ArcGIS Pro Tasks: An Introduction

- **Jason Camerano**
- **Amir Bar-Maor**

Live Call With Esri Technical Support

- Esri Technical support: Jason

- Customer: Amir

- Warning: there is a test in the end of the presentation

Live Call With Esri Technical Support

Amir (Customer)

- Every user does things differently

Jason thinks… Technical Support

- No best practice

Live Call With Esri Technical Support

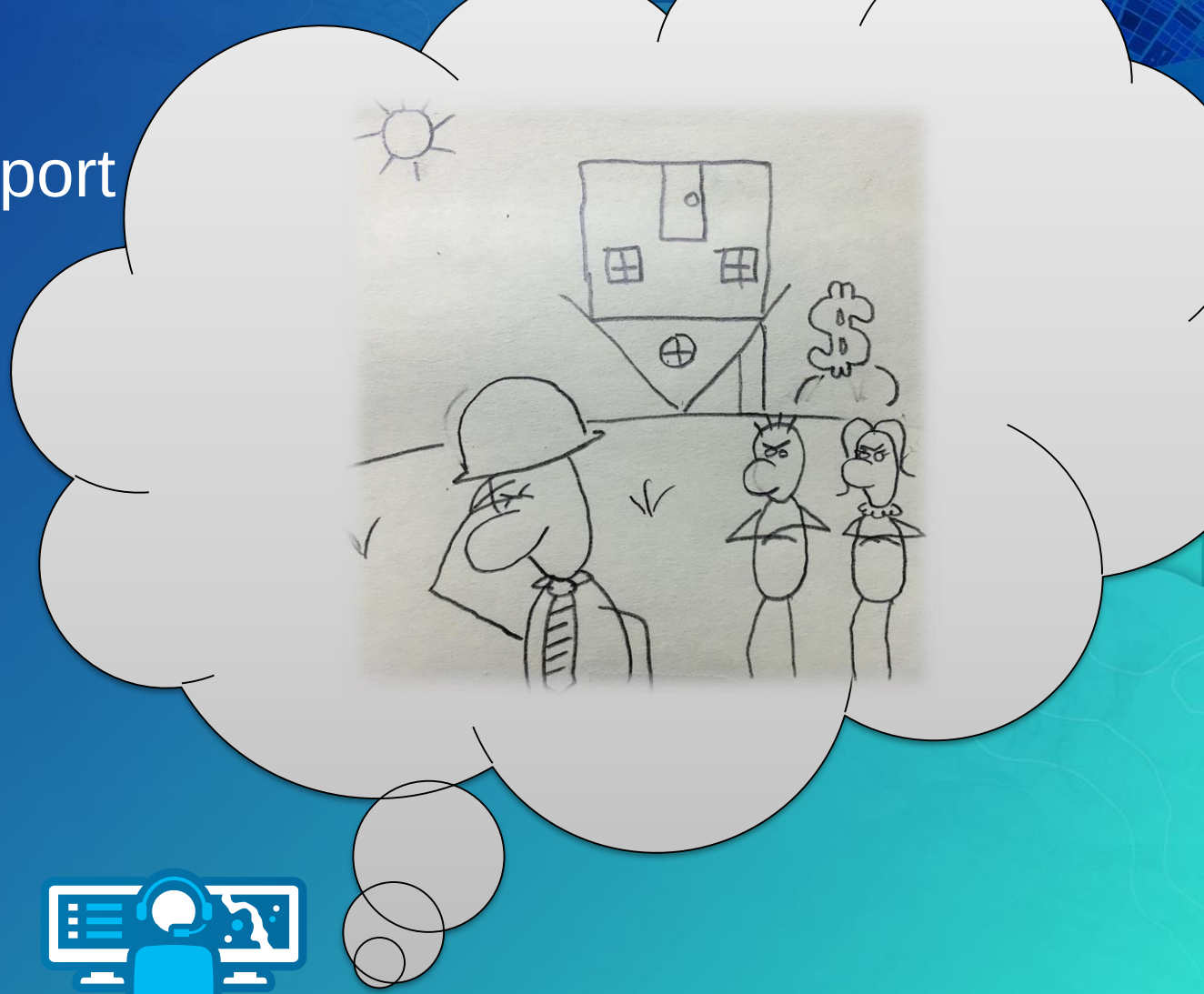
Amir (Customer)

- People make mistakes

Jason thinks… Technical Support

- No quality assurance

Live Call With Esri Technical Support



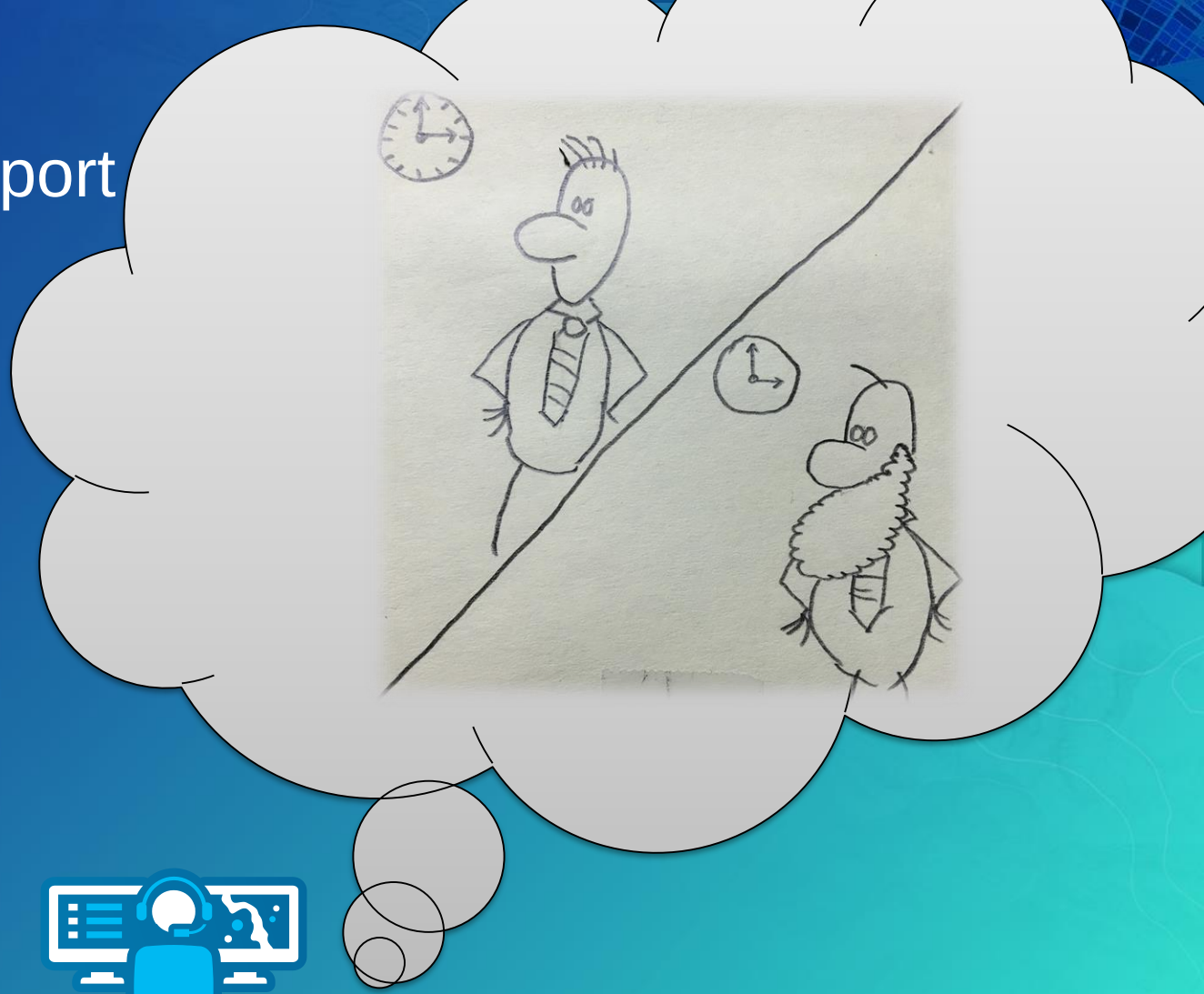
Amir (Customer)

- Mistakes cost $$$

Jason thinks… Technical Support

- Catch errors as they happen

Live Call With Esri Technical Support



Amir (Customer)

- Complaints updates take “too long”

Jason thinks… Technical Support

- No metrics

Live Call With Esri Technical Support

Doesn’t seem to like new employees
I hope he doesn’t find out I’m a new employee

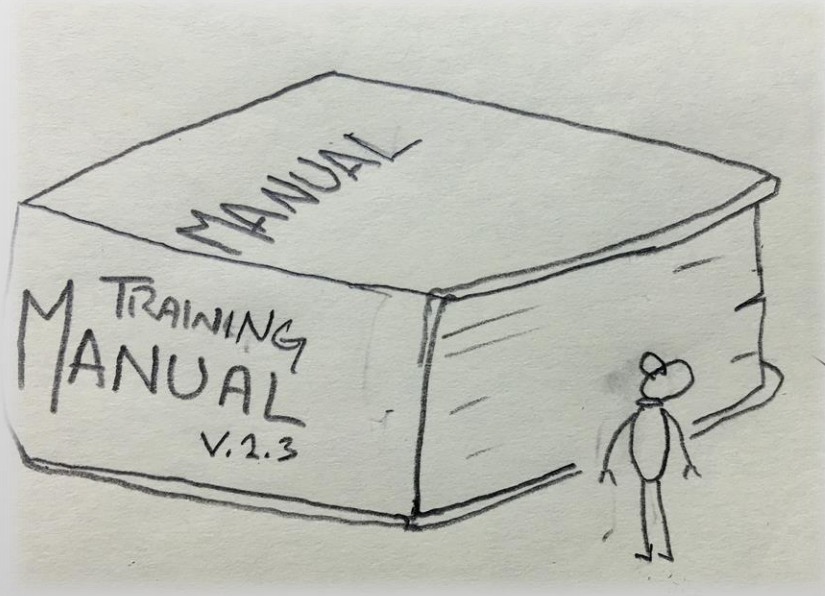
Amir (Customer)

- Training new employees takes a long time until they become productive

Jason thinks… Technical Support

- Transfer business knowledge
- Learn how to use the software

Live Call With Esri Technical Support



Amir (Customer)

- Don’t people know how to read a manual?

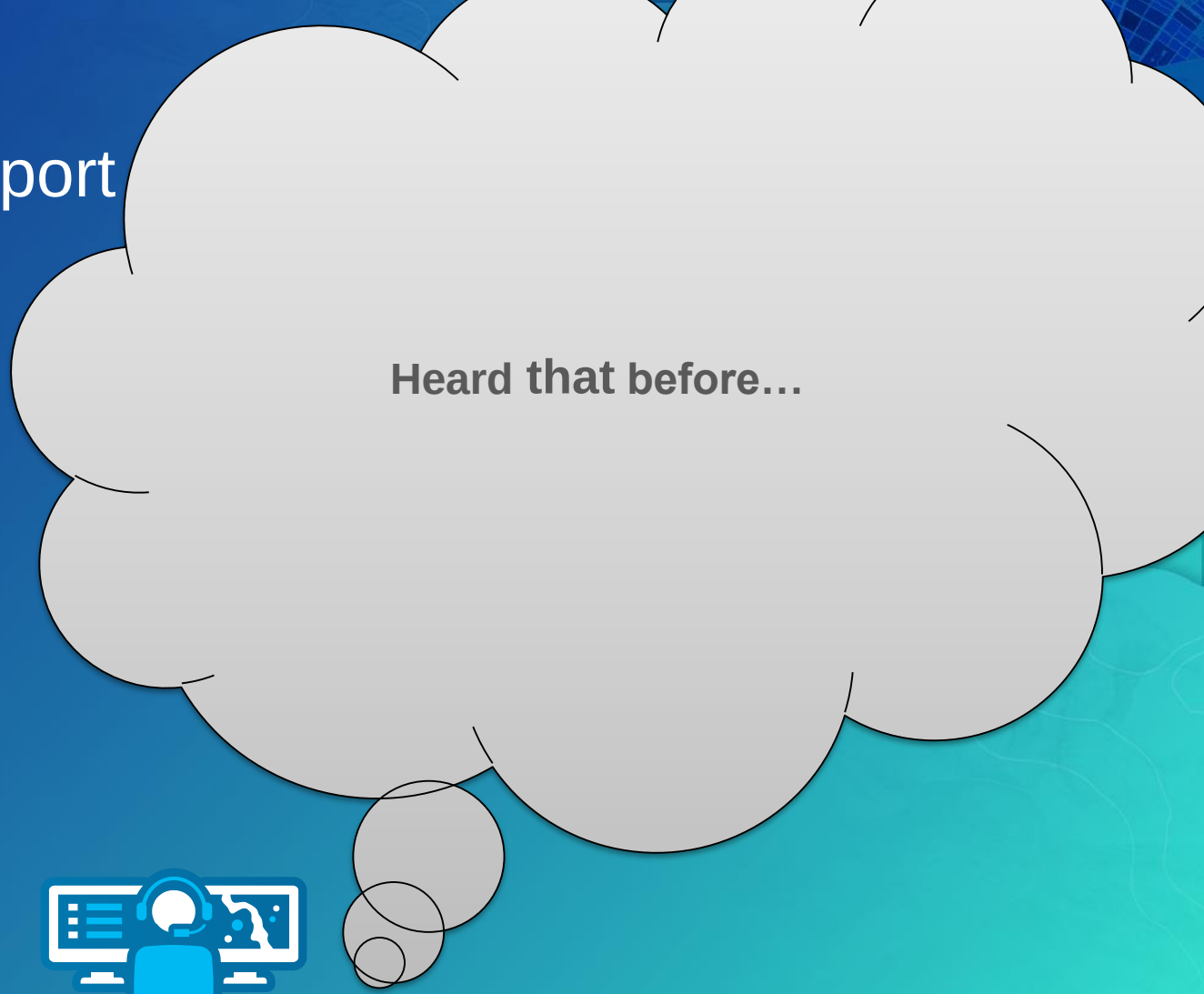
Jason thinks… Technical Support

- Dynamic help that follows your steps

Live Call With Esri Technical Support

Amir (Customer)

