

UC



# ArcGIS Pro Tasks: Tips and Tricks

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# Who has used Tasks in ArcGIS Pro?

Show of hands





# What You Will Learn From This Session

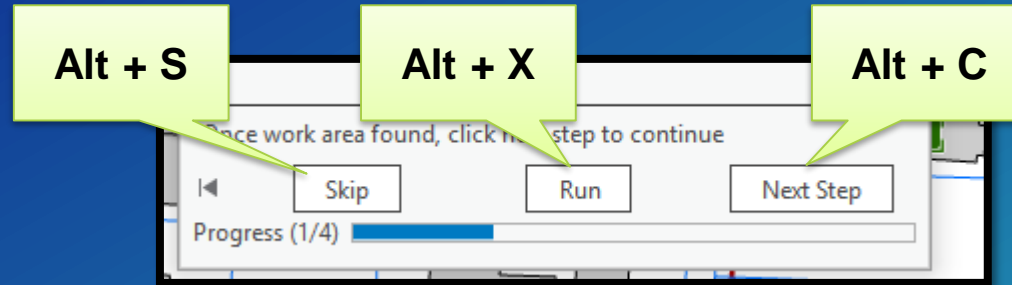
Spoiler: A Lot!

- As a User:
  - Helpful tricks to run Tasks efficiently
  - Maximize as much screen real estate as possible
- As an Author
  - Create Steps that utilize the correct Step Behavior
  - Fully understand the power of Step Actions
  - Embed Commands and preset parameters
  - Know when and how to use Step Palettes
  - How to share your work with your organization
  - And much more!

Let's Use A Task



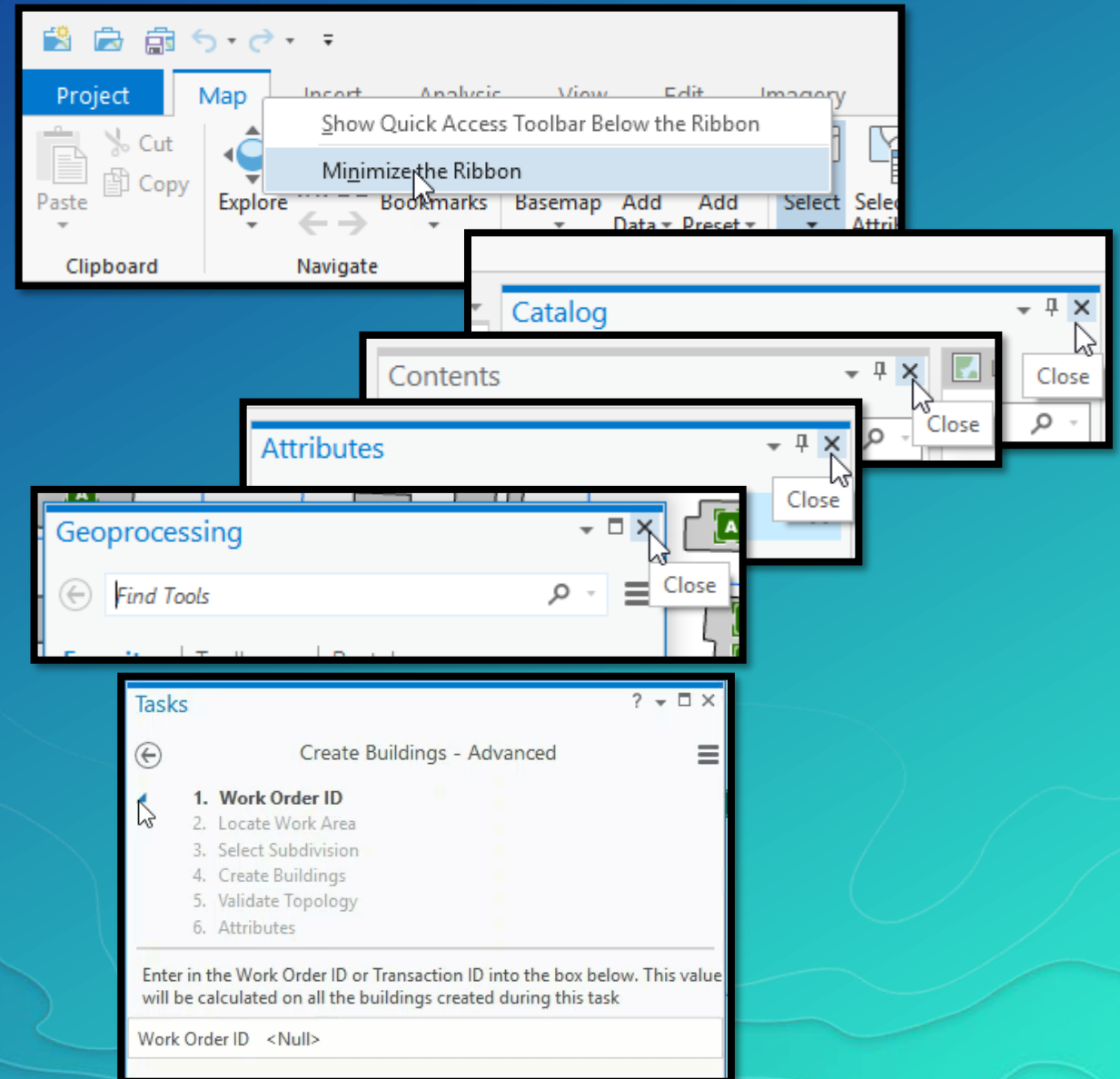
# Everyone Likes Shortcuts!



CTRL + Z will undo changes and will also go back to previous steps

# Make Use of That Giant Monitor

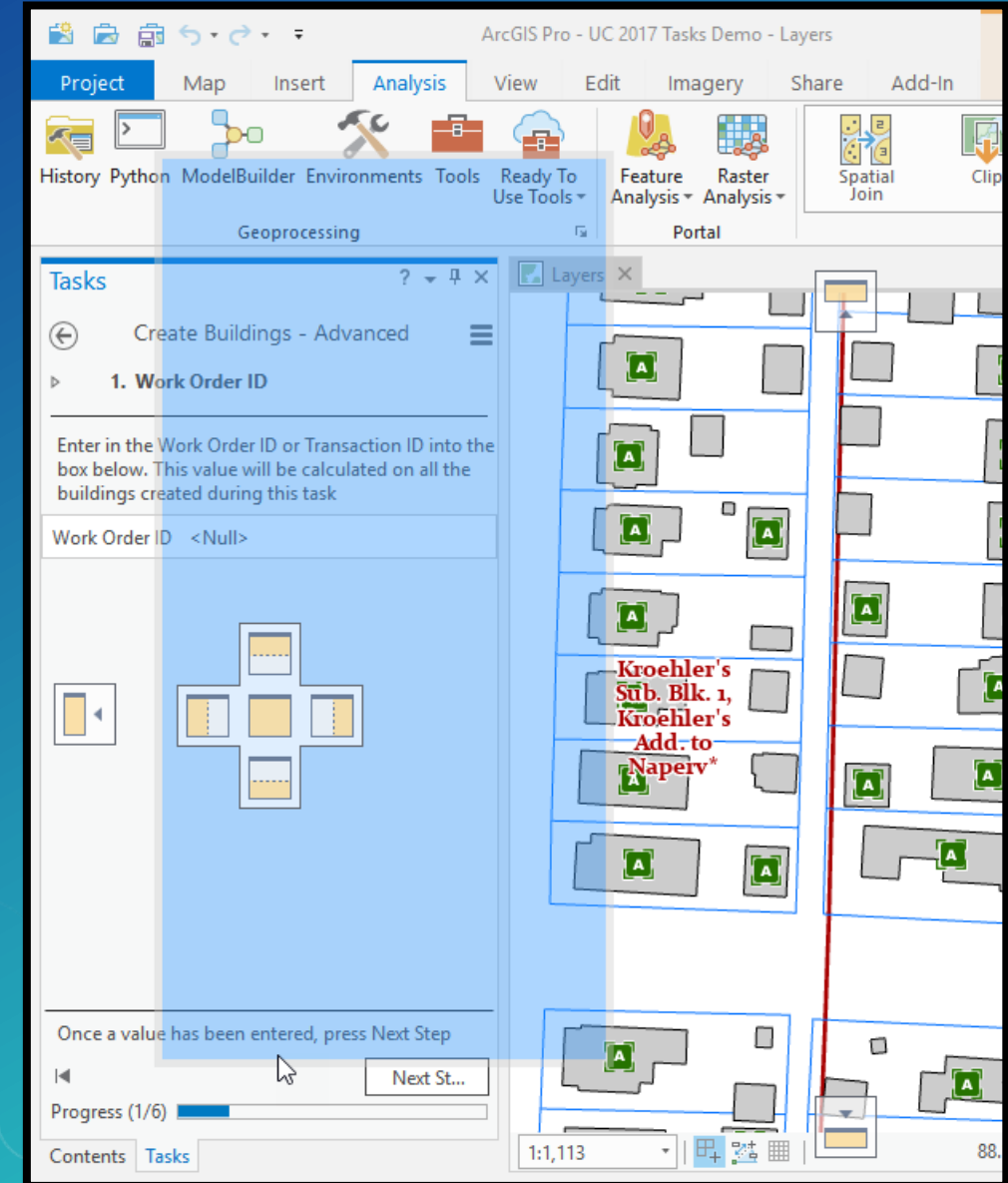
- Minimize the Ribbon
- Close all other dock panes
- Collapse the list of Steps





