

Apache 2.2 Rocks!

Quit using 1.3 already!

Rich Bowen
John Coggeshall



A little while ago ...



Apache & Tech [edit this]

20 Dec 2004 09:43 am

PHP's anti-Apache2 FUD

My biggest objection to PHP is the anti-Apache2 FUD that they spread. Indeed, they seem to be the ones primarily responsible for the anti-Apache2 FUD. This is unfortunate, since there are few remaining legitimate reasons for avoiding Apache2, and it's a shame that they feel the need to manufacture one.

So, to quote the [PHP docs](#):

Do not use Apache 2.0.x and PHP in a production environment neither on Unix nor on Windows.

This is further clarified in the [FAQ](#) with a long description.

Which led to ...



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Tuesday, December 21. 2004

Apache 2.0, My Two Cents

On the PHP Internals mailing list a thread was started when [two posts](#) were made on DrBacchus' blog ranting about how pissed off the Apache Community is at the PHP Community because no one in PHP really cares that much about Apache 2.0. I read the PHP thread, read the blog posts, and even took a few minutes to go review the new featureset in Apache 2.0.

The question to me when deciding between Apache 1.3 and Apache 2.0 is basically this: Why would I want to switch? This is a pretty big common theme around the PHP camp. I mean seriously, what does it **really** buy me? I'm going to go through the Apache 2.0 feature set point-by-point -- I absolutely welcome the gentlemen from the Apache camp to comment on my conclusions and show me why I am incorrect.

For your reference you can find the Apache 2.0 new feature list [right here](#).

