

Arcade: An Introduction

John Thieling

What is Arcade?

- A new expression language for the ArcGIS Platform
 - Primarily designed for embedded expression cases
 - Labeling
 - Rendering
 - Symbol variation
 - Range aliases
 - *Future uses*
- Not a replacement for Python for geoprocessing and automation

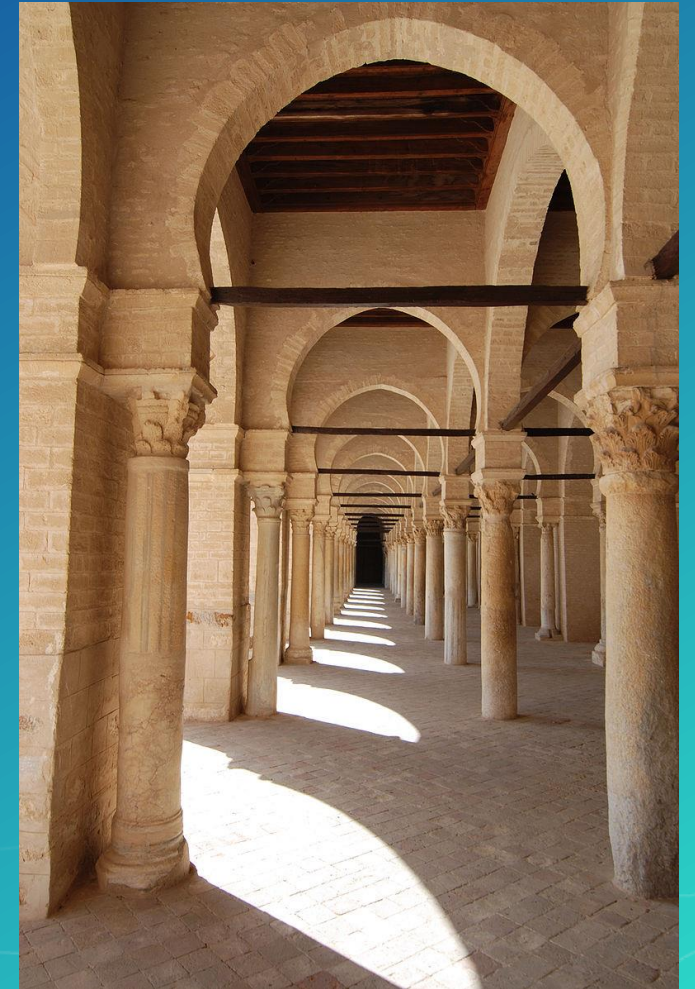


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Why a new scripting language?

- **We need a portable language for embedded expressions**
 - Pain point for sharing across the ArcGIS Platform
- **Why not just use JavaScript, or Python, or Lua, or etc.?**
 - **Security**
 - Cross-site scripting concerns with languages like JavaScript
 - **Portability - including size**
 - Python and Lua interpreters are challenging in JavaScript
 - Python has a large runtime
 - **GIS specific functionality**
 - Native support for features, geometries etc.

Arcade in the ArcGIS Platform

- ArcGIS Online (December 2016 release)
 - 2D only at this time
- JavaScript API 3.19
- Runtime 100+
- ArcGIS Pro 1.4+
- ArcGIS Enterprise 10.5+ (when published from ArcGIS Pro)
 - Look for the *ArcGIS Enterprise 10.5 Service Publishing Patch*
- Each implements version 1.0.0 of Arcade. Pro 2.0, 10.5.1, AGOL June 2017)
implement 1.1.0 of Arcade

Arcade in use

- **Arcade is has been used in ArcGIS Online for a year or so**
 - **Predominance renderer**
 - **Some of the time renderers (e.g. Age)**
- **We can add new symbology options without significant new development across the platform**
 - **Users will be able to do this as well with their own expressions**

Arcade in ArcGIS Pro

- **Labeling**
 - Demo
 - Arcade is now the default language
- **Symbology in Pro / Enterprise & ArcGIS Online**
 - Class breaks
 - Unique value
 - Rotation, Size, Color, and Transparency visual variables
 - Demo [Sample Arcade Expressions](#)