# What's Up Dock?

- Undock the Tasks Pane
  - This prevents other panes from opening over tasks
  - Can move Task Pane to another monitor, give one screen a full Pro



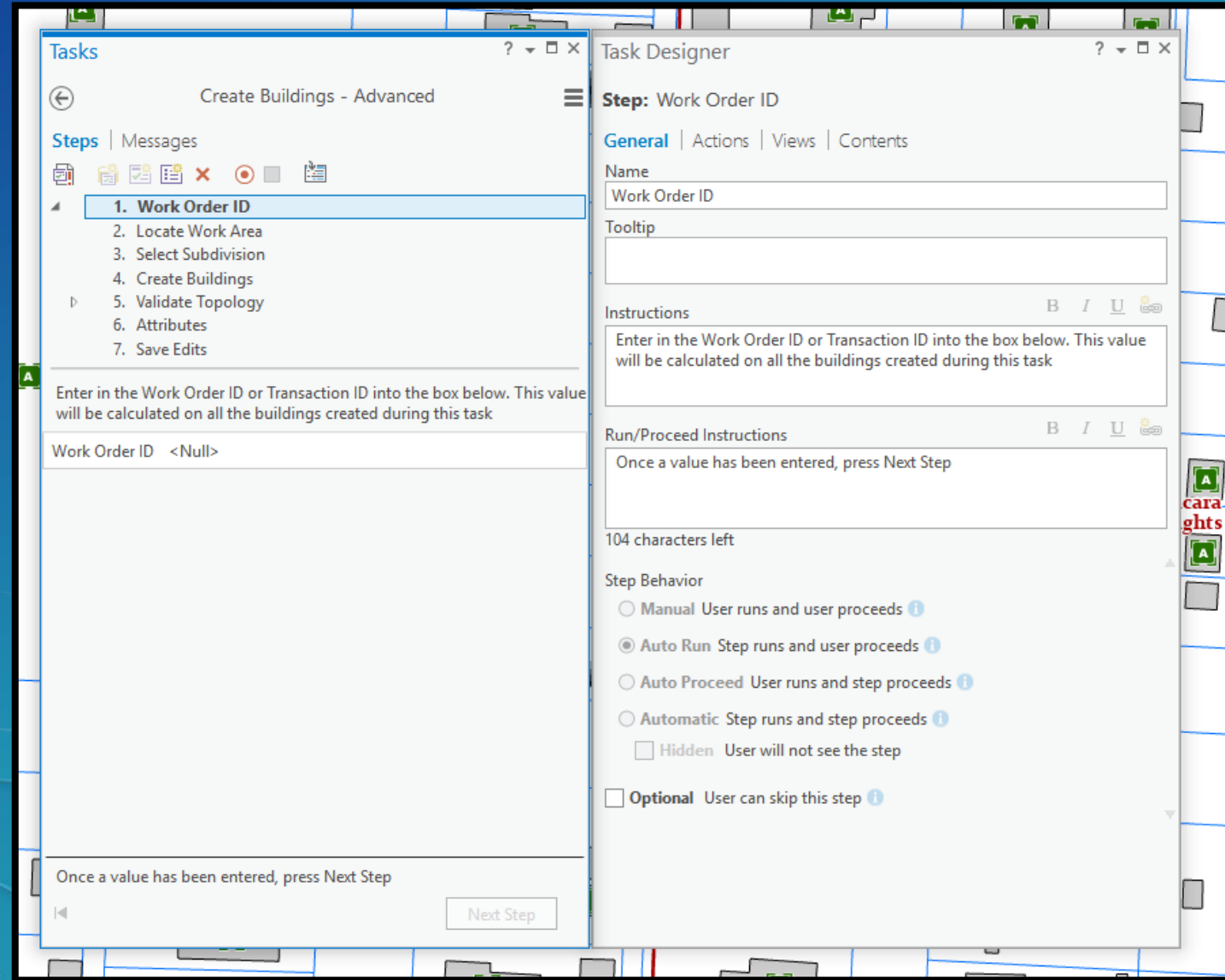
# Time to Design





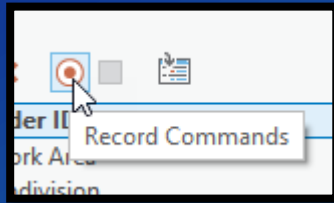
# Untether From the Dock at Set Sail

- Undock the Designer Pane
- Place the panes side by side
- If you have a 2<sup>nd</sup> monitor, utilize it, place the Task Panes over there



