Managing Project Resource Allocation in TDX

Jason Poch, Phil Vecchione

SUNY ITEC – IT Project Managers

SUNY ITEC | Information Technology Exchange Center

Safe Harbor Statement

Our discussion may include predictions, estimates, or other information that might be considered forward-thinking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risk and uncertainties that could cause actual results to differ materially. You are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

SUNY ITEC Information Technology Exchange Center

History

History of Resource Allocation at ITEC

- Team Leads managed and tracked available resources for new projects and day to day Operations/Support
  - Challenges arose due to timeline changes over life cycle of a project
  - Resources were found to be over/under used resulting in same resources being used for all new projects
  - Resources would share they had capacity, but when looked closer were doing the work of 1.5-2 FTEs

SUNY | ITEC | Information Technology Exchange Center

History of Failed Attempts to Fix Issue

- ITEC previously tried to implement Project Resource Allocation, but each previous attempted failed.
  - This was due to software shortcomings, and not enough support/buy in from the organization at time of implementation.

First time?

SUNY ITEC | Information Technology Exchange Center

ITEC's Previous Model – Project Resource Allocation
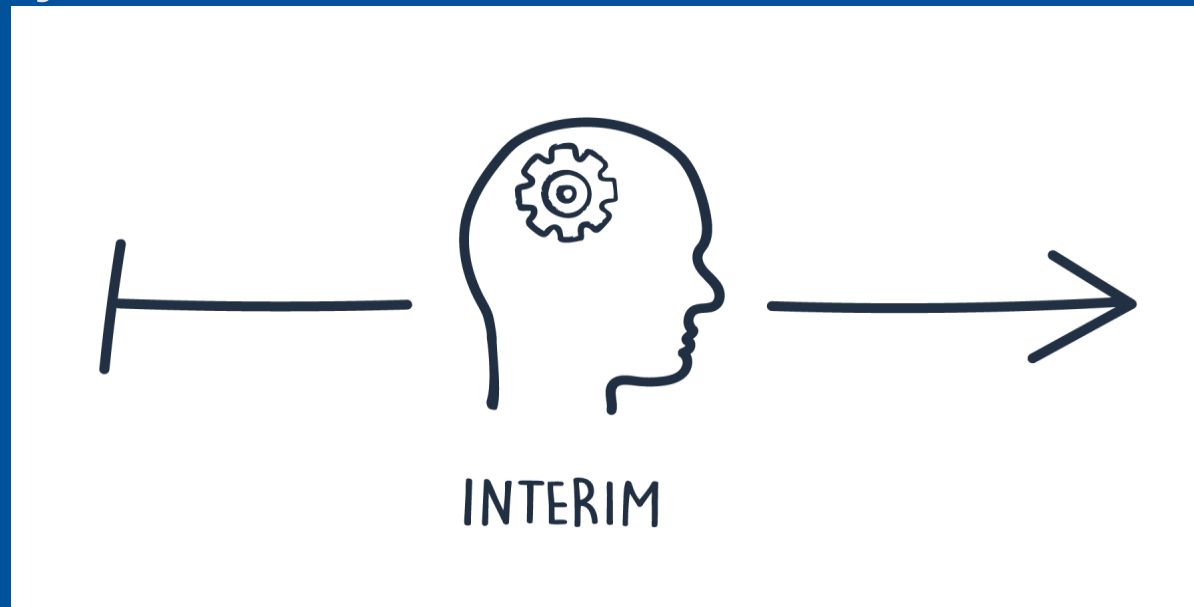
Previous Model – None !!!!