- Our organization is special



Jason thinks… Technical Support

Live Call With Esri Technical Support

Amir (Customer)

- Technology changes fast
- I remember my first GIS course on ArcInfo…

Jason thinks… Technical Support

- 1996… I was a toddler

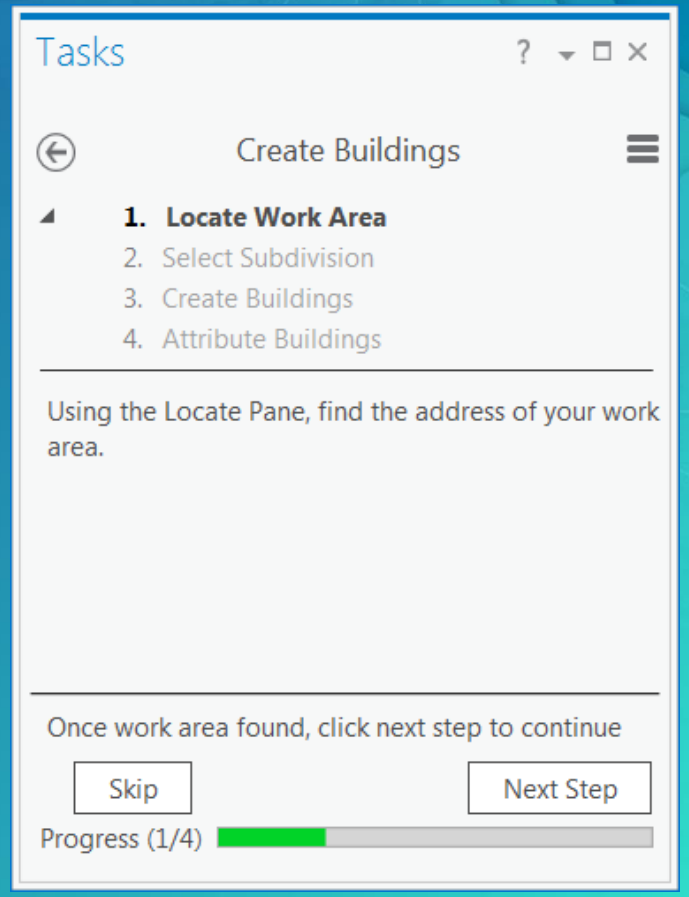
Create New Building Workflow

Demo: Help needed!

- Jason – please share your screen

What is a task?

- Sequential steps that guide you through a repeatable workflow
- Tasks:
  - Used to guide and share knowledge
  - Are interactive
  - Improve efficiency
  - Improve quality
- Tasks use your (business) language
- Tasks are configurable



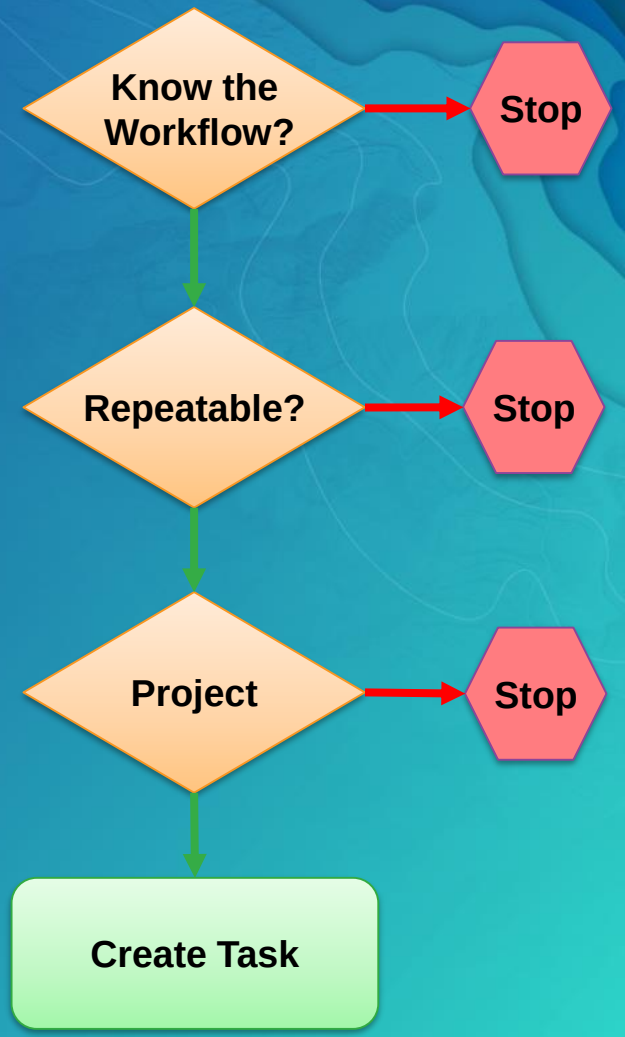
"The right tool in the right time"

Demo: Creating a Task

- Jason – please share your screen

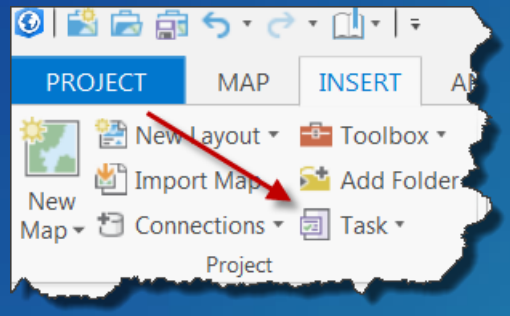
Design a task

- Know your business and workflows
- Repeatable workflows
- Know your project:
  - Maps
  - Layers
  - Tools
  - Add Ins
- Know your users:
  - Roles
  - License level / extensions
  - Permissions
  - Environment

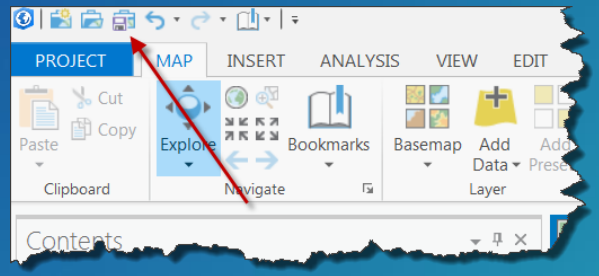


Insert a new Task Item

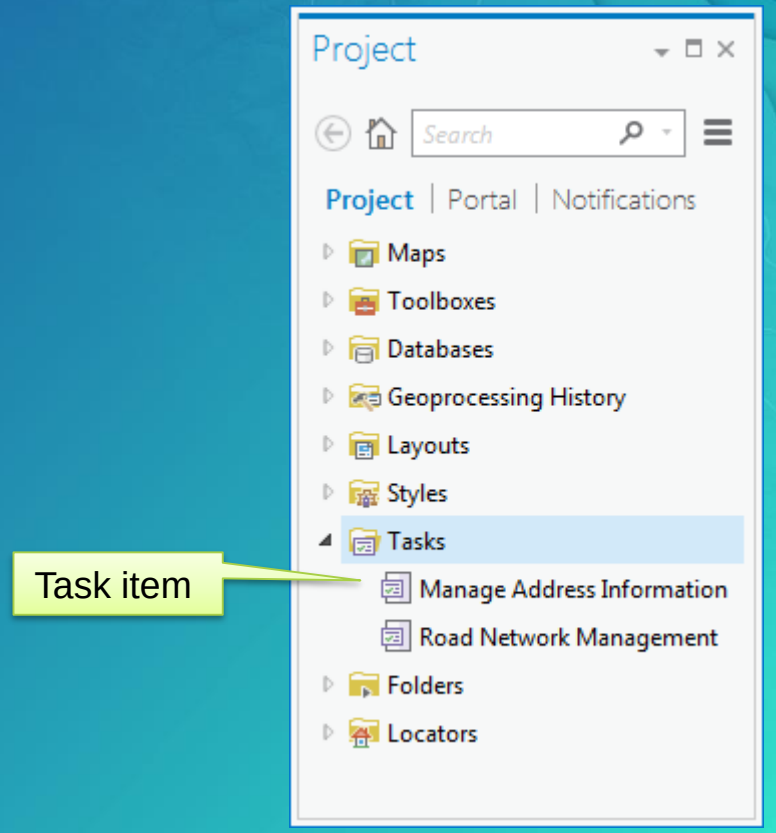
- A project might contains zero to many TASK ITEMS that are stored in the APRX file
- Use Insert tab → Task Item



- Use ‘Save Project’ to save task modifications

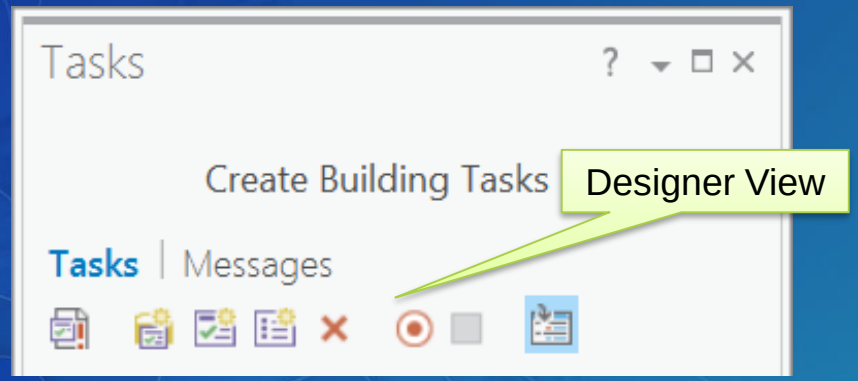


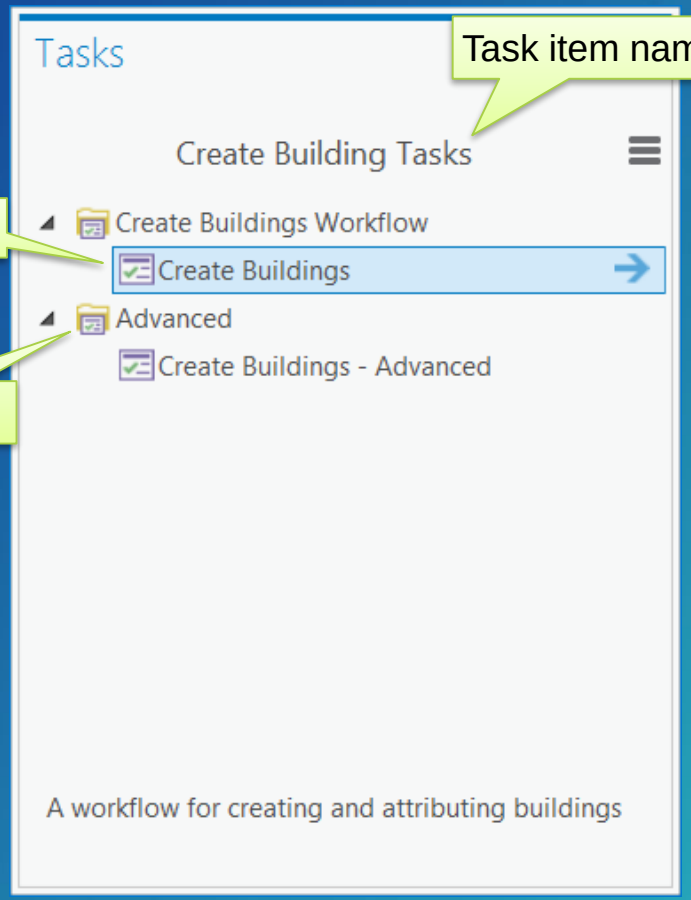
- Use ‘Package Project‘ to share with a project

