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Molly3D: Redefining the Content Creation Pipeline

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OVERVIEW



Molly3D: 3D in the Cloud

- Collapses the content creation pipeline
- Standards-based
 - COLLADA
 - OpenGL/WebGL



Molly3D Capabilities

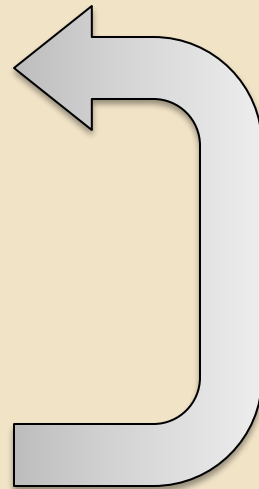
- Import COLLADA content
- Edit/combine assets, create scenes online
- Preview with WebGL
- Publish with RESTful API
- Supports roles, users and groups

WHY DO WE CARE?

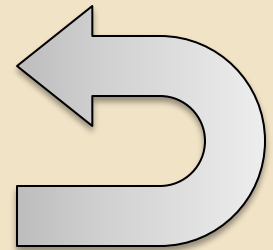


Collapses the Pipeline

- **Today**



- **Molly3D**





Typical COLLADA Usage

- Represents only one scene
- `<asset>` available in many places, but rarely used
- Little exploitation of URI schemes



Molly3D and COLLADA

- Each **potential** asset
 - Added to asset list
 - Assigned an owner
 - Assigned a version
- Assets may be referenced from **anywhere**
- You can generate scenes dynamically



Tracking Changes

- Now
 - Changes require “lather, rinse and repeat”
- Molly3D
 - Make the change, see it happen!
 - Every change tracked, undoable/repeatable
 - Versions are preserved to keep scenes that depend on them working



Real-time Asset Manager

- Now
 - Assets can be searched, sorted, catalogued
- Molly3D
 - **AND** assets can also be dynamically created and modified

USE CASE



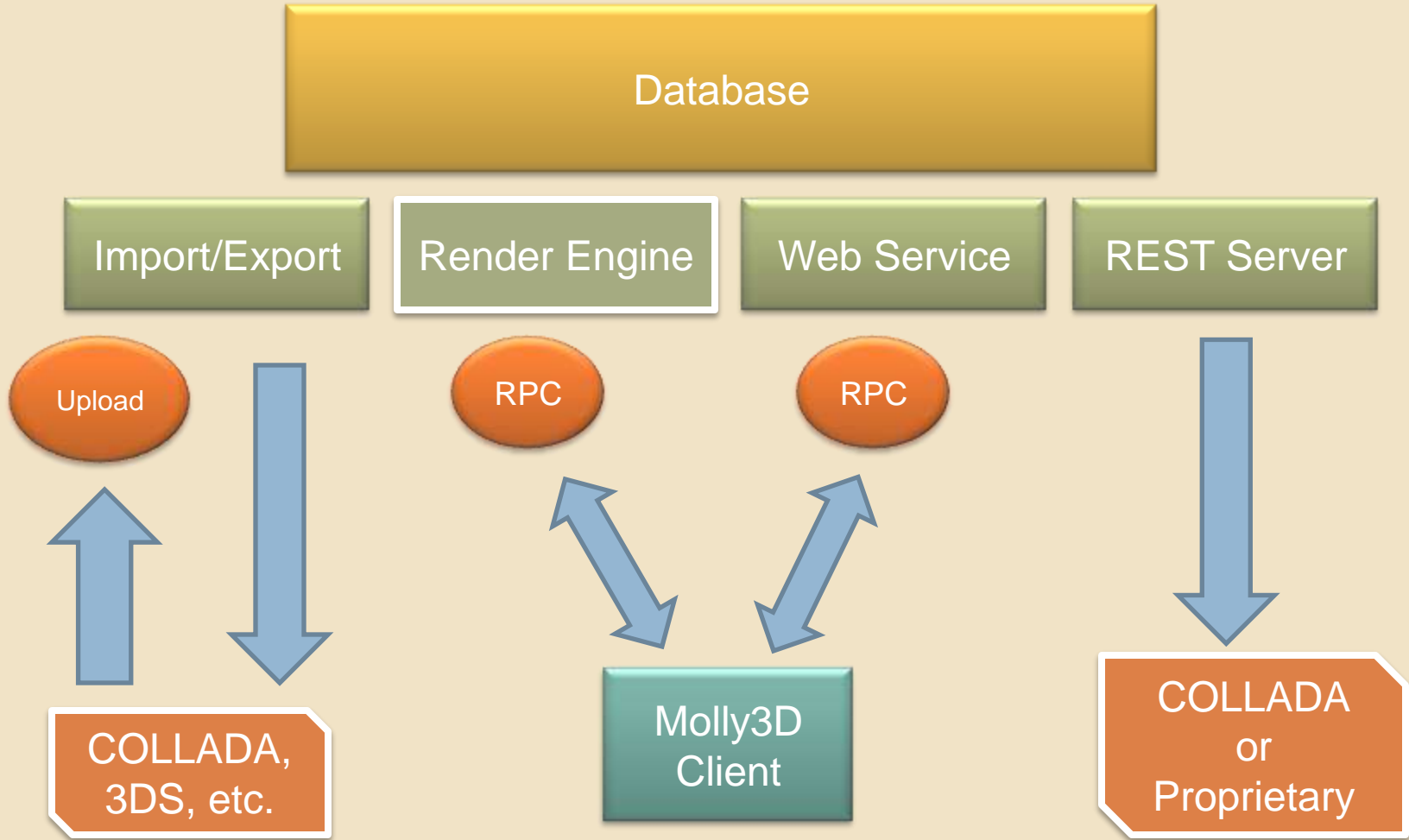
Web Content Creator

- Create account
- Browse library and/or upload content
- Edit
 - Scene
 - Materials/textures
 - Behaviors/animations
- Preview (share with customer)
- Publish

UNDER THE HOOD



Architecture





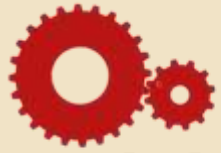
Standards Used

- COLLADA
- WebGL
- HTML5
- WebSockets



COLLADA Profiles

- OpenGL ES 2.0
- OpenGL ES 1 and 1.1
 - Emulated with shaders
- WebGL ?? – not yet a profile
- More profiles planned



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APIs

- RESTful
- COLLADA extensions
- Render engine
 - WebGL
 - Pluggable
- Management API

DEMO



Import

- Currently, from COLLADA 1.4 or 1.5
- Planned
 - Any future COLLADA version
 - Max, Maya, Blender
 - Standard import API



Managing Data

- Roles, users and groups
- Assets are managed by ACL
- Versions are tracked automatically
- Regression, merging and branching



Edit

- WebGL scenegraph editor
- Additional downloadable plug-ins for:
 - OpenGL 3+ (Q4 2010)
 - OpenGL ES2 (Q4 2010)
 - DirectX (2011)



Deliver

- RESTful interface
 - Supports COLLADA export
 - Provides API for scenegraphs
 - Allows for QoS
- Can filter on user permissions
 - Guests, employees, customers



Demo

ROADMAP

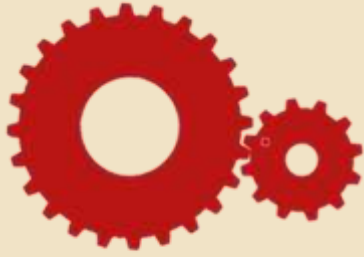


Roadmap

- Sign up for private trials
 - August 2010

- Public beta
 - Q4 2010

- Full release
 - Q1 2011



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Thank you!

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