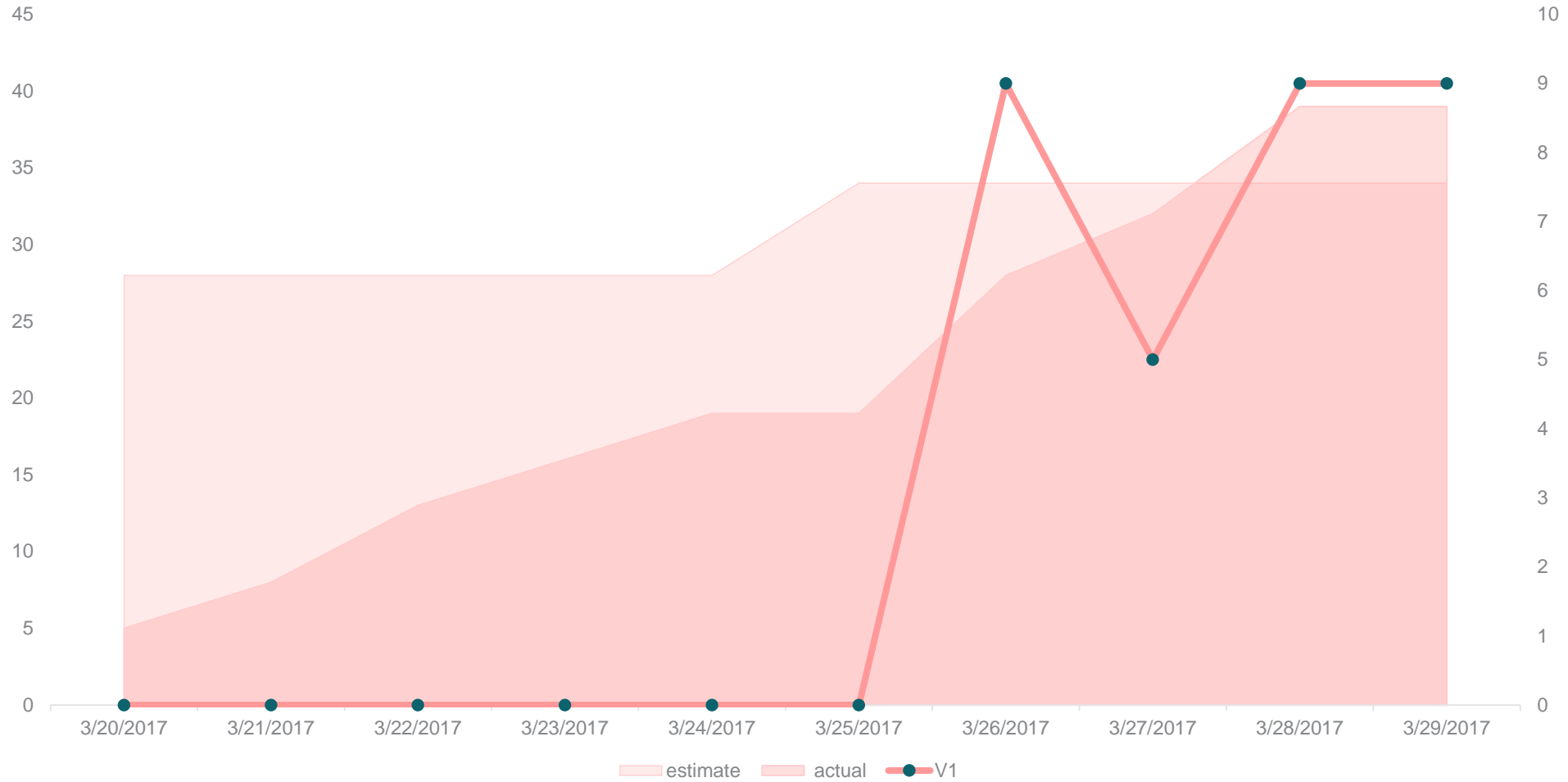
V2 – Project plan changing?