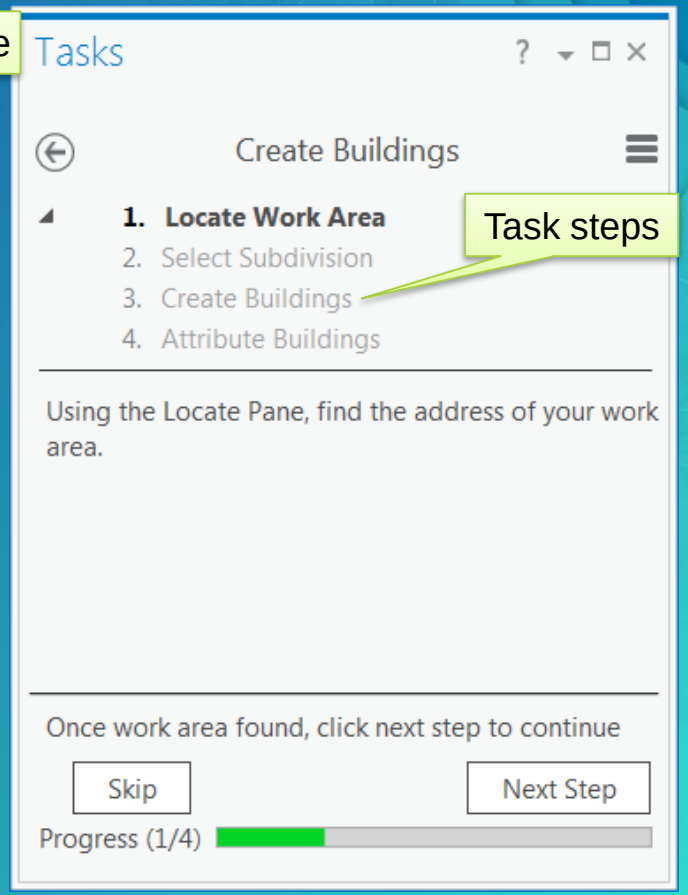


Create Tasks & Steps

- Create a task
- Create steps
- Group tasks







Live Call With Esri Technical Support

- Esri Technical support: Jason

- Customer: Amir

- Reminder: don’t forget the test

Create New Building Workflow – Simplified version

Create New Building Workflow – Real version

Common User Errors

- Forget to attribute some of the attributes
- Wrong attribution, like mistype of the subdivision name
- Select the wrong features
- Forget which features were they created in the work order
- Time reporting is a challenge (coffee breaks, emails…)

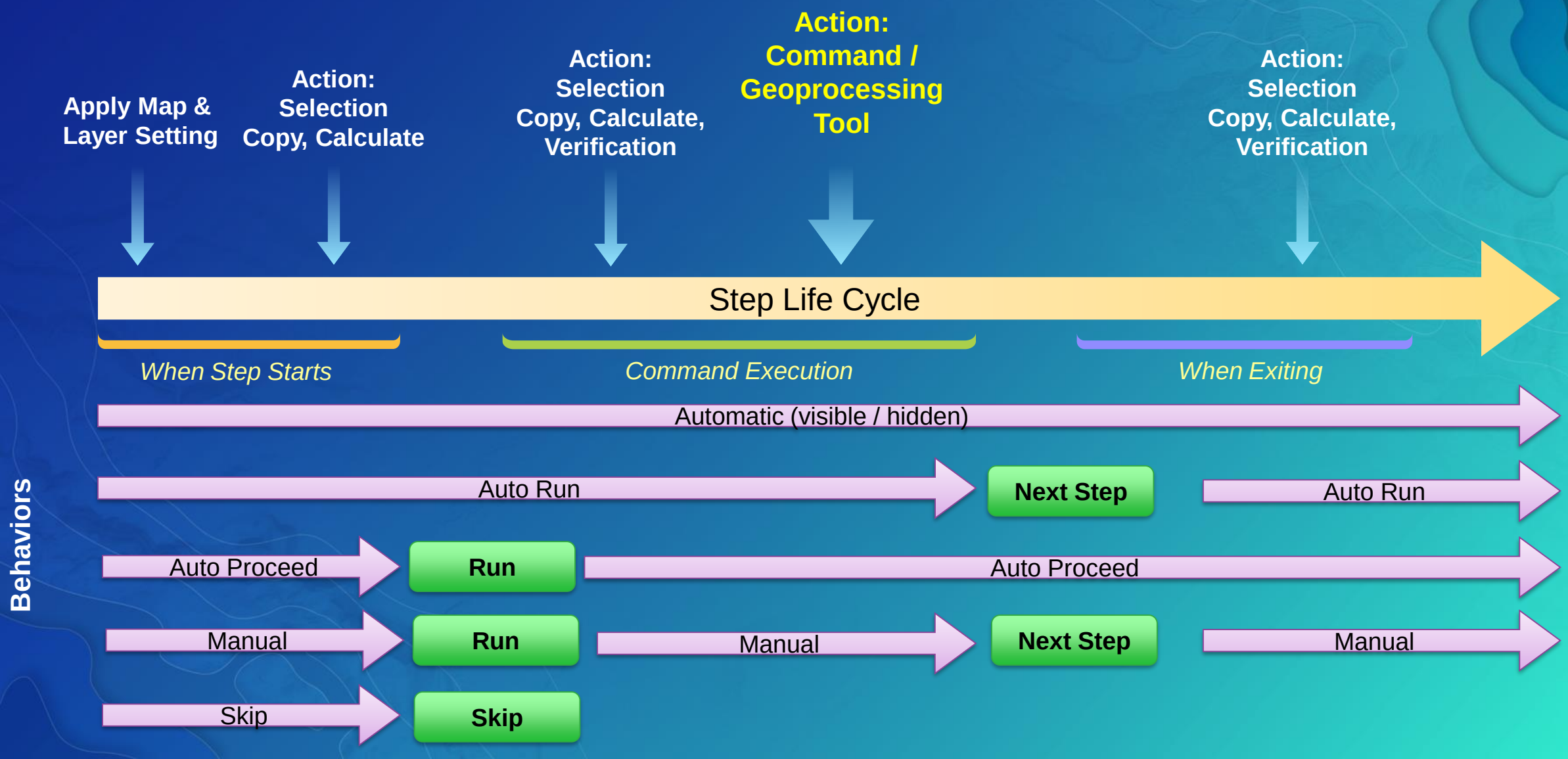
Demo: Enhanced Task

- Jason – please share your screen

Task Step

General
Instructions
Behavior
Actions
Command / Get Attribute
Geoprocessing
Selection
Copy / Calculate Attributes
Verification
View
Open / close Map Views / Layout
Active Map
Link Views
Content
Layer:
- Visibility
- Selectable
- Editable
- Snappable
- Select Layer
- Labels
Snapping Management

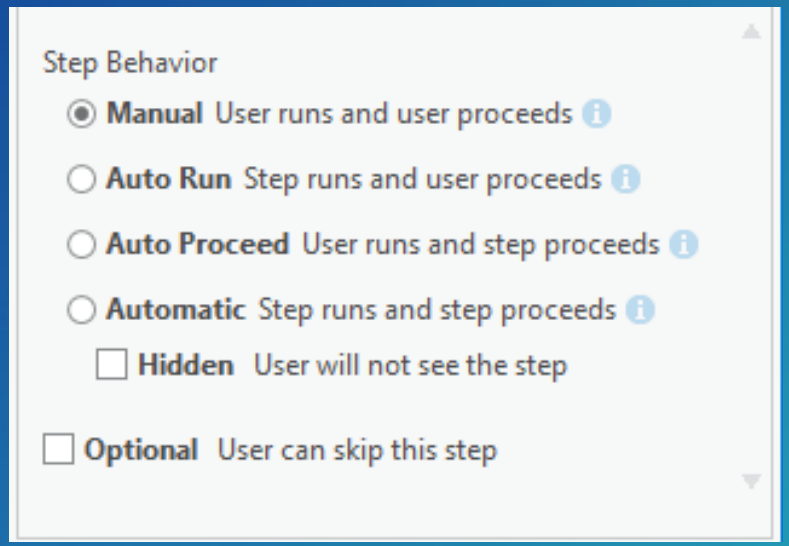
Step Life Cycle

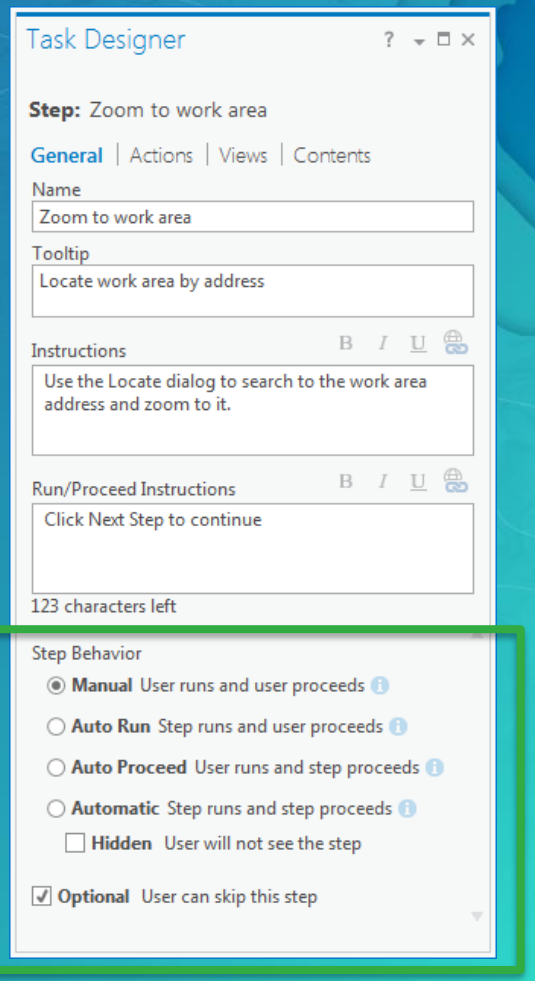


General – Step Behavior

- Manual – 2 mouse clicks
- Auto Run / Auto proceed – 1 mouse click
- Automatic – no mouse clicks

