Fireboat (FireBolt)

a reimagining of temporally oriented visual fabula realization

Demo stuff

1. show 5 functions sequentially (plan_simple1, dotaModel)
2. change cinematic model to use move and animate together
3. use pudge animations on m005
4. catalog reactions and questions
    a. multiple animations for a given actor for a given param for a given action
    b. typology of shots by weds
5. open issues
6. next steps
    a. animation not looping
    b. abstraction reduction
    c. temporal offset support for decomposed firebolt actions
    d. research automatic setting of import properties for animations and models
    e. bipartite camera plan exploration 5/1
        i. separate concept of genre from primitive shot types
        ii. include lens and dof settings
    f. model generation assistant tool 5/6
    g.

Open Questions

1. removing assets(animations and models) from a project and re-adding them...or just push/pull somewhere else removes settings for humanoid vs generic types, breaking animations.
    a. need to research automated method for assigning these properties of the assets
        i. question found, unanswered http://answers.unity3d.com/questions/862184/how-to-change-rig-animation-humanoid-type-by-scrip.html

Closed Questions

1. Do we want the ability to look up executing fabula steps at an arbitrary point in time?
    a. Yes.
        i. have to keep a reference to parent actions in decomposed FireBolt actions
            1. NYI
        ii. load the xImpulse plan AND the FireBolt plan

1. impossible not to do both as we didn't go with an xsl transform strategy. Impulse loads its own plan at firebolt runtime
2. the firebolt plan is dynamically generated at runtime

Features

1. Engine realization independent of xImpulse plan representation so that domains can be easily interchanged
    a. Current iteration
        i. removes static references to xImpulse argument names from in-Engine code
        ii. translates xImpulse plan into FireBolt plan consisting of
            1. create
            2. remove
            3. translate
            4. rotate
            5. animate
    b. Next iteration
        i. reduce level of abstraction to parameters by 1, passing around argument names rather than arbitrary paramIds
            1. greatly simplifies cinematic model authoring and authoring tool production
2. Engine realization independent of assets so that models and animations can be easily interchanged
    a. Current Iteration
        i. Models and animations statically knowledge engineered into cinematic model.
    b. Next iteration
        i. implement knowledge engineering support tool to comb directories and suggest models and animations for mapping, then generate xml
            1. 582 project to be completed 5/6
3. Engine realization supports setting playback to arbitrary points in time
    a. Current Implementation
        i. NYI
4. Engine realization incorporates temporally based camera plan
    a. Current Iteration
        i. Camera plan NYI
    b. Next iteration
        i. initial draft of camera plan due 5/1
5. Camera plan uses classical filming related terms to specify
    a. angles
    b. shots

c. distance to subject
d. movement
e. camera properties
    i. Current Iteration
        1. bipartite concept
        3.

Workflow

1. Create timing enhanced xImpulse plan
2. Create Cinematic model with
    a. xImpulse actions and arguments firebolt actions and arguments mapping
    b. actors to models mapping
    c. actionName, actionParameterName, actorName to animation mapping
3. add models and animations to Assets/Resources
4. specify xImpulse plan and cinematic model to load
5. play!~

FireBolt intended use cases

1. playback
2. render to movie file
3. retrieve state/plan information
4. pause and adjust plan attributes and recompute
5.

h.