



**DRUPALCON
LONDON**

Web Services and Context Core Initiative

Presented by Larry Garfield

@Crell

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- ❖ Architectural Gadfly
- ❖ Nerf Gunslinger



Web Services and Context Core Initiative (WSCCI)



<http://www.flickr.com/photos/spaterson/4995021726/>

"Drupal doesn't have multiple layouts. It has one layout it bends a lot."

--Earl Miles, c.2009

DRUPALCON SF 
San Francisco / April 19-21, 2010

Logo

Site Title

Primary Links

Page Title

Secondary Links

Block

Block

Block

Block

Block

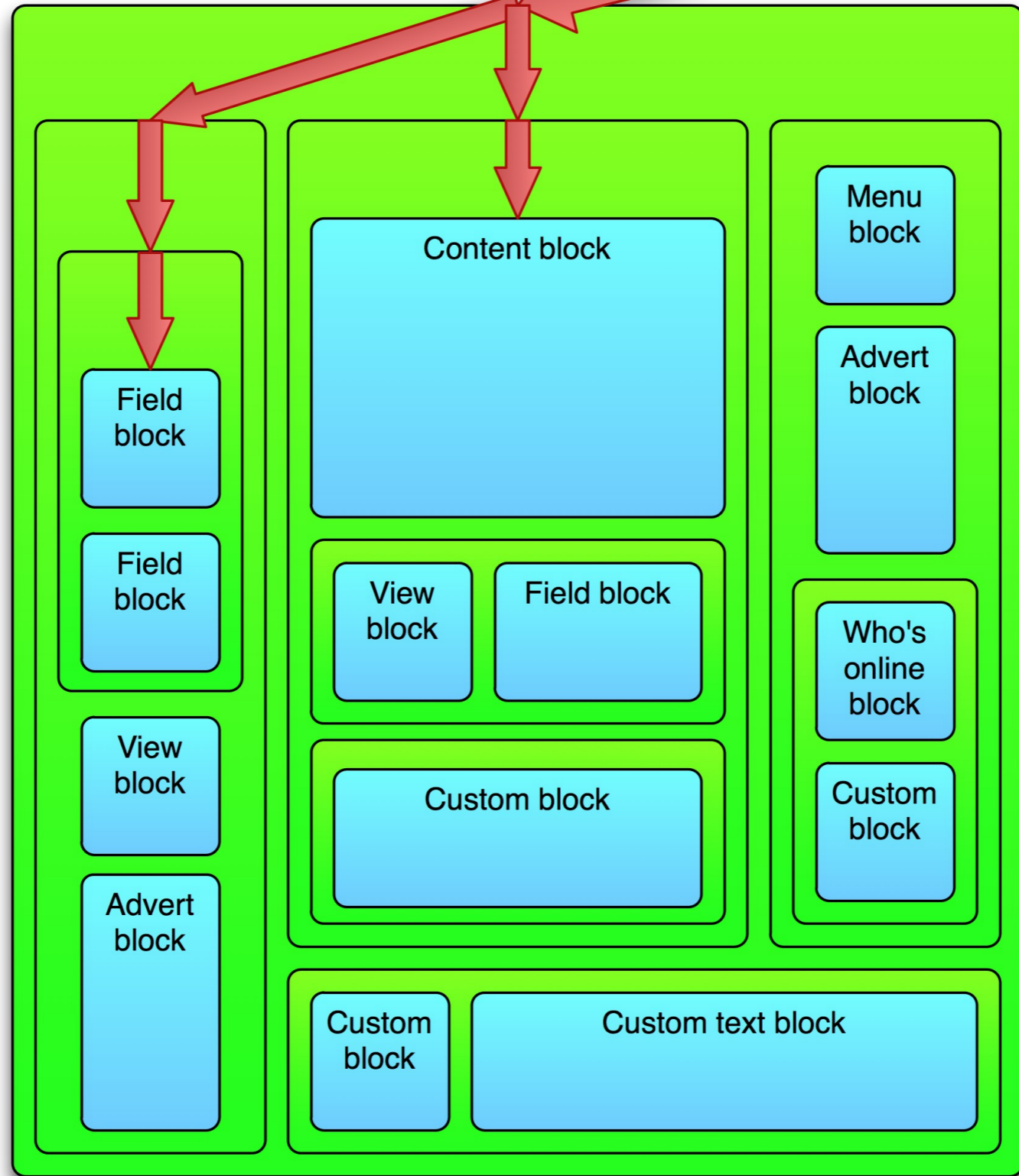
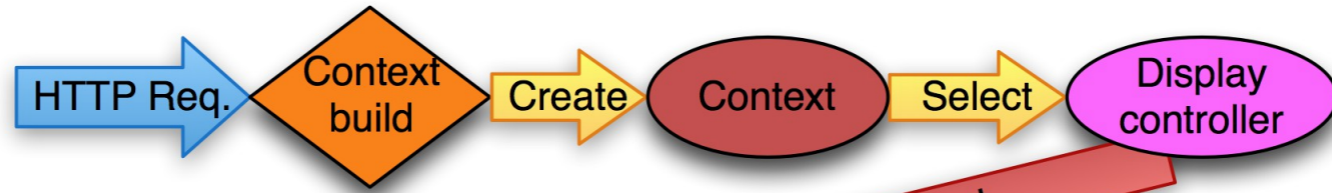
Block region

