Designing a Production Process

Ryan Darcey
Design Director @amouflaj

Camouflaj

Ryan Darcey

- 17 year AAA veteran
- I ♡ Teams w/ an Indie Spirit
- Multi-Specialist

Camouflaj

INTRODUCTION

Gameplay Engineer

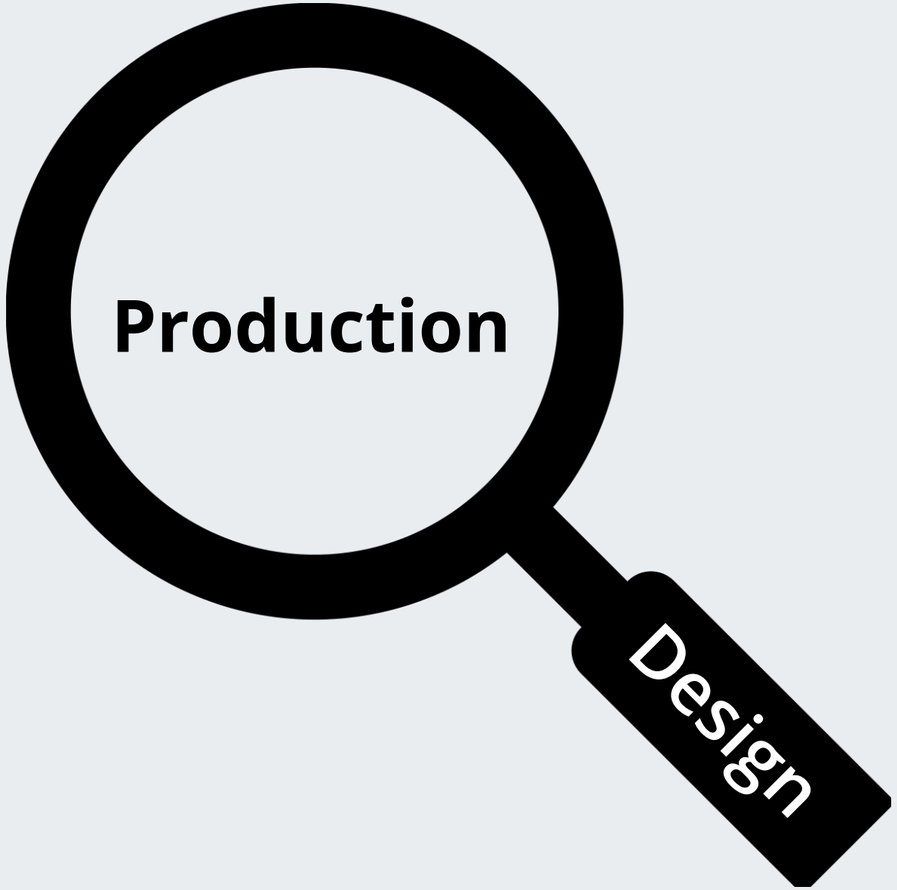
Producer

Co-Creator

Level Designer

Systems Designer

View Development Through Multiple Lenses



How can we apply Design philosophies to Production?

INTRODUCTION

Design Driven
Production Process

"You should be approaching your production process just like you approach the development of your game; it's all about iteration on a daily basis."

- Jeff Morris

© 2021 MARVEL

The Game

The Team

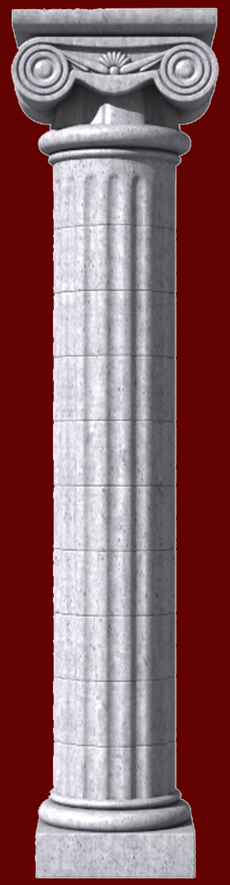
© 2021 MARVEL

My Hypothesis...

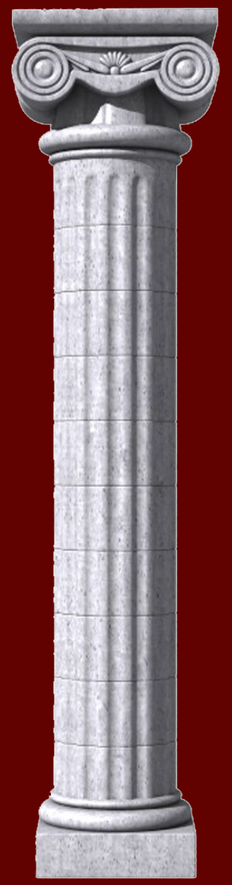
Behind All Good Production Process Is Good Design

Producers are Designers of Process

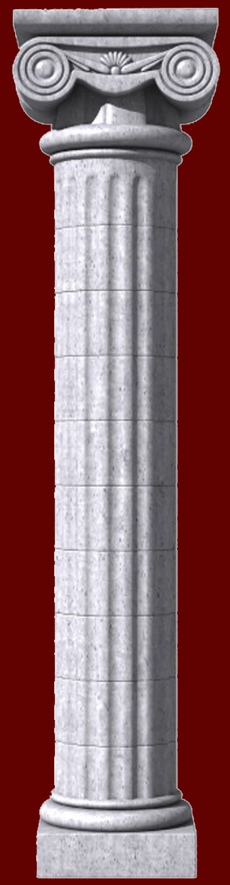
INTRODUCTION



Attention to Detail



Methodical Iteration



Curating Good Ideas

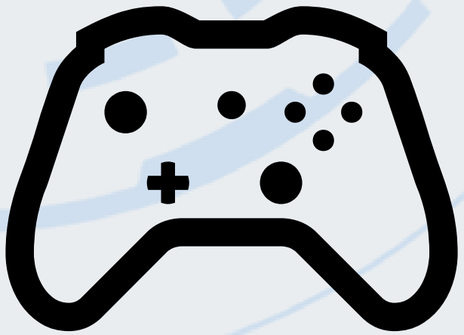
RED = New Design Philosophy

Designing Production Processes

- Designing a Sprint
- Designing a Database
- Designing a Long Term Plan

BLUE = New Section

A Brief Argument for Process



It's good for **The Game**

It's good for **The Team**

It's good for **The Business**

Start here, then adjust for your team’s needs.

PART 1

Designing A Sprint

What's a Sprint?

- Core component of Agile Planning Methodology
- One time boxed iteration of a continuous development cycle
- Often organized around **Strike Teams**

Player Agency

Giving players the time, space, and resources needed in order to make decisions in games.

EMPOWERMENT

EMPOWERMENT

Strike Team

A cross functional, self sufficient group of developers **EMPOWERED** to take ownership over high level feature sets.