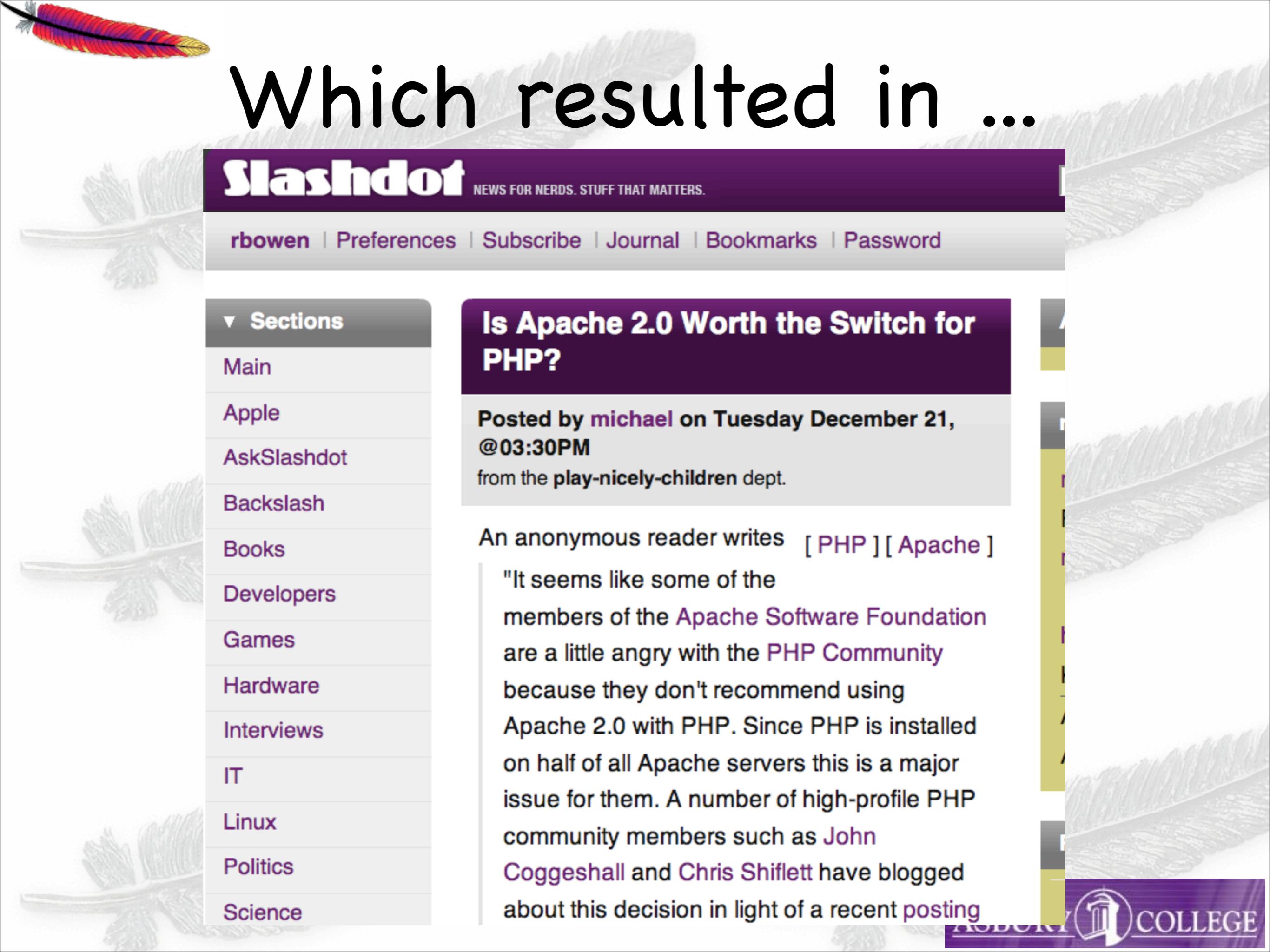
Unix Threading

I'm not going to spend a lot of time on this. The bottom line is pretty clear: PHP itself as far as an architecture is concerned is thread safe. However, the problem is that PHP relies extensively on third-party libraries to provide functionality -- some of which are clearly not thread safe. Apache 2.0 does provide a "prefork" mode which the Apache group claims will run PHP just fine... but this feature does nothing for a PHP user.

New Build System

Although that's nice, I never had any problems personally building Apache before -- so this feature doesn't do me a whole lot of good. Does it do anyone else any good? Is there any large audience out there which benefits from this? I just know I don't.

Which resulted in ...



Slashdot NEWS FOR NERDS. STUFF THAT MATTERS.

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Is Apache 2.0 Worth the Switch for PHP?

Posted by **michael** on Tuesday December 21, @03:30PM
from the **play-nicely-children** dept.

An anonymous reader writes [PHP][Apache]
"It seems like some of the members of the Apache Software Foundation are a little angry with the PHP Community because they don't recommend using Apache 2.0 with PHP. Since PHP is installed on half of all Apache servers this is a major issue for them. A number of high-profile PHP community members such as John Coggeshall and Chris Shiflett have blogged about this decision in light of a recent posting