Efficiency





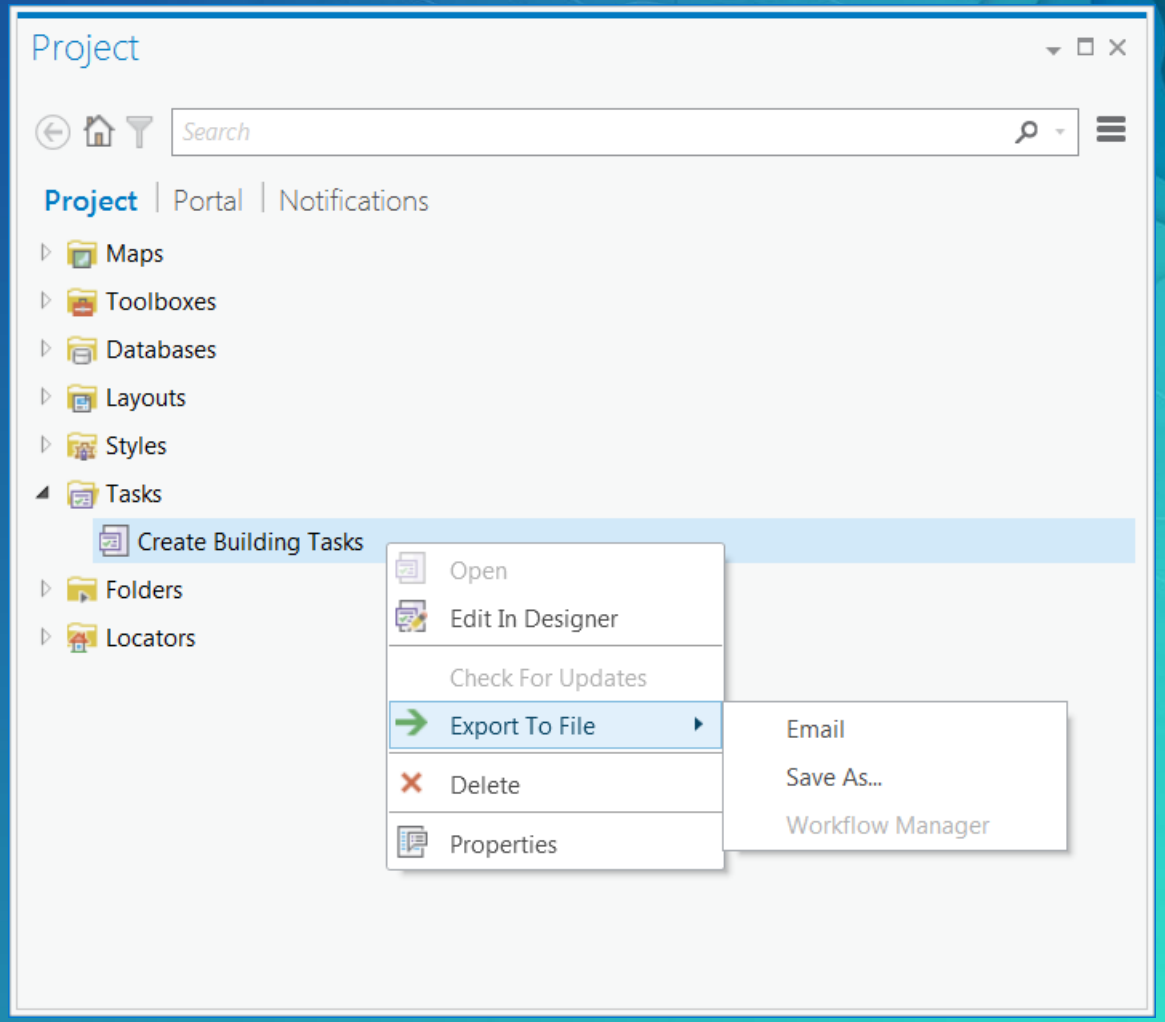
Demo: Sharing a task & Task History

Sharing tasks

- Best method: as a project package

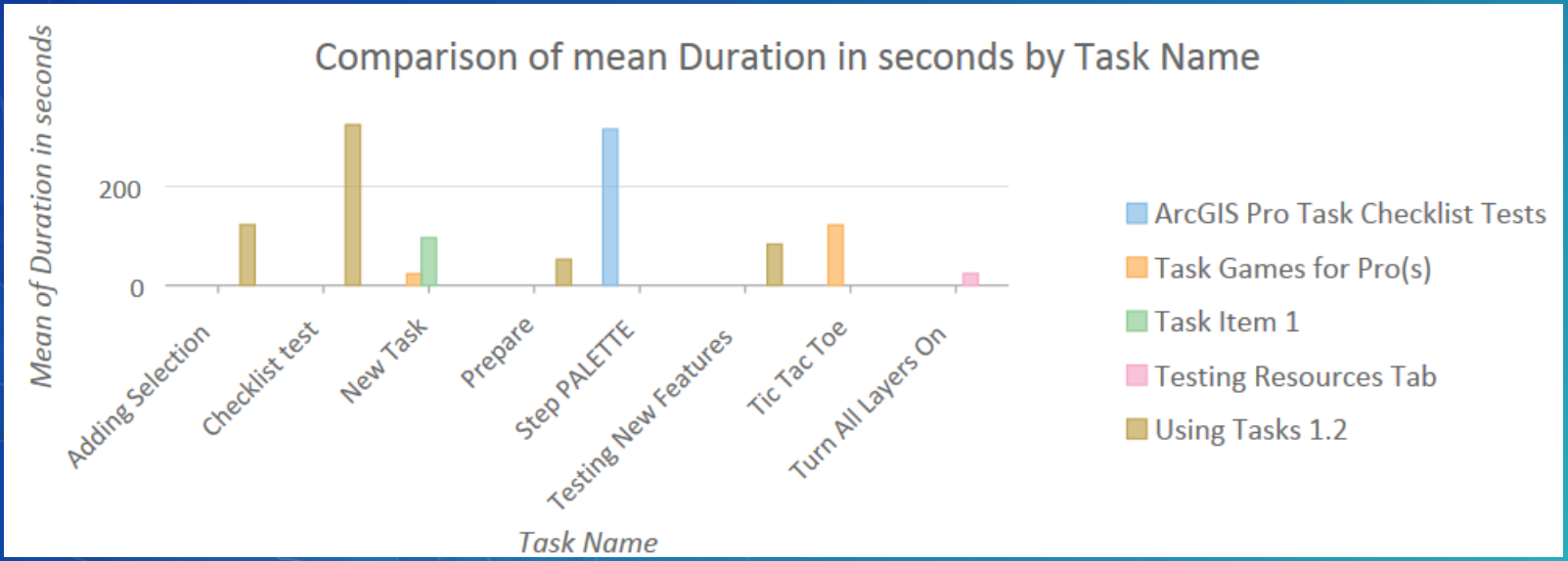
OR between projects:

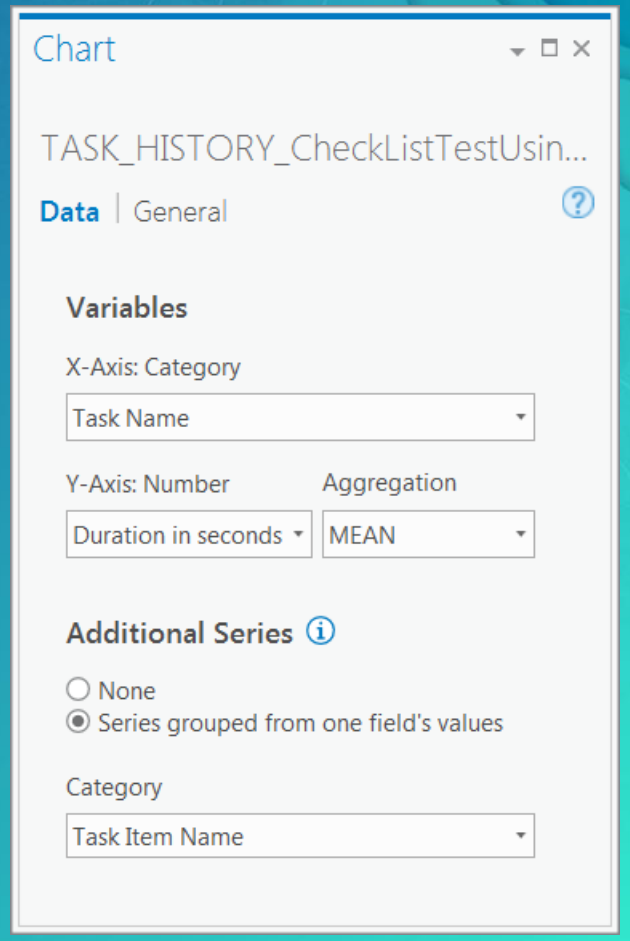
- A task item can be shared via a task file
  - .esritasks file
- A task file can be imported into a project
- A task item is an AGOL item and can be shared via email



Task History (metrics)

- Optional project Settings (project options)
- Measures duration of each task; idle time is filtered
- Great to visualize with charts



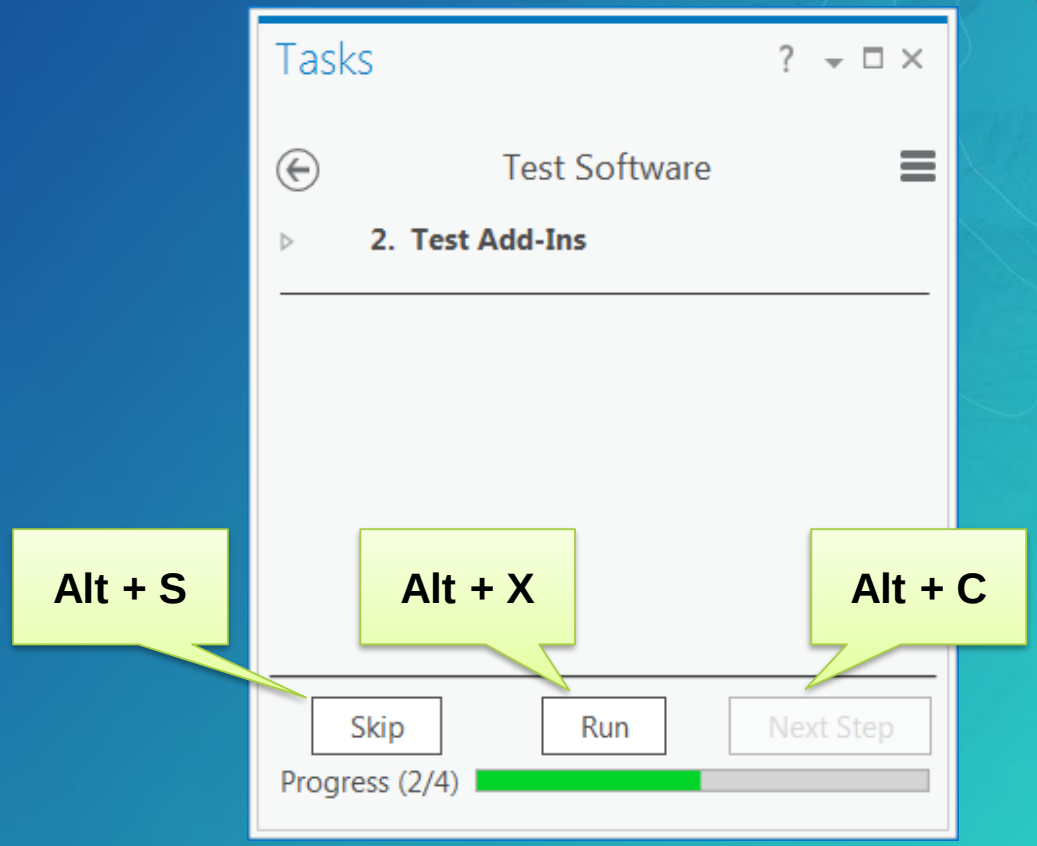


When NOT to use Tasks?

- A workflow that takes very long time
- Task resources keep changing frequently: maps, layers, Geoprocessing tools
- Micro Management tool
- Does not replace Geoprocessing models:
  - Geoprocessing is used for automation
  - Tasks are interactive