V2 - Variance Between Yesterday's Estimate and Today's Estimate for Tasks
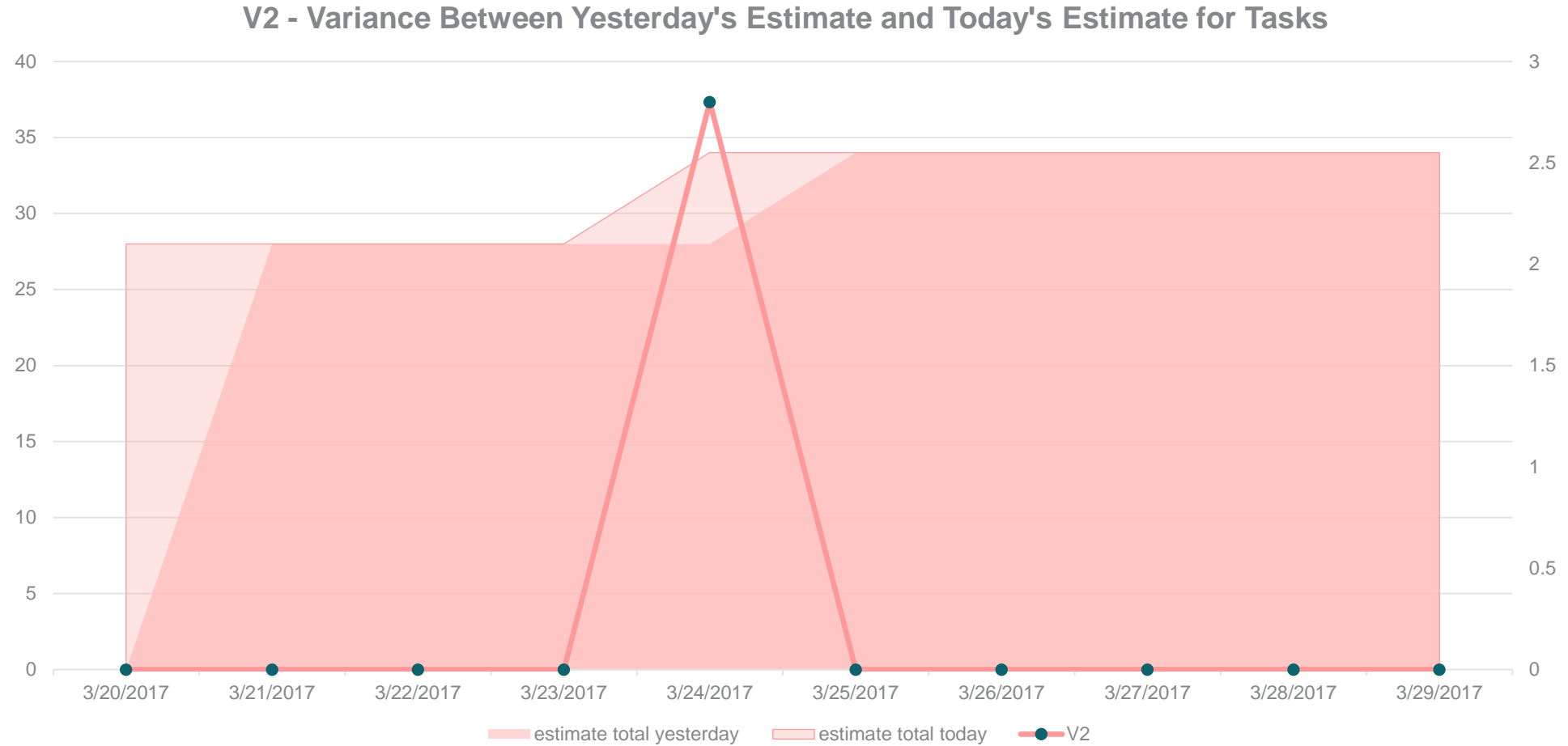
V3 and V4 - Project Teams hitting deadlines & deadlines changing ?

