



Rethinking the Symbol Experience:

An ArcGIS Pro Case Study

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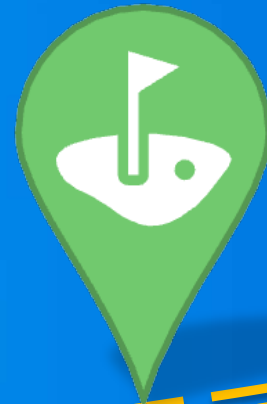
A Symbol Legacy

A long graphical history



Symbols

- Symbols
 - Collections of graphical shapes, strokes, and fills
 - Applied to geographic features to locate, categorize, classify
- Almost every GIS workflow relies on symbols
 - Wide spectrum of complexity and requirements

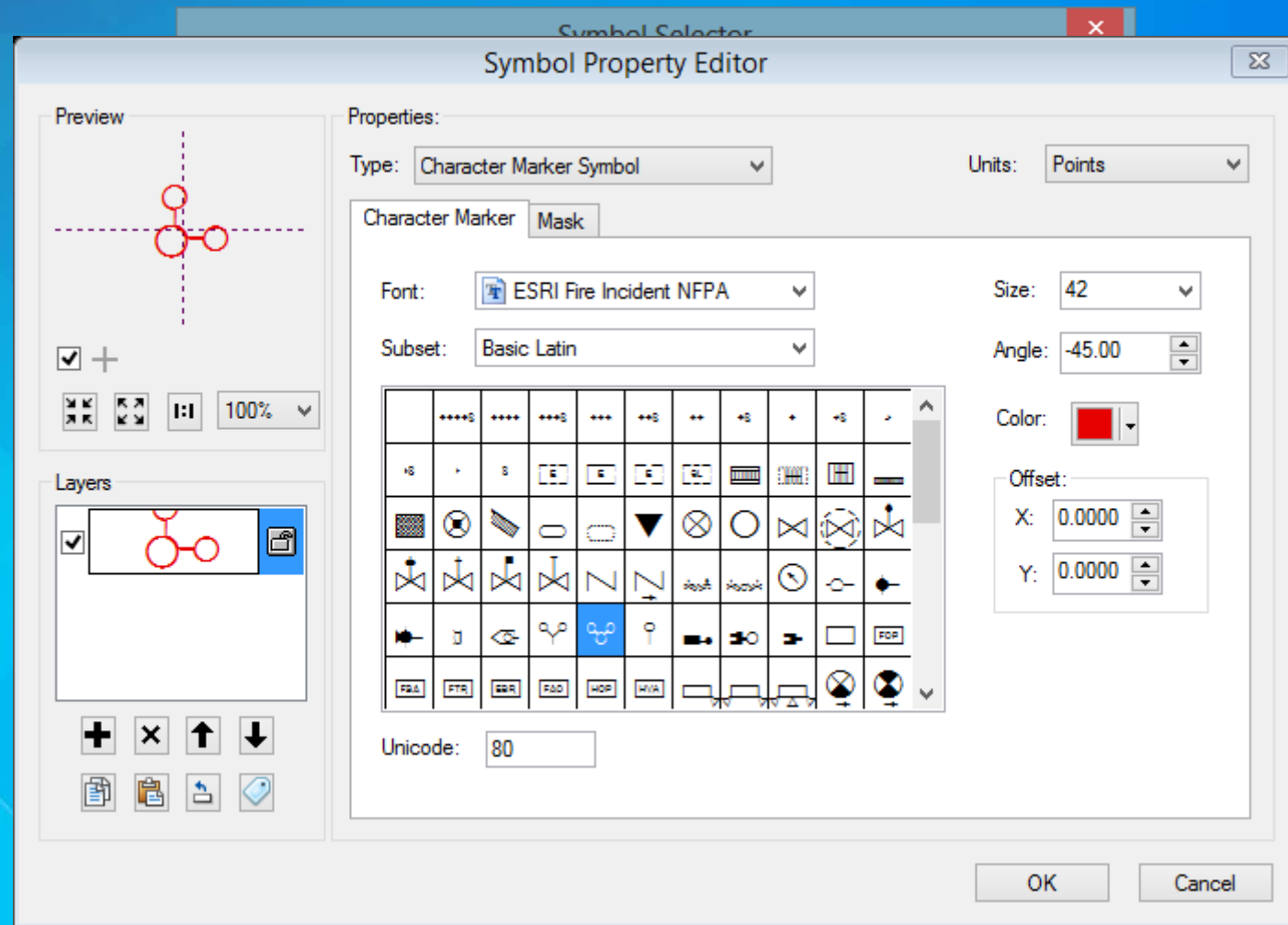


Working with symbols ArcMap

- **Three common usability obstacles**
 - **Selecting symbols vs modifying symbols**
 - **Endlessly recursive model**
 - **Modal dialogs covering the map**
- **Legacy concerns**
 - **Adapt to an existing user base**
 - **Convert existing symbolized maps**