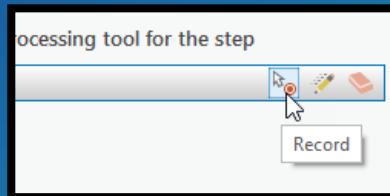
# Don't Forget To Press Record

- Record your entire workflow

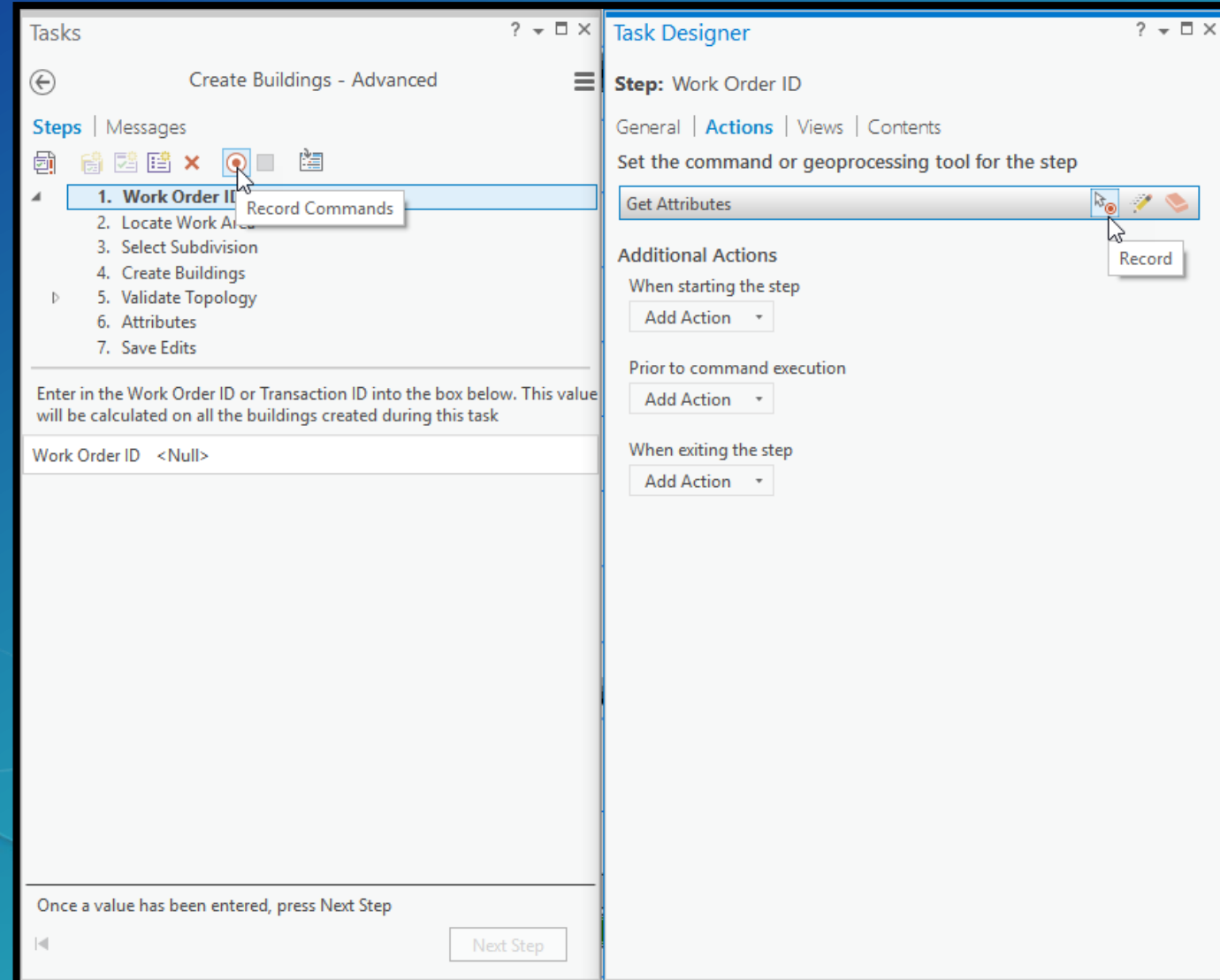


- Use this to record your workflow by creating new steps for each command clicked. Press stop to end recording

