

# How to Accelerate IT Projects by 2X or More

Concept & Application in Utah State Government

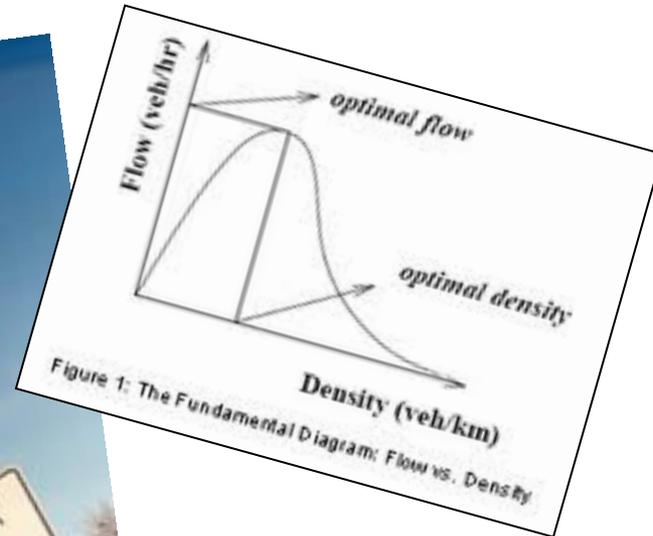
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September 2, 2015



Technique 1

Project Staggering



# Program/Project Staggering: Simple Example

Utah OPS: Building on SUCCESS

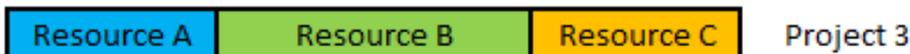
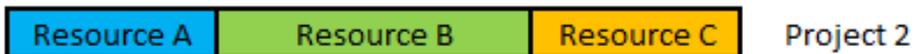
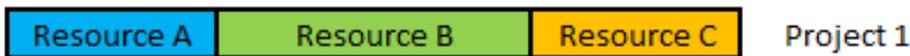
**Three types of tasks, requiring three different resources:**

- **A – Planning, Scoping, Prioritizing**
- **B – Architecting, Developing, Integrating, System Testing**
- **C – User Acceptance Testing**

**Three simple projects**

**Seven weeks each**

Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17
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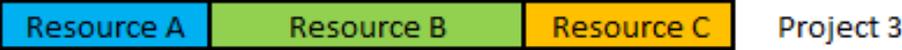
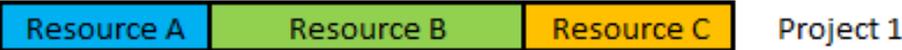


***The sooner we start ....***

# The Illusion of Progress

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Wk 1 Wk 2 Wk 3 Wk 4 Wk 5 Wk 6 Wk 7 Wk 8 Wk 9 Wk 10 Wk 11 Wk 12 Wk 13 Wk 14 Wk 15 Wk 16 Wk 17



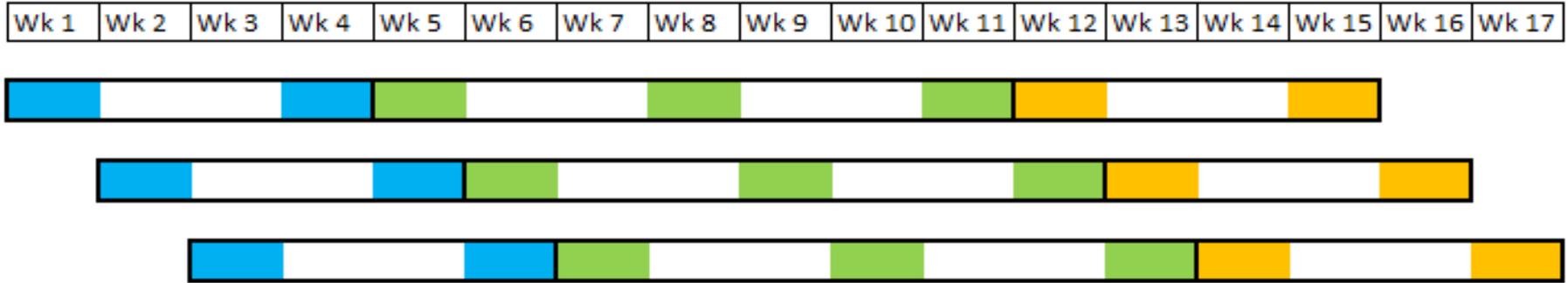
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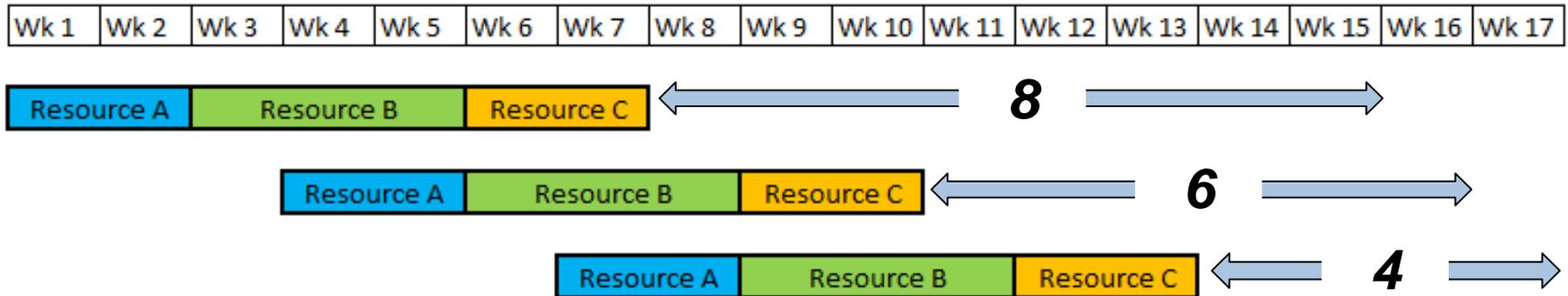
# Simultaneous vs. Staggered Projects