EMPOWERMENT

Strike Team Lead

PART 1

© 2021 MARVEL

Camouflaj

EMPOWERMENT

Project Leads

- Creative Director
- Executive Producer

- High Level Vision

Discipline Leads

- Art Lead
- Engineering Lead
- Design Lead

- Specialist Quality Control
- Employee Development

Strike Team Leads

- Levels
- Systems
- Cinematics

- Holistic Feature Development
- Planning & Execution

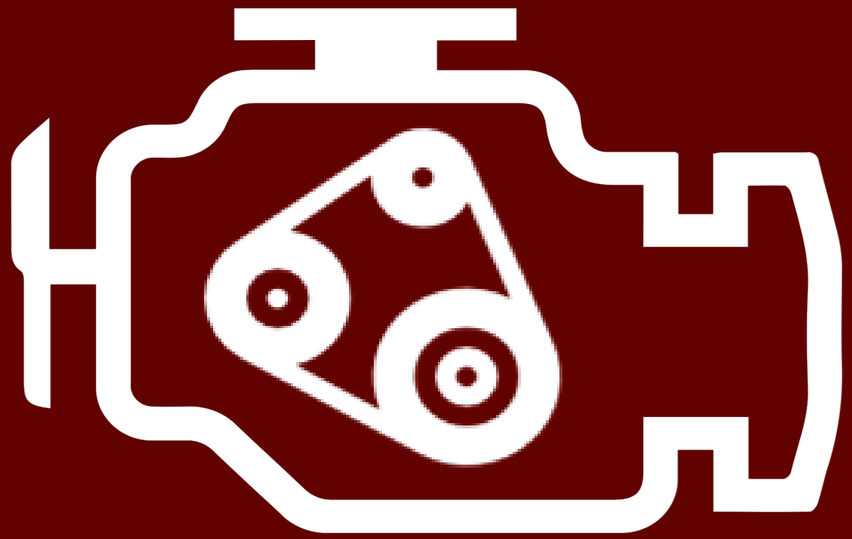
© 2021 MARVEL

Camouflaj

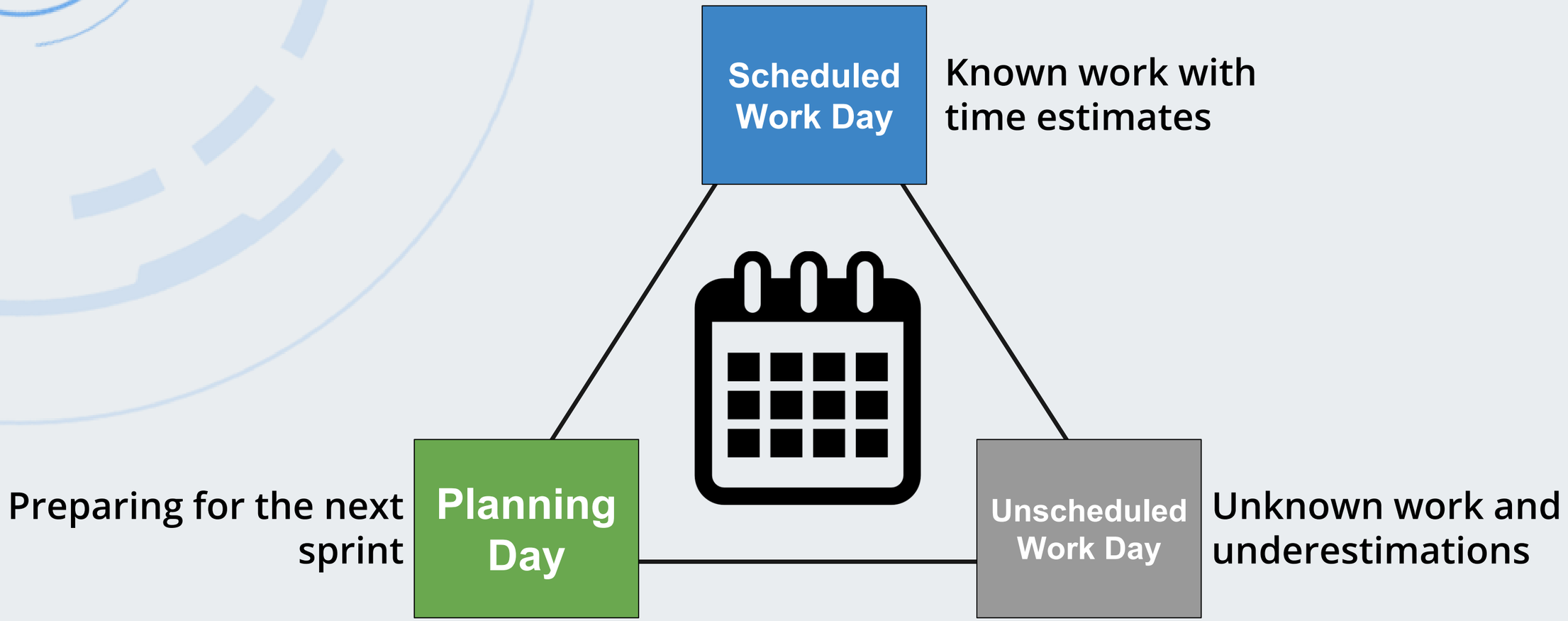
Halo's 30 Seconds of Fun and Golden Triangle

A repeatable loop driven by a set of fundamental features that adapts to any situation.

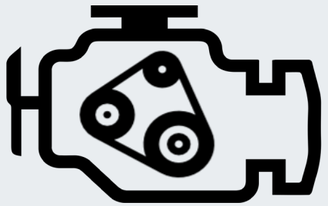
Halo's 30 Seconds of Fun and Golden Triangle



Sprint Schedule's Golden Triangle



Sprint 2 Week Loop



	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day
Week 2	Scheduled Work Day	Scheduled Work Day	Planning Day	Unscheduled Work Day	Unscheduled Work Day

A repeatable loop driven by a set of fundamental features that adapts to any situation.

Camouflaj

Sprint2 Week Loop

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 2	Scheduled Work Day	Scheduled Work Day	Planning Day	Unscheduled Work Day	Unscheduled Work Day

Sprint2 Week Loop

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Unscheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day	Scheduled Work Day
Week 2	Scheduled Work Day	Unscheduled Work Day	Planning Day	Scheduled Work Day	Scheduled Work Day

Sprint2 Week Loop

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Scheduled Work Day	Scheduled Work Day	Unscheduled Work Day	Scheduled Work Day	Unscheduled Work Day
Week 2	Unscheduled Work Day	Scheduled Work Day	Planning Day	Scheduled Work Day	Unscheduled Work Day

Leads & Engineers often break this rule. → **Max of 80% of the sprint is "Planned"**

The Rule of 3

Rule of three

From Wikipedia, the free encyclopedia

Rule of three may refer to:

Science and technology [edit]

- Rule of three (C++ programming), a rule of thumb about class method definitions
- Rule of three (computer programming), a rule of thumb about code refactoring
- Rule of three (mathematics), a method in arithmetic
- Rule of three (medicinal chemistry), a rule of thumb for lead-like compounds
- Rule of three (statistics), for calculating a confidence limit when no events have been observed

Other [edit]

- Rule of three (aviation), a rule of descent in aviation
- Rule of three (economics), a rule of thumb about major competitors in a free market
- Rule of threes (survival), a quick reference for how long one can survive in an emergency situation
- Rule of Three (Wicca), a tenet of Wicca
- Rule of three (writing), a principle of writing
- *Rule of Three*, a series of one-act plays by Agatha Christie
- The Bellman's Rule of Three in *The Hunting of the Snark*, a poem by Lewis Carroll

- More likely to remember information because having 3 entities combines both **brevity and rhythm** with having the **smallest amount of information to create a pattern**
- It **makes the author or speaker appear knowledgeable** while being both simple and catchy

Camouflaj

The Rule of 3

- 3 Arguments for Process
- 3 Design Pillars
- 3 Types of Leads
- 3 Parts to this presentation
- 30 Seconds of Fun
- The Golden Triangle
- ... and more!