Tips & Tricks

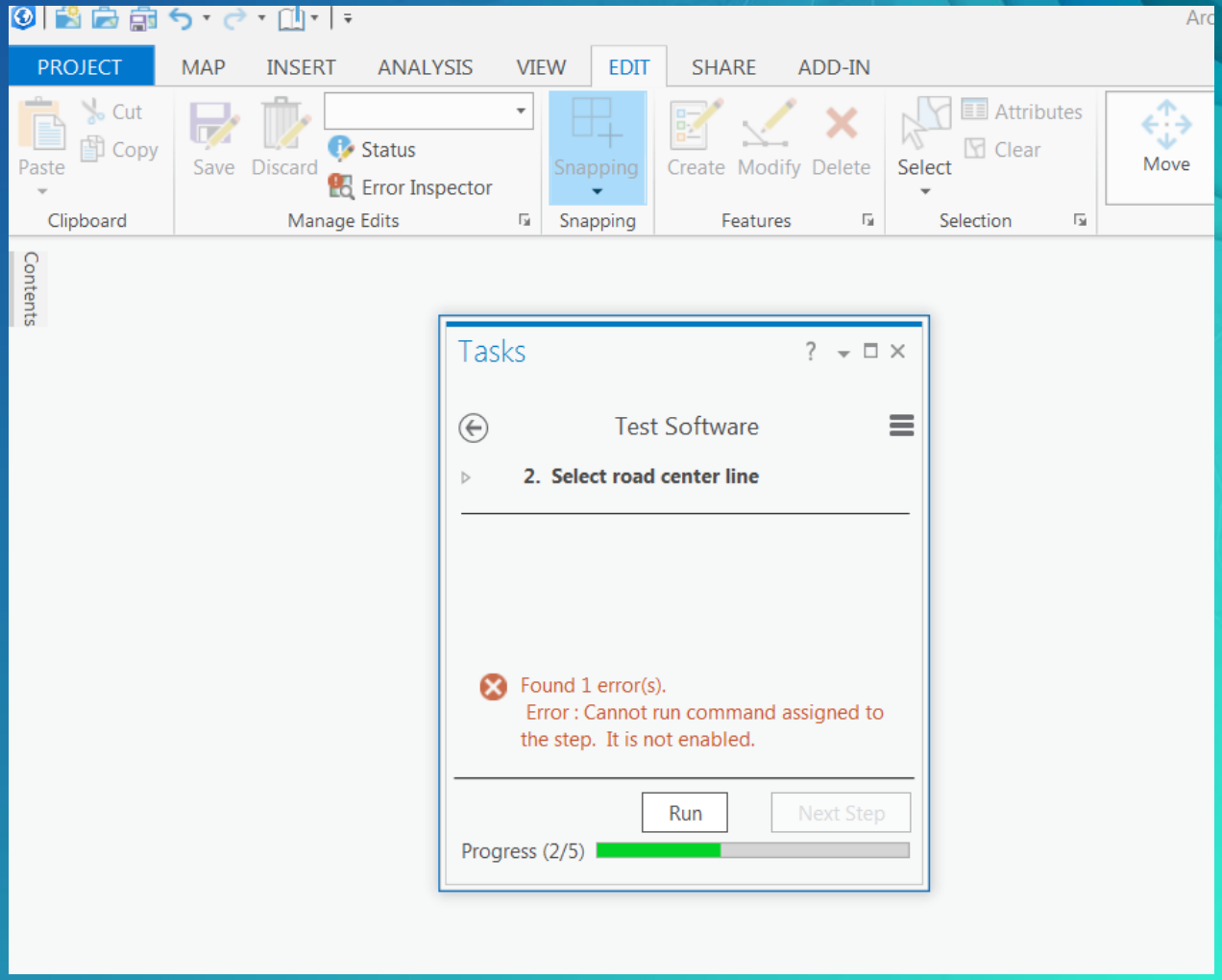
- Global shortcuts:
  - Alt X – RUN (‘eXecute’)
  - Alt C – NEXT STEP (‘Countinue’)
  - Alt S – SKIP (‘Skip’)



Tips & Tricks

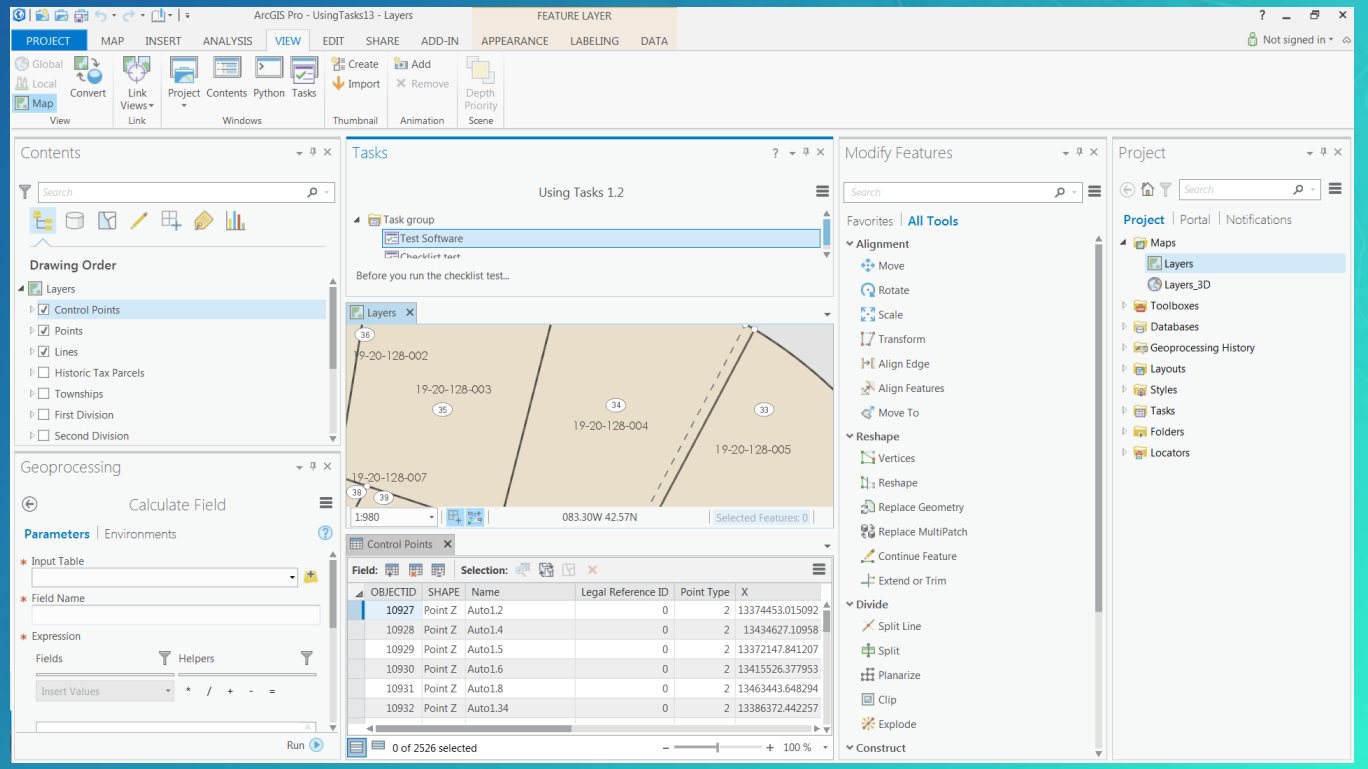
- When a task fails…
  - Check if the command is enabled
  - Commands are contextual

  - In this example: calling the select command without an active map view



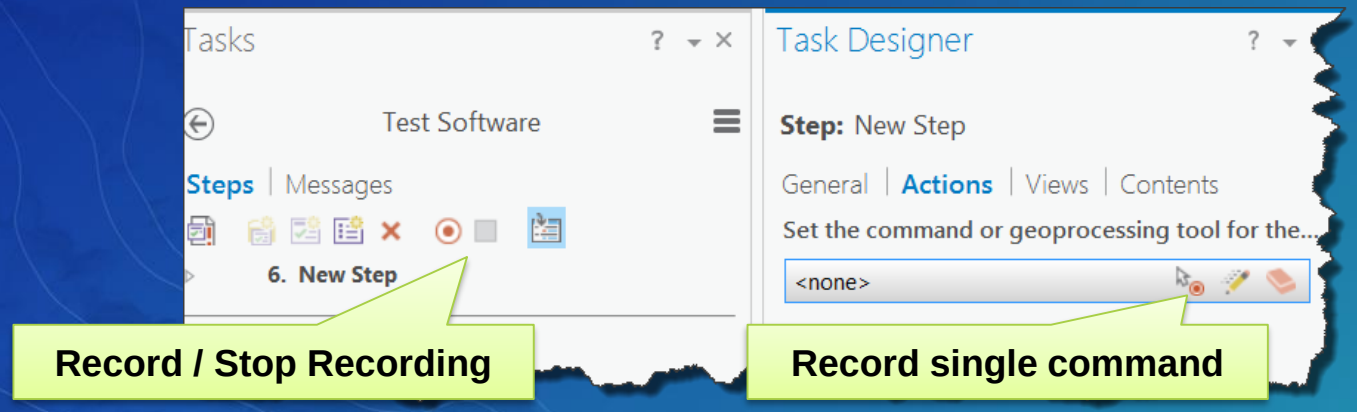
Tips & Tricks

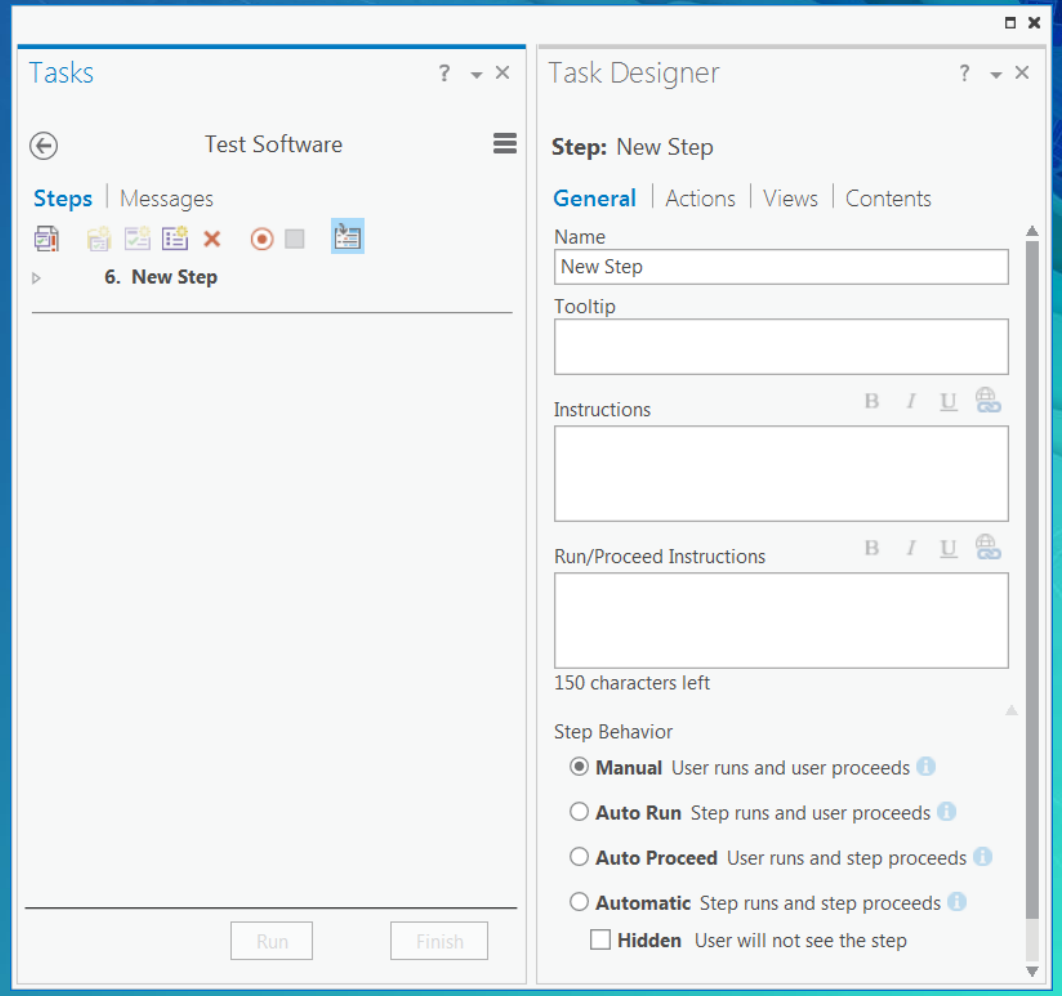
- Close panes.
- Don’t “buddy-up” the task pane with other panes
- Can I run other commands while running a task?
  - Answer: Yes
- Leave nothing to chance! your users might:
  - Close maps
  - Turn layers off
  - Clear selection
  - Unselect a layer
  - …