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## Simultaneous Projects



## Staggered Projects



# Project Staggering in Practice: Utah DHRM & DTS

## Utah OPS: Building on SUCCESS



- Major software-development project that updates the existing information system (HRE), introduces streamlined workflow management for HR services, and business intelligence tools.

# Project Staggering in Practice: Utah DHRM & DTS

## Utah OPS: Building on SUCCESS

Project experienced a “false start” due to desire to initiate development work as soon as possible, straining DHRM’s relationship with DTS – mostly focused on time to delivery.

### Business Side Solution: **Full Kit for Project Planning**

For Project Planning - before Project Execution can begin	
	Project Management Plan
	Work Breakdown Structure (WBS)
	Project Schedule
	Resource-loaded Project Schedule

- How can we partner with DTS to provide them with everything they need to promote:
  - Increased precision in estimates related to scope / time / budget?
  - Reduced time DTS must invest into achieving clarity on business side system requirements (so as to promote single tasking on development)?
  - A “one and done” approach to task completion?

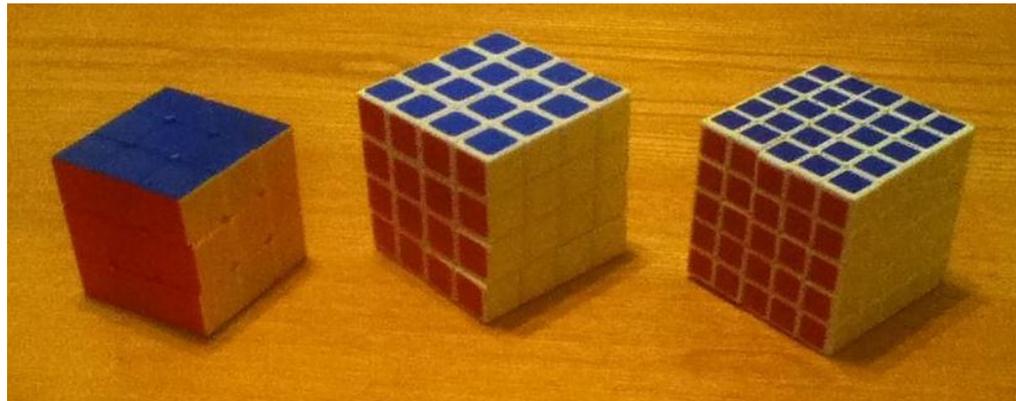
# Project Staggering in Practice: Utah DHRM

## Utah OPS: Building on SUCCESS

- 1) Establish planning discipline and [full kit](#) — quickly
- 2) Break into staggered phases
- 3) Identify resource bottlenecks, both in DTS and DHRM
- 4) Run schedule acceleration scenarios, assessing impact on required resources in both agencies
- 5) Kick off
- 6) Adjust plan as we go