Expression

```
Round($feature.Area * 0.000247105,3) + " Acres"
```



Language reference

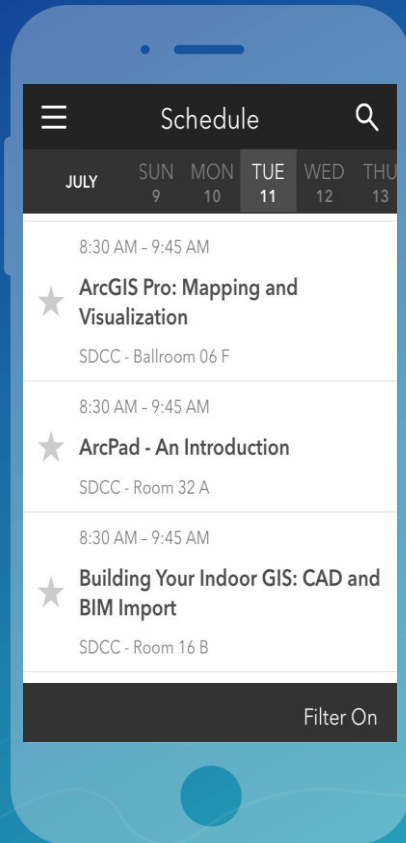
- On ArcGIS for Developers: <https://developers.arcgis.com/arcade/>
 - Includes a language playground for experimenting with the language

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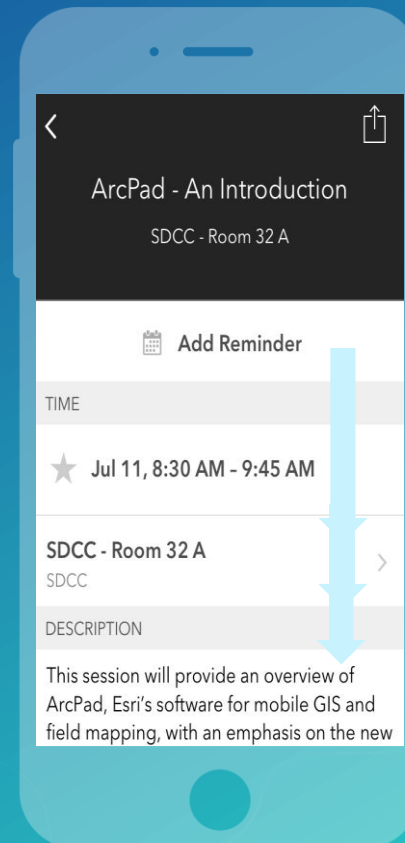
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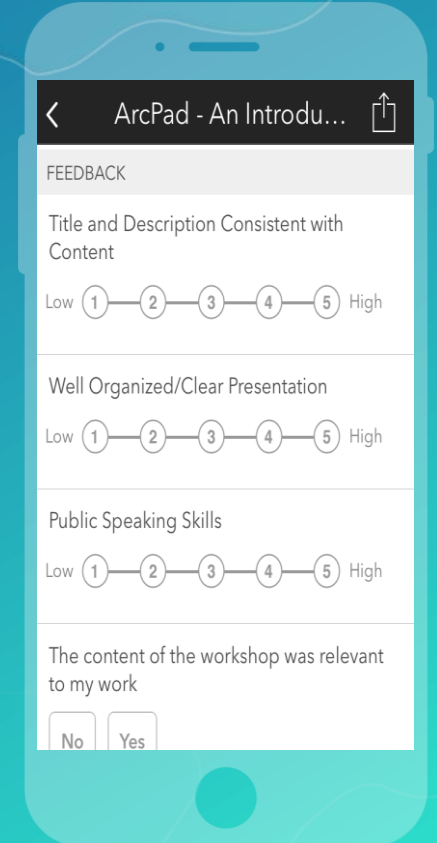
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