Content Area

Block region

Block region

Block region



Five Fails

- 1) No unified context
- 2) One Layout to Rule them All
- 3) No plugin mechanism
- 4) HTML-only
- 5) Performance

The Butler Project

"Give Drupal a unified, powerful context system that will support smarter, context-sensitive, easily cacheable block-centric layouts and non-page responses using a robust unified plugin mechanism."

DrupalCon Chicago

Recast as

Web Services and Context Core Initiative

WSCCI Goals

The Web Services and Context Core Initiative (WSCCI) aims to transform Drupal from a first-class CMS to a first-class REST server with a first-class CMS on top of it.

To do that, we must give Drupal a unified, powerful context system that will support smarter, context-sensitive, easily cacheable block-centric layouts and non-page responses using a robust unified plugin mechanism.

1) Unified, powerful **context system**

2) Unified **plugin** mechanism

3) Any type of **response**

4) **Smart block**-centric layouts

<Insert lots of discussion here>

#0
HTTP

HTTP libraries

- ❖ Don't reinvent the wheel.
- ❖ Tried PECL HTTP... Nyet
- ❖ 3rd party research
 - ❖ Dave Hall (skwashd)
 - ❖ Dick Olsson (dixon_)
- ❖ Zend vs. Symfony2: FIGHT!
 - ❖ <http://groups.drupal.org/node/167299>



Symphony



<http://www.flickr.com/photos/andycarvin/1936753622/>

Status

Dries OKed this last night at 2 am.