Technique 2

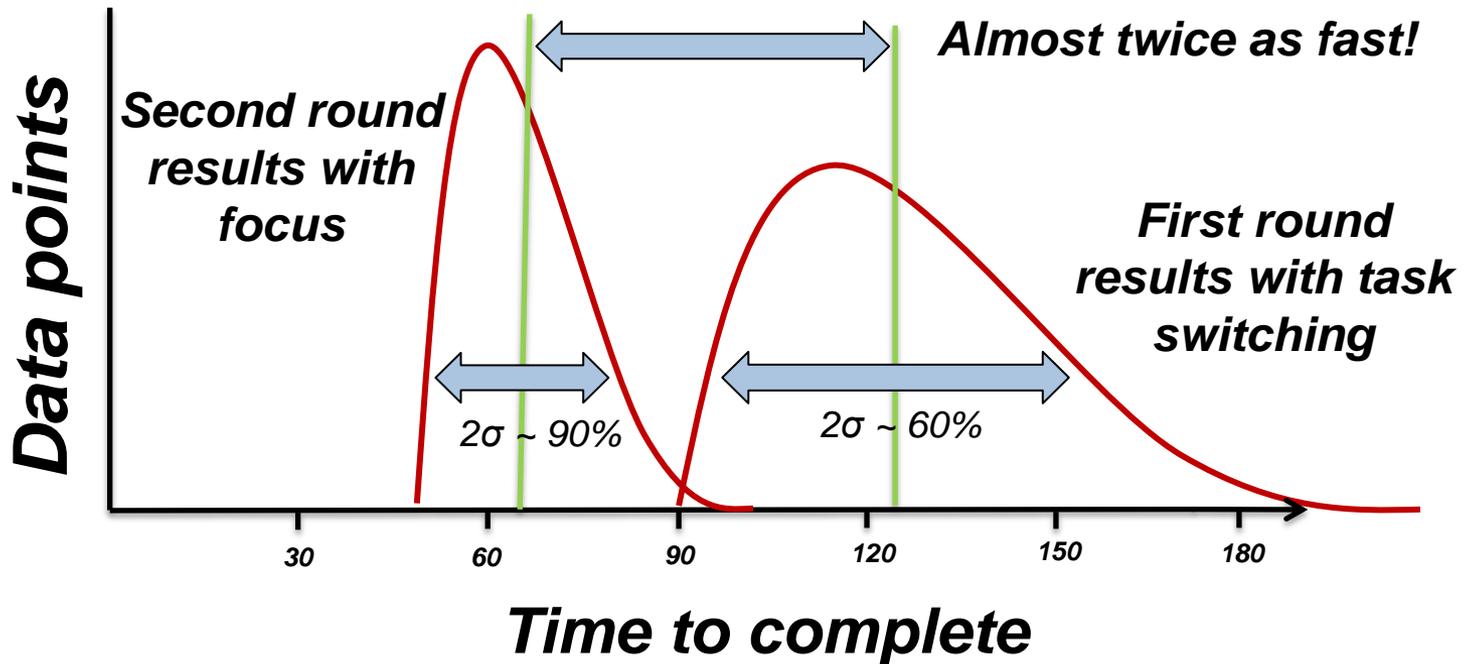
Maximize Single-Task Focus





# Typical Game Results

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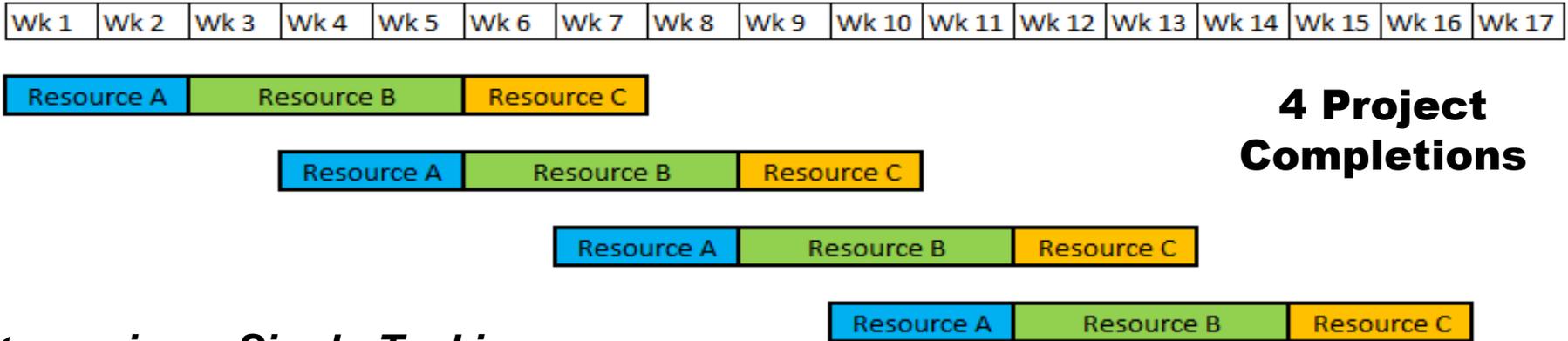