V3 - Variance Between Due Date and Resolution Date
V4 - Variance Between Yesterday's Due Date and Today's Due Date
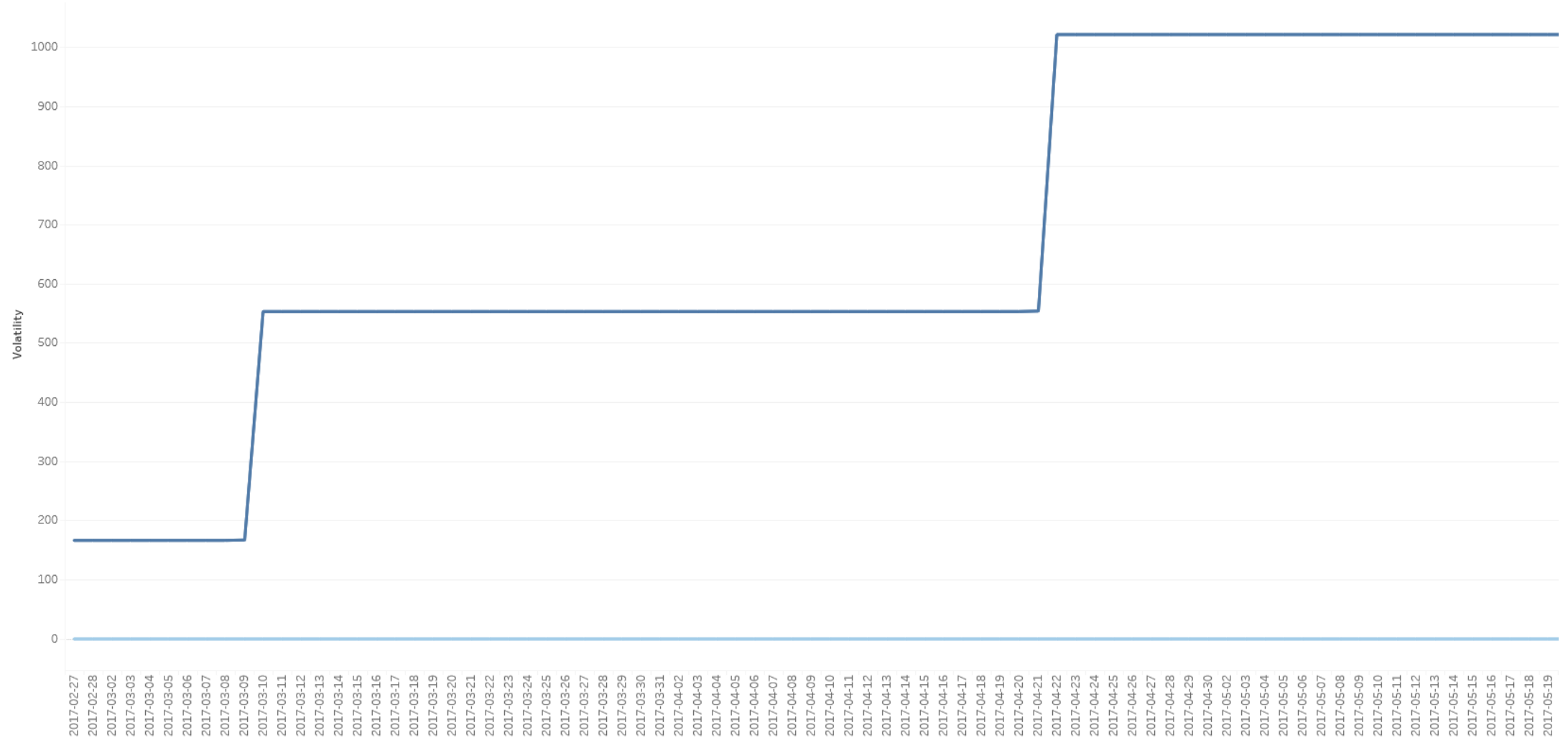
V3 vs V4 (Days) for Payee Portal
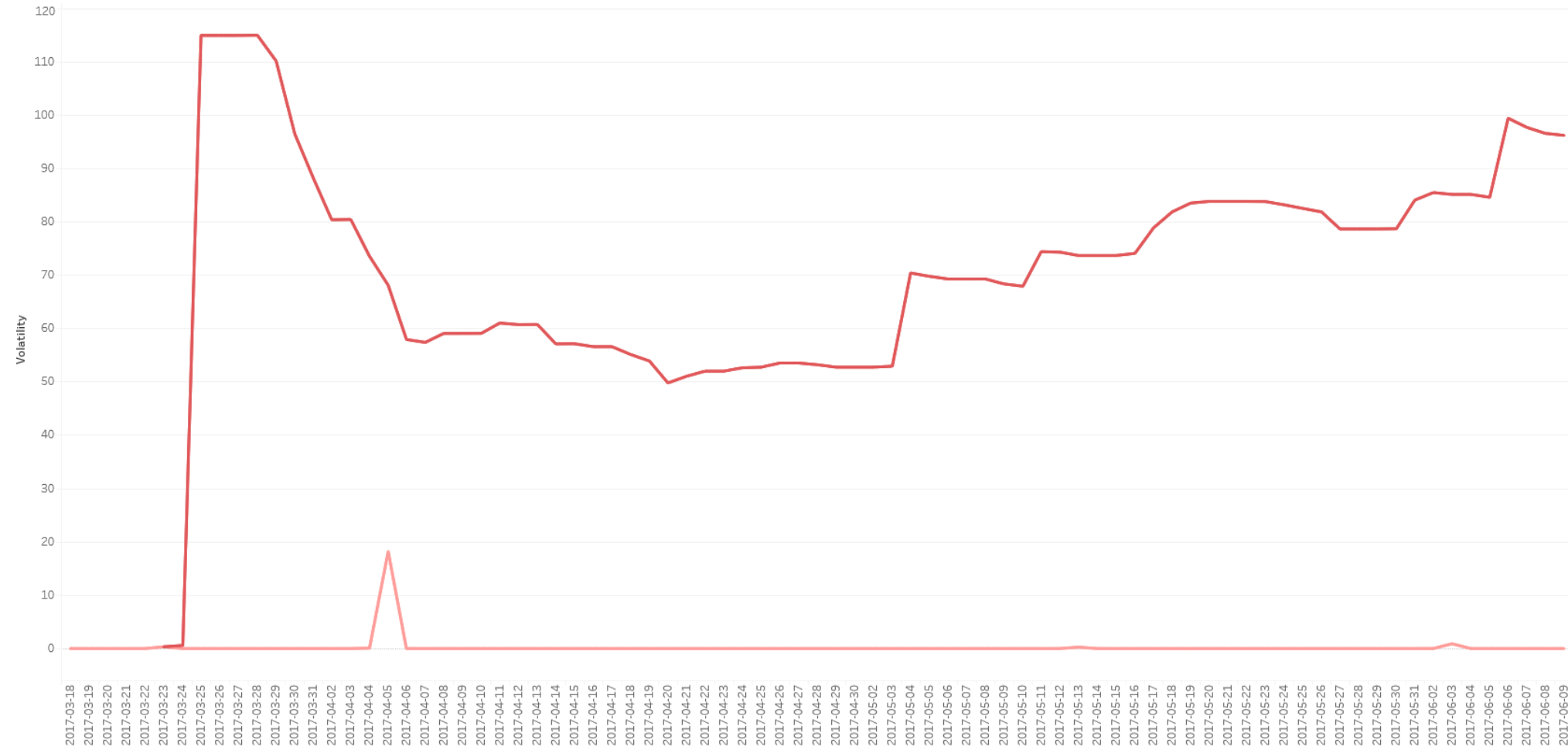
V6 and V7 - Project Teams hitting milestones & milestones changing ?