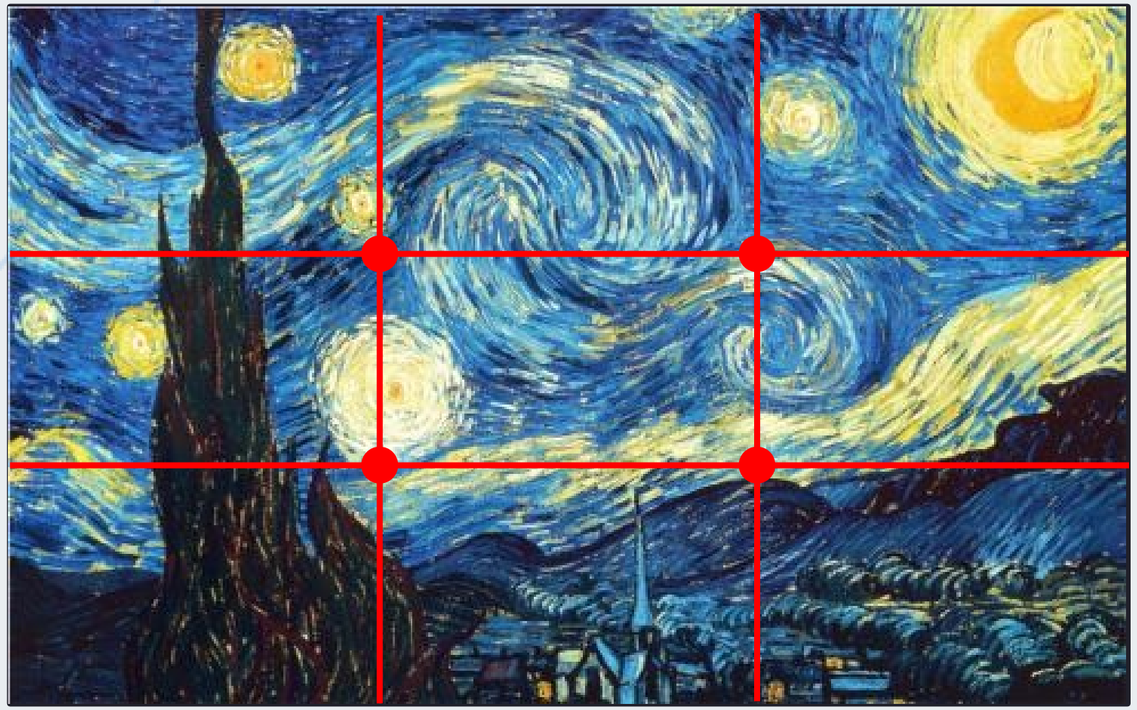
Strike Team Standups

Answers these questions:

1. What did you finish yesterday?
2. What’s blocked?
3. What are you working on today?

Sprint Boards

Task Cards



Part 1- Designing a Sprint

Player Agency
- Empowering The Team

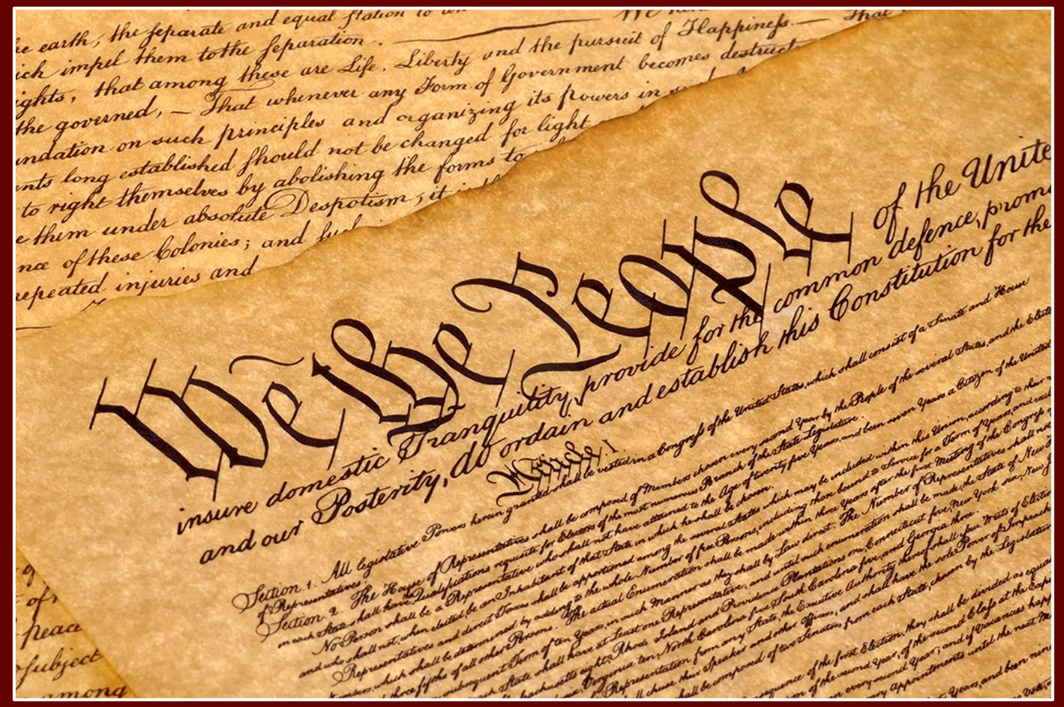
Halo's Golden Triangle & 30s Loop
- Engine Driving Development

The Rule of 3
- Effective Communication

PART 2

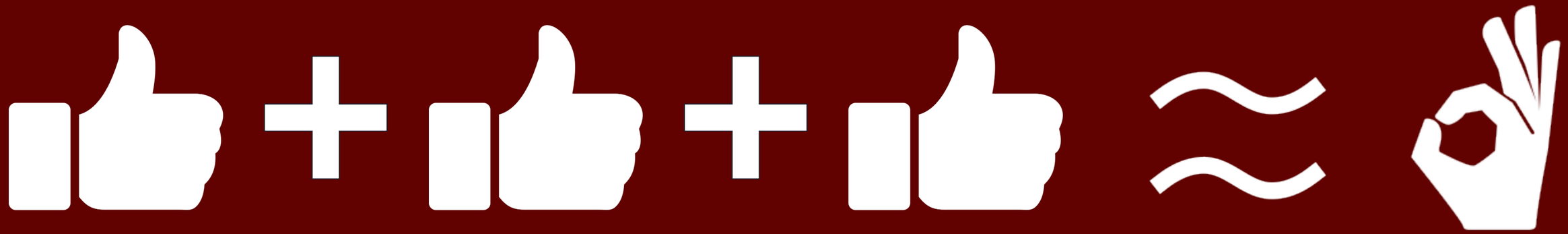
Designing A Database

Make It Better, Not Perfect



"We the People of the United States,
in Order to form **a more perfect**
Union … "