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# Staggering + Single Tasking

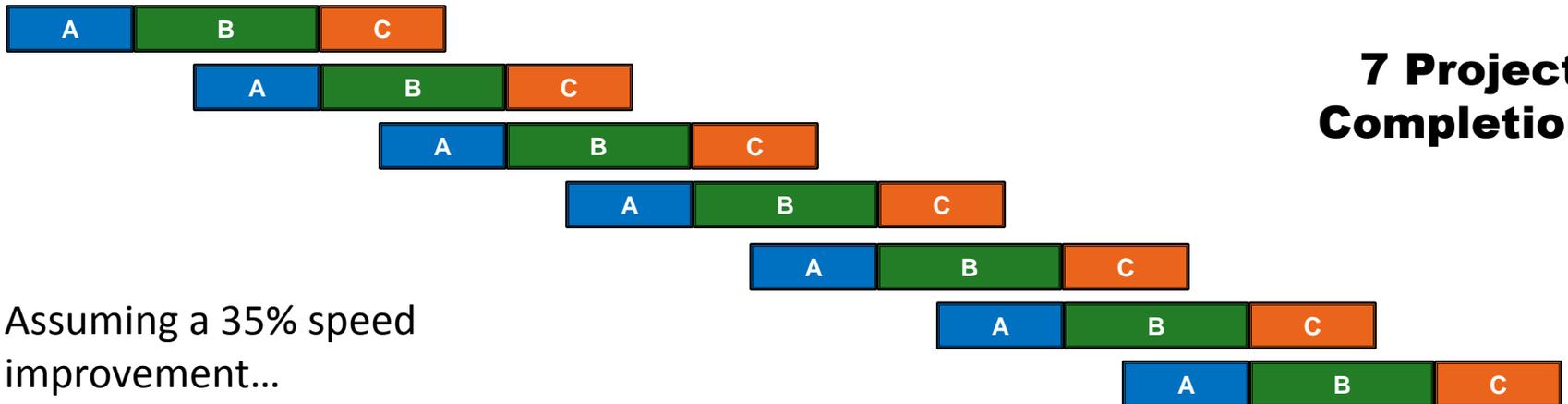
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## Staggering



**4 Project Completions**

## Staggering + Single-Tasking



**7 Project Completions**

Assuming a 35% speed improvement...

# Ways to Drive Single-Tasking

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- Turn off the email pop-up notifications
- Block off calendar time, and only leave a few small windows for mandatory meetings, responding to emails, and to handle miscellaneous tasks
- Turn on an auto-reply message letting people know that you are “heads down” on a task for X days, and will respond to them as soon as the task is complete.
- Put your phone on silent while in the middle of a task
- ...and more

*However*, these techniques can only take you so far in the “culture of responsiveness” that tends to predominate in most organizations.