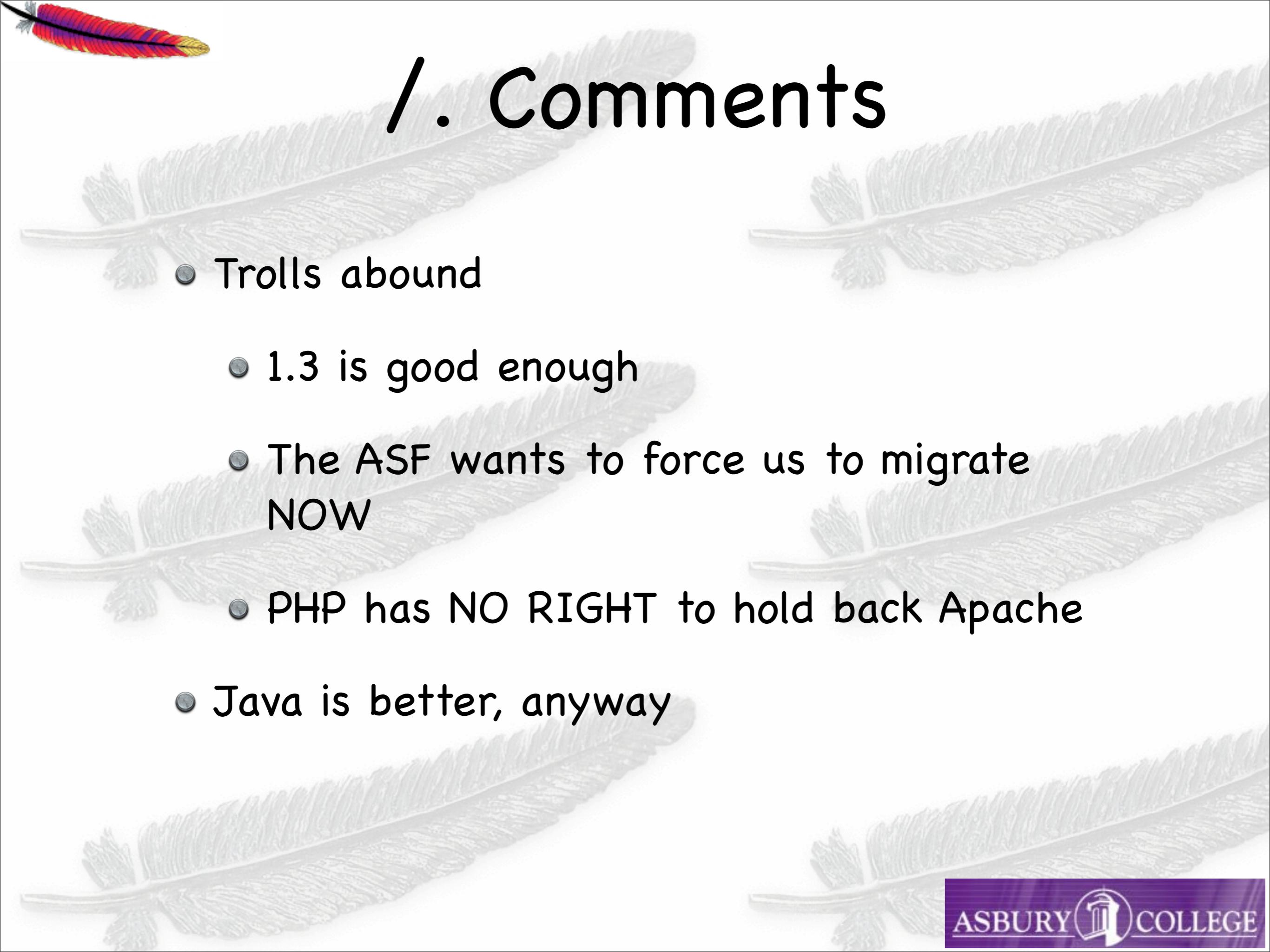
ACADEMY COLLEGE



Slashdot



- Posted to the “play-nicely-children” department
- Suddenly both of us become worldwide shooting targets
- Rich’s 2.0 site goes down, my 1.3 stays up



/ . Comments

- Trolls abound
 - 1.3 is good enough
 - The ASF wants to force us to migrate NOW
 - PHP has NO RIGHT to hold back Apache
- Java is better, anyway

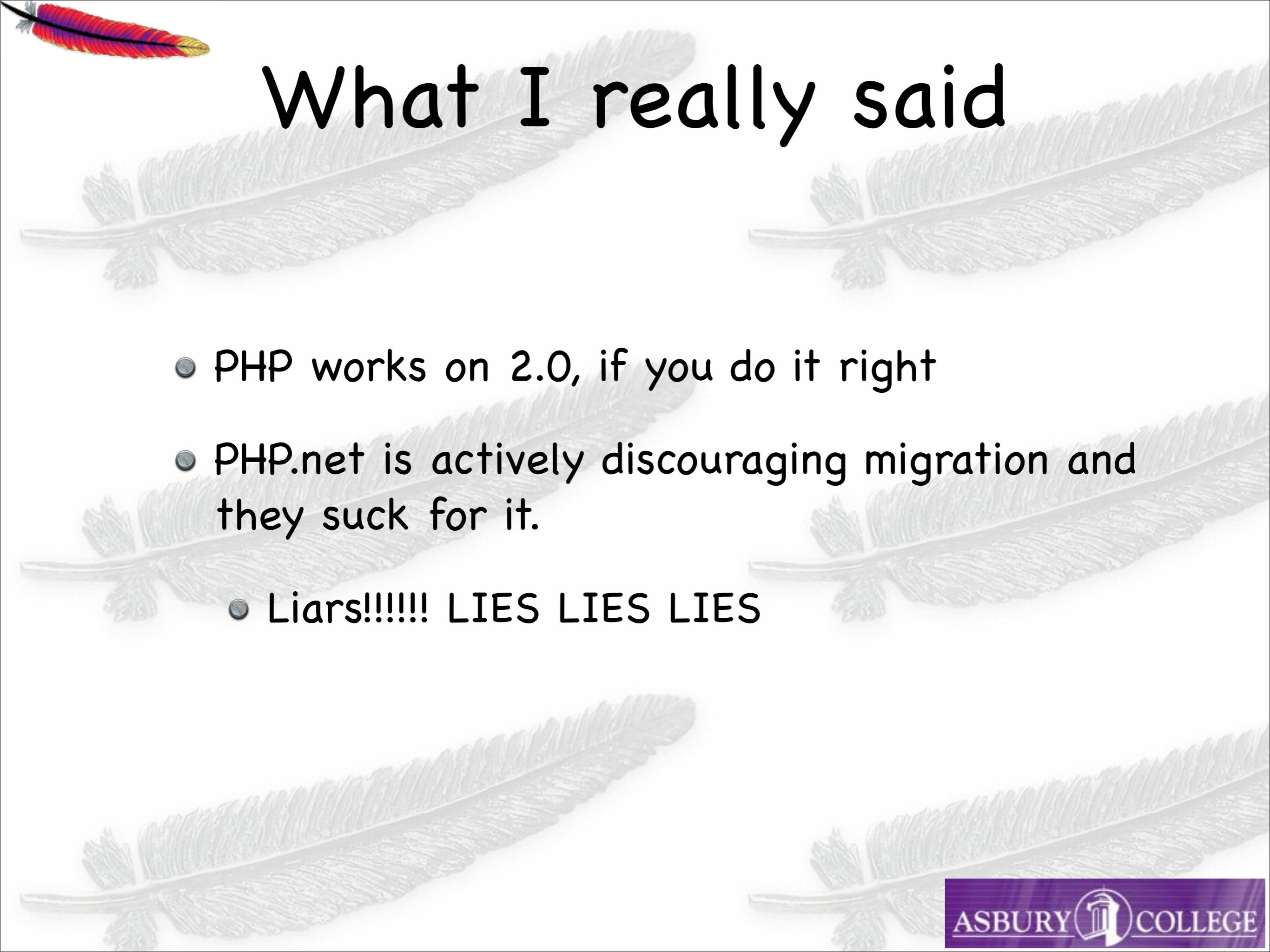


So what's PHP's problem?

