


# MAX 2006 Beyond Boundaries

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Acrobat 3D: Scripting 3D objects  
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## Agenda

- Overview of Acrobat 3D
- Demos
- Scripting basics
- Acrobat scripting integration
- 3D scripting modules and samples
- Q&A

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## Overview of Acrobat 3D



- Acrobat Professional
  - 3D Tool
  - Drag-and-drop conversion of CAD / DCC files
  - Analysis tools: Model Tree, Cross-Sections, Measurement
  - Review, Markup, and Annotation tools support
- 3D Toolkit
  - Modify 3D content
  - Create vector illustrations
- 3D Capture
  - Capture from 3D applications that use OpenGL directly into PDF
- Microsoft Office OXC and PDF Makers
  - Place 3D annotations in Word, Excel, or PowerPoint
  - Publish directly to 3D PDF

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## Demos

- 3D CAD document
- Product brochure
- Step by step process
- Architectural walkthrough
- Educational materials

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## Scripting Basics

- Creating, editing, and attaching scripts
  - Document scripts
  - Document actions
  - Form element actions
  - 3D scripts
- Debugging tools
  - Debugger
  - Console
- Developer resources
  - "JavaScript for Acrobat 3D Annotations API Reference"
  - "JavaScript for Acrobat API Reference"
  - "Developing Acrobat Applications Using JavaScript"

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## Acrobat Integration

- Action: "Go to a 3D view"
  - Allows attaching simple view navigation behavior to links and form elements
- Document Level Scripting (available as of Acrobat 7.0)
  - doc.getAnnots3D( page )
    - Returns array of Annot3Ds on provided page
  - Annot3D object
    - Represents an instance of 3D artwork on a PDF page
    - Annot3D.context3D property exposes entire 3D script runtime
    - Annot3D.activated property reflects enabled state of annotation

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### 3D JavaScript Modules and Samples



- 3D basic types
  - Vector3, Matrix4x4, and Quaternion
- Scene components
  - Mesh, Camera, Lights, Animations, Materials, etc.
  - Background
  - RenderOptions
- Runtime components
  - EventHandlers and Events
    - Handle user input from mouse, keyboard, view selection, tool changes, etc.
  - Custom UI
    - addCustomToolButton() and addCustomMenuItem()
  - host property
    - Scripting "bridge" to Acrobat JS "doc" object. Permits access to all PDF level JavaScript APIs



### Q&A



Any questions?



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