-No true tracking of what was on every team members plate in one central location that could be reviewed at any given time.
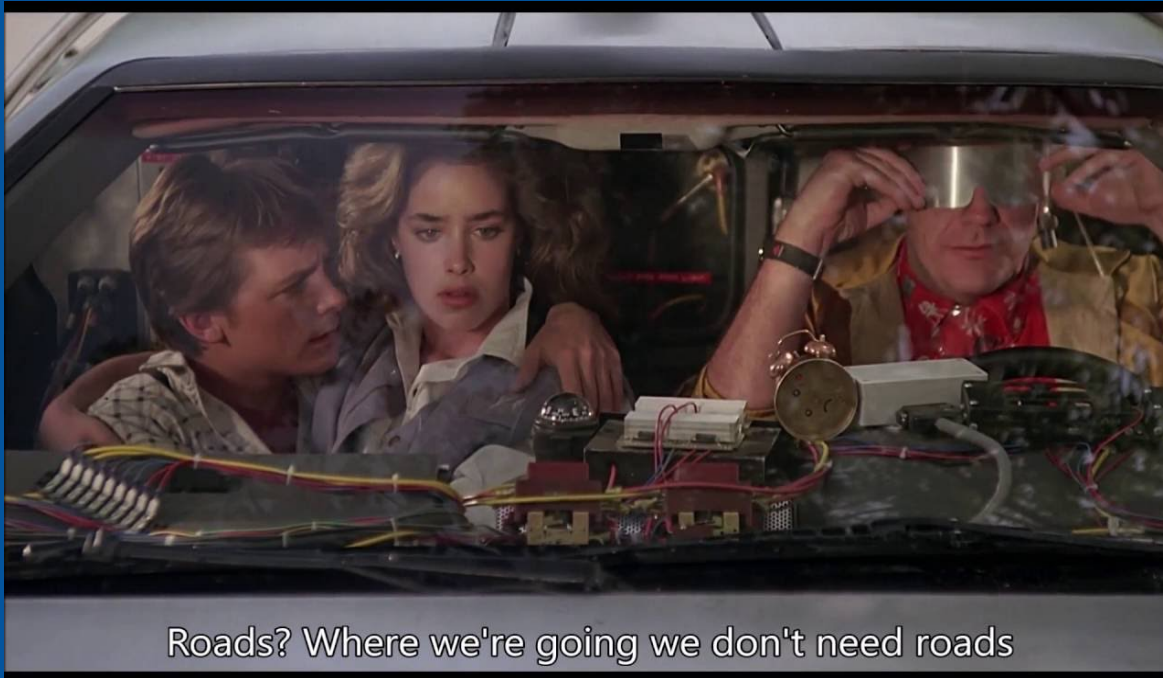
Interim Phase - 2023

Resource Management – Interim Phase

- ITEC was currently in the process of transitioning from ServiceNow to Team Dynamix, but a process needed to be created to help manage the existing problem of how to manage Project Resource Allocation

INTERIM

Resource Management – How Do We Get There?

Roads? Where we're going we don't need roads

Resource Manager met with Team Leads to review current day to day work of the resources they managed.
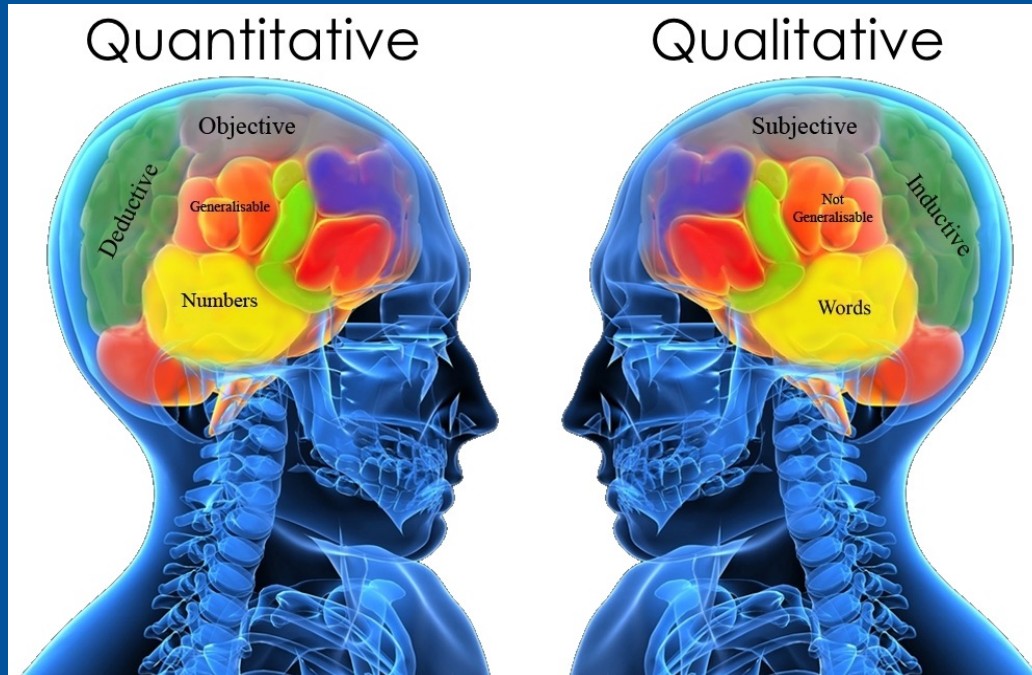
- KTLO, Operations & Support Time, Vacations, and Project Commitment Time were discussed
- This time was entered into a spreadsheet and managed/maintained as new projects were assigned and completed.