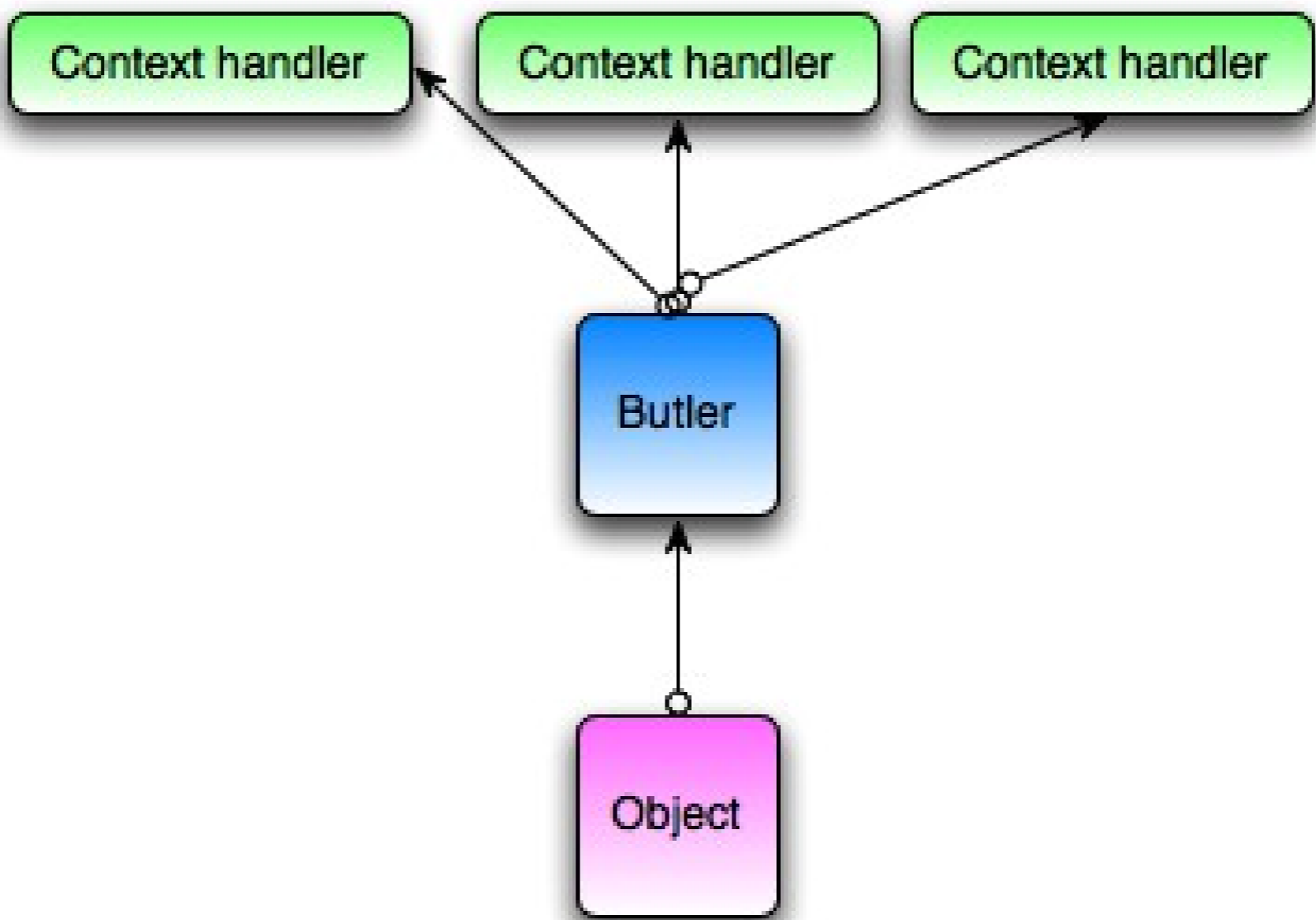
Patch forthcoming...

#1 Context

Mediator Object

The mediator pattern provides a unified interface to a set of interfaces in a subsystem.

--Wikipedia



Work in progress

<http://drupal.org/project/butler>

... And core sandbox by the end of the week

```
class Foo {
    protected $context;

    public function __construct($context) {
        $this->context = $context;
    }
    public function behave() {
        $node = $this->context['node'];
        $var = $this->context['http:get:var'];
        // ...
    }
}
```



```
function behave() {  
    $context = drupal_get_context();  
    $language = $context['language'];  
    $foo = $context['http:header:foo'];  
}
```

```
$butler->registerHandler('http:get', 'CtxHandlerHttp',  
array('query' => 'GET'));
```

```
$butler->registerHandler('http:post',  
'CtxHandlerHttp', array('query' => 'POST'));
```

```
$butler->  
>registerHandler('http:header', 'CtxHandlerHeader');
```

```
$new_ctx = $butler->addLayer();
```

```
$new_ctx->registerHandler('og', 'AlternateHandler');  
$new_ctx['og:nid'] = 5;
```

```
$new_ctx->lock();  
$plugin = get_plugin('stuff', 'blah', $new_ctx);
```