- Record a single command



- Use this to record and set a single command on the currently selected step



# You Better Be on your Best Behavior

Manual Mode: Geoprocessing Tools / Modify Tools that you'll run more than once

Auto Run: Selection Tool, Explorer Tool, Embedded Panes defaults

Auto Proceed: GP Tools / Modify Tools you want the user to run only once

Automatic: Hidden Tool activation, Scripts that don't require user input

Step Behavior

☐ **Manual** User runs and user proceeds ⓘ

☒ **Auto Run** Step runs and user proceeds ⓘ

☐ **Auto Proceed** User runs and step proceeds ⓘ

☐ **Automatic** Step runs and step proceeds ⓘ

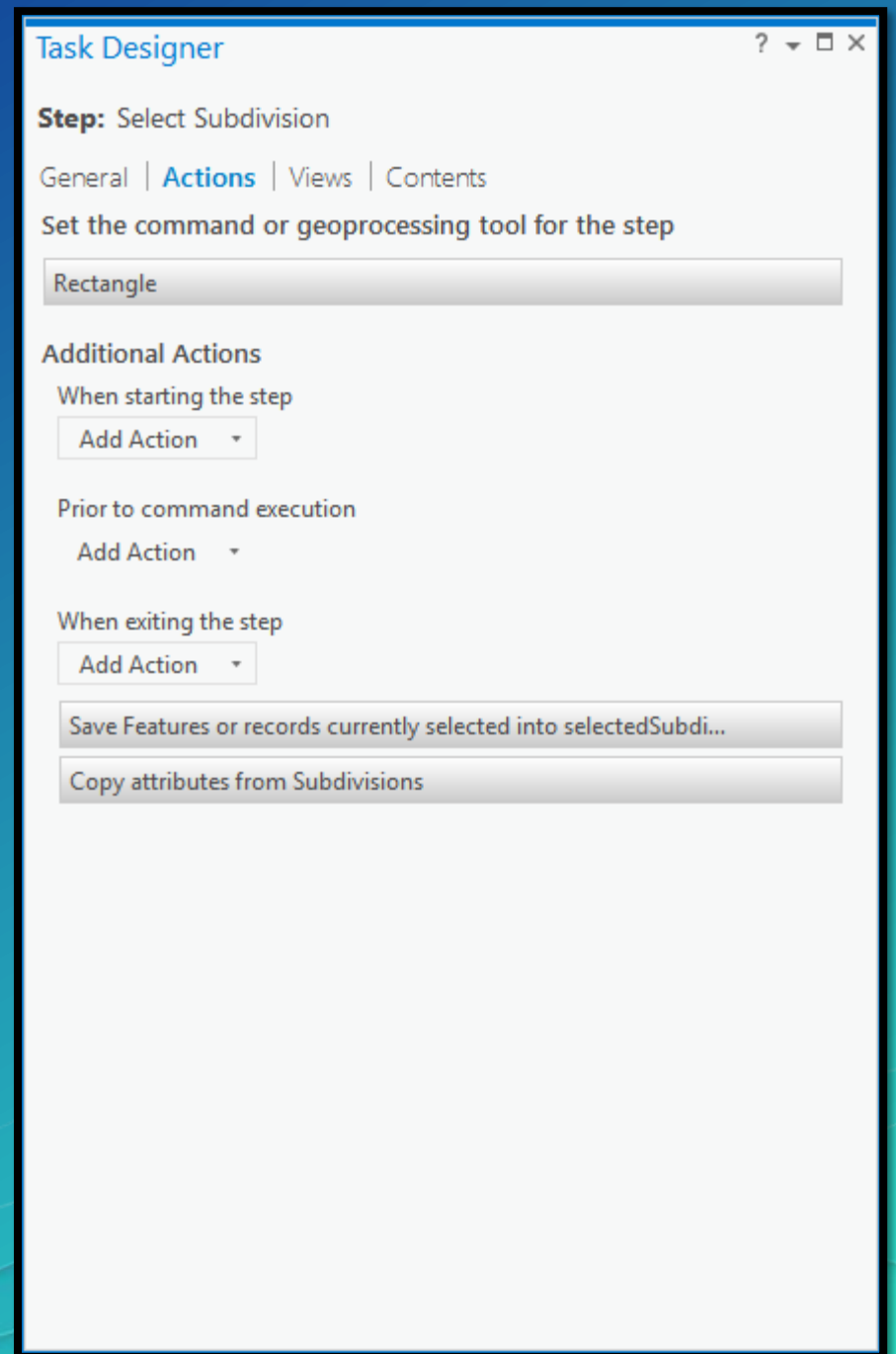
☐ **Hidden** User will not see the step

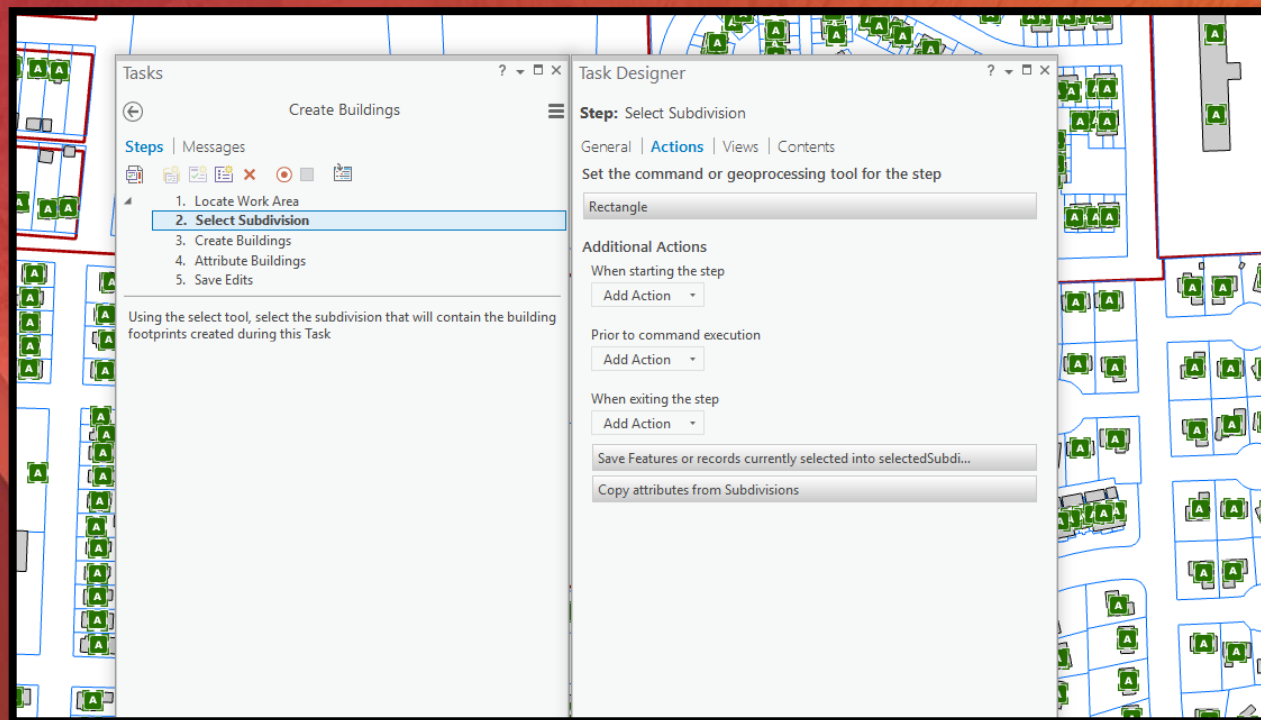
☐ **Optional** User can skip this step ⓘ



# Ready, Set, Action!

- Actions are very powerful
- They can occur at 3 different times within a step
  - When starting the step
  - Prior to command execution
  - When exiting the step
- Note: Certain actions are limited based on time of execution
  - No verification when starting the step
  - Selections when starting the step are limited to features currently selected or created/modified