Interim Phase – Excel Spreadsheet Model

Resource Name	######	9/1	9/2	9/3	9/4	9/5	9/6	9/7	9/8	9/9	9/10	9/11	9/12	9/13	9/14	9/15	9/16	9/17	9/18	9/19	9/20	9/21	9/22	9/23	9/24	9/25	9/26	9/27	9/28	9/29	9/30
Dennis Aharanwa	224.7	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	7.7	7.7	7.7	7.7	7.7
Jon Alessandrello	70.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Scot Beekman	217.5	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Jason Poch	200	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	7	7	7	7	7	7
Christopher Bordelea	101.25	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Paul Brennan	133.5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Daniel Brint	70.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Booker Brooks	210.2	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Deepa Brown	192	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Denise Burbey	63.08	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	2
Edward Burton	192.45	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Jeffrey Caughel	262.5	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Valerie Celenza	78	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Ralph Chille	161.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Luke Clutter	163.5	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.7	5.7	5.7	5.7	5.7
Shannon Coleman	262.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8

Assumptions

How Do We Want to Manage Project Resources - Quantitative vs Qualatative

Taking On Too Much (Quantitative)
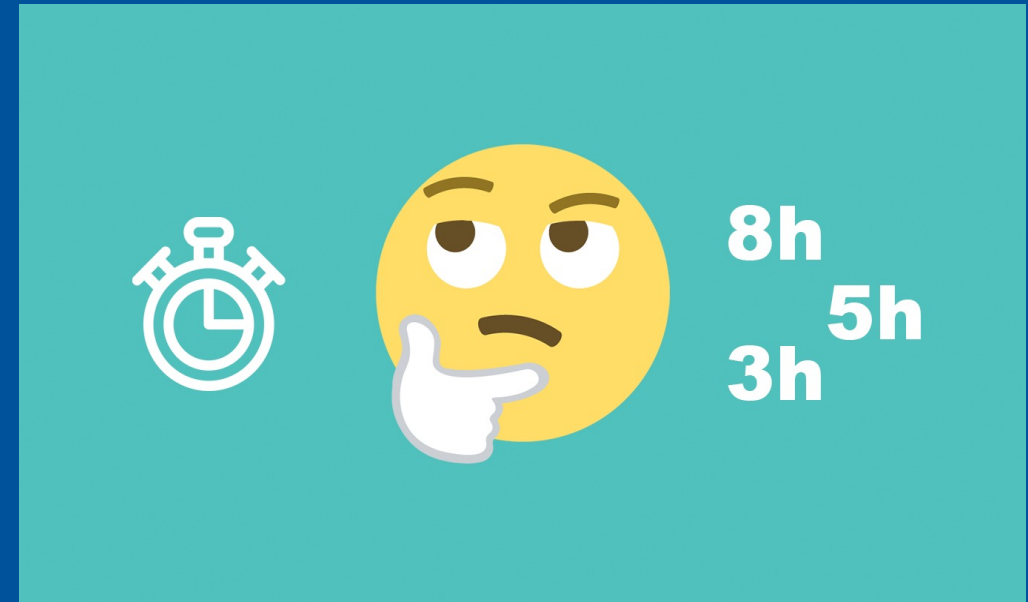*vs*
Ways to Do It (Qualitative)