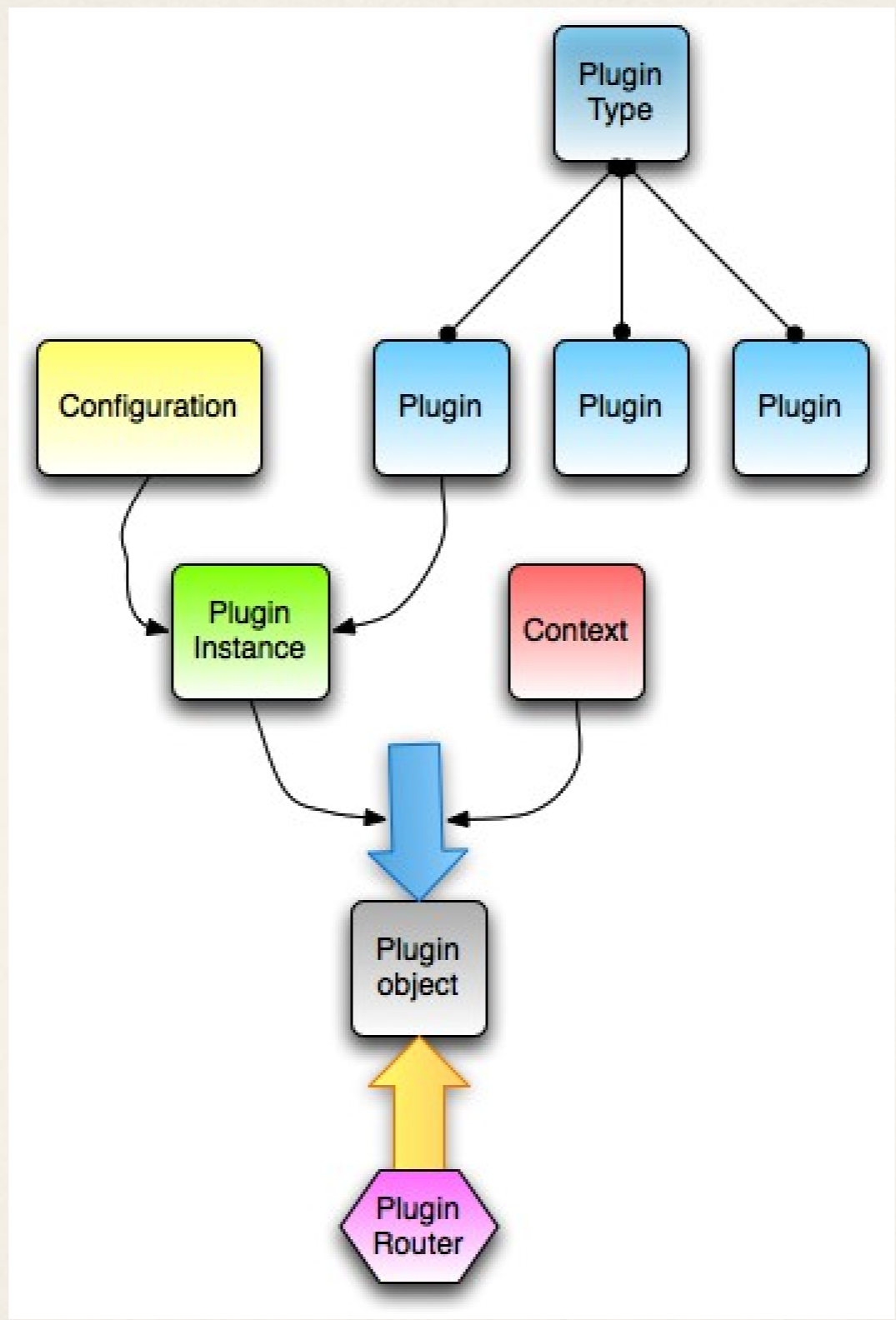
Status

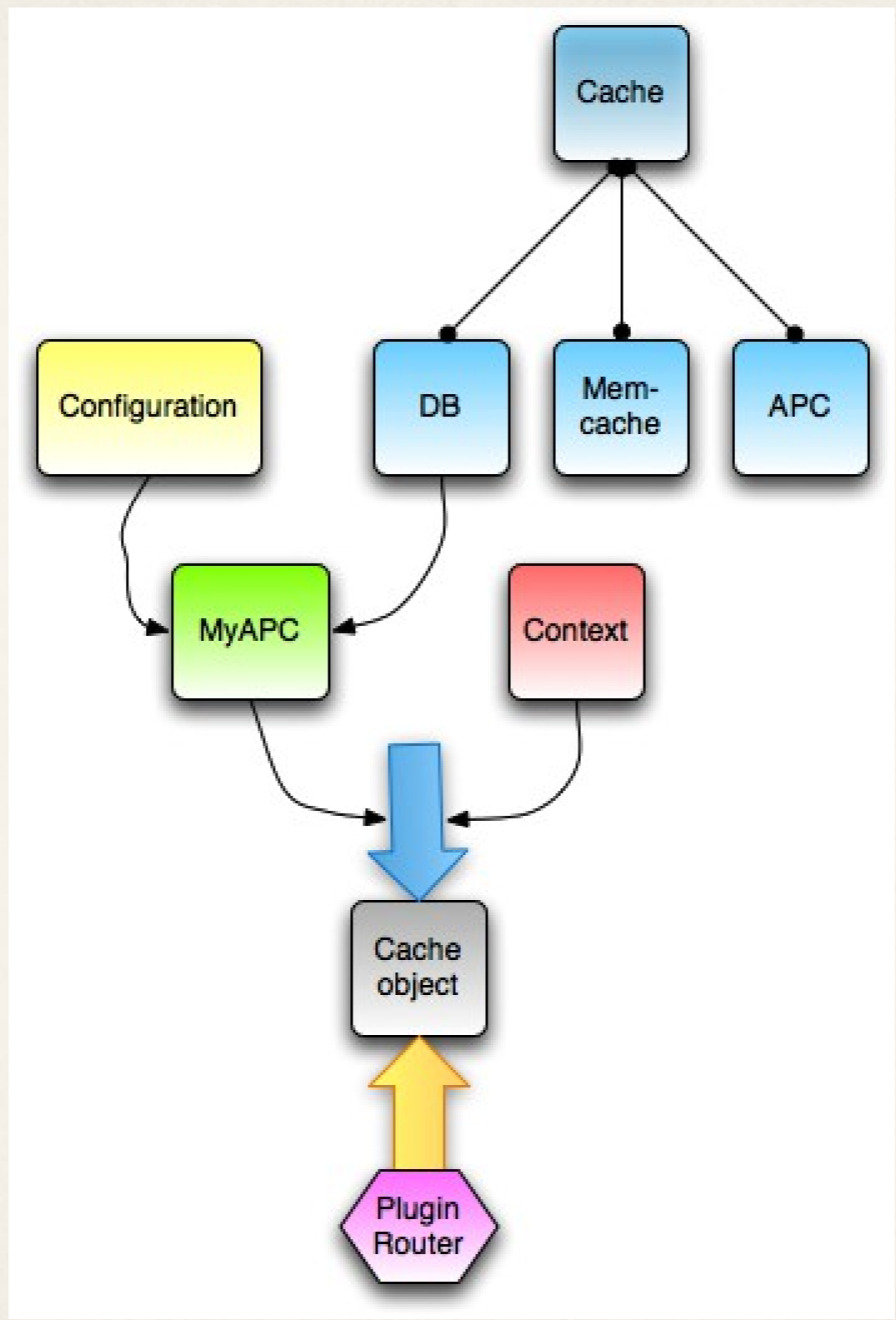
- ❖ Nearly ready to try implementing in core
- ❖ Come to the code sprint Friday and let's see how far we get!

#2 Plugins

We have too many

- ❖ One-off hacks
- ❖ Alt. include files
- ❖ Callback functions
- ❖ Pseudo-hooks
- ❖ caching system with OO
- ❖ Views Plugins/Handlers
- ❖ Ctools Plugins
- ❖ Webform components
- ❖ Etc.





Research

- ❖ <http://groups.drupal.org/node/137609>
 - ❖ Symfony2
 - ❖ Zend Framework 2
 - ❖ Kohana
 - ❖ ctools.module

- ❖ No one is as good as we want to be...

Status

- ❖ ctools TNG
- ❖ All OOP
- ❖ Two skunkworks implementations
 - ❖ Crell
 - ❖ neclimdul
- ❖ After context is in core...

#3

REST Routing

More robust than hook_menu

- ❖ 2 layer routing
 - ❖ Method Path, domain, HTTP content-type
 - ❖ "Other stuff" - Implementation TBD
- ❖ Maps to response object, not dumb function
- ❖ Any HTTP return (404, 302, etc.)
- ❖ Any content type, natively (text/html, text/json, application/pdf)
- ❖ <http://groups.drupal.org/node/148149>

#4

Smarter block layout

Figure out the UI first...

<http://groups.drupal.org/node/137469>

Next steps...

Code sprint Friday!

Discuss here:

<http://groups.drupal.org/wsccl>

Follow here:

<http://drupal.org/node/1233232>