V6 - Varience Between Due Date and Resolution Date for Milestones

V7 - Varience Between Yesterday's Due Date and Today's Due Date for Milesontes

V6, V7 Milestones (Days) for CIO Budget Performance Report

Key Project Reports... (in progress)

- Overall project stats – What is the big picture of discretionary work?
  - ✓ Total number of projects
  - ✓ Portfolio of active filtered/grouped
  - ✓ Proposed vs actual

- Resourcing – Where are we spending our time and resources
  - ✓ Allocation of effort on discretionary vs non discretionary
  - ✓ By all projects, activities, groups pf projects, governance area, strategic alignment
  - ✓ Types of tasks/objects most working on
  - ✓ Access data to formulate costing model

- Single Project Vitals
  - ✓ Total project effort
  - ✓ Total actual effort
  - ✓ Count of tasks in a project, average hours per task
  - ✓ Team size
  - ✓ Impact on project success

- Management of Team and Team members
  - ✓ Time entry ranking by team
  - ✓ Team load balance
  - ✓ Are team members overly multi tasking or spread too thin? Total avg hrs/day/person
  - ✓ All tasks/person

Project Metrics - Benefits

- Lots of metrics across different dimensions of a Project

- Allows to measure and learn from gap between expected and actual outcomes

- The ability to compare and contrast projects, project managers and apply statistical process control

- Ultimate goal is to conserve staff time

- Complete more projects faster without increasing resources

Questions