Project Resource Allocation Assumptions

- Each ITEC Team Member (aka Resource) is assumed to work 7.5 hr/day 5 days/week. Unless otherwise specified. This time is distributed over the following components:
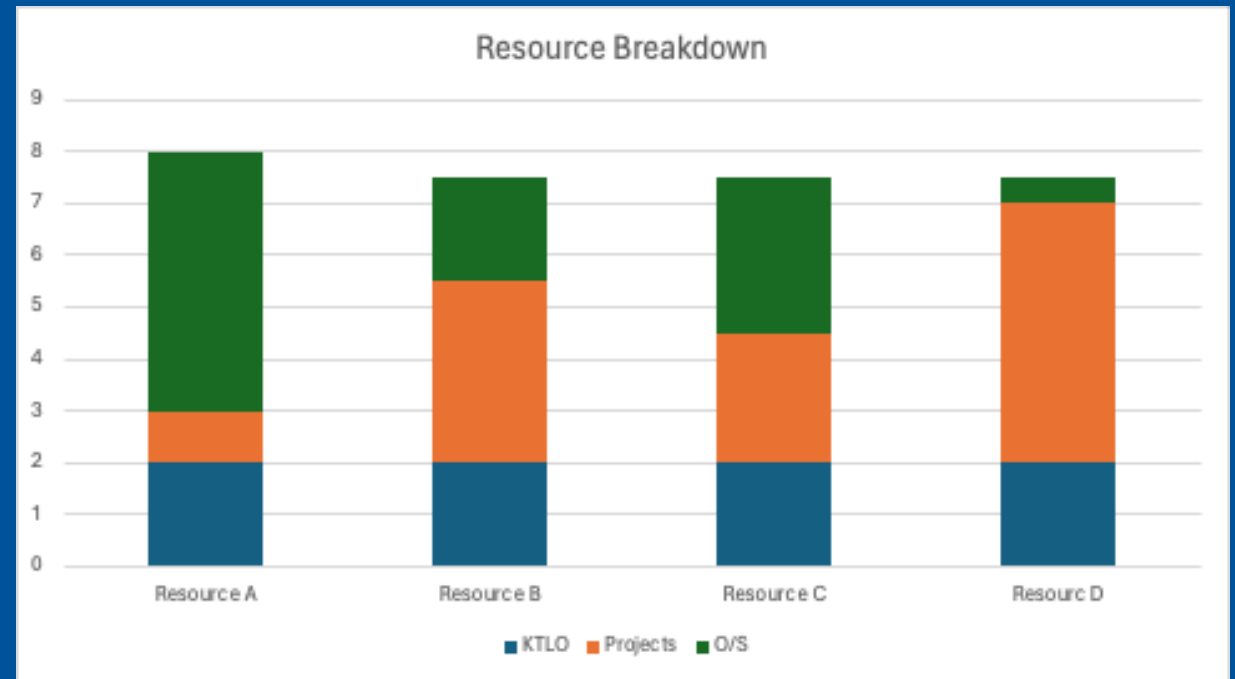
KTLO

Operations/Support

Projects/CIS

Resource Allocation Breakdown Identified

- With assistance from the Team Leads, identified how much time each resource should be spending in each of the 3 categories
    - KTLO/Overhead – Set for 2 Hours/Day
    - Support/Operations vs Projects – Ratio is determined of how much time is spent on Support/Operations vs Projects. (ie 70% - S/O vs 30% Projects)