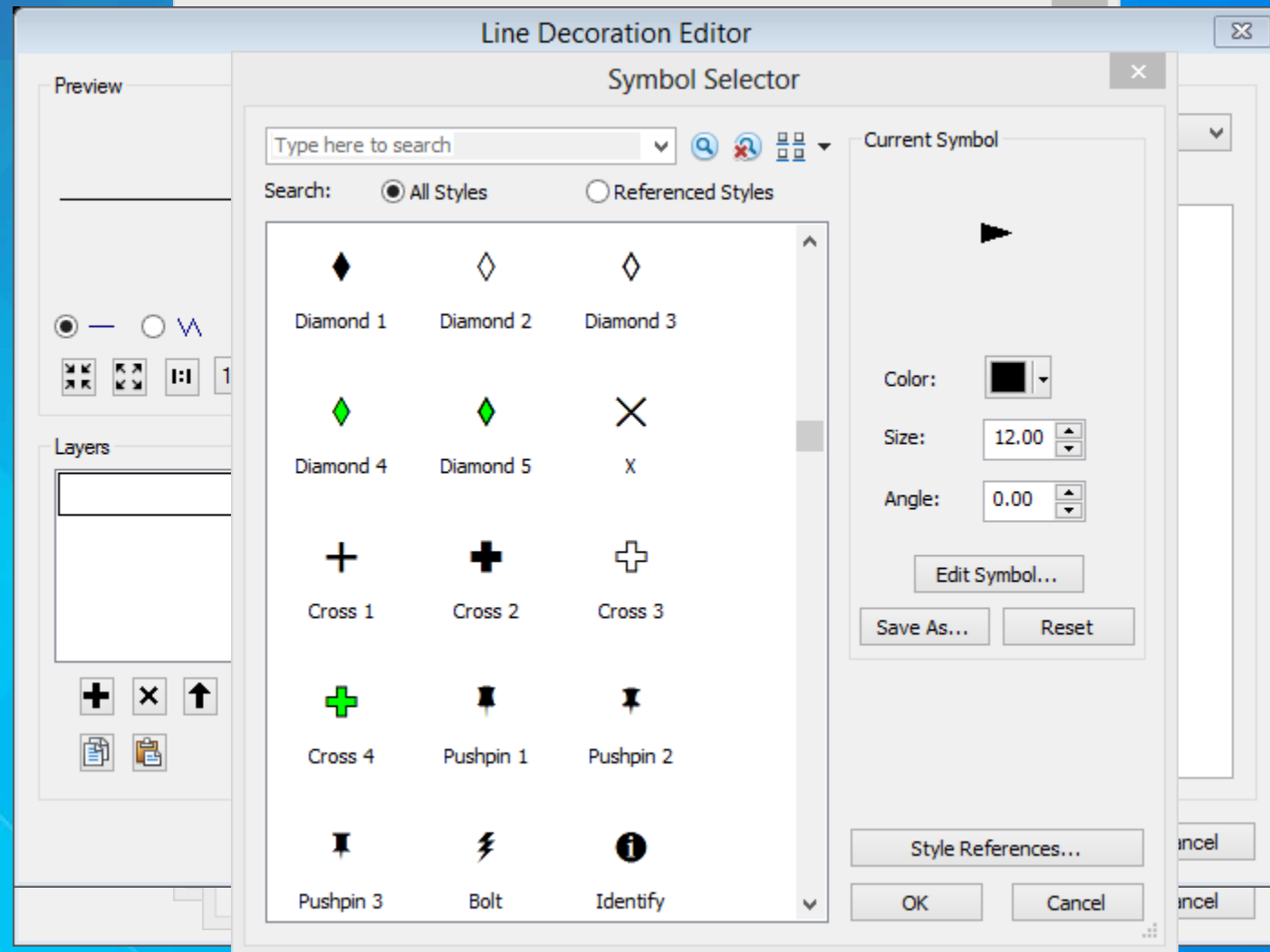
Selecting vs Modifying Symbols

ArcMap



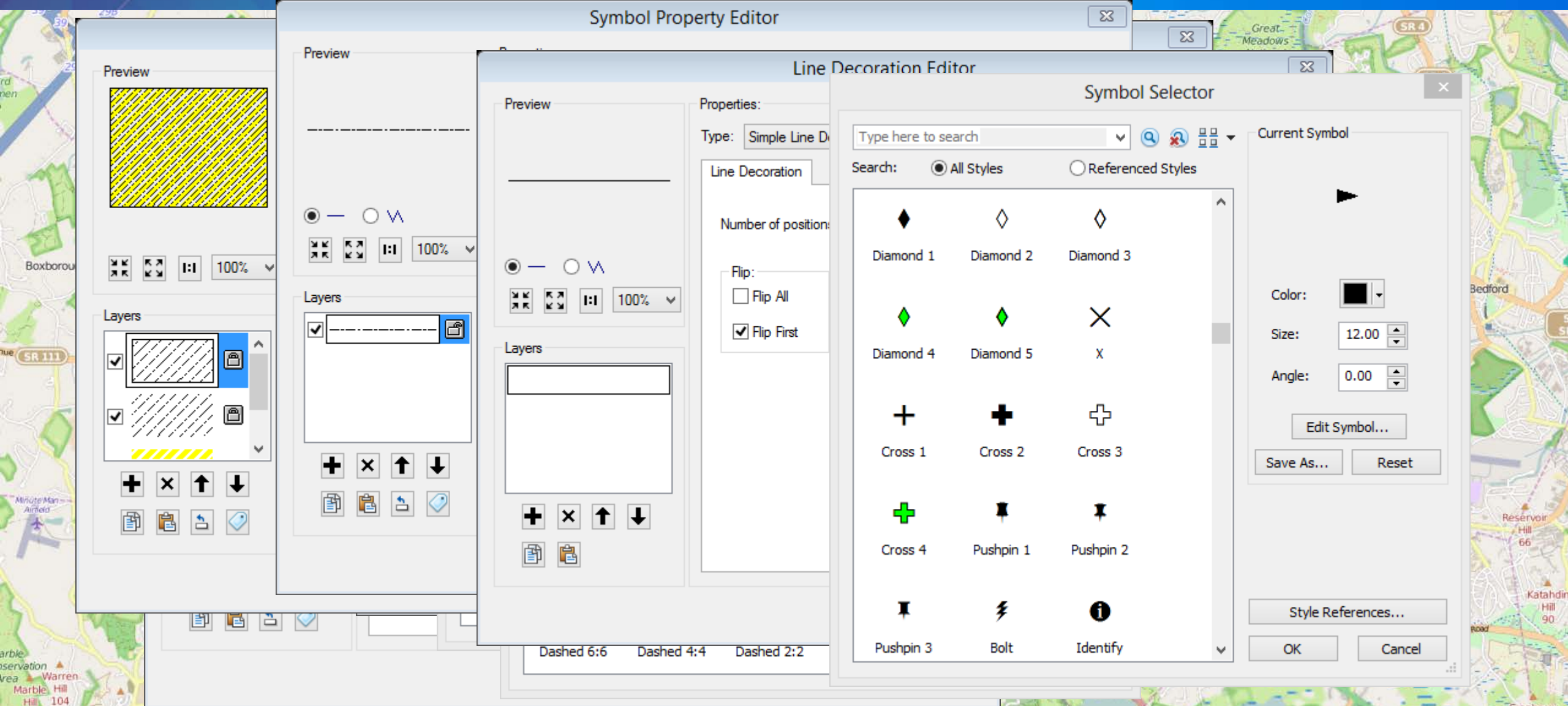
Endlessly Recursive Symbol Model

ArcMap



