Cocos2d-x Programmer's Guide

C++ and Lua

Table Of Contents

- What are Basic Actions:
  - Animate.
  - Fade In/Out.
  - Move.
  - Rotate.
  - Scale.
  - Tint.
  - Tweening and Easing.
- What are Sequences:
  - Spawn.
  - Reverse.
- Running Actions and Sequences.

5. Building and Transitioning Scenes

   - What is a Scene?
   - Creating a Scene:
     - Creating a Node Tree.
     - Node properties to its descendants.
   - Coordinate Systems:
     - Converting between coordinate systems.
   - Transitioning between Scenes.

6. UI

   - Labels:
     - BMFont.
     - TTF.
     - Label Atlas.
     - SystemFont.
   - Label examples.
   - Menu/Menu Items:
     - What makes up a menu?
     - Menu Items and adding to a Menu.
     - Examples:
       - Create Menu with 1 item.
       - Create Menu from array of items.
       - Lambdas.
   - Buttons.
   - Scroll.
   - Layout.

7. Other Node Types

- TMX.
- Particle.
- Parallax.

8. Event Dispatcher

    - What is the EventDispatch mechanism?
        - Responds to user events.
        - The basics:
            - Event listeners encapsulate your event processing code.
            - Event dispatcher notifies listeners of user events.
            - Event objects contain information about the events.
    - 5 types of event listeners:
        - `EventListenerTouch` - responds to touch events
            - describe what to override.
        - `EventListenerKeyboard` - responds to keyboard events
            - describe what to override.
        - `EventListenerAcceleration` - responds to accelerometer events
            - describe what to override.
        - `EventListenMouse` - responds to mouse events
            - describe what to override.
        - `EventListenerCustom` - responds to custom events
            - describe what to override.
    - Registering event with the dispatcher.
    - Removing events from the dispatcher.

9. 3D

    - 3D Sprite.
    - 3D Actions.
    - 3D Animations.
    - Placeholders for: Lights, Shadows, Cameras.

10. Lua

    - call custom c++ from Lua.
    - bindings to c++.
    - subclassing.
    - Placeholders for: memory management, Debug a Lua Game.

11. Services

    - Other SDK's.

    - Plugin-X.
    - Placeholders - IAP, FB.

12. Physics

    - What options and why integrated physics engine?
    - Physics concepts.
    - Physics world, bodies.
    - Collision.
    - Examples.

13. Audio

14. Advanced Topics

    - Best Practice - optimization, memory, performance, profiling.
    - Sound.
    - SQLite.
    - Subclass Cocos2d-x classes.
    - Data structures (i.e Vector).
    - Custom OpenGL and Shaders (what to cover here? CustomCommand?).
    - c++11 usage.
    - Rendering pipeline (notes about this in the wiki).
    - Networking - curl, http.
    - ccConfig.h (include and the defines that you can enable for debugging memory leaks, drawing, etc.).
    - File system access.
    - Resolution independence.