8h
5h
3h

SUNY ITEC | Information Technology Exchange Center

Resource Hour Breakdown

- Not all resources may have the same hours per category

- In addition, not all resources in the same department may have the same breakdown
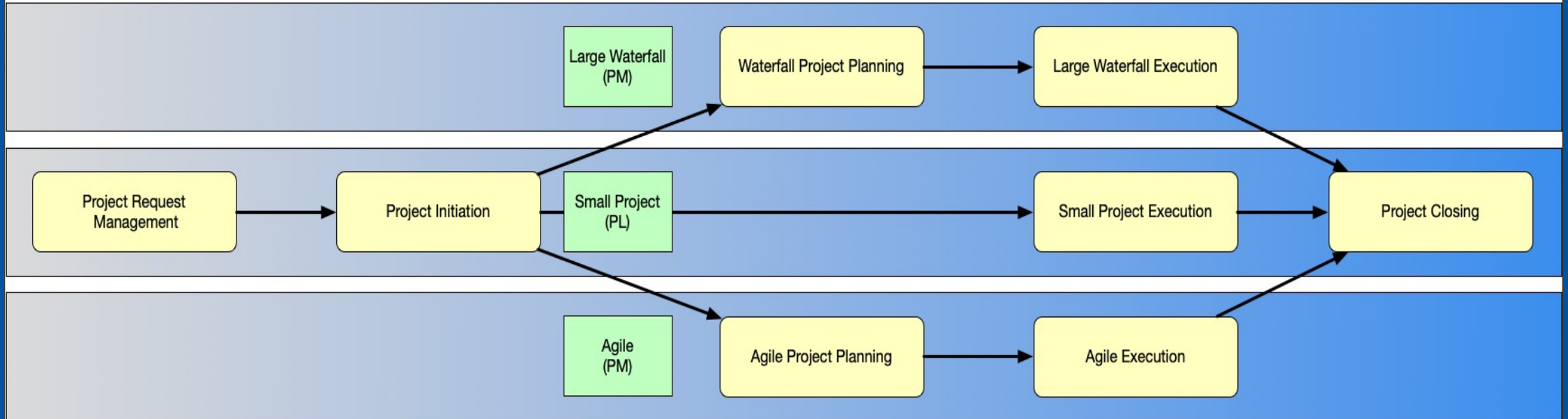

Resource Breakdown

Project Lifecycle

ITEC Project Lifecycle

ITEC Project Lifecycle

ITEC Project Intake

Enter Request	Prepare Request	Submit for Approval	Request Review	Resource Review	CIO Approval	Project Initiation

Client Portal	TDX		Workflow			TDX
ITEC Team	Port. Mgr & SMEs		C-Suite/PMO	Resource Mgrs.	CIO	Port. Mgr PM

SUNY ITEC | Information Technology Exchange Center

Resource Allocation Across Project Lifecycle – Project Request

Project Request -

- Portfolio Owner & Requester meet to review request and create Project Estimate Calculator
  - Team should review to see if requested resources have availability or not to work on proposed Project.
    - Note that over-allocated resources could be a potential barrier for request.