- Basically, PHP got tired of people running Apache 2.0 and segfaulting
- There was very little knowledge sharing between the ASF and PHP
- PHP People weren't seeing why they should leave a stable platform
- Apache people were just pissed.



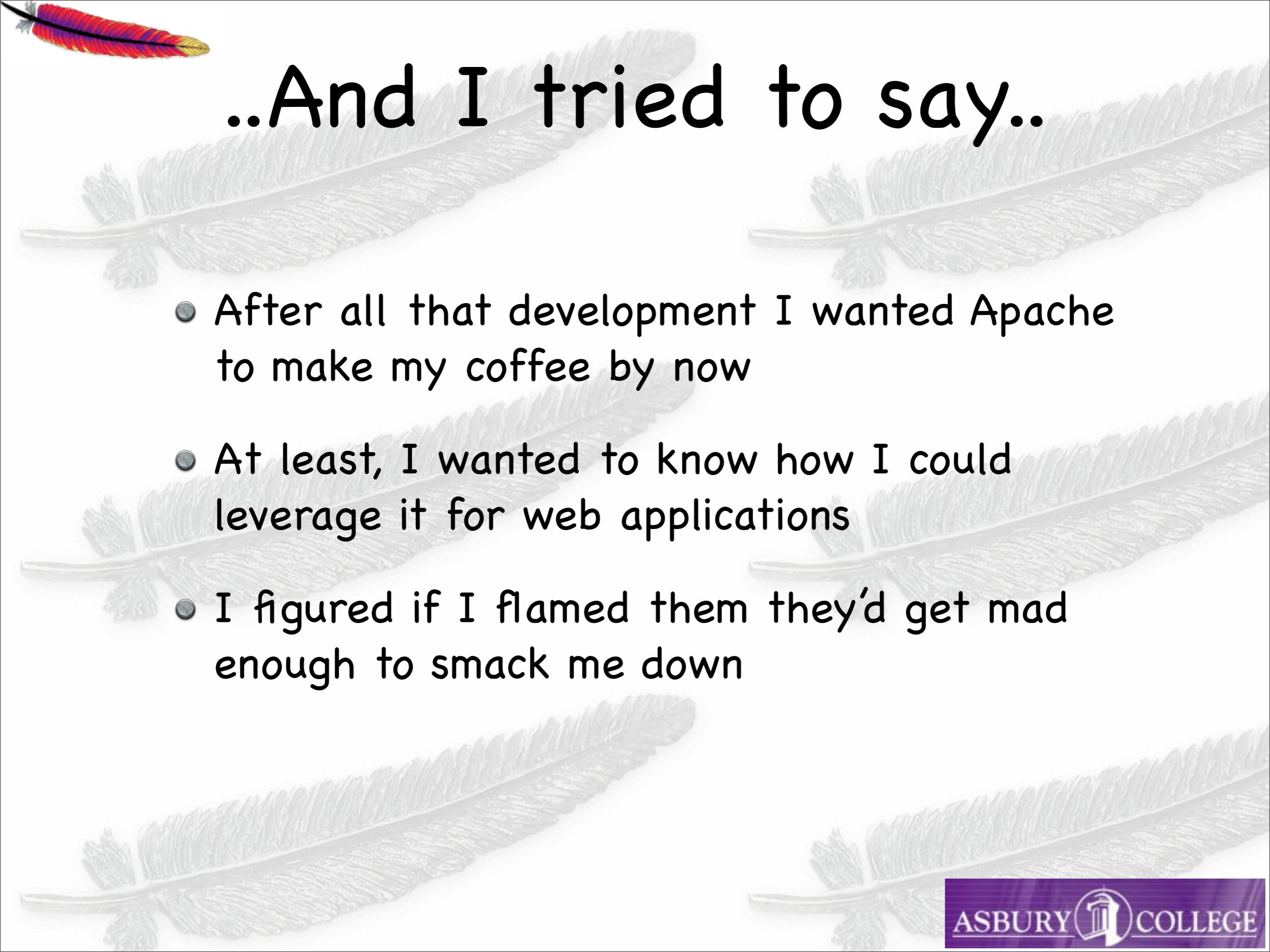
What I really said



- PHP works on 2.0, if you do it right
- PHP.net is actively discouraging migration and they suck for it.
- Liars!!!!!! LIES LIES LIES



..And I tried to say..

