Kuda: World Editor

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Authoring Interactive 3D Content in Your Browser

http://code.google.com/p/kuda

Plymouth Hemi Cuda 70' by ~CentPL
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the Kuda World Editor

adding behavior through a GUI
authoring interactivity made much easier

triggers and actions
```javascript
from JavaScript

door = new hext.house.Door(...
door.angle = -door.angle;
door.onPick(function(msg) {
    switch (msg.data.pickInfo) {
    case 'SO_door':
    case 'door':
        door.swing();
        break;
    }
});
```
to
but first

3D behavior and interactivity

<table>
<thead>
<tr>
<th>window</th>
</tr>
</thead>
<tbody>
<tr>
<td>fan</td>
</tr>
<tr>
<td>door</td>
</tr>
<tr>
<td>camera</td>
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</tbody>
</table>
window

what would be the desired intuitive interaction?

click and slides open
window

what would be the desired intuitive interaction?

click and drag
fan

what would be the desired intuitive interaction?

a rotation speed control
door

what would be the desired intuitive interaction?

click and swings open
API makes sense for a programmer

GUI makes sense for a non programmer
back to the World Editor

build a GUI tool to...

<table>
<thead>
<tr>
<th>author behavior and interactivity</th>
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</thead>
<tbody>
<tr>
<td>provide same level of control from</td>
</tr>
<tr>
<td>the editor as the API</td>
</tr>
<tr>
<td>by isolating a scripting behavior</td>
</tr>
<tr>
<td>or interaction and incorporating</td>
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<tr>
<td>it into a GUI tool(s)</td>
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</table>
initial approach is a form
for a given behavior
example particle effects
not intuitive and you need domain knowledge
move to more intuitive GUI tools
example
translate, rotate, and scale handles
window example using Motion tool

does not work well

no intuitive way to reverse its action
however window example using Manip tool

works well
another example is camera on a curve
dedicated tool for creating behavior and interactivity

vs

behavior editing integrated into specific tools
authoring a working system
the HVAC duct
Kuda

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