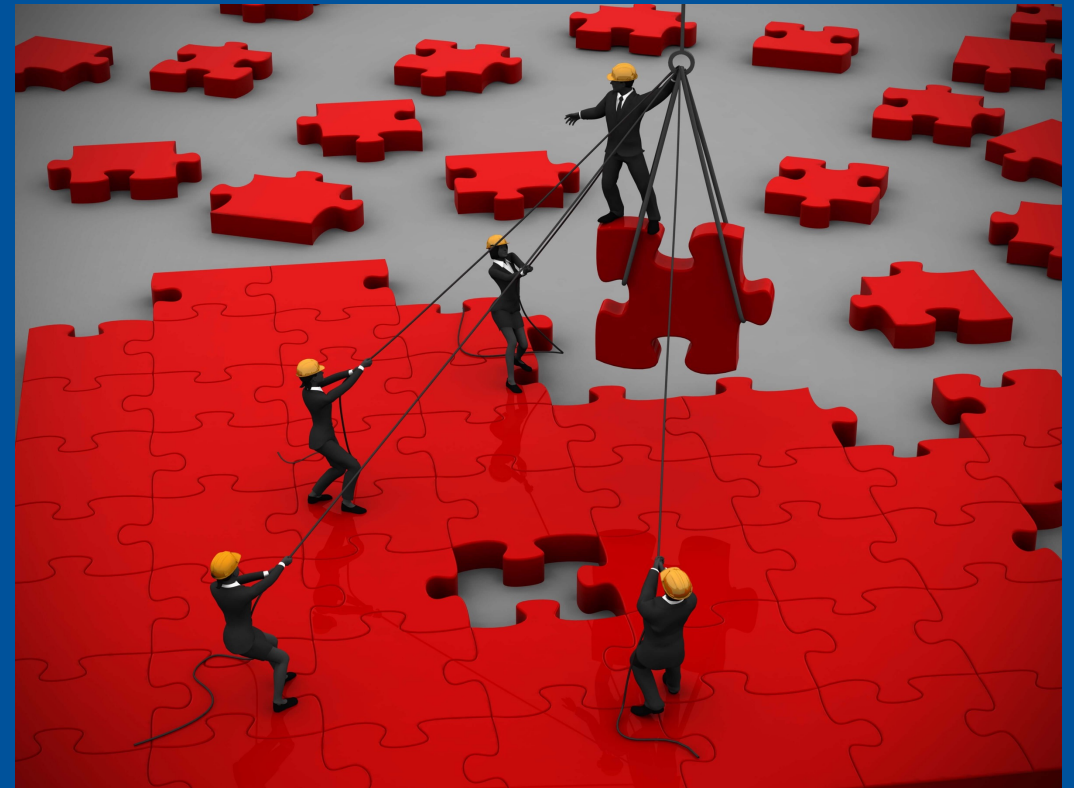| Project Estimate Calculator										
Request Name										
Request Number										
	Role	PM	SDM	OS	Networking	Infrastructure	DBA	Middleware	Security	
	Team Member									
Phase	Duration (wk)									Notes
Initiate/Closing	2	8								
Meetings (hr/wk)	1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
	Hour Totals	10.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	28.8
	Hours/week	4.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	Hours/day	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	For Resource
Project Length (wks)	2									
Slack Rate	30%									
Slack Duration (days)	3									
Adjusted Project Length (wks)	2.6									

Resource Allocation Across Project Lifecycle – Resource Review

- Resource Review
  - On a weekly basis Team Leads, PMO, and Resource Manager review Project Request that have been approved by Senior Management and identify if resources are available for the project.

Resource Allocation Across Project Lifecycle – Project Execution & Closure

- Project Execution
  - Projects may change during execution with resources, dates or scope. These request are reviewed and monitored by the Portfolio Manager and PM

- Project Closure
  - When the project is closed and completed, resources are returned to the resource pool and available to work on other Projects or Operations/Support

SUNY ITEC | Information Technology Exchange Center

Resource Allocation Across Project Lifecycle – Project Change Request

- Project Change Request maybe needed during the execution of the Project due to several factors:
  - Scope change
  - Changes in assigned Resources
  - No More Project Slack
  - Change in Project Timeline

IF YOU REQUEST EVEN THE **SLIGHTEST** CHANGE, IT COULD SET THINGS BACK FOR MONTHS.

I ONLY WANT TO CHANGE THE HOME PAGE TITLE FONT.

OH, GREAT. I SHOULD BE DONE BY NEXT SUMMER.

10-18-16 © 2016 Scott Adams, Inc. /Dist. by Universal Uclick

Solution

Configuring TeamDynamix to Manage Project Resource Availability

- The TDX Administrator will update user settings to allow User's Capacity to be managed (Checkbox) & will set the daily capacity per resource for Project Hours per day
  - i.e. - Darth Vader breakdown is 60% Operations/Support & 40% Projects
    - 7.5 Work Day – 2 Hours for KTLO = 5.5 Hours a Day.
      - 40% of 5.5 Hours a Day for Projects = 2.2 Hours a Day to work on Projects (11 Hours a Week)

Daily Capacity	Required, if capacity is managed	The number of hours per day the user works. Only required if **This user's capacity is managed** is checked.

Monitoring of Project Resource Pool

- Over-allocated resources are tracked on a weekly basis by the Resource Manager.