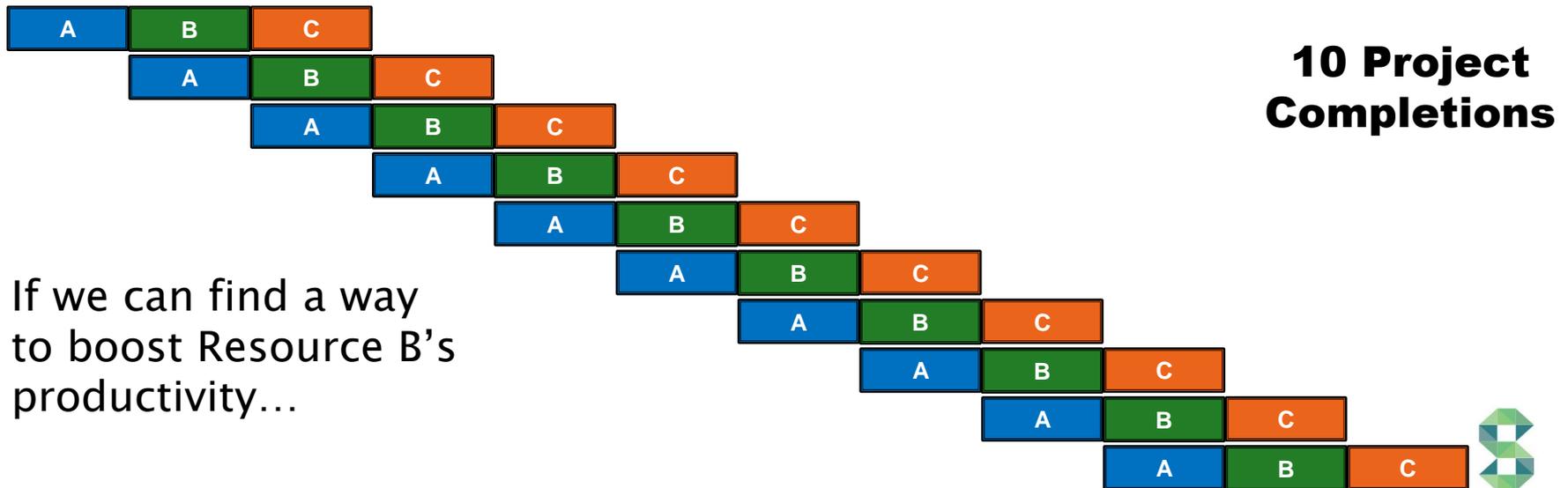
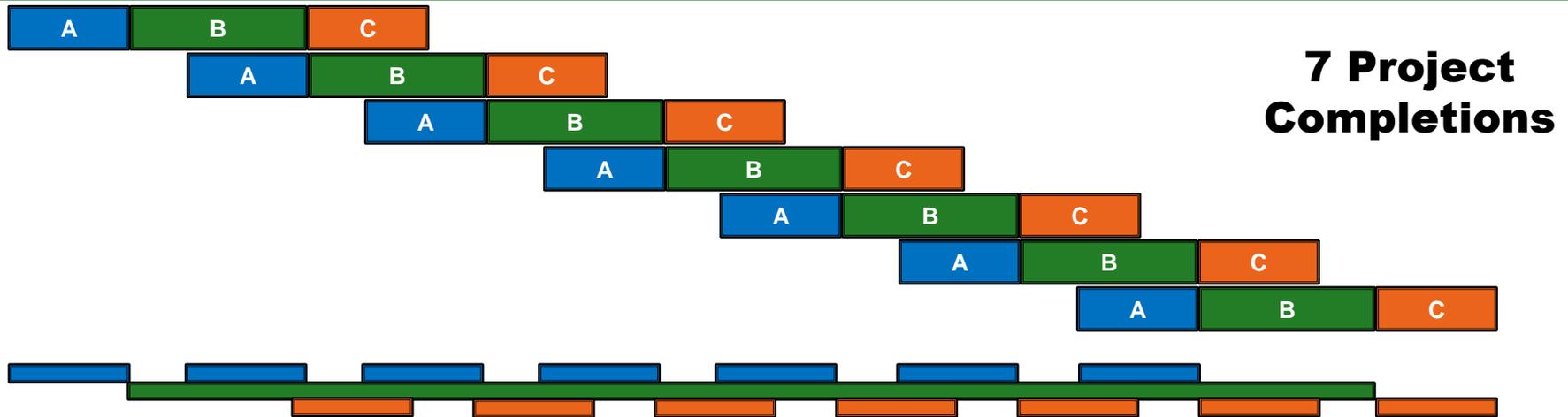
Technique 3

ACCLAIM™ Single Tasking Method  
*Task Flow Maximization*



# What if We Can Solve The “Resource B” Problem?

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If we can find a way to boost Resource B's productivity...

# What Do Leading Methods Teach Us About Maximizing Flow?

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- Theory of Constraints (TOC)
  - Maximizing flow across an end-to-end process can only be done once the system's biggest bottleneck (**constraint**) is identified
- Lean
  - **Visualizing** the actual flow of work—especially for workflows that aren't inherently visual—is critical for team members to identify impediments and to experiment with improvement ideas.
  - Enabling the system to “**pull**” work, vs. having work assigned or “pushed,” tends to improve flow while empowering teams.
  - Minimizing batch sizes—ideally down to a batch size of one, or “**single-piece flow**”—can generate impressive flow improvements
  - In general, the less “work in process” (or **WIP**) in the system, the faster and more efficient the system

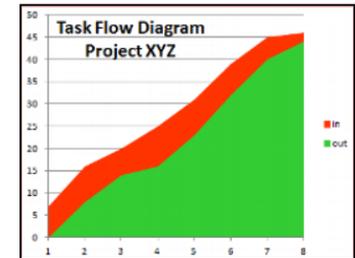
# Crafting a Task-flow Maximization Approach

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- If the team can break tasks on the project plan into fine-grained subtasks that take less than a week, and ideally about a day...
- If the team can maintain a ready supply of these fine-grained tasks for all team members...
- If these fine-grained tasks are **visible**, and can be **pulled** for execution by any team member, **one at a time**, without concern for sequence...
- If the end-to-end bottleneck can be identified, and the flow organized to minimize end-to-end WIP...