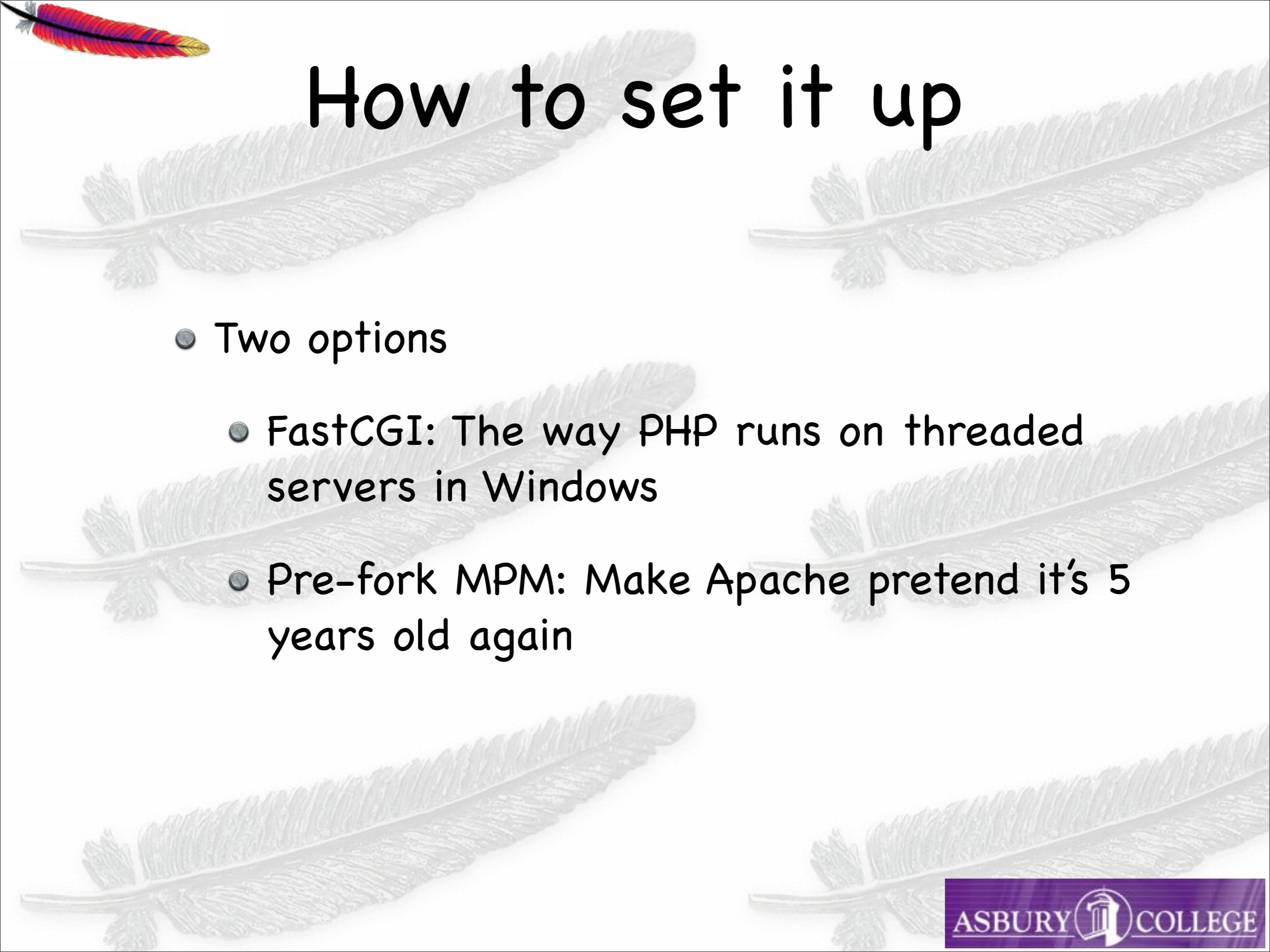


- After all that development I wanted Apache to make my coffee by now
- At least, I wanted to know how I could leverage it for web applications
- I figured if I flamed them they'd get mad enough to smack me down



The Truth In Between

- In Reality, PHP runs just fine on Apache 2.0
 - There are threading issues, but at least two good workarounds
- Okay... so Apache 2.0 wasn't THAT awesome
- But Apache 2.2 Rocks, and you all should switch



How to set it up

- Two options
 - FastCGI: The way PHP runs on threaded servers in Windows
 - Pre-fork MPM: Make Apache pretend it's 5 years old again



FastCGI

```
FastCgiWrapper /usr/sbin/suexec-fcgi
FastCgiServer /www/bin/php \
    -user pubhttp -group pubhttp
AddHandler php-fastcgi .php
```