Modal Dialogs Everywhere

ArcMap



Getting it Right




Toward a new symbol experience

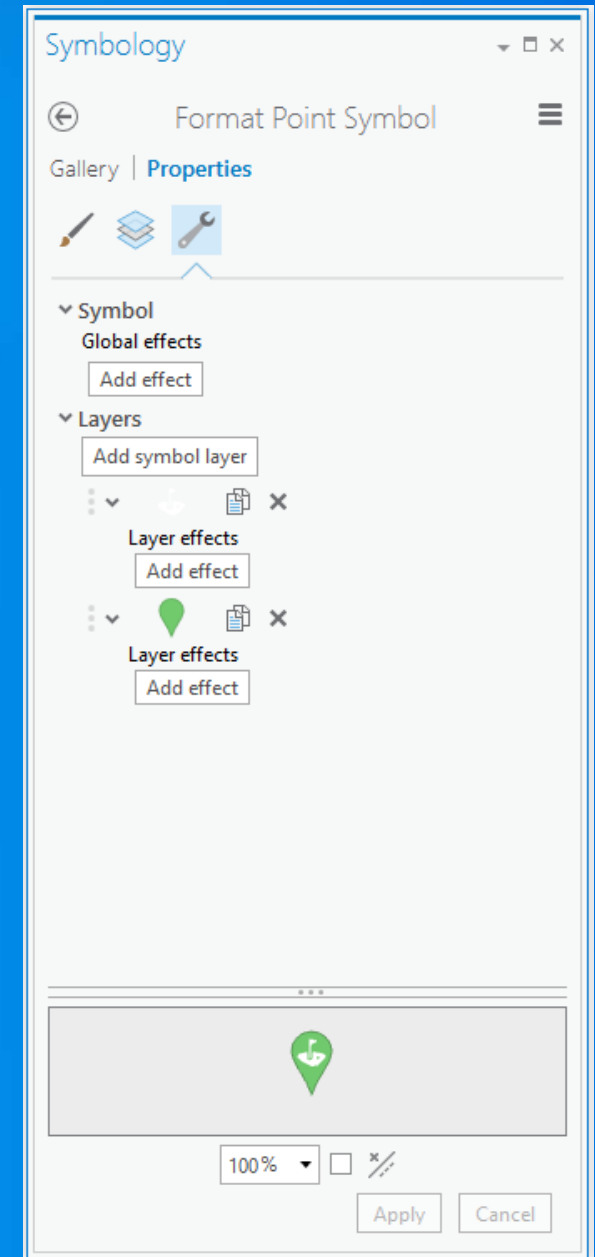
ArcGIS Pro

- **A new structural symbol model**
 - Updated UI
 - Support 2D & 3D simultaneously
- **Design for the past: support conversion**
- **Design for the future: support still-unimplemented functionality**