Tips & Tricks

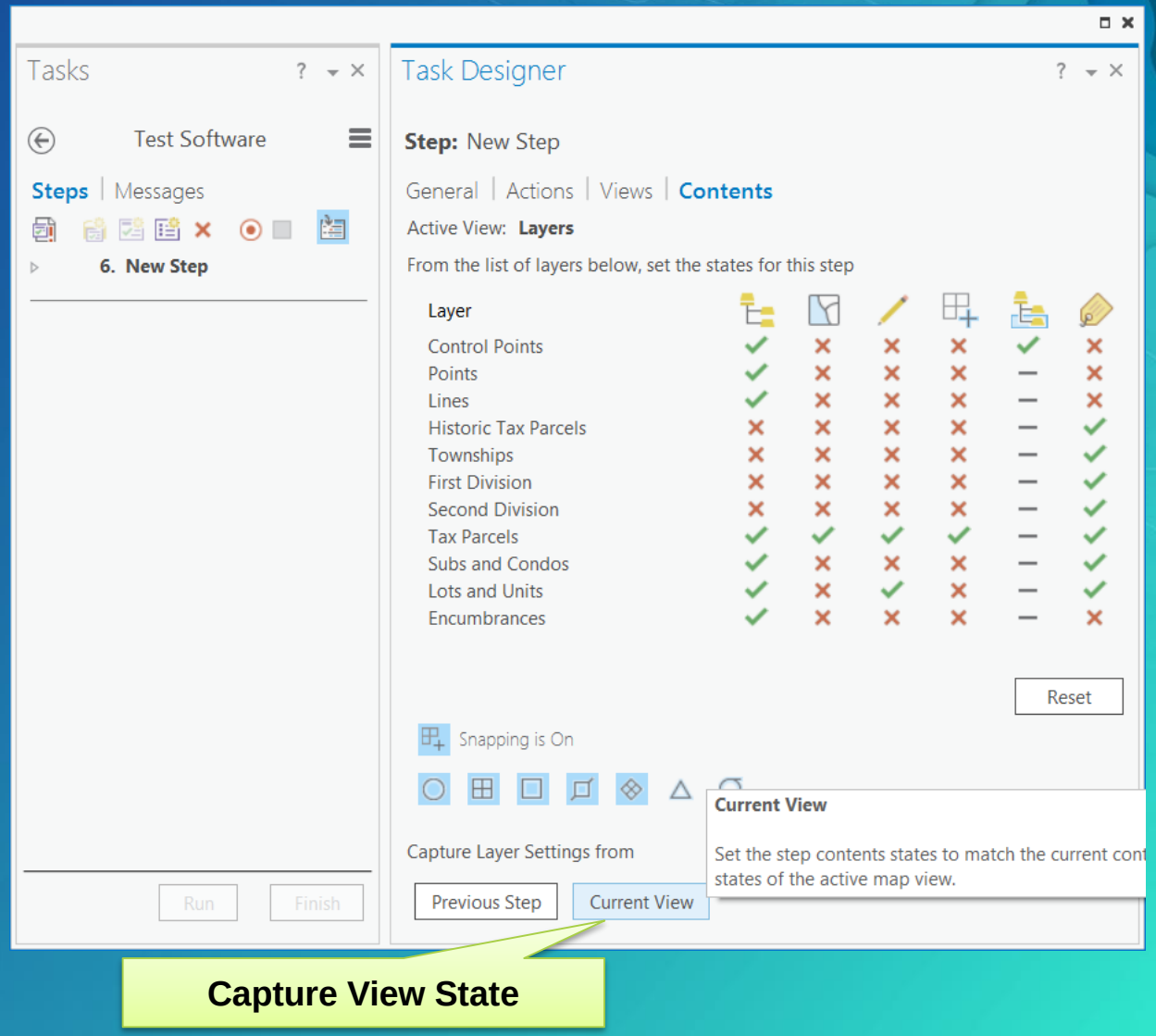
- Dock the task pane and task designer side by side
- Record commands is easier and more reliable





Tips & Tricks

- Capture map view state (contents)

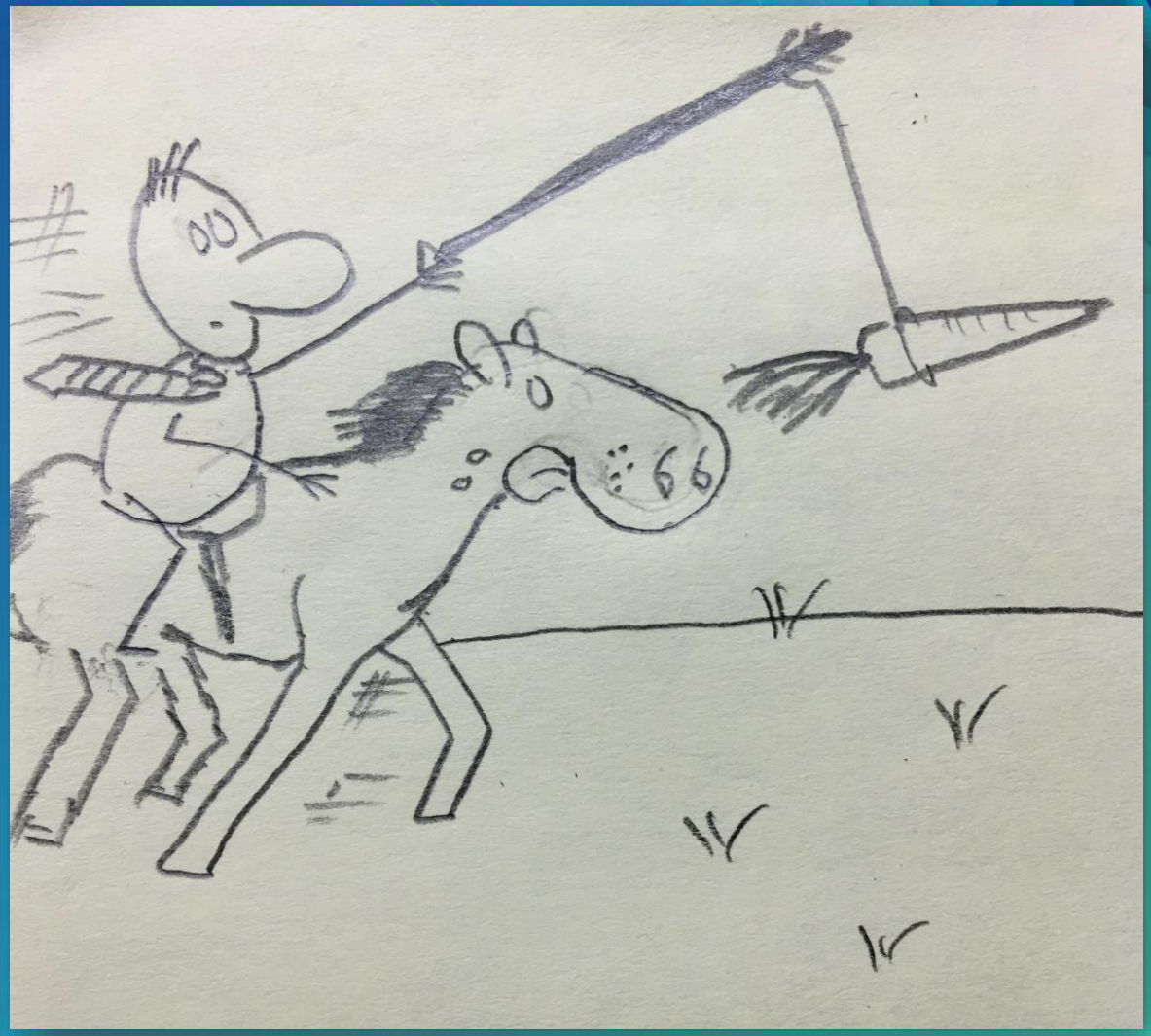


Tips & Tricks

- Use ‘Optional’ step behavior during design (Skip)
- Copy paste steps between tasks, or tasks between task items
- Advanced ‘If-Than’ logic → use Geoprocessing scripts/models as a step

Tips & Tricks

- Configuration Vs. Customization: consider tasks before writing Add Ins
- Tasks have SDK
- Create tasks that save time & improve quality



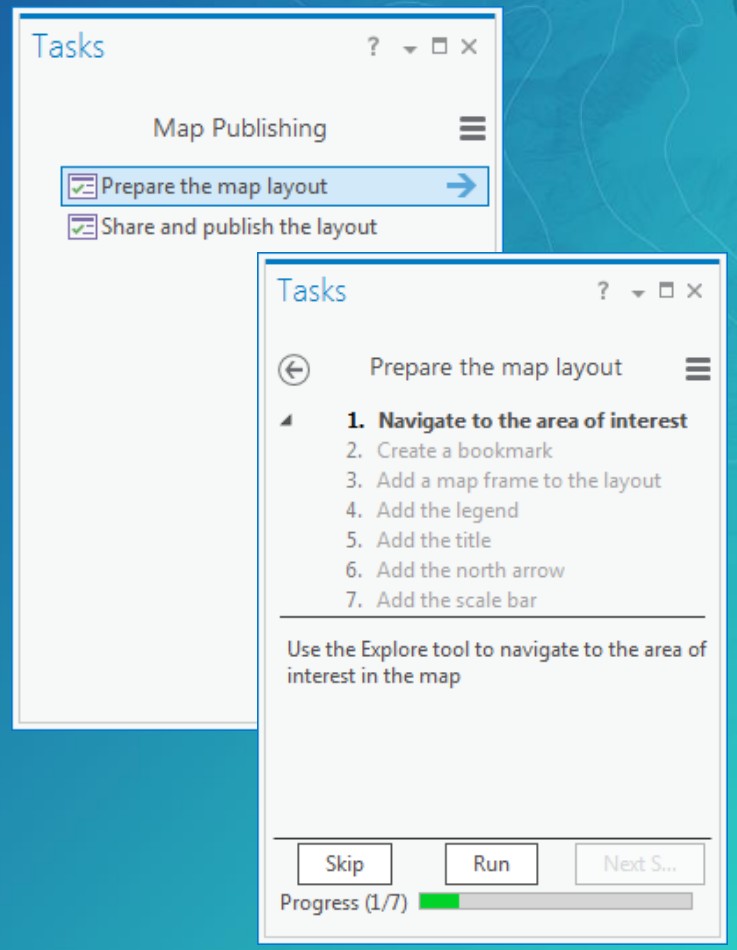
Quiz

True ✓ or False? ✗

- Tasks are available in every license level ✓
- Tasks replace Geoprocessing models ✗
- Tasks can be shared between projects ✓
- The best way to share a task item is to package it in a project package ✓
- Manual behavior is the most efficient step behavior ✗
- Tasks are fan-task-tic! ✓

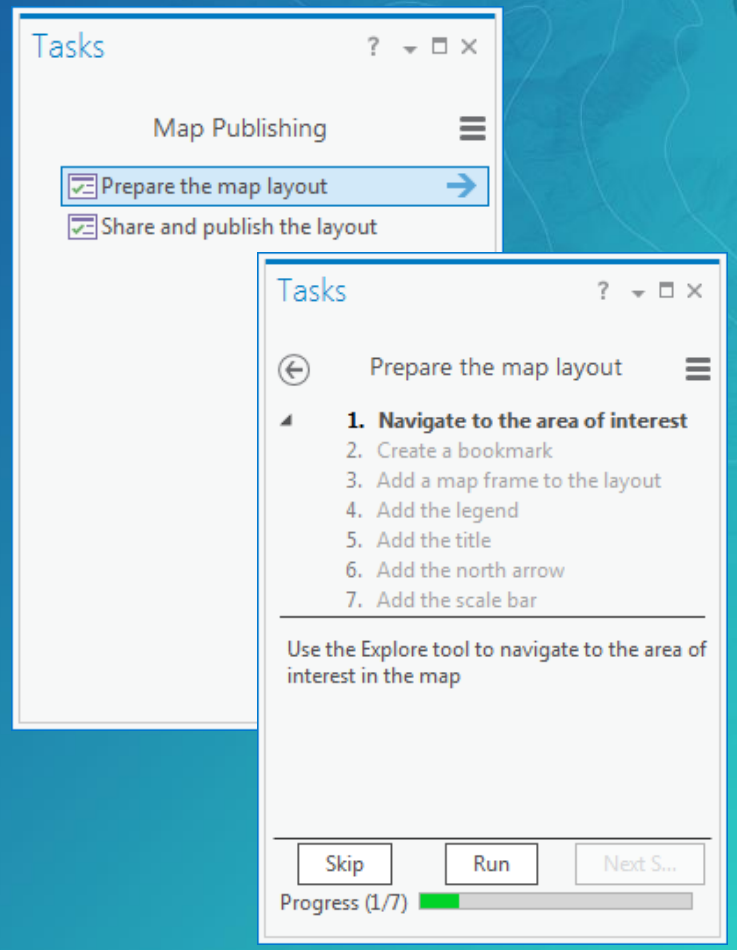
Summary - Tasks Improve Efficiency

- Reduce learning curve time
- Open the right tool at the right time
- Open the right map & layer settings
- Reduce mouse clicks
- Reduce clutter (panes, ribbons, etc.)
- Selection management (save, load, clear)
- Attribution: get, copy & calculate actions
- Prevent mistakes: verification action
- Open a tool set: palette



Summary - Tasks Share Knowledge

- Define best practice workflows
  - Multiple ways to do the same workflow
  - Reduce confusion
  - Improve quality & Consistency
- Guide
  - Dynamic help / instructions
  - Link to additional resources
  - Use your (business) language
- Share
  - Export a ‘Task Item’ to a ‘Task File’
  - Upload task file to ArcGIS Online