- Role Forecast is used on Projects to Track Hours.
  - Hours are used from Project Request Calculator
  - Once the Project is approved and started, this data then moves into the Project Hours for that Resource automatically.
  - TDX Reports are updated to reflect project assignment

Add Forecast

Request Dates	Budgeted Hours	Unscheduled Hours
Mon 1/8/24 - Fri 1/26/24	0.00	0.00

Hours *: 0.00

Resource Dates *: 05/16/2024 05/16/2024

Functional Role *: Start typing...

Interval: ○ Months ● Weeks

Named Resource: Start typing...

Primary Role	Requested Role	Pool	Status	Approver	Bill Rate	Jan 24		Feb 24		Mar 24		Apr 24		May 24		Jun 24		Total	
						Req	Sch	Req	Sch	Req	Sch	Req	Sch	Req	Sch	Req	Sch	Req	Sch
Project Manager	Project Manager		Current		$0.00		6.88		6.56		6.89		7.22		7.22		7.22	0.00	41.99
Security Technician	Network Technician		Current		$0.00		39.32		37.44		39.31		41.18		41.18		41.18	0.00	239.61
CIS SDM	CIS SDM		Current		$0.00		33.87		31.75		33.31		34.89		34.89		34.89	0.00	203.60
Security Technician	Security Technician		Current		$0.00		39.32		37.44		39.31		41.18		41.18		41.18	0.00	239.61

Project/Workspace	May 24
Banner OL8 Upgrade for Hosted Campuses	55.29
iPaaS Implementation	8.92
SOC 2 Type 2 Prep Phases	6.21
	70.42

Monitoring of Project Resource Pool – Reporting

- Hours that are tracked per Project, along with the Daily Capacity are measured in TDX in the Resource Management Availability Report.
  - Within this report, Resources can be reviewed to be available for Project Work or Over-Allocated.
    - An over-allocated resource is one that has a negative availability on TDX Reports (planned > total).

Availability By Resource

Pri Func Role

Resource	Reports To	Resource Pool	May 24	Jun 24	Jul 24	Aug 24	Total
Architectural Designer			**145.90**	**126.00**	**145.90**	**145.90**	**563.70**
▆▆▆▆	▆▆▆		145.90	126.00	145.90	145.90	563.70
Banner SDM			**-11.07**	**-22.59**	**-16.27**	**-15.79**	**-65.72**
▆▆▆▆▆	▆▆▆▆▆		-0.81	-0.70	-0.81	-0.81	-3.13
▆▆▆▆▆	▆▆▆▆▆		-8.13	-7.02	1.75	2.22	-11.18
▆▆▆▆▆	▆▆▆▆▆		12.10	10.45	12.10	12.10	46.75
▆▆▆▆▆	▆▆▆▆▆		-28.55	-37.69	-43.63	-43.62	-153.49
▆▆▆▆▆	▆▆▆▆▆		12.10	10.45	12.10	12.10	46.75
▆▆▆▆▆	▆▆▆▆▆		2.22	1.92	2.22	2.22	8.58

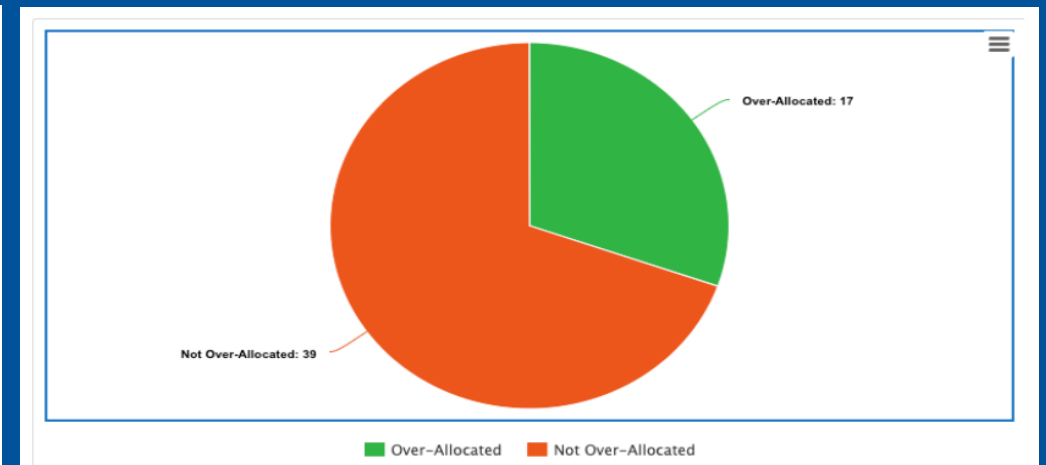SUNY ITEC | Information Technology Exchange Center