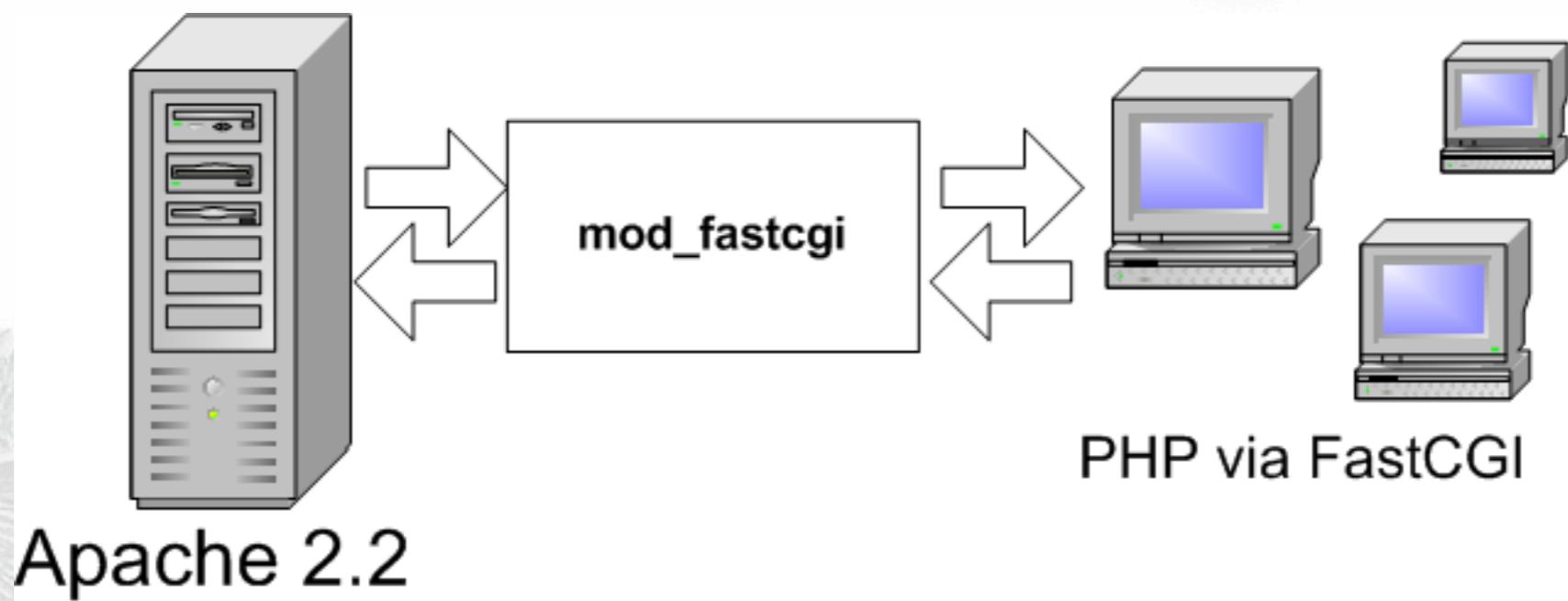
```
SetHandler fastcgi-script
Action php-fastcgi /cgi-bin/php
AddType application/x-httpd-php .php
```



/www/bin/php is ...

```
#!/bin/sh
PHPRC="/etc/php/"
export PHPRC
PHP_FCGI_CHILDREN=4
export PHP_FCGI_CHILDREN
exec /usr/bin/php.fcgi
```