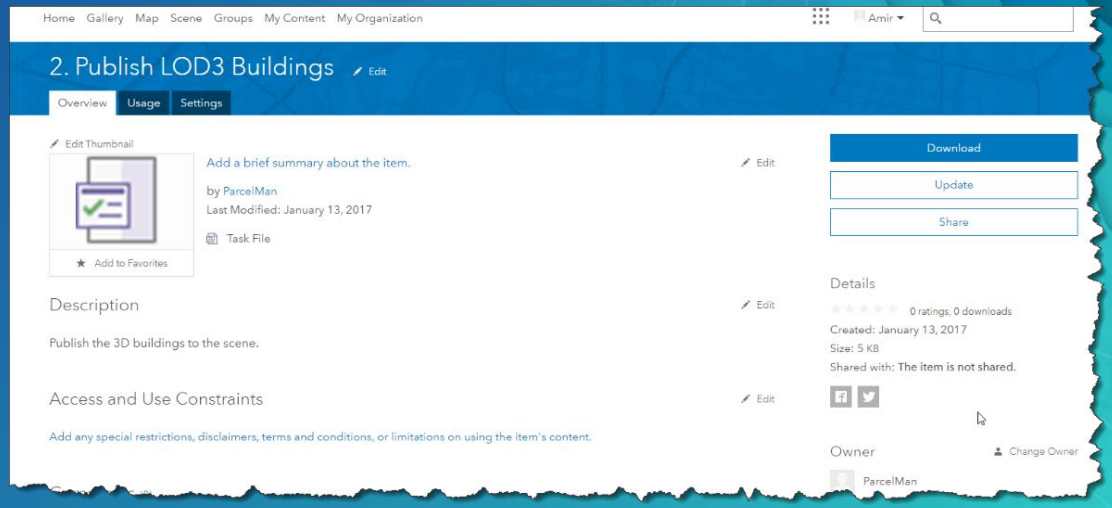


Tasks are interactive

Road Ahead

Customer driven

- As a task author I can share a local task item as an online item.
- Later I can update the online item →
- Notify users to update their local task item
- Online task item relies on permission user's level



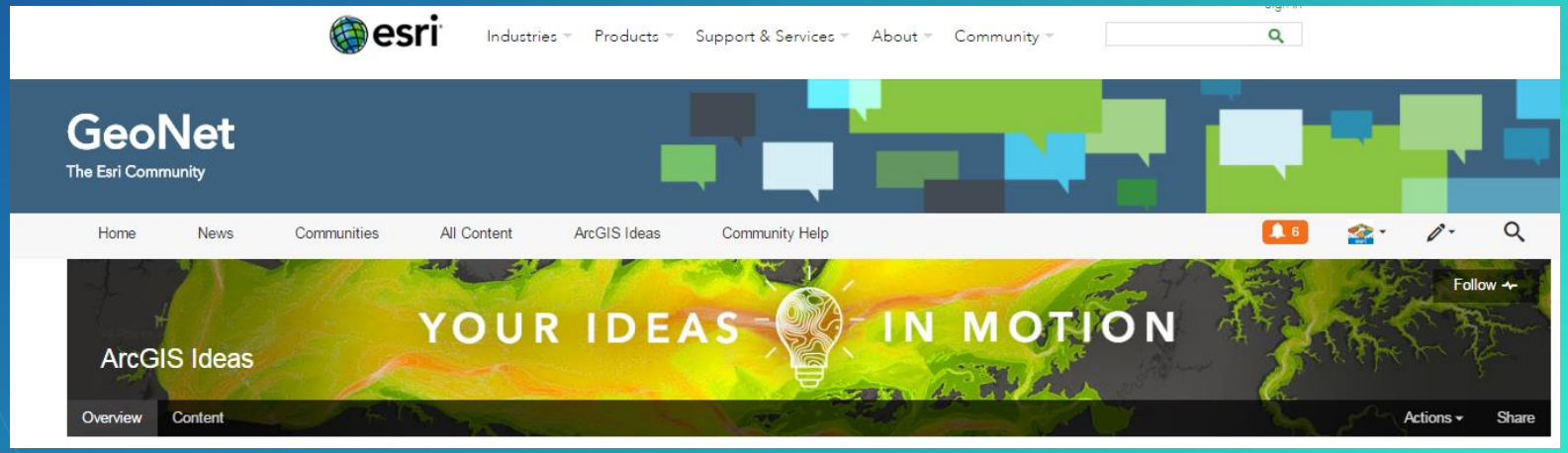
Want to learn more?

- Software help documentation
  - Tasks in ArcGIS Pro
- Training:
  - Create and Share ArcGIS Pro Tasks (60 minutes, free)
  - Automating Workflows Using ArcGIS Pro Tasks (3 hours)
- Videos: esri / YouTube

Join the Task Force

- Contribute your ideas:
  - Geonet ideas: https://geonet.esri.com/community/arcgis-ideas

- Visit us at the Geodata / SDK island:
  - Christine Leslie
  - Narelle Chedzey
  - Jason Camerano
  - Amir Bar-Maor



Technical Workshops

- ArcGIS Pro Tasks Tips and Tricks
  - Tue 7/11/2017, 11:00 AM - 11:30 AM, Tech Theater 17 Exhibit Hall A
- ArcGIS Pro Tasks: An Introduction
  - Tue 7/11/2017, 03:15 PM - 04:30 PM, Ballroom 06 B
- ArcGIS Pro Tasks: An Introduction
  - Wed 7/12/2017, 08:30 AM - 09:45 AM, Hilton - Sapphire Ballroom M/N
- ArcGIS Pro Tasks Tips and Tricks
  - Thu 7/13/2017, 11:00 AM - 11:30 AM, Tech Theater 17 Exhibit Hall A

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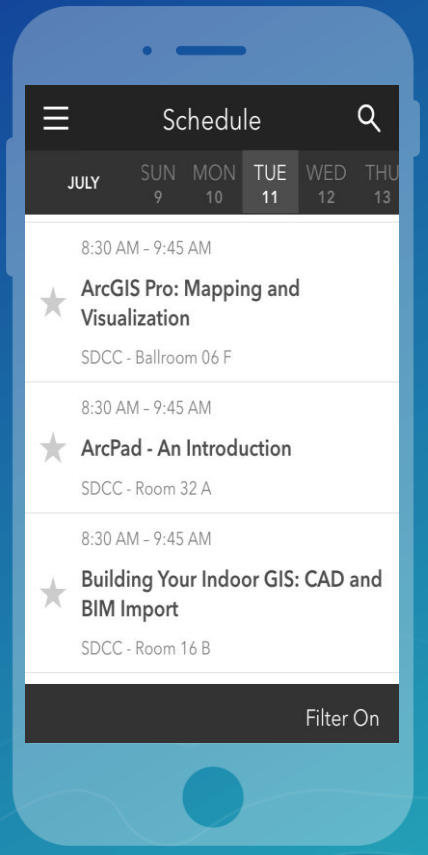
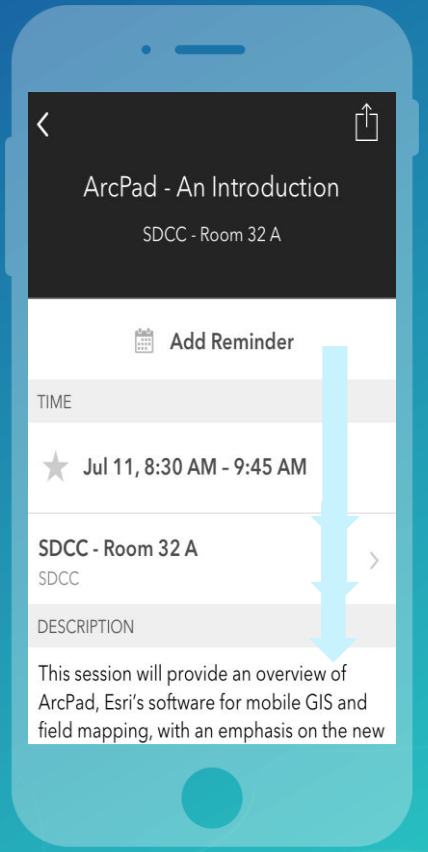
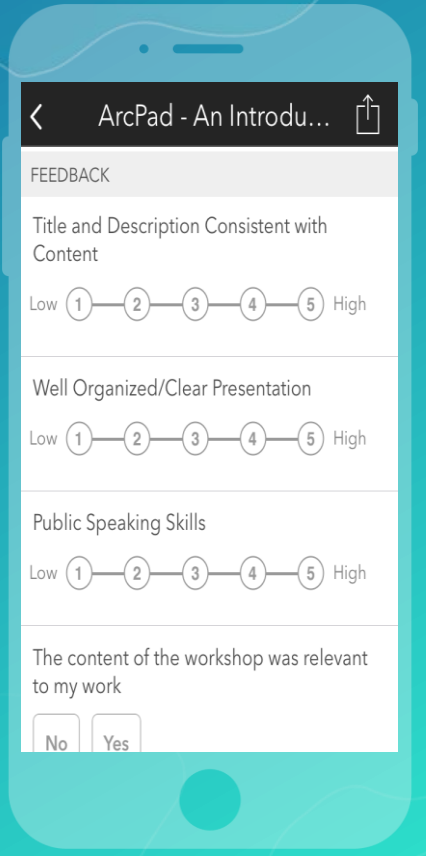
Select the session you attended



