A Look at Apache OODT Balance Framework

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Overview

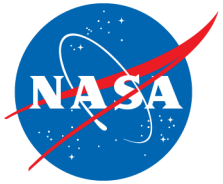
- Brief overview of Apache OODT
- Problem – Solution
- What is Balance?
- Installation & Configuration Demonstration

The Start

ORIGINALLY DEVELOPED AT NASA'S JET PROPULSION LABORATORY

JPL

- Funded initially in 1998 by NASA's Office of Space Science
- Envisioned as a national software framework for sharing data across heterogeneous, distributed data repositories



Credit: C. Mattmann

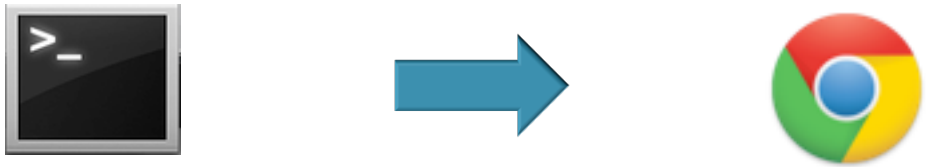
OODT at Apache

- Entered “incubation” at the Apache Software Foundation in 2010
- Selected as a top level Apache Software Foundation project in January 2011
- The first NASA project to live at Apache™.

Just What is OODT?

- Object Oriented Data Technology
  http://oodt.apache.org

- ✗ Interaction primarily via command line
- ✗ No reusable front end components



The Solution is Apache OODT Balance!

- ✓ Supports reuse
- ✓ Provides a common, modular code base
- ✓ Highly configurable layer to interface with Apache OODT core

What is Balance?

- Lightweight PHP Web Application Framework
- Great support for Apache OODT integration
- Creates a standard environment
- Available as a PHP Extension and Application Repository package

Application Skeleton

- classes/
- modules/
- scripts/
  - widgets/
- static/
  - css/
  - img/
  - js/
  - libs
- views/
  - common/
  - errors/

.htaccess
config.ini
hooks.php
index.php

More on this later

Store all resources

jQuery
write less, do more.

Plain PHP files

Configure application

KICKOFF BALANCE BOOTSTRAP!


Balance Library
Balance Core
Interfaces

Balance Core

- Application Class
- Request Class
- Response Class
- Data Response Class

Interfaces

- Authentication Provider
- Authorization Provider
- Data Provider
- Widget Provider

Installation & Configuration Demonstration

Easily install and quickly configure your site using OODT Balance

PEAR Package Install

- **Apache OODT PEAR channel – for easy install**
  - http://pear.apache.org/oodt/
- JIRA Issue: INFRA-5910
  - https://issues.apache.org/jira/browse/INFRA-5910
- Workaround

```
$ svn co https://svn.apache.org/repos/asf/oodt/tags/0.4/balance/lib/pear/ balance_lib

$ cd balance_lib

$ pear package

$ sudo pear install --force Org_Apache_Oodt_Balance-0.*.0.tgz
```

Overview

- Balance Extensions → "Modules"
- Modules Available
- OODT at Work
- Modules Demonstration

Balance Extensions (Modules)

"With component-oriented software, just grab what you need and apply dabs of software glue."

- Self-contained
- Loosely connected
- "Drop-in" applications

Modules Available

- CAS-Browser: Browse a File Manager Catalog
- Monitor: Monitor an OODT Workflow Manager
- Profile: Instant LDAP profile management
- Newsfeeds: Flexible Text & RSS Feed support
- Puny: Content manager
- Wizard: Integrated multi-page forms

Credit: A. Hart

OODT at Work

Works for planetary science, earth science, radio astronomy, biomedicine, astrophysics, and more

Module Demonstration

Thank you!

It's constantly evolving - join and help!

- http://oodt.apache.org
- WIKI: https://cwiki.apache.org/OODT/
- JIRA: https://issues.apache.org/jira/browse/OODT

Join the mailing list:

- dev@oodt.apache.org