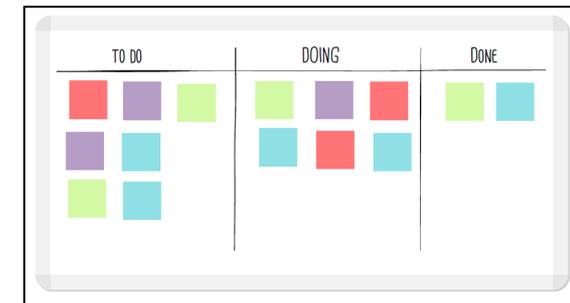
*Feed the Machine*

*Ease the Flow*



*Visual Mgmt + Pull System + Single-piece Flow*

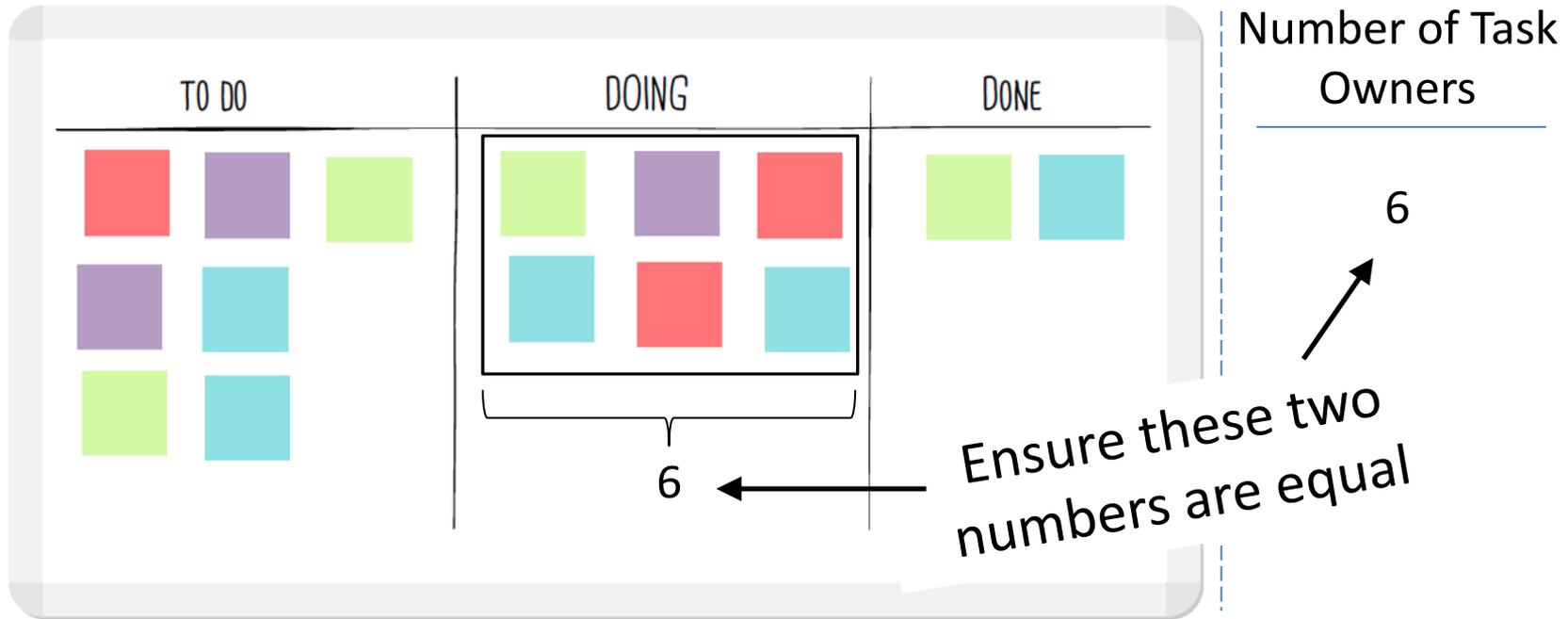
*TOC WIP Minimization*



*Then we have maximized flow, while ensuring single-task discipline where we need it the most.*

