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ArcGIS Arcade

ALPHAGIS

esri

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https://arcg.is/37GjtSR

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What is Arcade?

- ArcGIS Arcade is a **portable**, **lightweight**, and **secure** expression language written for use in ArcGIS
- Its inclusion of feature and geometry data types makes it unique from other languages
- It is a focused language for specifically defined uses in ArcGIS
- Arcade was written to help making better maps, better interactive apps or to provide higher-quality data, or to make data easier to understand

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Arcade Purpose

- Arcade is NOT intended to be a full programming / scripting language
- Arcade is NOT JavaScript
  - Equivalent to a spreadsheet cell calculation
  - Designed for web maps and web scenes (ArcGIS Pro/JS API/Runtime)

- Not a replacement for Python for geoprocessing and automation

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When to use it?

- Common use case is to perform calculation with layer fields and geometry.
- Arcade expressions support:
  - Detect Incidents
  - Calculate Field
  - Filter by Expression
  - Map Fields
  - Join Features
  - Create Buffers
  - Reconstruct Tracks tools.

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Arcade attribute rules

- Enhance the editing experience and improve data integrity for geodatabase datasets.
- User-defined rules, can be used to automatically populate attributes, restrict invalid edits during edit operations, and perform quality assurance checks on existing features.
- Complementary to existing rules used in the geodatabase

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Arcade Language Basics

- Simple Types
  - Numbers
  - Booleans
  - Dates
  - Strings
- Object Types
  - Dictionary
  - Feature
  - Array
  - Point
  - Line
  - Polygon
  - Multipoint

```
1  var myNumber = 10;
2  var myText = "Hello";
3  var myDate = Date(2015,1,1);
4  var myBool = true;
5  var myDictionary = { "key1": 10 };
6  var myFeature = { "geometry":  {…},"attributes" {"key1": 10 }};
7  var myArray = [1,2,3];
8  var myPoint = Point({….});
```

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Thanks!

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