Selecting and Modifying Symbols

ArcGIS Pro

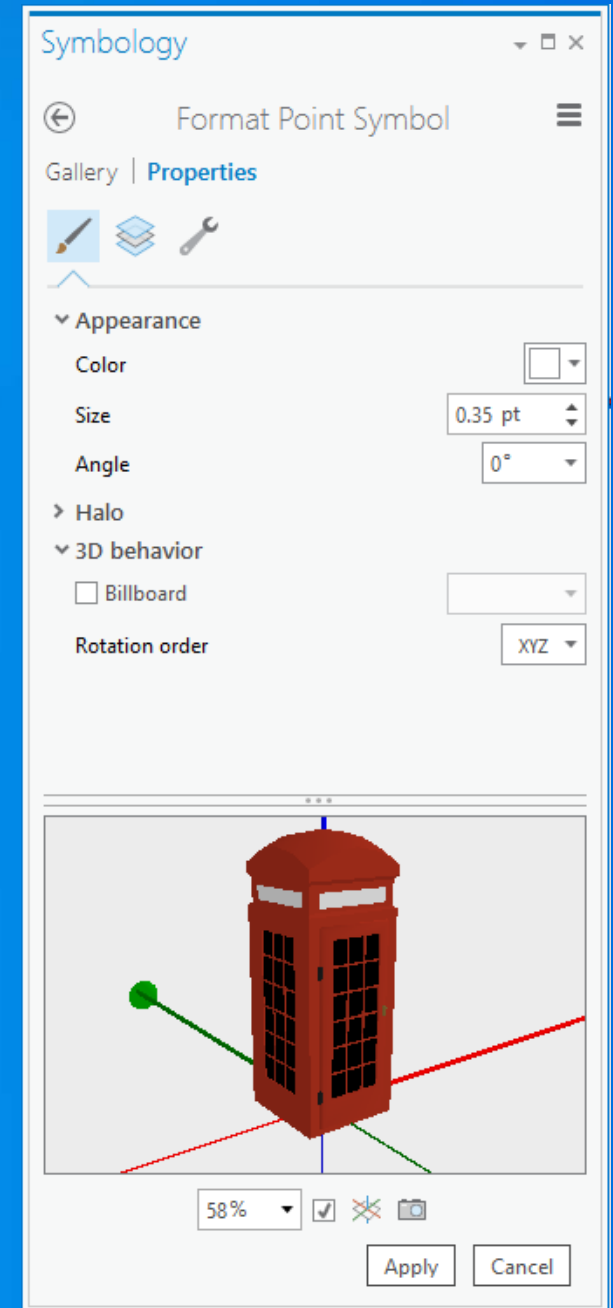
- Place symbol selection (Gallery), and symbol modification (Properties) on the same pane
 - Neither gets precedence
 - Sticky pane- you return to the last side used
- Properties divided into three tabs
 -  Symbol: quick, easy edits to basic properties
 -  Layers: access all properties of all symbol layers
 -  Structure: change the symbol structure (layers & effects)



Committing Symbol Changes

ArcGIS Pro

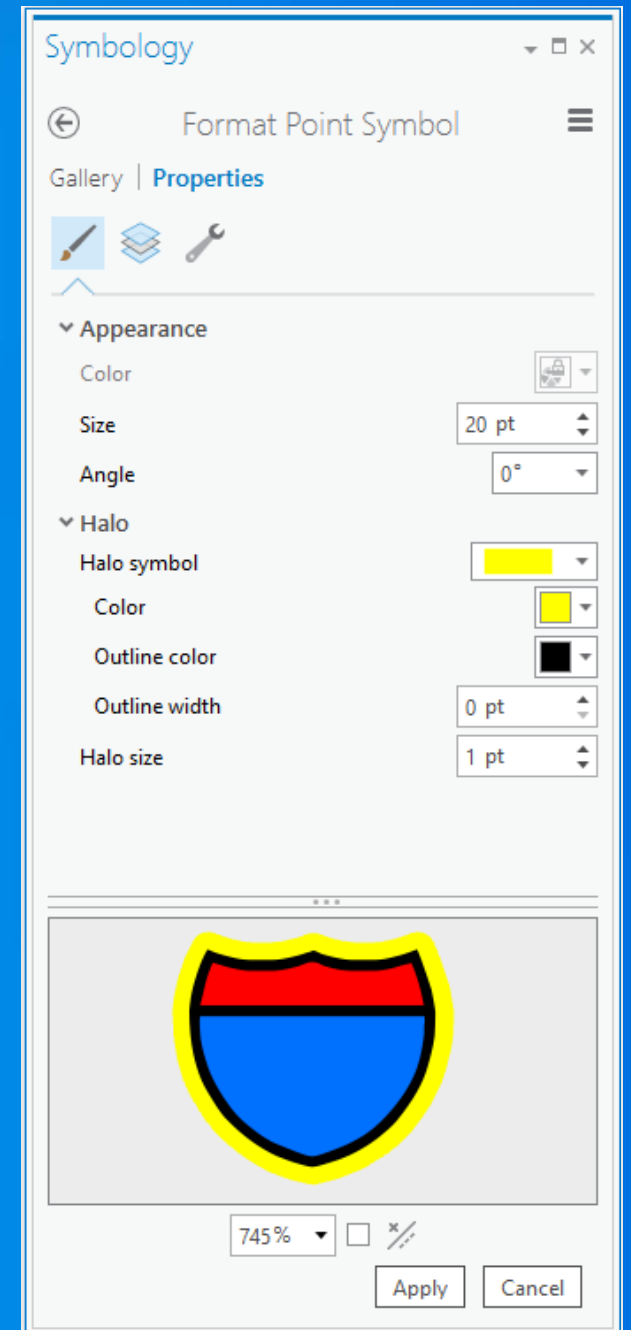
- Truly modeless? Or commit with an Apply button?
 - many small related symbol modifications made at once
 - build a logical undo/redo stack
 - robust, interactive preview