Make It Better, Not Perfect



Issue Tracking Databases

- They all suck in different ways
- Work with what you have

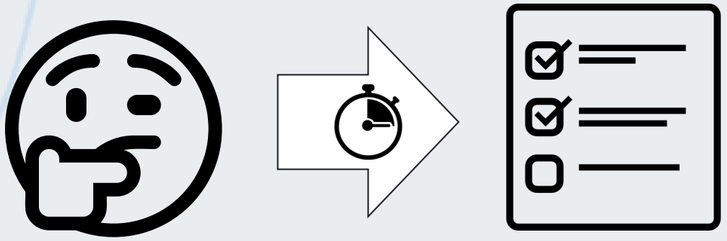
JIRA

YouTrack

Hansoft

DevTrack

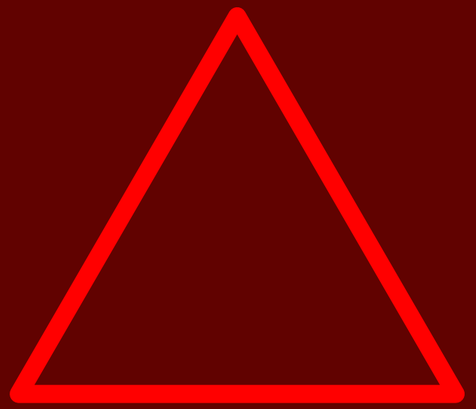
Focus on Removing Friction



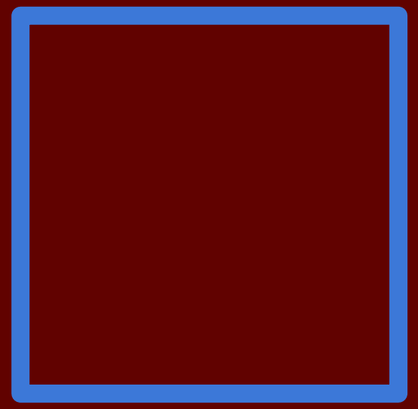
- Remove as many clicks as you can
- Create useful dashboards & queries
- Don’t get too rigid with rules
- Invest in an import/export spreadsheet

Color & Shape Theory

Love, Lust, & Anger	Calm, Cold & Corporate	Purity, Cleanliness & Simplicity



Aggression



Stability

Completeness

Color & Shape Theory

Issue Priority (Project Impact)

P0 CRITICAL: This issue is blocking an ESSENTIAL issue and must be completed ASAP.

P1 ESSENTIAL: We cannot ship without resolving this issue.

P2 MAJOR: We can ship without completing this, but quality of the game will suffer significantly.

P3 MINOR: A “nice to have” that would incrementally improve the game.

Bug Severity (Team Impact)

S0 Devastating impact to the team at large.

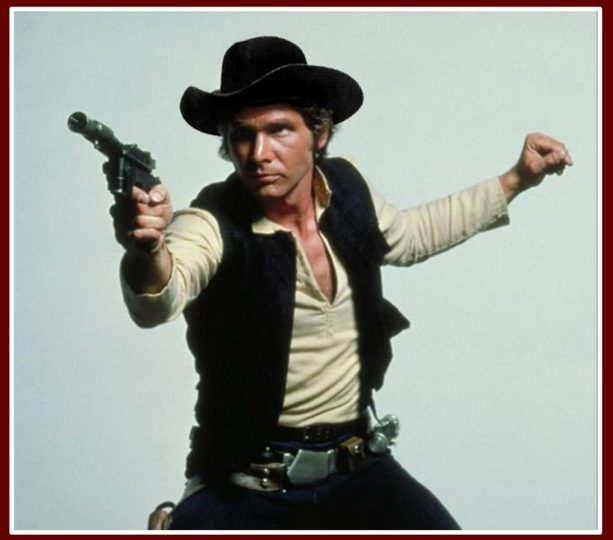
S1 Significant impact on many team members.

S2 Marginal impact on a few team members.

S3 May not even be noticeable to some.

Subtractive Design

The process of removing imperfections and extraneous parts in order to strengthen the core elements.



Subtractive Design

Minimum Issue Field Set

1. Issue Type
2. Priority
3. Status
4. Feature
5. Summary
6. Description
7. Discipline
8. Assignee
9. Reporter
10. Sprint
11. Original Estimate
12. Time Spent

Issue Summary Field

- [TEX] [INT] [FANCY] [LIVING ROOM] [MALIBU] Update couch material to use leather and add tufted buttons to make it look a bit more high end

[PARENT FEATURE] Sub-Feature - Simple summary

- [LEVELS] Malibu - Update couch texture based on latest feedback
- [WEAPONS] Repulsor - Increase bass on blast
- [EDITOR] Exporter - Fix the bad bug

Rejecting the Mythical Designer

Rejecting the Mythical Designer

Good design is not magic.

Good design takes discipline.

Good design is often very tedious.

Rejecting the Mythical Designer

Backlog Maintenance

- Full scrub **EVERY** sprint
- Update estimates
- Update priorities
- Add/Remove issues
- Ensure all known work is logged

Seek Out Mentorship

Admit what you don’t know!

- Learn to create advanced filters
- Get familiar with the admin features
- Experiment with workflow enhancements
- Create your own dashboards

Part 2- Designing a Database

Make It Better, Not Perfect
- Issue Database Shortcomings

Color & Shape Theory
- Visual Aids

Subtractive Design
- As Much As You Need, Nothing More

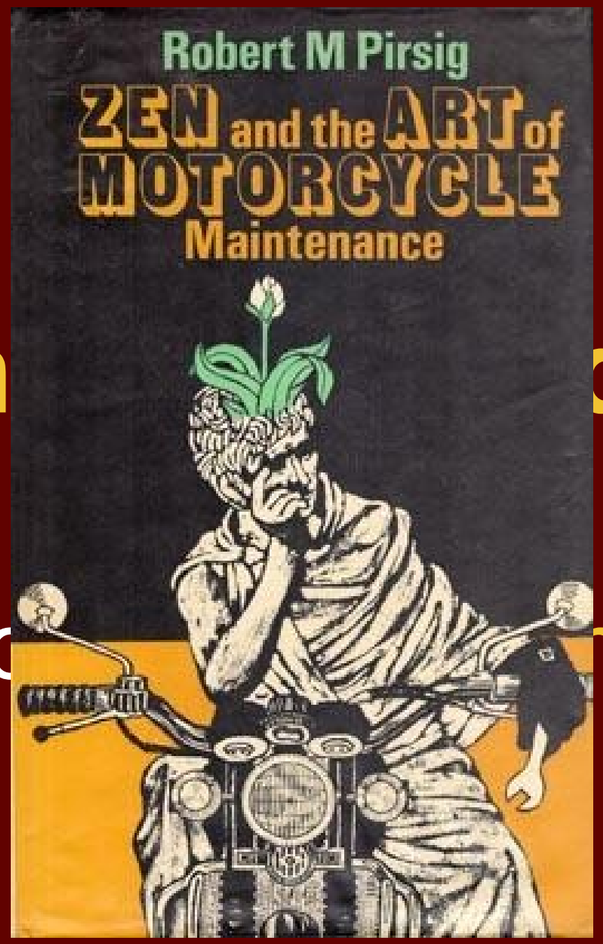
Rejecting The Mythical Designer
- Have Discipline to Embrace Tedium

PART 3

Designing a Long Term Plan

Camouflaj

Zen and the Art of Design



Wh d”?

