

**City of Pasadena**
Information Technology Services Division

Virtual Pasadena


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Project Background


- **Physical Model of Urban Core**
- **Budget for physical model: \$150,000**
- **Used for General Plan update**
- **Decision to go with virtual model**
- **Budget for virtual model: \$75,000**


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Pictometry


- **City contracted with Pictometry**
- **8 sq. km. Platinum Product**
 - > Urban core, commercial & redevelopment corridors
 - > Architectural detail with oblique photo texture
- **8 sq. km. Silver Product**
 - > Surrounding community bounding Platinum deliverable
 - > Reduced model detail with oblique photo texture


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Fly Through

- **Created in ArcGlobe**
- **Exported to AVI**
- **Subset of data for performance reasons**
- **<Link to video>**

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Public Presence

- **Goal: Make Virtual Pasadena models available to public in common 3D viewers (i.e. Google Earth & Bing 3D)**
- **Working with Microsoft to be first entity to include non-Microsoft models into Bing 3D.**
- **Working to include models into Google Earth**



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ESRI

- **ESRI has created best practices for creating 3D cities with 3D Analyst**
- **ESRI will use Pasadena models to validate this process**
- **ESRI will deliver 3D cached AGS map service**



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3D Hardware

- **City purchased new 3D workstations and 3D laptops in support of the project**
- **High-end gaming machine equivalent**
- **2GB RAM and 512 GB graphics cards minimum**
- **1GB graphics card recommended**



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3D Software

- **City is using a combination of the following:**
 - > ESRI ArcGlobe
 - > ESRI ArcScene
 - > ESRI ArcGIS Explorer (will use build 900 when avail.)
 - > Google Earth (may get Pro)
 - > SketchUp Pro



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3D Training

- Available 3D training is basically non-existent
- City is working to create its own in-house 3D training program
 - > Using techniques learned in-house by City staff,
 - > Enterprise version of ESRI's audio synced conference proceedings, &
 - > New ESRI book: *Introduction to 3D Data: Modeling with ArcGIS 3D Analyst and Google Earth* by K. Heather Kennedy



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Data Formats

The 3D data from Pictometry came in the following formats, all with textures when used in the appropriate software environment:

- 3DS (local)
- 3DS (world)
- Openflight (State Plane)
- Openflight (WGS)
- Collada (.dae)
- KML

We also received an 'ortho drape' kml file and untextured 3D shapefiles (architectural detail w/o photorealistic skin)



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