Sharing 3D Content on the Web
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Why 3D GIS?
Because our world is 3D

- **Improve understanding**
  3D is easy for everyone to understand

- **Better communication**
  3D makes it easier to articulate ideas

- **Solve 3D problems**
  Some spatial problems can only be solved in 3D
3D GIS Features

- Multiscale 3D Models
- Surface modeling
- Native lidar support
- 3D Analysis
- 3D Geodesign
- ArcGIS for 3D Cities
- Integrated 3D
- Share 3D scenes
Share 3D Scenes
Share your 3D Scenes

Share your ArcScene Project as a Web Scene

“Clip and Share”

Supporting Defense, Local Government, Scientists, Urban Planners, Facilities Managers, Geologists, Architects, Landscape Planners…
GP: Export to 3D Web Scene
Demo

Teapot Dome

Philadelphia Visibility / Shadows
ArcScene Layer Types

- Feature layer (point, line, polygon and multipatch geometries)
  - Layer extrusion or 3D symbology
- Raster layer
- TIN layer

- Note: LAS dataset and Graphics layer cannot be exported to 3ws.
ArcScene document properties

- Scene coordinate system
- Area of Interest (AOI)
- Bookmarks
- Group Layers
- Vertical exaggeration
Demo

ArcGIS Pro:
Publishing 3D Web Layers
Publishing Web Scenes
A New Way of Working in 3D

3D across the platform

Desktop  Web  Device
3D across the Platform

Easy sharing of 3D content

Web Scene 2.0

- Desktop
- Web
- Device

Web Scene

Server

Online Content and Services
DEMO – Let’s make a Web Scene…
Web Scene 2.0

Item on ArcGIS Online

Mash-up of streaming 3D / 2D layers

3D Symbology

3D Labels

3D Scene Navigation

3D Environment
Web Scene Authoring / Publishing

Simple authoring / publishing
• Create a Web Scene
• Mash up scene layers
• Publish small 3D datasets
• Preset symbology

Advanced authoring / publishing
• Publish a Pro/CE Scene as a Web Scene
• Publish large 3D datasets
• Preset and custom symbology
Web Scene Viewing

- Desktop
  - ArcGIS Pro (1.0)
  - CityEngine (2015)

- Web
  - ArcGIS Online Web Scene viewer
  - WebApps built with WebAppbuilder

- Device
  - Explorer for ArcGIS
  - Apps built with ArcGIS Runtime
Web Scene – Use Cases

Story Telling in 3D

Asset Management in 3D

Situational Awareness in 3D

Scientific visualization in 3D
3D Content for Web Scenes

Introducing ArcGIS 3D Base Scene

- Foundation for Your 3D Projects
- Provides context
- Canvas for Your Analysis
- Share in Apps to a Global Community
ArcGIS 3D Base Scene

3D Base Layers
- 3D Buildings
- 3D Trees
- Water Bodies

2D Maps
- World Imagery Map
- World Topographic Map
- Ocean Basemap
- Etc.

World Elevation
Multi-Scale Base Scene

Global Scale

Base Layers:
- Elevation
- 2D Maps

Supports:
- Weather and Climate
- Oceans
- Transportation and Trade Routes
Multi-Scale Base Scene

Landscape Scale

Base Layers:
- Elevation
- 2D Maps

Supports:
- Military Situational Awareness
- Forestry Management
- Stormwater
- National/Regional Demographics
Multi-Scale Base Scene

City Scale

Base Layers:
- Buildings
- Trees
- Water Bodies

Supports:
- Urban Planning and Design
- Public Safety
- Emergency Response

New 2D Map
Multi-Scale Base Scene

Campus Scale

Base Layers:
- Elevation
- 2D Maps
- Buildings
- Trees
- Water Bodies
- Interior Spaces
- Interior Routing Network

Supports:
- Space Management
- Evacuation Planning
- Asset Management/Allocation
- Location Search
ArcGIS 3D Base Scene

Esri will support our users by:

- Compiling + hosting the 3D Base Scene
- Providing best practices for building 3D layers
- Providing analytical capabilities
- Empowering distributors + partners to provide additional premium services
ArcGIS 3D Base Scene – City Scale Layers

- Complete (17)
- In Production (6)
Thank you...

- Please fill out the session survey:

  **First Offering ID:** 1406

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  Paper – pick up and put in drop box
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