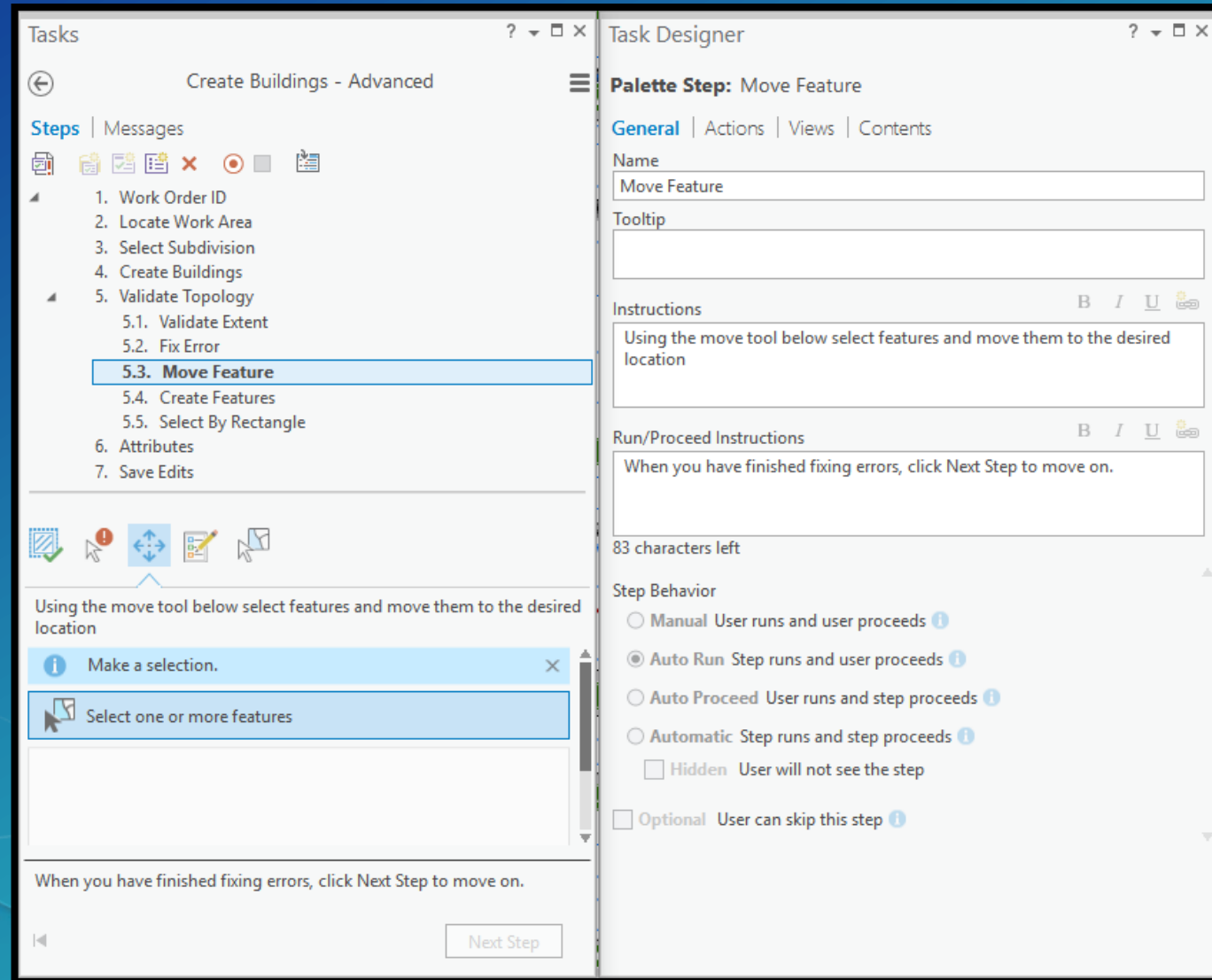




# Demo: Actions in Action

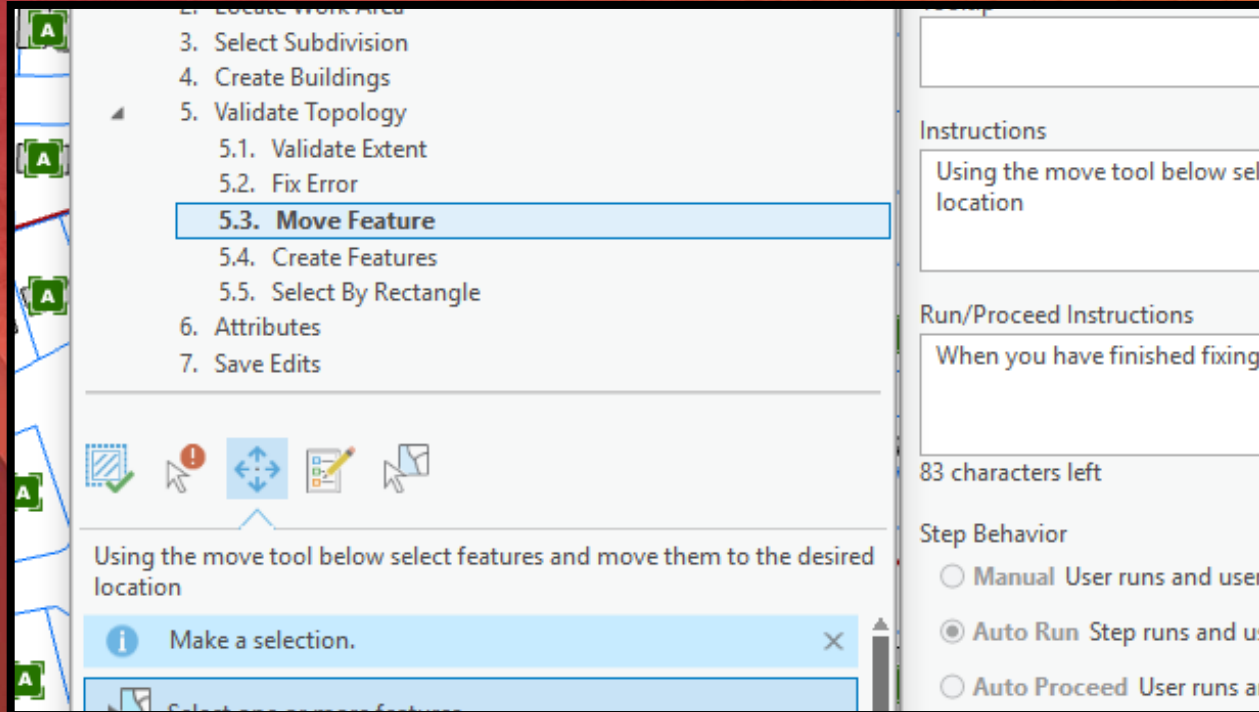
# Design Palettes Like an Artist

- A Palette is used when
  - Multiple commands need to be run an unknown amount of times
  - The sequence of command are unknown
- A Palette is a container for steps
- Each step in a palette functions identically to a step outside a palette (almost)
- Steps can be dragged in and out of palettes
- User sees the Palette Container Name



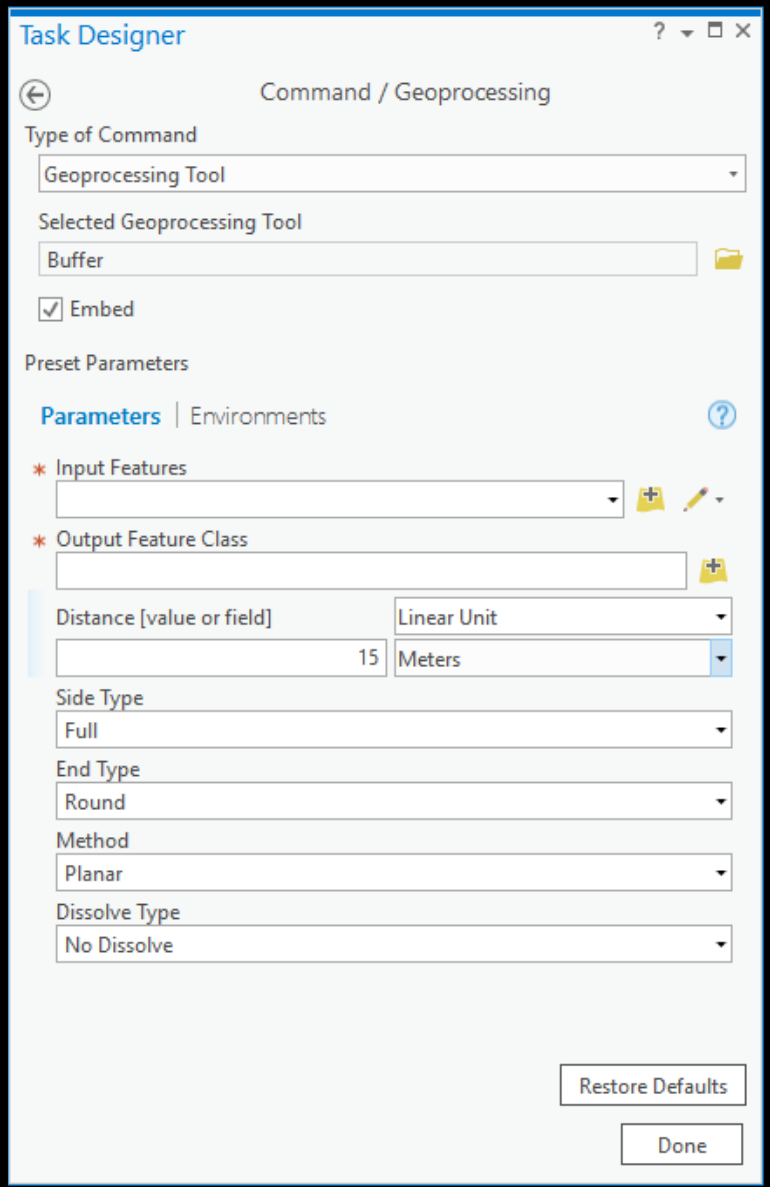


# Demo: Palette for your Palette



# Embed Your Mind With Embedding Commands

- No Pane, All Gain
- All Geoprocessing tools can be embedded
- Many other tools can be embedded
- Geoprocessing and some other tools can also have pre-set parameters when embedded
- Many embedded commands have specific step behavior



The screenshot shows the 'Task Designer' window for the 'Buffer' tool. The 'Type of Command' is set to 'Geoprocessing Tool'. The 'Selected Geoprocessing Tool' is 'Buffer'. The 'Embed' checkbox is checked. The 'Preset Parameters' section is active, showing the 'Parameters' tab. The 'Input Features' field is empty. The 'Output Feature Class' field is empty. The 'Distance [value or field]' is set to '15'. The 'Linear Unit' is set to 'Meters'. The 'Side Type' is set to 'Full'. The 'End Type' is set to 'Round'. The 'Method' is set to 'Planar'. The 'Dissolve Type' is set to 'No Dissolve'. There are 'Restore Defaults' and 'Done' buttons at the bottom right.