A healthy balanc nal and romantic

Zen and the Art of Design

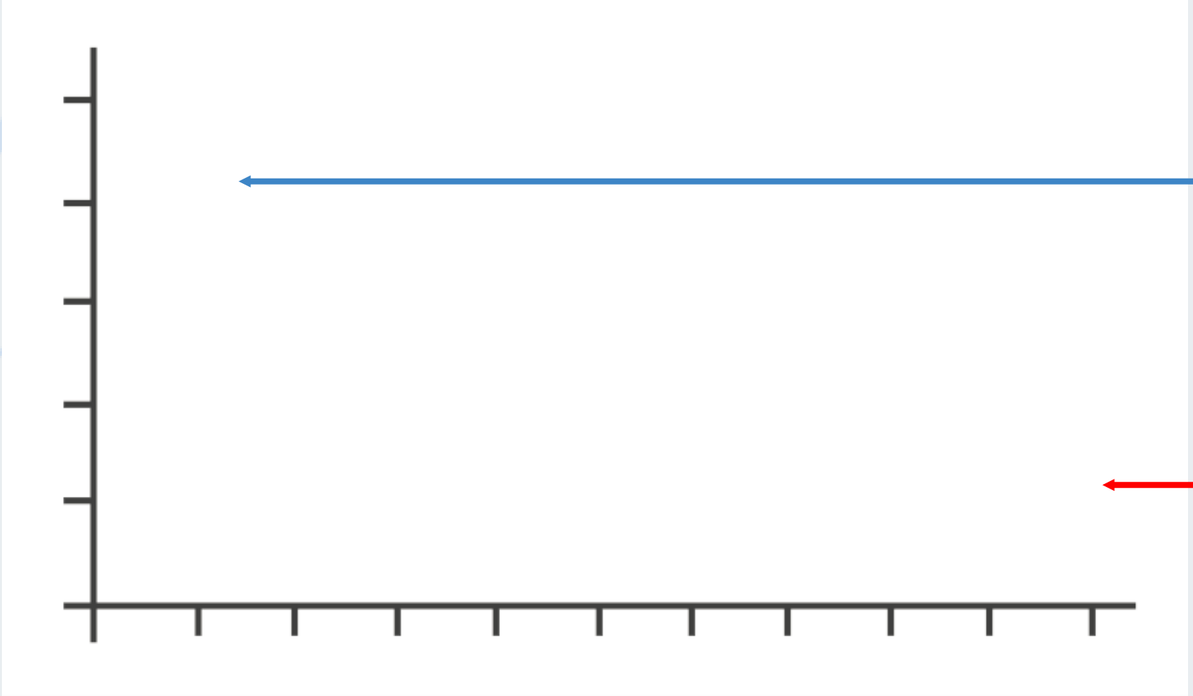
Zen and the Art of Design

Control

Chaos

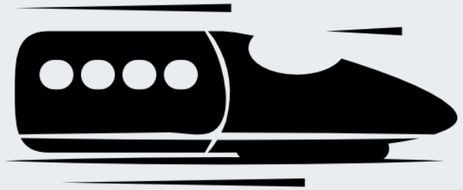
Prediction & Control

Ability to
Predict & Control



Time

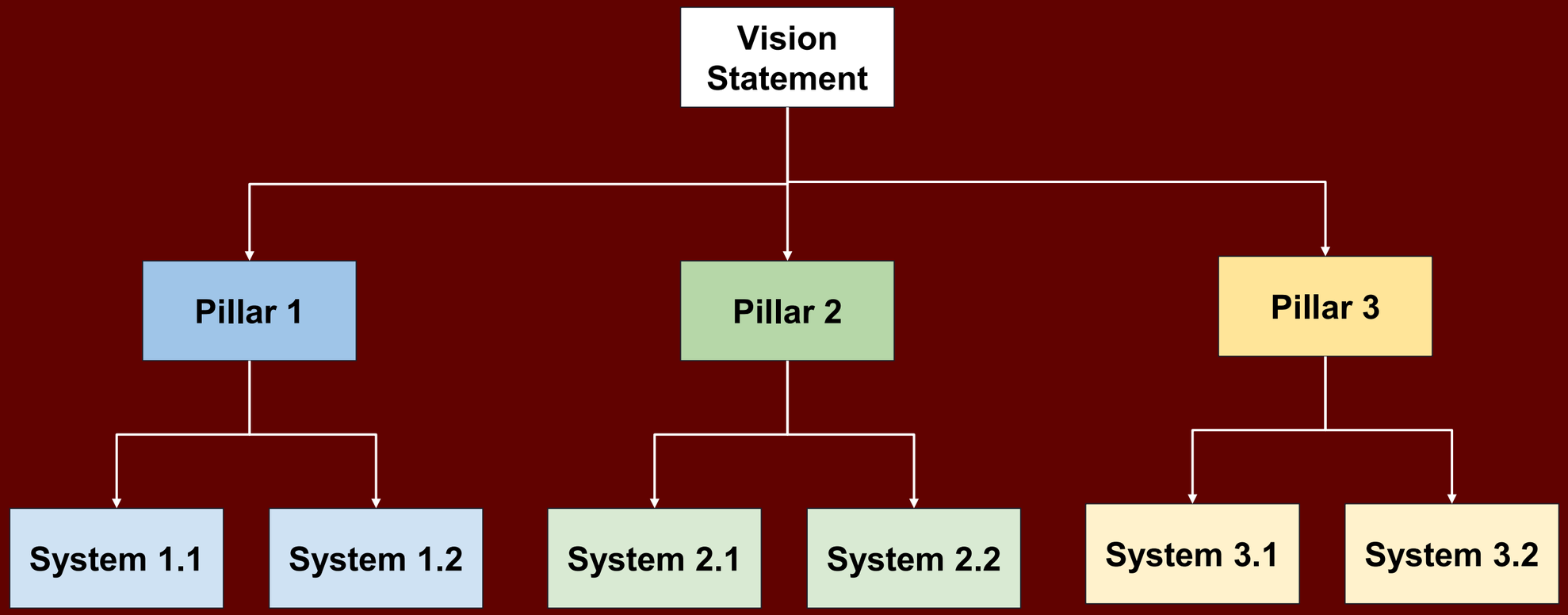
Planning 3 Sprints Ahead



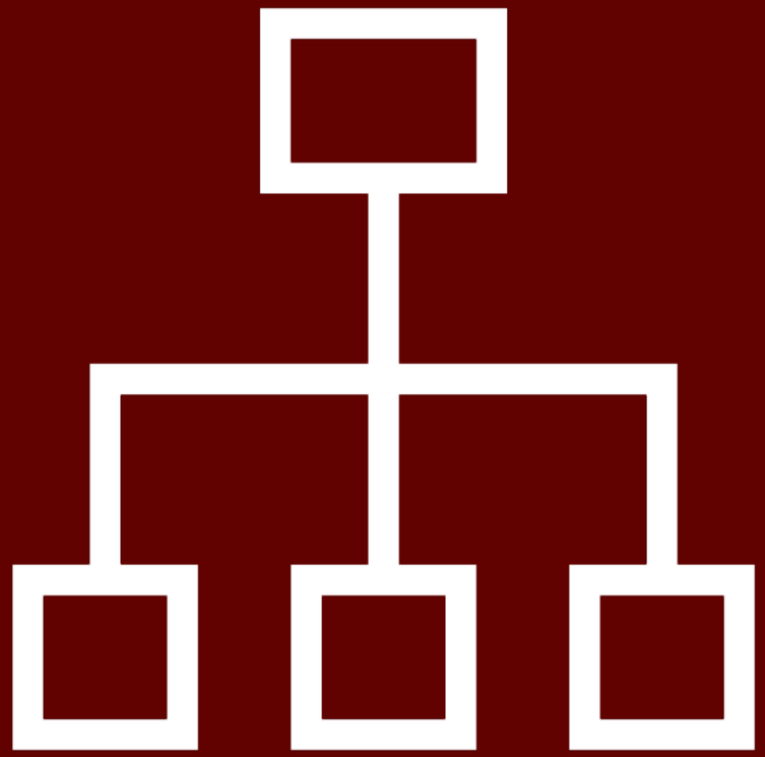
Primary Concern	Secondary Concern		Tertiary Concern
2 Weeks	2 Weeks	2 Weeks	

?