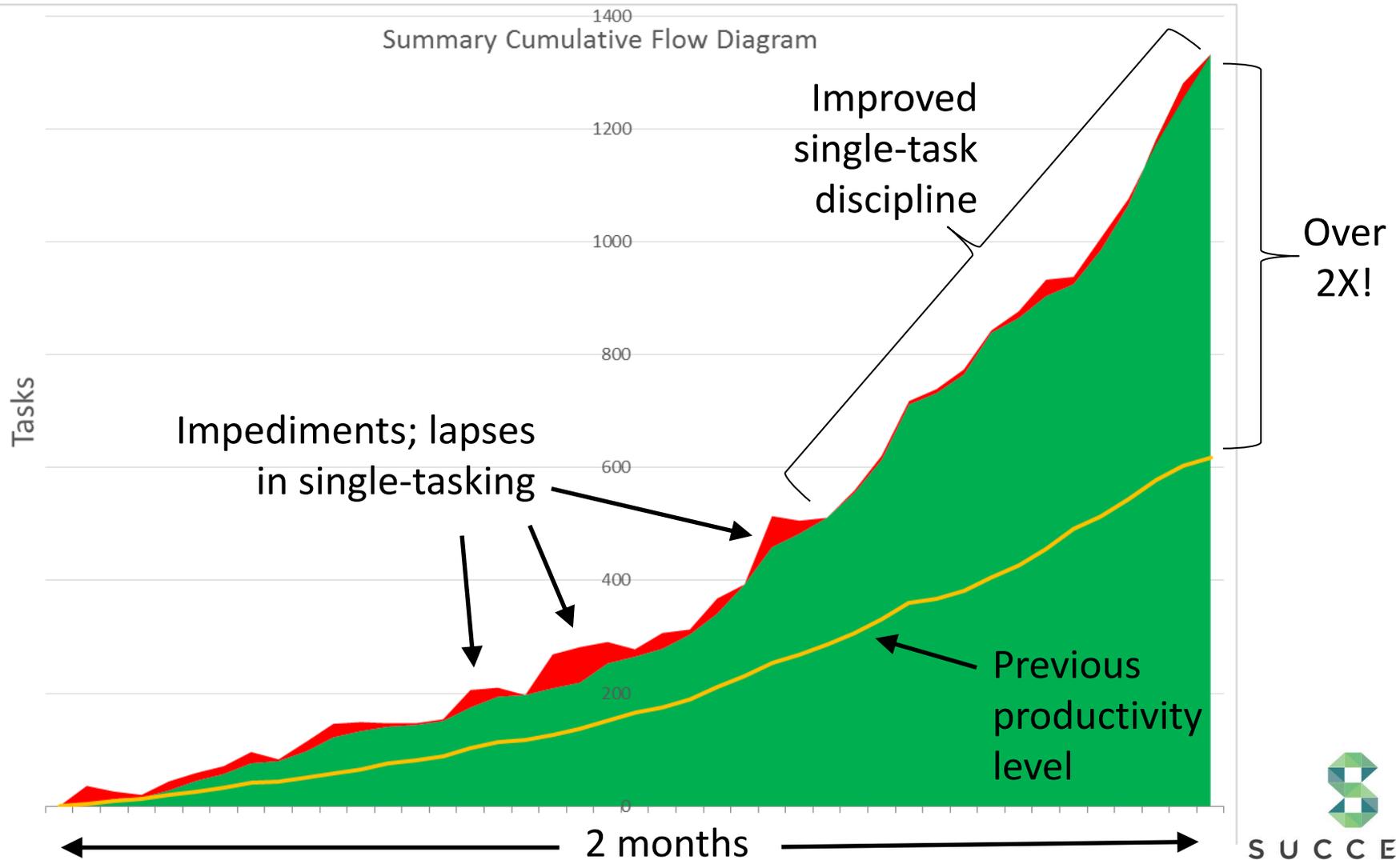
# How Do We Know Whether Single Tasking is Actually Happening?

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# ACCLAIM Single Tasking Method in Practice: DTS

## Utah OPS: Building on SUCCESS



# ACCLAIM Single Tasking Method in Practice: DTS

## Utah OPS: Building on SUCCESS

- Effective way to implement and enforce single tasking
- Took about a month to implement across a 15-person team, with ongoing refinements and expansion to a 40-person team
- Team productivity improvement is 2X overall, with some individuals posting 6X or higher
- Solving the “Resource B” problem
- Highlights the need to stagger projects across the DTS portfolio to improve how we manage our capacity

# ACCLAIM Single Tasking Method—Key Challenges

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- Some staff view this as “just another way for managers to micro-manage us.”
- Some tech leads view this as “just a task board,” without understanding that the primary purpose is to foster flow via single-tasking, WIP minimization, and team brainstorming
- Utilization goals make it difficult to carve out time for the team to get together and brainstorm flow improvements.
- Even though most PMs support the concept and see how it benefits their projects, they have yet to change behavior away from doing “drive-by status checks,” which interrupts single-task focus.
- The continuing problem of “too many projects” often causes excessive “project switching,” even when single-tasking is adhered to.
  - Pressing forward with project staggering to address this

