AS3-Signals

An Introduction

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Topic

 Signals

Speaker

- Samuel Asher Rivello is the principal of Rivello Multimedia Consulting (RMC). RMC's Flash and Flex services include software architecture, consulting, development, and training. Sam has a decade of experience creating games and applications, and is currently traveling the globe to collaborate with top companies.

Agenda

- Learn the benefits and syntax of AS3-Signals

Audience

- Intermediate to Advanced ActionScript 3.0 Developers

Take-Away

- All source code and documentation will be available to attendees.

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SECTION 1

What is AS3-Signals?

Agenda

Three Sections ~ 30 Minutes

1. What is AS3-Signals?

    - Overview

    - Implementation

2. AS3-Signals Applied

    - Adding to a new project

    - Types of Signals

3. Conclusion

    - References

    - Q&A

AS3-Signals

Overview

AS3-Signals is an open-source **pure AS3** library created by Robert Penner which facilitates messaging between objects. The 'signals' concept is inspired by C++.

AS3-Signals can be used in place of or in addition to flash.events.Event.

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DEMO

Let's See Traditional Flash Events
In Action!

Flash Events

Drawbacks

- Must inherit or compose EventDispatcher

- Message types stored as error-prone Strings

- Has garbage-collection / clean-up issues

- Must subclass flash.events.Event to send custom data.*

*Admittedly, with my preferred style of AS3-Signals, I do this too.

AS3-Signals

Benefits

- Requires no inheritance

- Fast to setup (even with custom data)

- Works well with native Flash Events (e.g. MouseEvent)

- A powerful addition Robotlegs framework*

*An unrelated open-source AS3 framework (Robotlegs.org)

AS3-Signals

Syntax 1 – Pass No Data

```
var signal = new Signal ();

signal.add(_onSignalDispatched); //or signal.addOnce(_onSignalDispatched);

signal.dispatch();


private function _onSignalDispatched () : void

{

    Trace ("onSignalDispatched: ");

}
```

AS3-Signals

Syntax 2 – Pass Data

```
var signal = new Signal (String, MyCustomClass);

signal.add(_onSignalDispatched); //or signal.addOnce(_onSignalDispatched);

signal.dispatch();


private function _onSignalDispatched (s : String, c : MyCustomClass) : void

{

    Trace ("onSignalDispatched: " + s + " and " + c);

}
```

AS3-Signals

Types of Signals

- Signal – Pass zero or more arguments

- DeluxeSignal – Pass GenericEvent (w/ target & Signal)

- NativeSignal – Connects a Signal with a Flash Event (e.g. MouseEvent)

- NativeRelaySignal* (Basically its DeluxeSignal + NativeSignal)

* Not shown in my demo code.

AS3-Signals

Other Cool Features

- removeAll

- addOnce

- numListeners

- (Event bubbling is coming soon)

* Thanks to Peter Elst for this information.

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SECTION 2

AS3-Signals Applied

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Let's See AS3-Signals in Action!

AS3-Signals

Adding AS3-Signals to Your Project

Download

- Download and unzip https://github.com/robertpenner/as3-signals

Add SWC to project:

- Flash Builder (libs), FDT (libs), Flash CS5 (See 'External Library Path')

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SECTION 3

References & QA

Questions / Comments?

Three Sections ~ 30 Minutes

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   - Overview
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   - References
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References

Presentation Questions

Send Questions & Comments

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