Task Designer

Command / Geoprocessing

Type of Command

Geoprocessing Tool

Selected Geoprocessing Tool

Buffer

☒ Embed

Preset Parameters

Parameters | Environments

\* Input Features

\* Output Feature Class

Distance [value or field] 15 Linear Unit Meters

Side Type Full

End Type Round

Method Planar

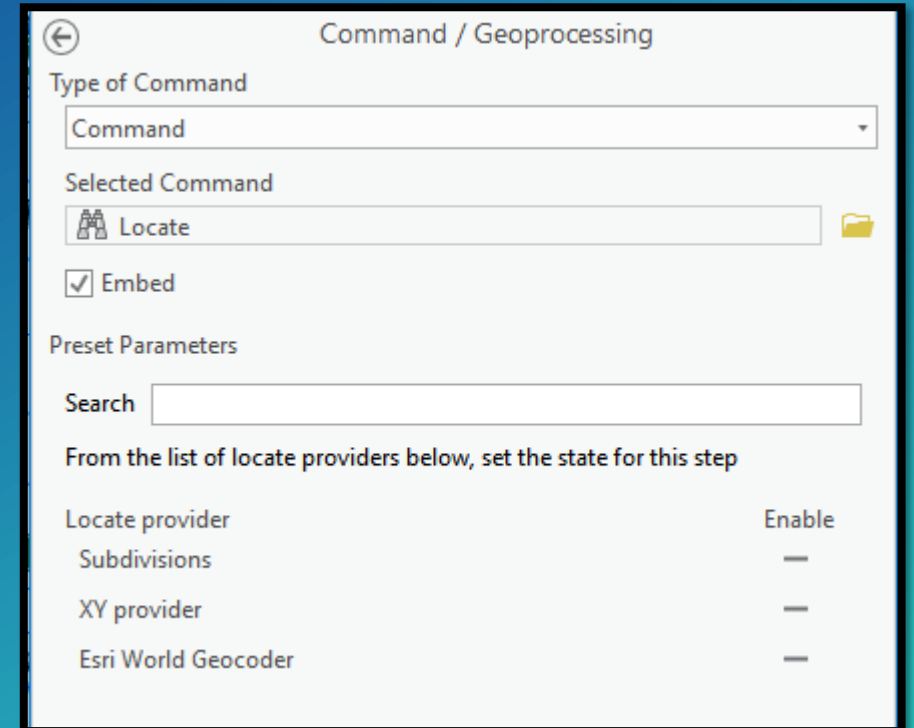
Dissolve Type No Dissolve

Restore Defaults

Done

# Hey Look! Locate Can Now Be Embedded

- Pre-set a locate search string
- Set which locate providers are enabled for a given step
- Existing Tasks will now have this functionality, just click Embed



The screenshot shows the 'Command / Geoprocessing' dialog box. It has a back arrow icon in the top left. The title is 'Command / Geoprocessing'. Below the title, there is a 'Type of Command' dropdown menu set to 'Command'. Below that is a 'Selected Command' field with a magnifying glass icon and the text 'Locate', followed by a folder icon. Below the 'Selected Command' field is a checkbox labeled 'Embed' which is checked. Below the 'Embed' checkbox is a section titled 'Preset Parameters'. Inside this section, there is a 'Search' label followed by a text input field. Below the 'Search' field is the text 'From the list of locate providers below, set the state for this step'. Below this text is a table with two columns: 'Locate provider' and 'Enable'.