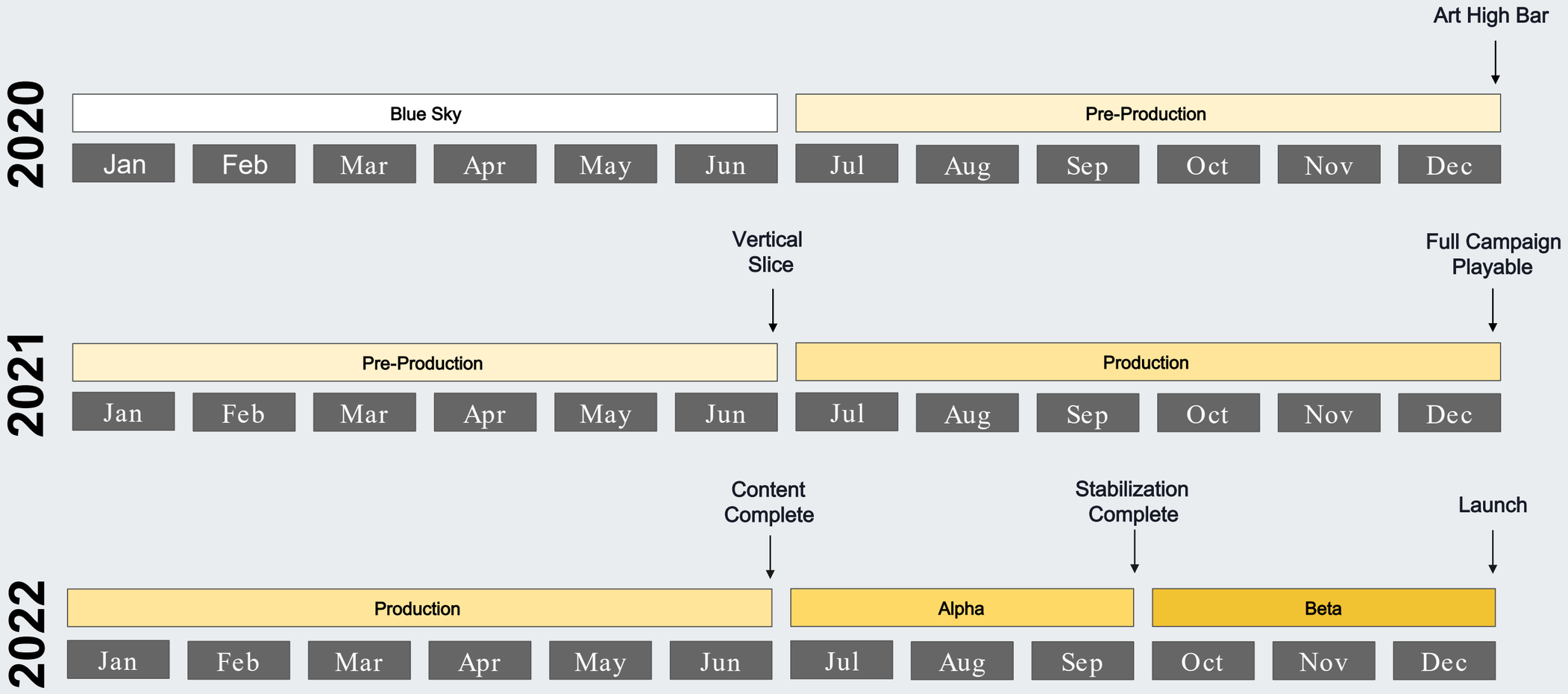
Top Down Design



Top Down Design



Project Phasing

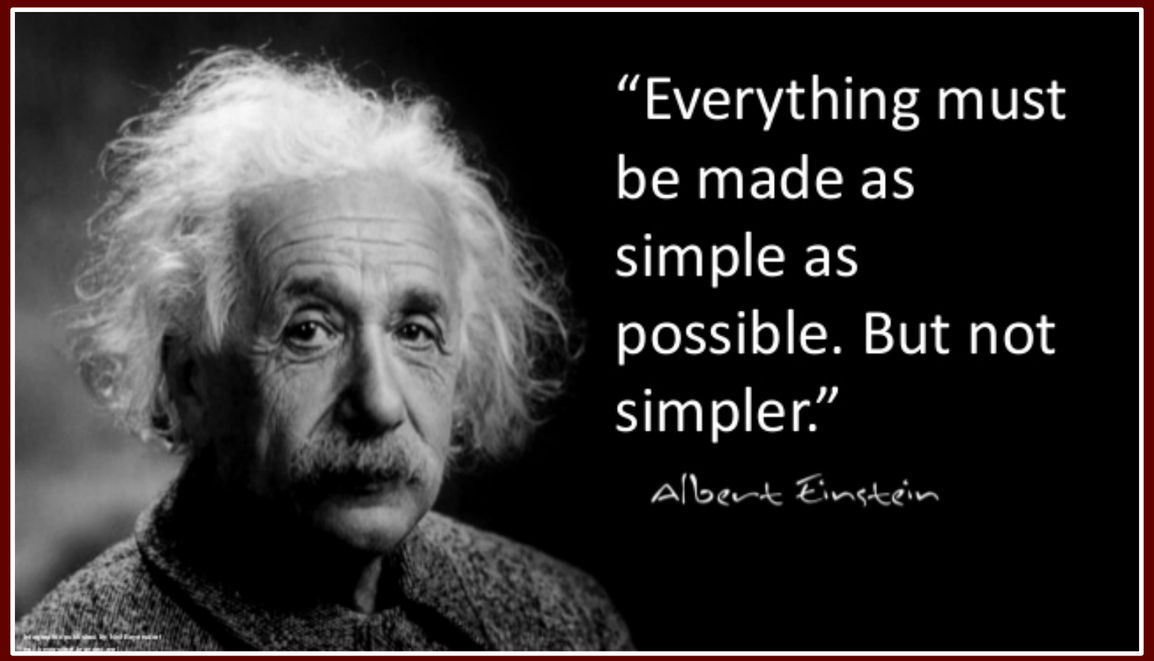


Monthly Milestone Goals

January 2021	February 2021	March 2021
• Flight Prototype	• Repulsor Blast Prototype	• Flight Boost Prototype • Repulsor Charge Prototype

April 2021	May 2021	June 2021
• Drone Navigation Prototype	• Drone Attack Prototype	• Combat Prototype Iteration

Keep It Simple



Keep It Simple

Handling Dependencies

If you continually plan 3 sprints ahead w/ dependencies covered …

… using phases and milestones to prioritize your work …

… then dependencies will be covered for the entire project.