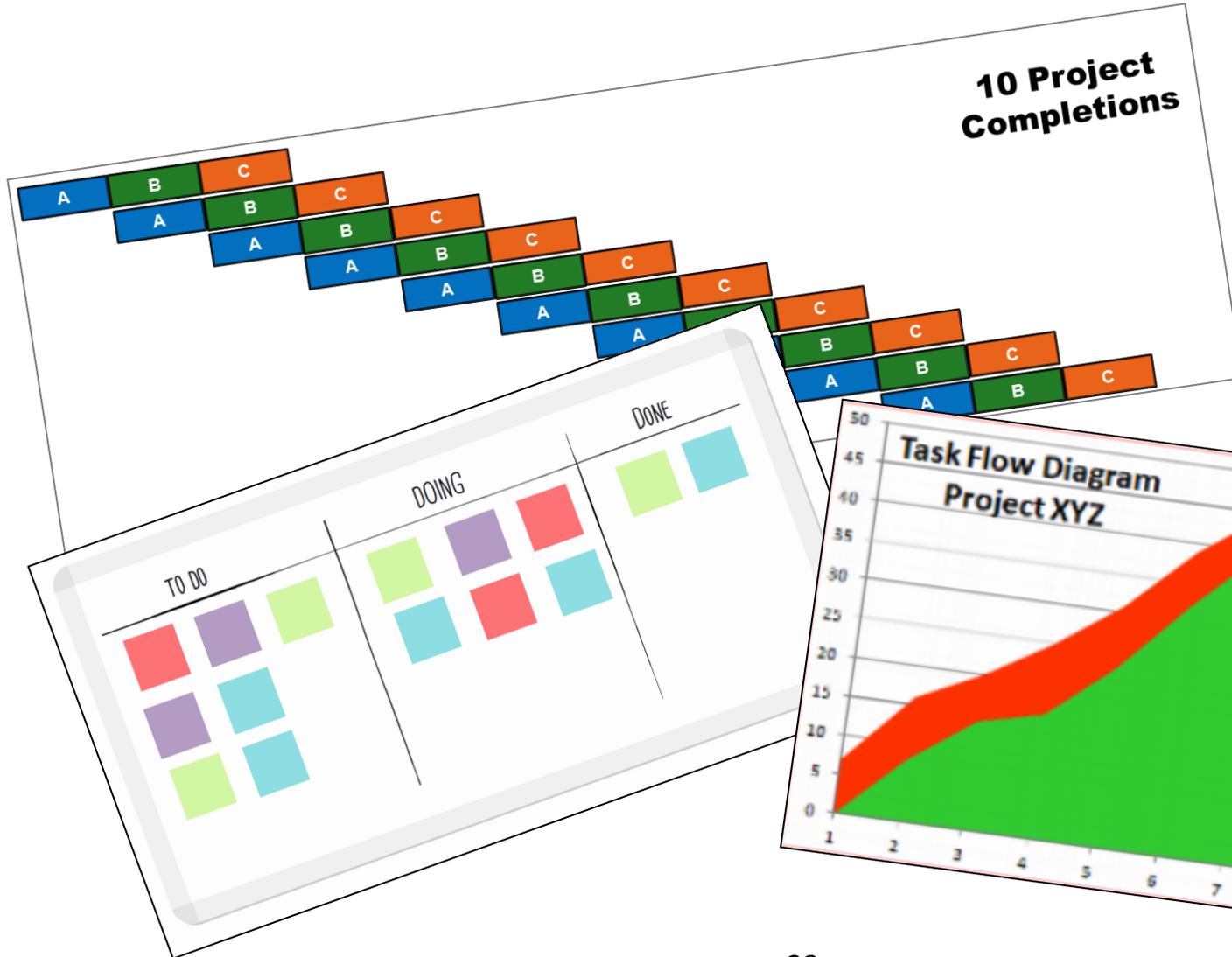
# ACCLAIM Single Tasking Method: Key Takeaways

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- Can be applied to any environment, as long as four conditions exists:
  - 1) There is a pool of resources that can be managed as a group
  - 2) There is always a ready supply of fine-grained tasks
  - 3) There are always slightly fewer tasks than task owners
  - 4) Task owners can “pull” tasks when ready, one at a time, in any order
- Typically achieves a 2X in team productivity within the first 30-60 days, and over 3X in 90-180 days

# Staggering + Single Tasking = Getting a Lot More Done

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# Questions?

## Utah OPS: Building on SUCCESS

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