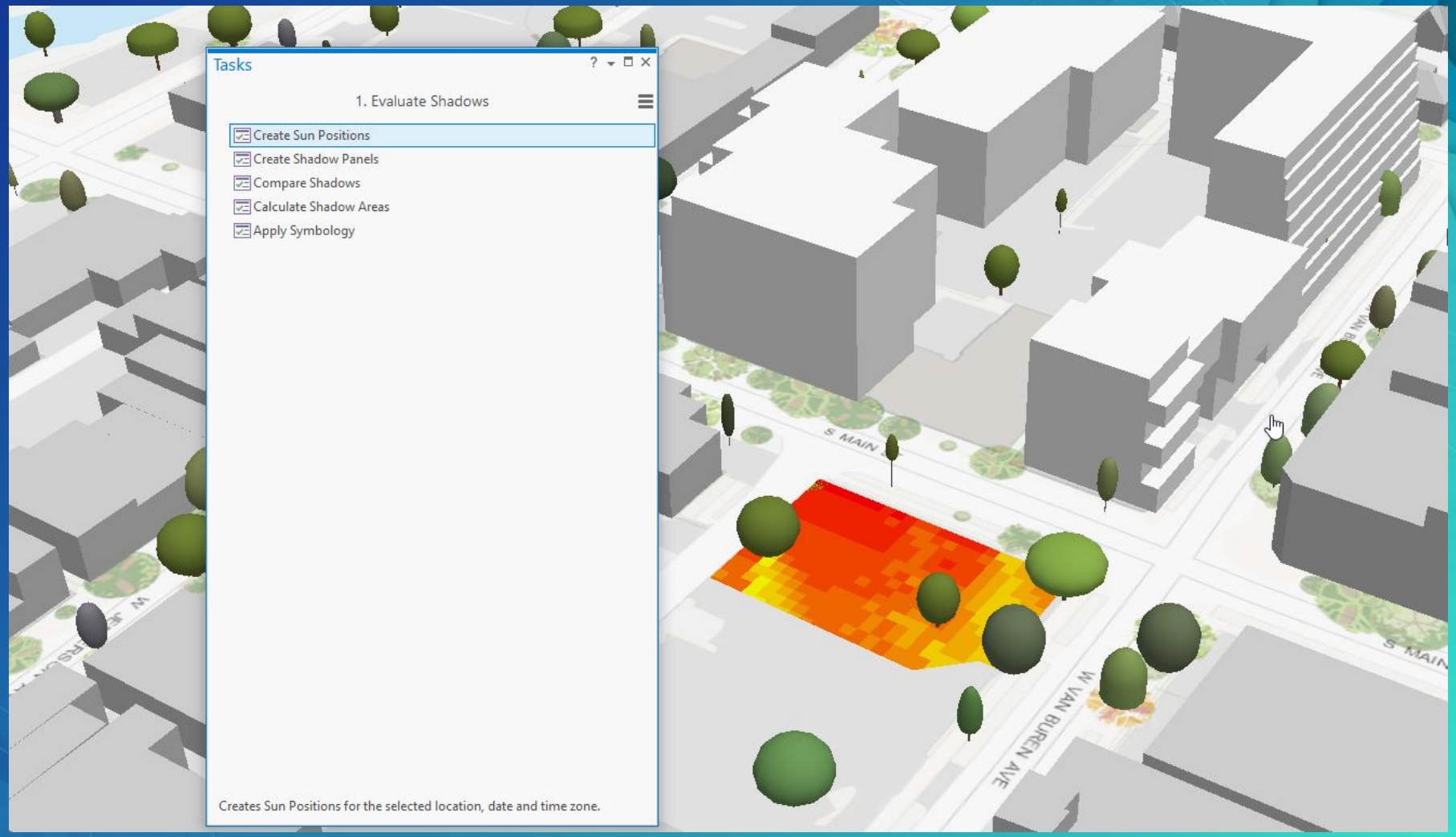
Scroll down to find the survey



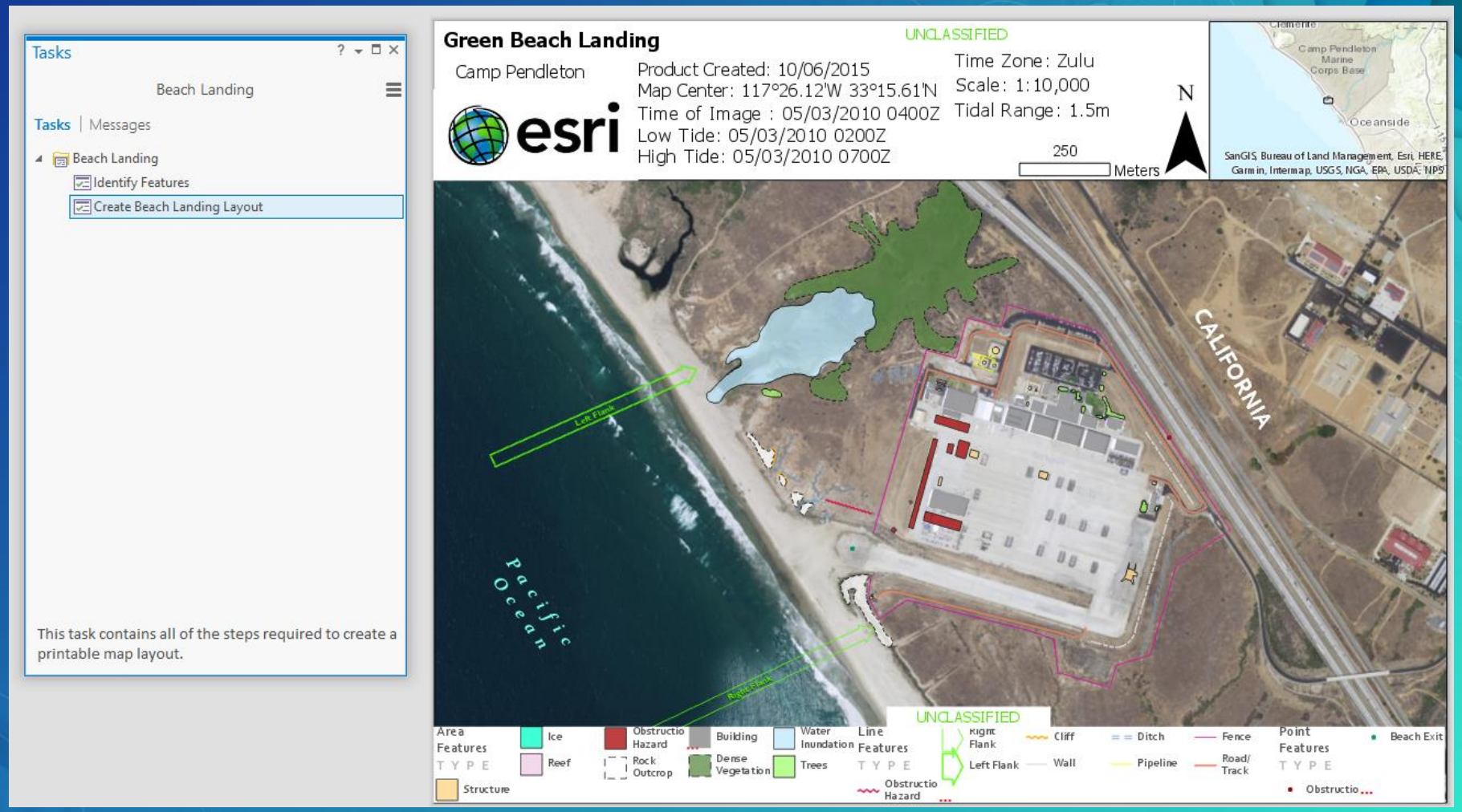
Complete Answers and Select "Submit"



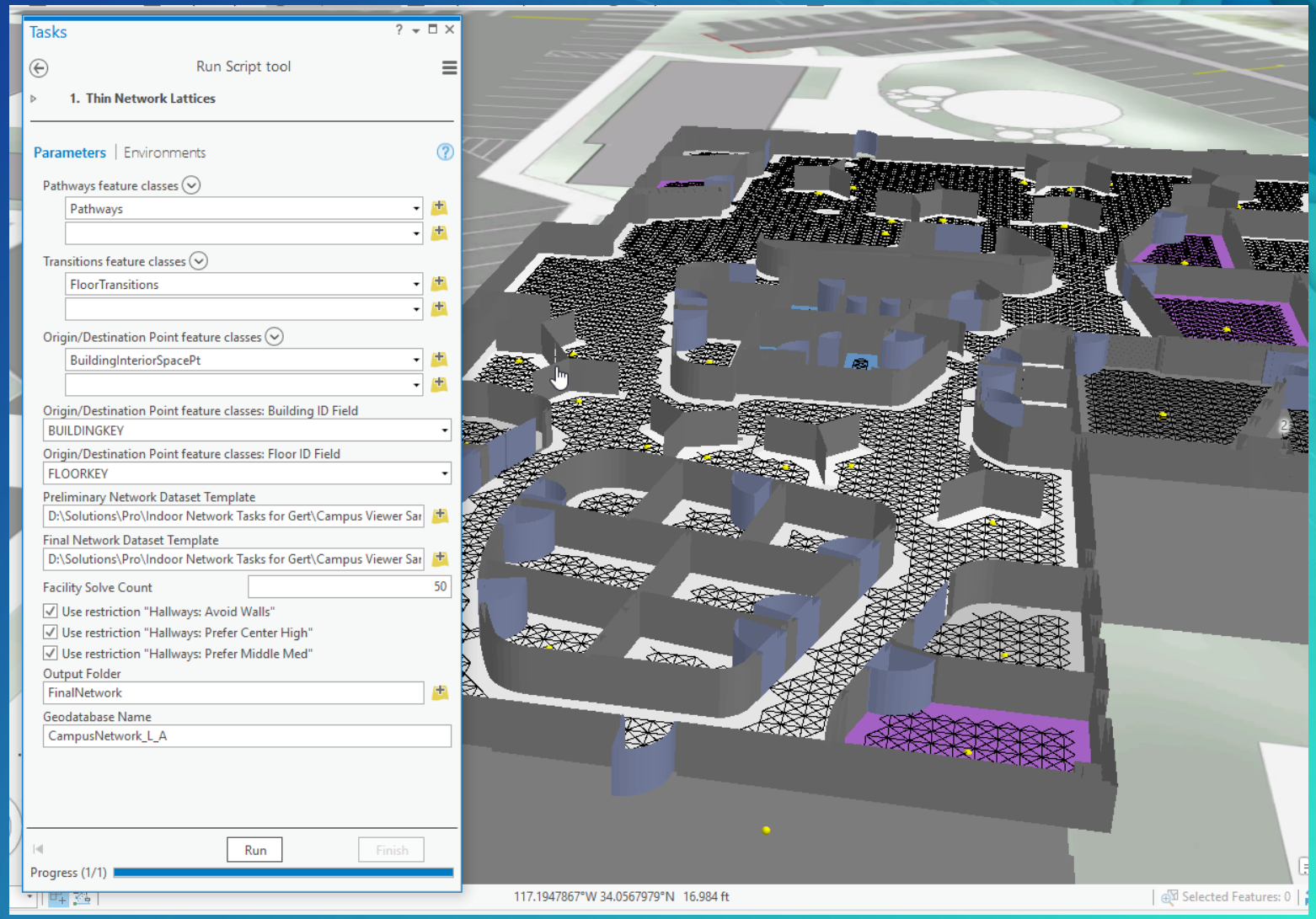
Use of Tasks for 3D Analysis Workflows



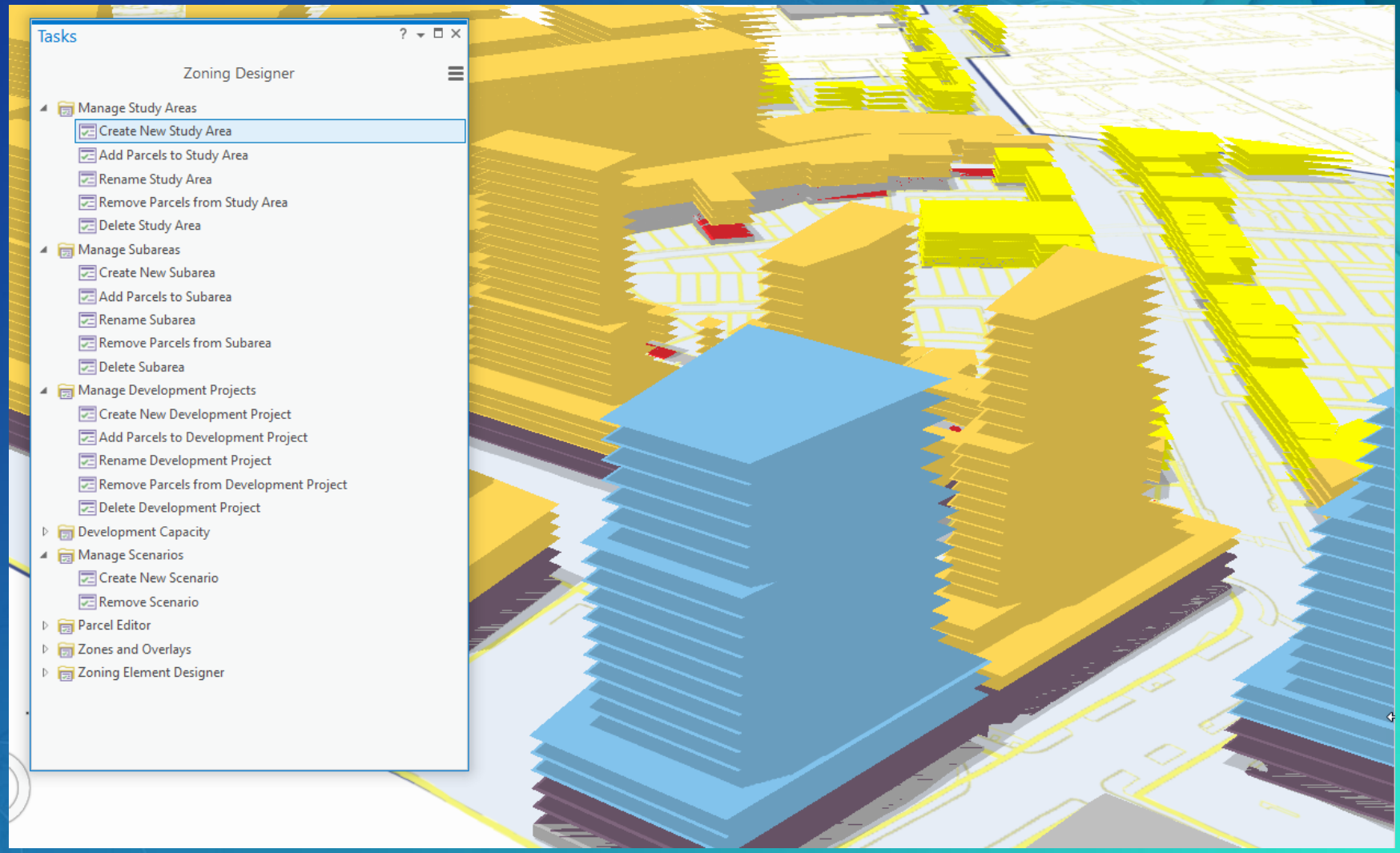
Use of Tasks for Military Workflows



Use of Tasks for Indoor Routing Workflows



Use of Tasks for Zoning Design Workflows



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