Monitoring of Project Resource Pool – Review & Reporting

Report is sent out monthly to Team Leads and Senior Leadership of resources that are Over-Allocated.

- Team Leads are required to review the report, and discuss current work load with their Team Member who appear on the Report.
- Resource Manager meets with Senior Leadership to review Over-Allocated reporting and discuss future planning for organization for future projects and resource availability .

Over-Allocation Register

Resource	Pri Func Role	Reports To	May 24 (Avail)	May 24 (Avail %)	Team Lead Confirmation	Notes
Kylo Ren	Banner SDM	Boba Fett	-28.55	-58.98%	✅ 5/9/24 - BF	I spoke with resource and we are monitoring his work.
Din Djarin	Project Manager	Beru Lars	-15.78	-18.63%	✅ 5/9/24 - BL	No concerns with current workload.
Morgan Elsbeth	Database Analyst	Mace Windu	-17.80	-98.07%	✅ 5/8/24 - MW	No concerns with current workload.
Han Solo	Middleware Technican	Wilhuff Tarkin	-34.12	-94.00%	✅ 5/1/24 - WT	No issues here
Salacious Crumb	Middleware Technican	Wilhuff Tarkin	-57.51	-118.82%	✅ 5/1/24 - WT	No issues here
Bib Fortuna	Network Technician	Finis Valorum	-26.48	-54.71%	❌ 5/1/24 - FV	I have concerns with too much work and mistakes are happening. Please schedule a meeting to discuss.
Wedge Antilles	OS Technician	Sheev Palpatine	-61.38	-126.83%	✅ 5/1/24 - SP	There are others on the team that are spreading the load that are not on this list.
Artoo Deeto	OS Technician	Sheev Palpatine	-6.40	-26.45%	✅ 5/1/24 - SP	There are others on the team that are spreading the load that are not on this list.
See ThreePeeo	Network Technician	Finis Valorum	-51.68	-106.78%	❌ 5/1/24 - FV	I have concerns with too much work. Tickets are filling up in the unassigned queue and SLAs are not being met. When Vacation or sick time is taken we just get further behind.
Anakin Skywalker	Security Technician	Mas Amedda	-74.60	-205.51%	✅ 5/6/24 - MA	Working with Anakin to adjust/balance responsibilities to more closely align with expected responsibilities.

Over-Allocated: 17

Not Over-Allocated: 39

🟩 Over-Allocated 🟧 Not Over-Allocated

SUNY ITEC Information Technology Exchange Center

Project Resource Allocation Recommendations

- Over-allocated resources should not be assigned to new project request.
  - The Portfolio Manager, should look for alternative resources, or request a role, rather than request an over-allocated resource.

- Team Leads after review with their resource can make the decision to keep/change assignment of resource to projects.

- Project/Operations & Support assignments for resources that are Over-Allocated should be reviewed on a weekly basis with Over-Allocated Resources.

What do you recommend?

Wrapping Up

Nearly Done.

Contact Info

Jason Poch

IT Project Manager

Jason.Poch@itec.suny.edu

https://www.linkedin.com/in/jason-poch-59137710/

Contact Info

Phil Vecchione

IT Project Manager

Philip.Vecchione@itec.suny.edu

https://www.linkedin.com/in/philip-vecchione-59224b1/

SUNY ITEC | Information Technology Exchange Center

Any Questions ?

Question Vectors by Vecteezy