Handling Dependencies

If you continually plan 3 sprints ahead w/ dependencies covered …

… using phases and milestones to prioritize your work …

… then dependencies will be covered for the entire project.

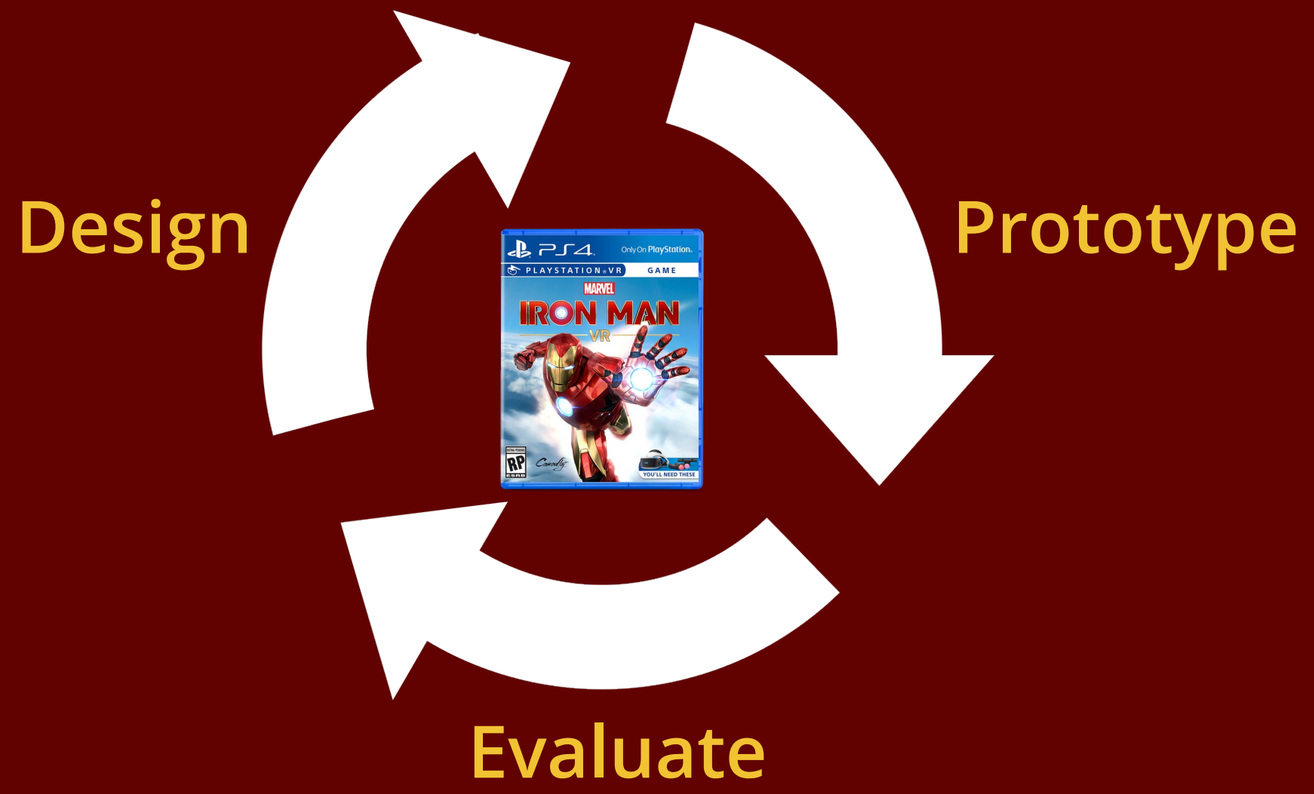
Handling Dependencies

If you continually plan 3 sprints ahead w/ dependencies covered …

… using phases and milestones to prioritize your work …

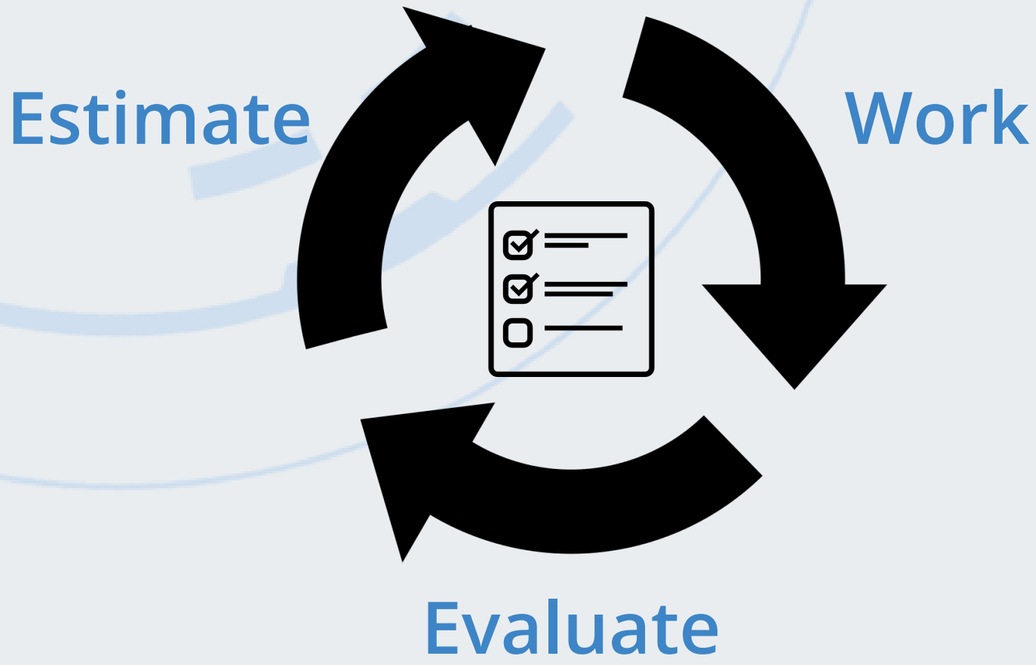
… then dependencies will be covered for the entire project.