Locate provider	Enable
Subdivisions	—
XY provider	—
Esri World Geocoder	—



# Don't Forget To View the Contents of View and Contents

- You can select multiple layers (and now tables) and change the properties of an entire column
- You can right click and make a single layer the only Visible, Selectable, Editable, etc.
- Note: Limit the amount of layers that are controlled each step. Use the “-” option more often
- Drag step up/down in Task Pane and click Previous Step to take another step's contents
- Linking Views can now be done in the Views tab

The screenshot displays the 'Task Designer' window with the 'Contents' tab selected. The 'Active View' is 'Layers'. The interface shows a list of layers and tables with their states for the current step. A mouse cursor is hovering over the 'Subdivisions' row.

	Visible	Selectable	Editable	Printable	Exportable	Linkable
Building_Address_Topology	✓	✓	✓	✓	—	—
AddressPoints	✗	✓	✓	✓	—	✗
BuildingFootprint	✗	✓	✓	✓	—	✗
OwnerParcel	✗	✓	✓	✓	—	✗
Subdivisions	✗	✓	✓	✓	—	✓
World Imagery	✗	—	—	—	—	—

Task Designer

Step: New Step

General | Actions | Views | **Contents**

Active View: **Layers**

From the list of layers and tables below, set the states for this step

View

None

Layers

AddressDataManagement

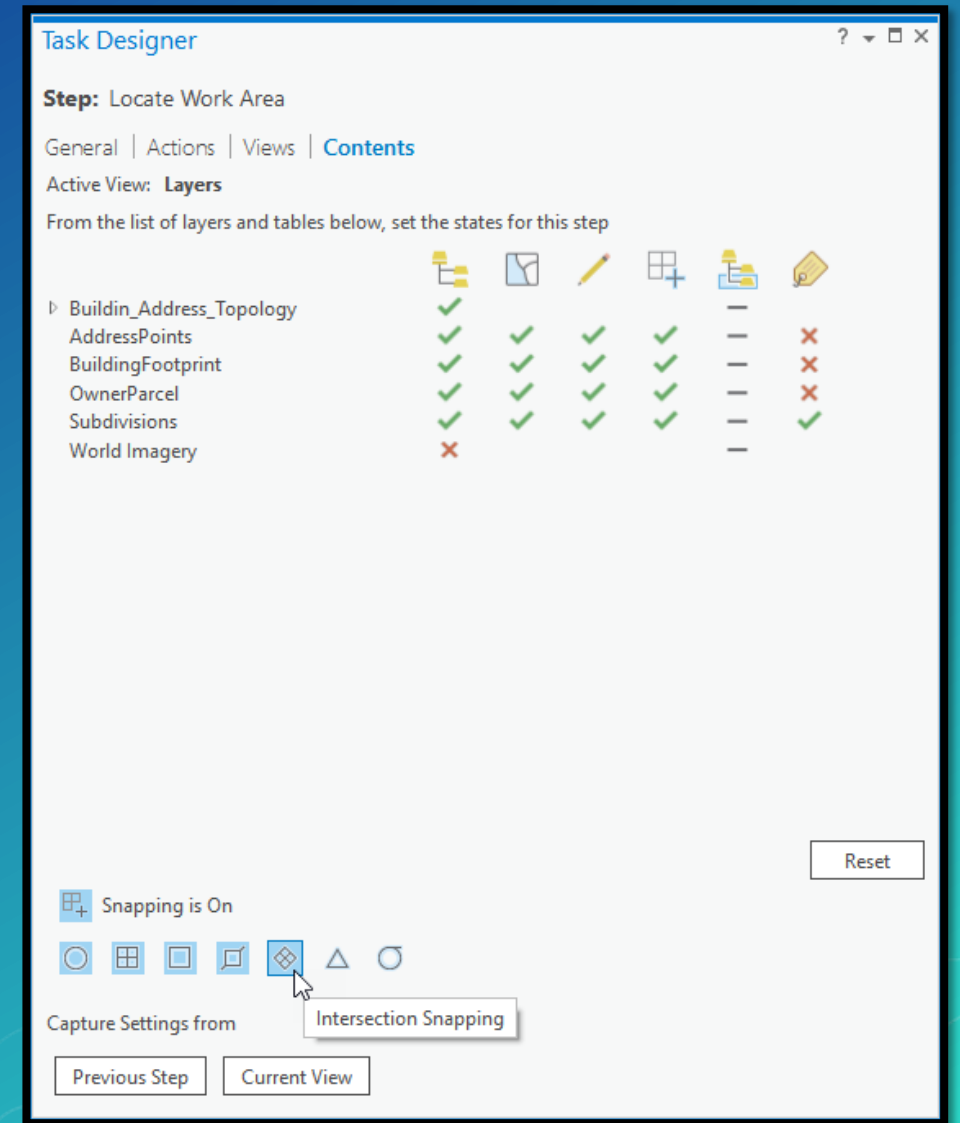
Link Views

Capture View Settings from

Previous Step Current View

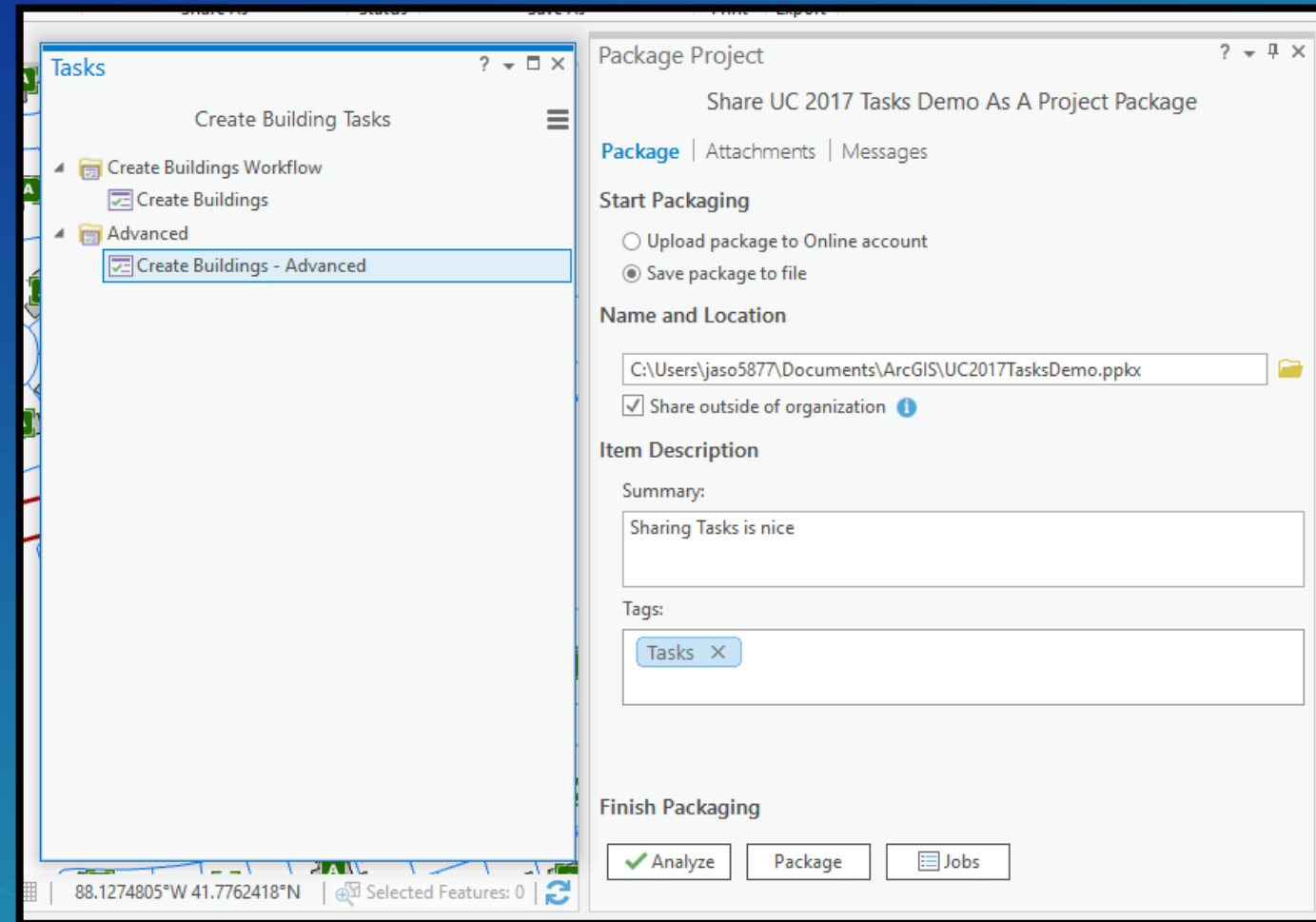
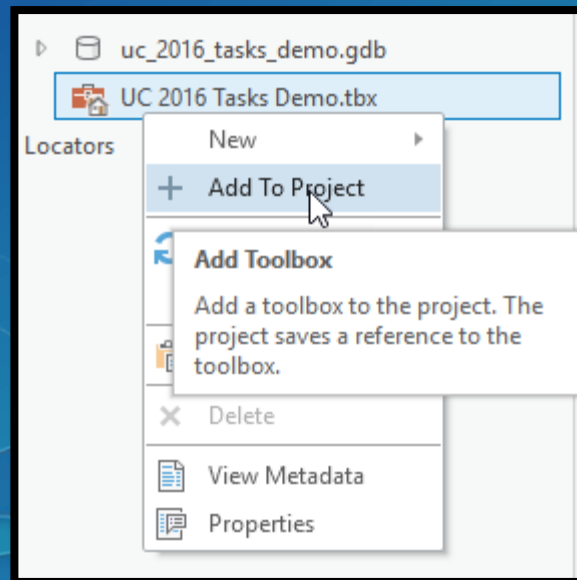
# Setting Snapping Properties is a... Snap

- Snapping properties can be changed on a step by step basis
- Each newly created step inherits previous snap properties



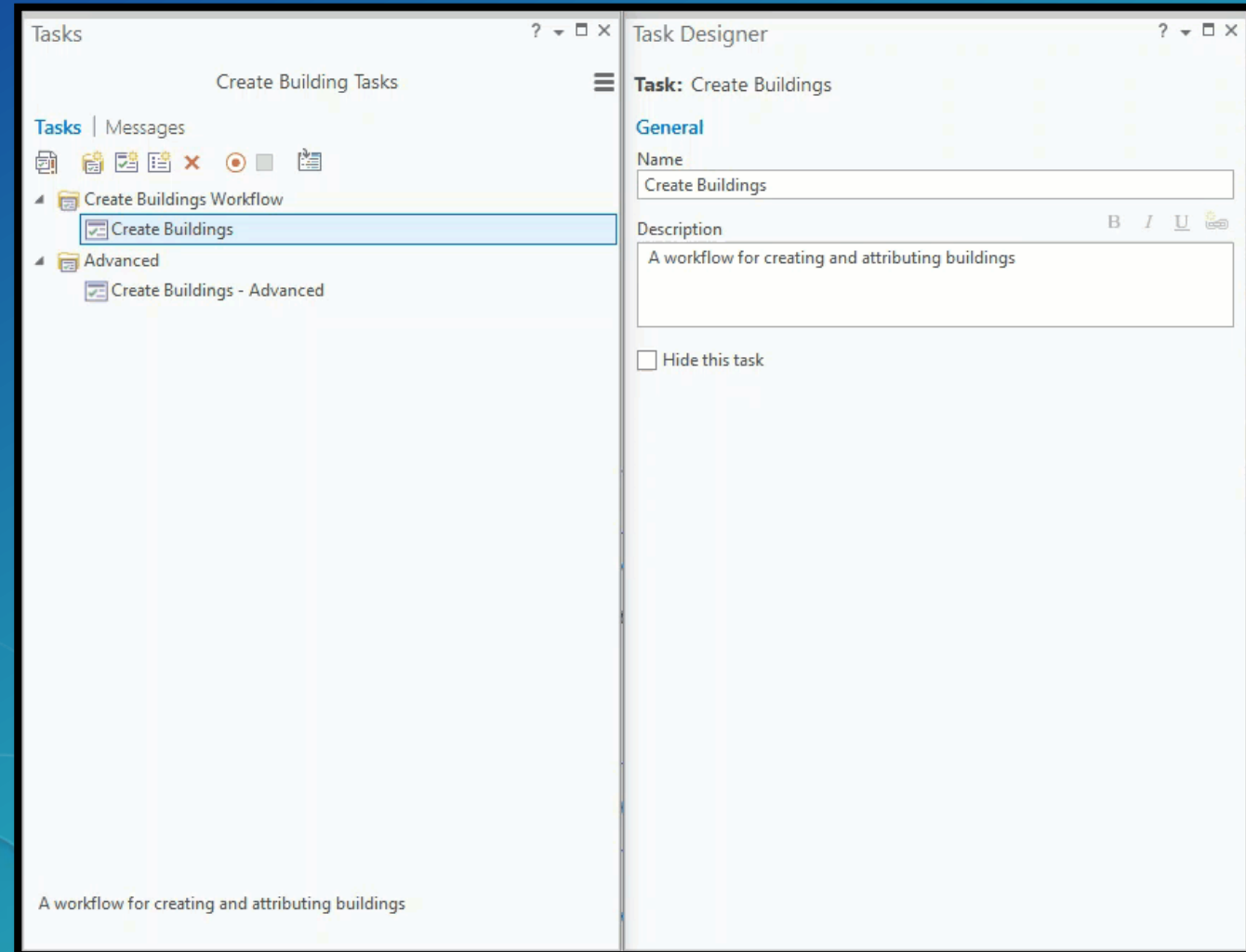
# Sharing is Caring

- To share Tasks it's important you share the entire project as a Project Package
- If you have custom GP Scripts or Add-Ins make sure they've been added to the project