Stop the Madness

ArcGIS Pro

- **Limit recursion**
 - access only the basic properties of component symbols
 - vector markers
 - halos
- **Mitigation:**
 - better style experience
 - more styles online
 - vector marker editor



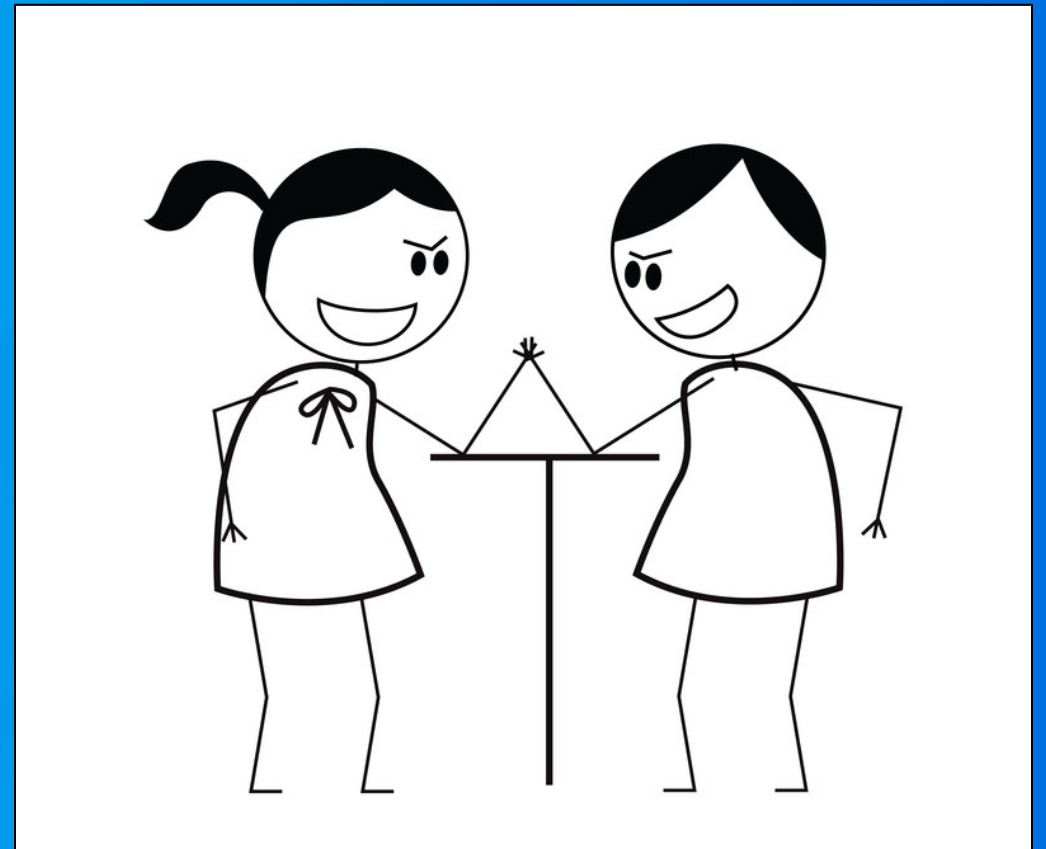
Collaboration

Working Across Teams

Collaborating on Designs and Experience

ArcGIS Pro

- **Dev Team:**
 - **subject matter experts**
 - **know the legacy, the users, the use cases**
- **Creative Team**
 - **user interface experts**
 - **understanding of the UI of the whole platform**



Did We Get It Right?

ArcGIS Pro

- **On-going Holistic Testing**
 - Internal and External
 - Full workflows
- **Usability Testing**
 - Intuitive
 - Discoverable
 - Delightful



Understanding our world.