Iterative Design



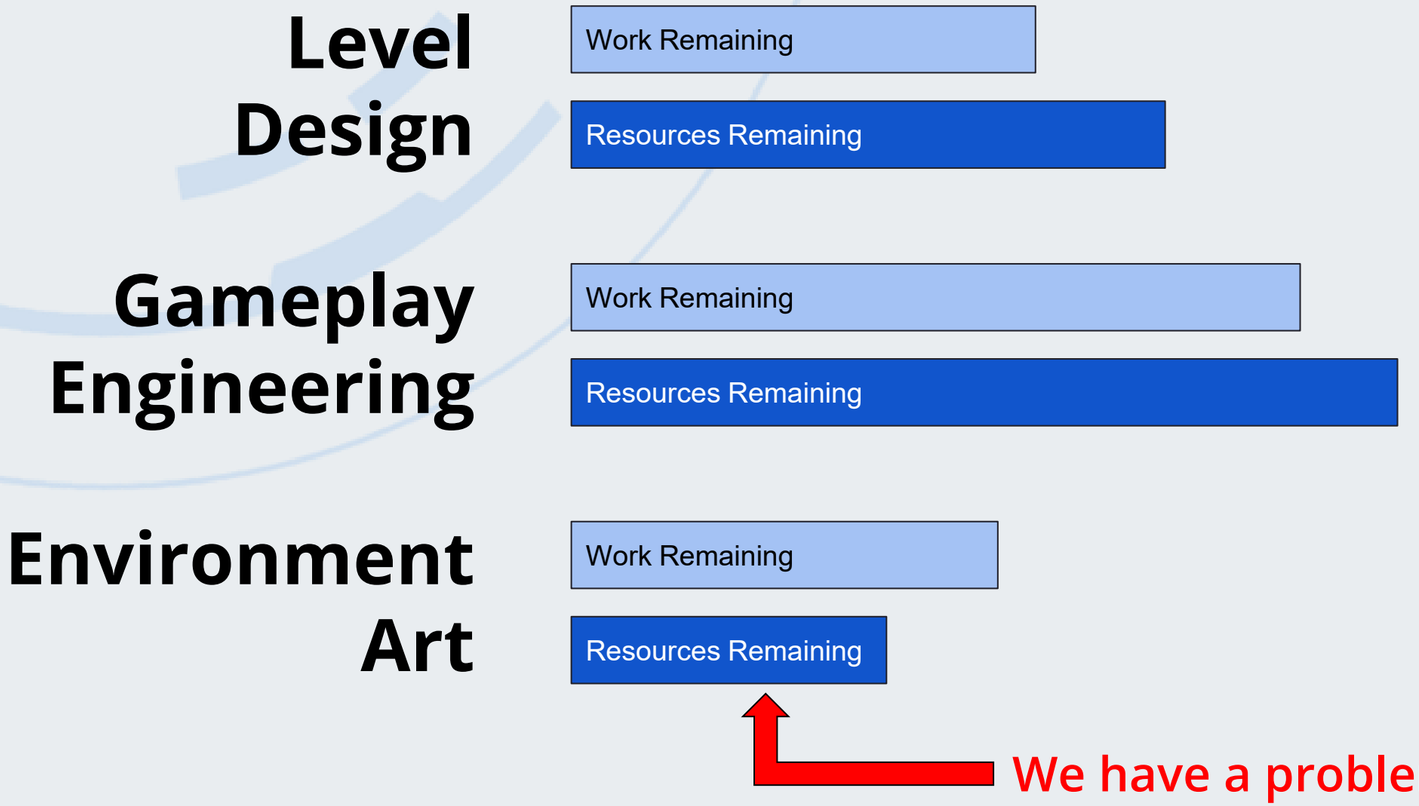
© 2021 MARVEL

Crafting Time Estimates

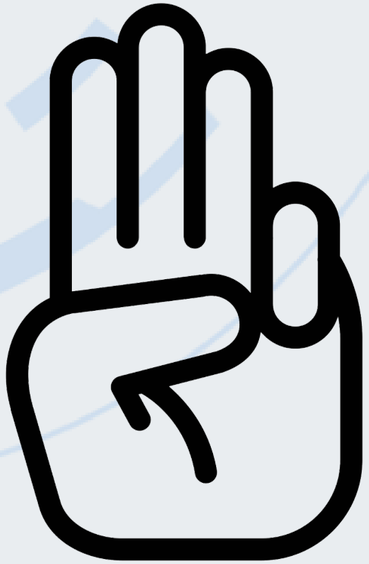


- This is a skill that must be honed
- There is no formula
- Reflect your average work day
- Keep estimates below 3-5 days
- 80% accuracy is pretty good

Containing Chaos (aka Product Backlog)



Resolving Schedule Conflicts



1. Add People
2. Add Time
3. Reduce Scope

Part 3- Designing a Long Term Plan

Zen and the Art of Design
- Find Balance in Control & Chaos

Top Down Design
- Plan In Stages

Keep It Simple
- Handling Dependencies

Iterative Design
- Refining The Backlog

Epilogue

Halo's Golden Triangle
& 30s Loop

?

?

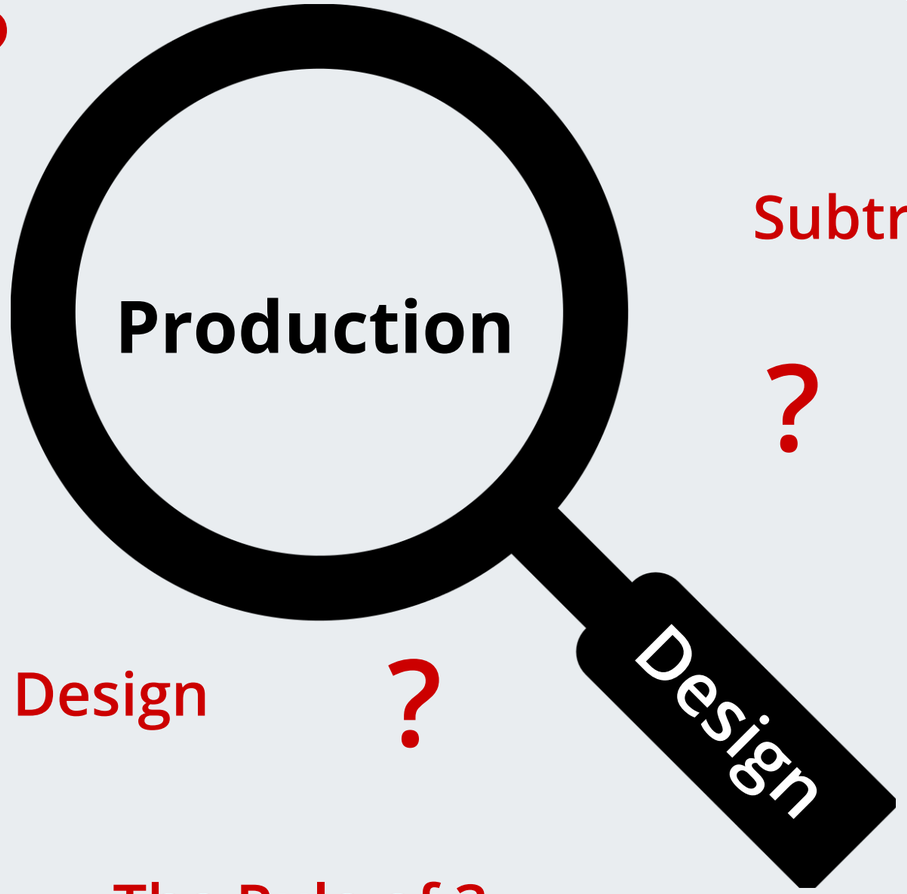
Color & Shape Theory

?

Make It Better,
Not Perfect

Subtractive Design

?



?

Player Agency

Zen and the
Art of Design

Rejecting The
Mythical Designer

Top Down Design

?

Keep It Simple

?

The Rule of 3

?

Iterative Design

How can we apply Design philosophies to Production?

Final Thoughts

Marvel’s Iron Man VR development had problems

Good process doesn’t force you to stick to the plan

Be disciplined, not dogmatic

Marvel's Iron Man VR

© 2021 MARVEL

More?

www.RyanDarcey.com

Questions?

Ryan_Darcey