# Recourses for Broken Resources (Hey, that's an anagram)

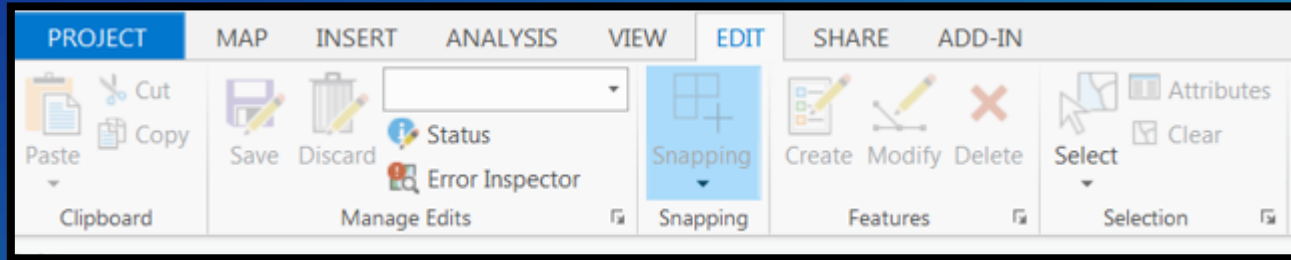
- Task Item references a layer that you don't have
  - Re-map it
  - Remove it
- Task Item resources can be remapped at any time
- Resources include:
  - Maps
  - Layers
  - Geoprocessing Tools
  - GP Scripts, Models, Add-Ins



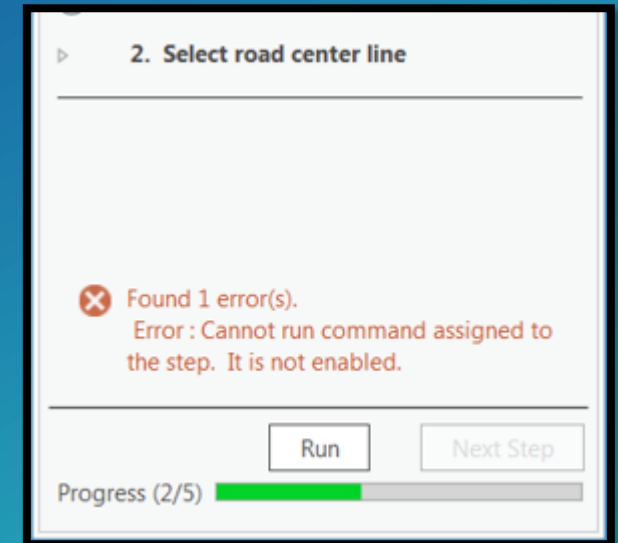


# Woah, Why Am I Getting This Error?

- Sometimes during runtime a user might get an error like this:
- Remember commands are contextual

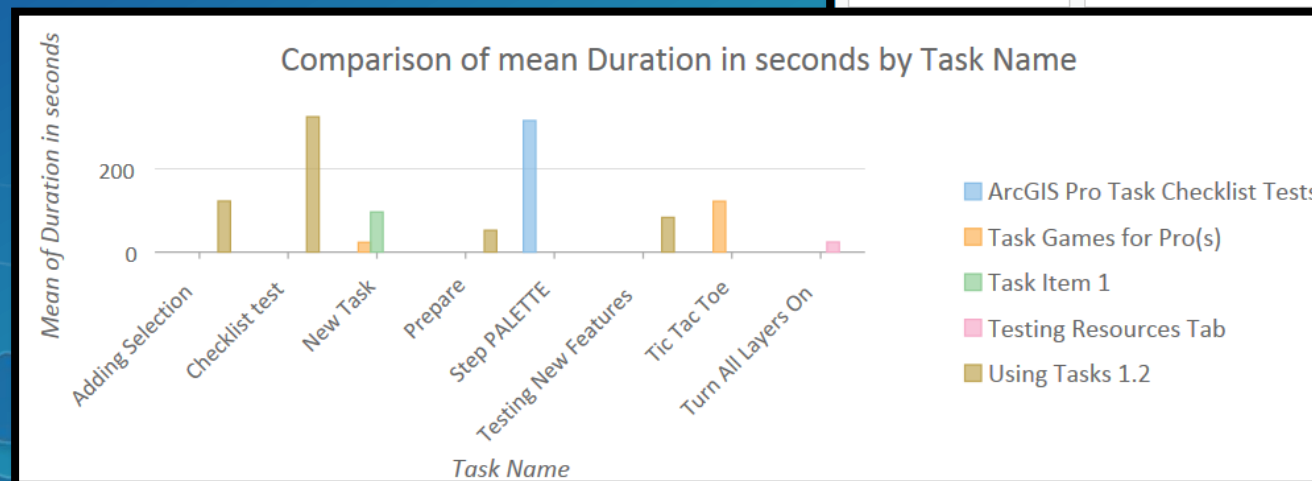
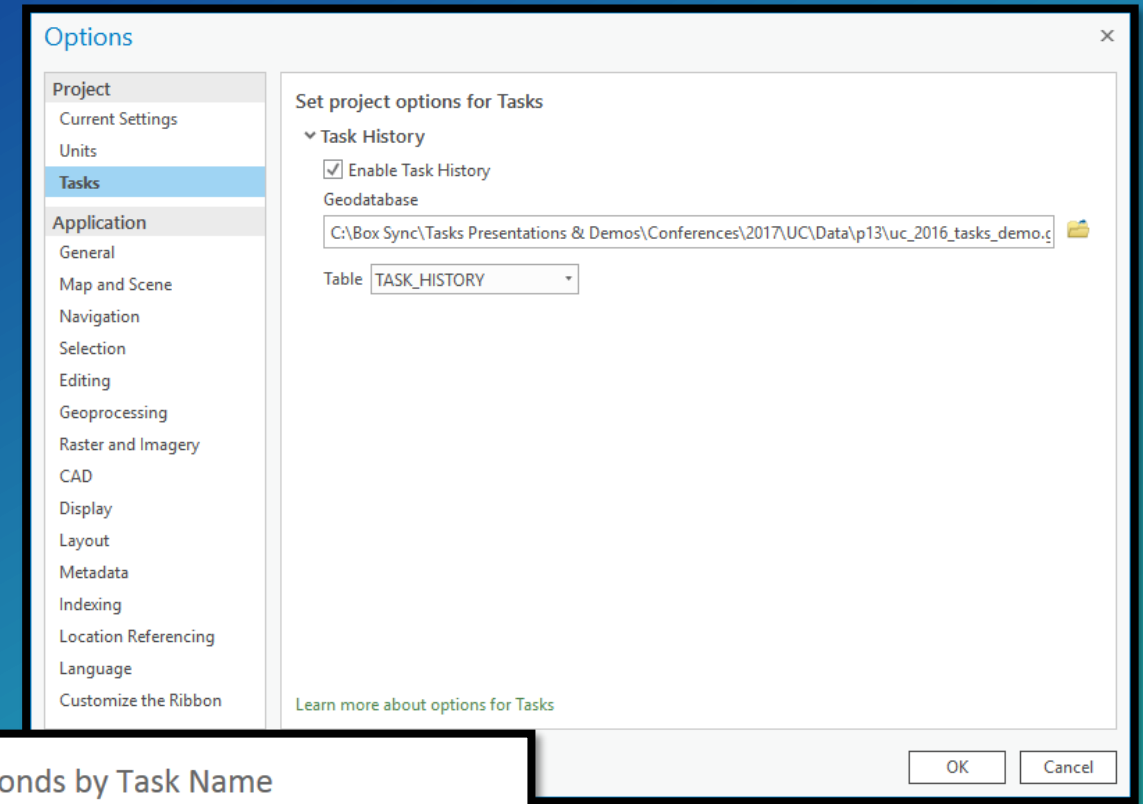


- Check to see if command is currently active
- Check to see if the Task can be performed outside of Tasks



# Time to Make History

- Pro Backstage Options -> Tasks
- Create a New Table
  - Can be on SDE Database
  - Can use an existing Table that was used by another Project
- Using Charts you can display stats in a nice bar graph
- Does not record idle time



## Summarized Summary

- **Configure Vs. Customization: Consider Tasks before writing Add-Ins**
- **Tasks have an SDK (Open a Task Item and Open A Specific Task)**
- **Create Tasks that save time and improve quality**
- **Breakdown a long workflow into multiple Tasks**
- **Understand your workflow and build your Task from that**
- **Take your time and examine each step for efficiency and correctness**

# 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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