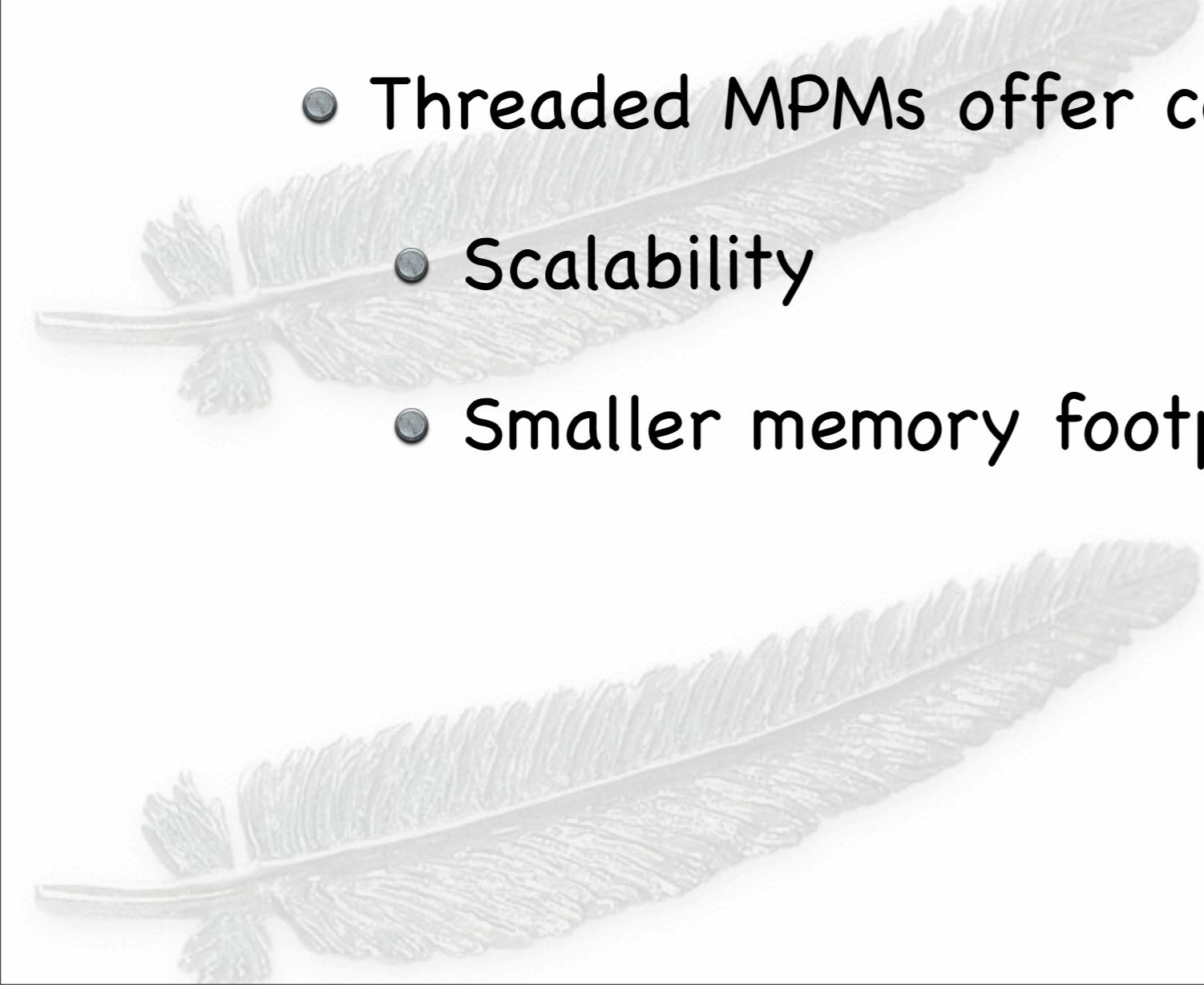
Pretty picture

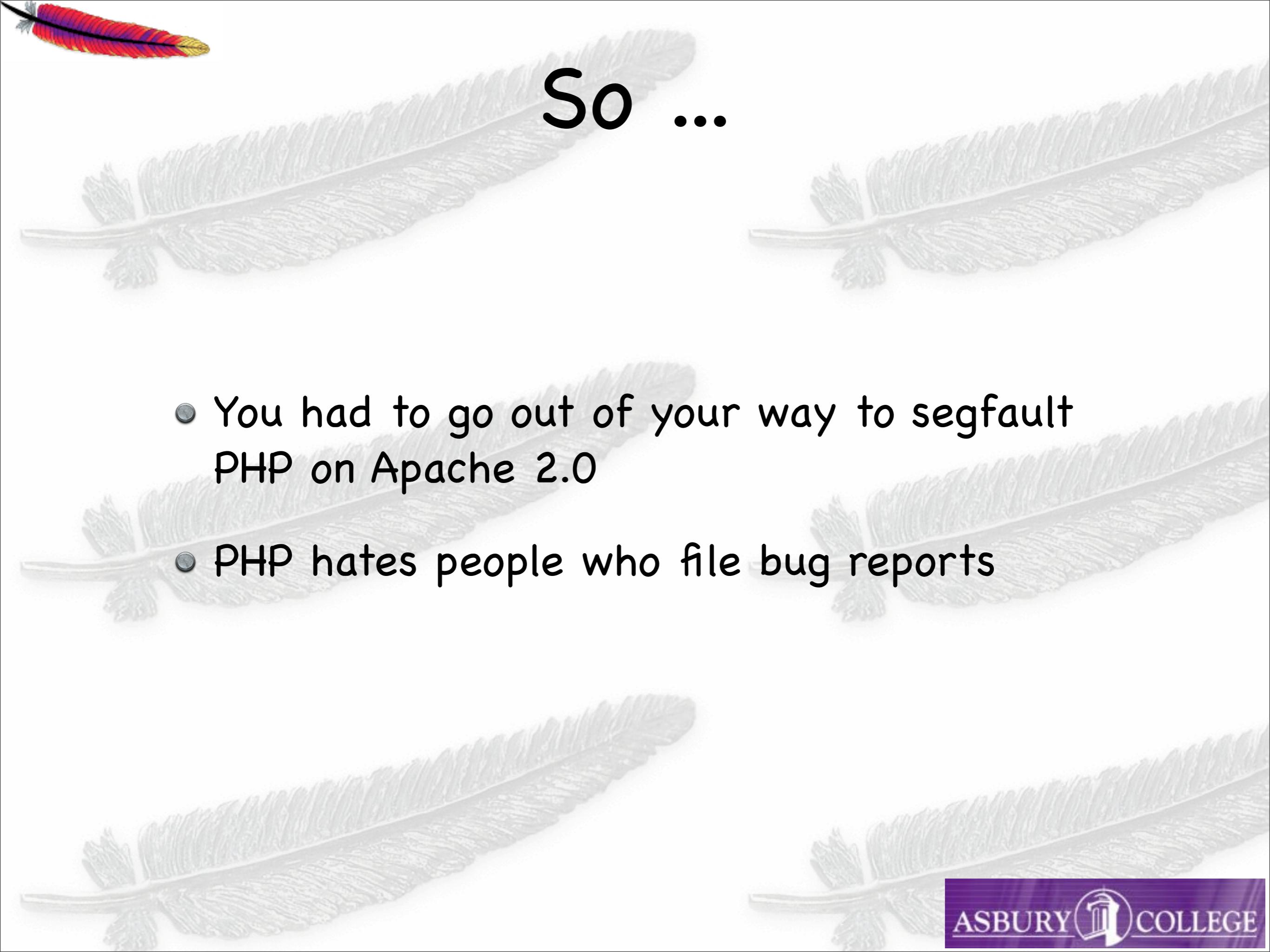




Or prefork-mpm



- Prefork is the default MPM with 2.x
 - Threaded MPMS offer certain advantages
 - Scalability
 - Smaller memory footprint
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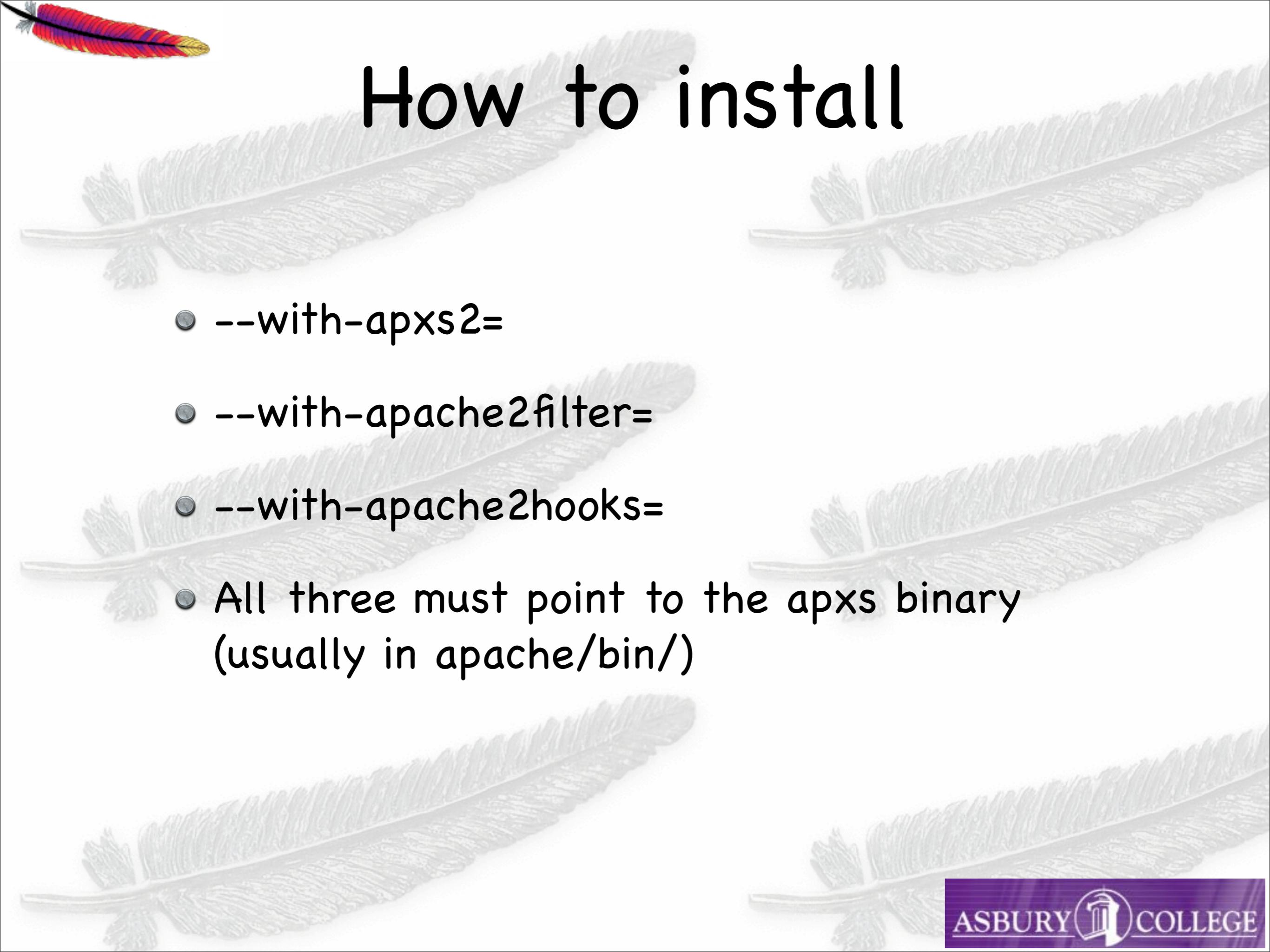
So ...

- You had to go out of your way to segfault PHP on Apache 2.0
- PHP hates people who file bug reports



SAPI

- If you choose to connect PHP directly to Apache there are two..... well three.... ways
 - Apache2Handler: “classical” approach, works well
 - Apache2Filter: “new hotness” approach, was broken for a real long time
 - Apache2Hooks: Doesn’t work, don’t bother



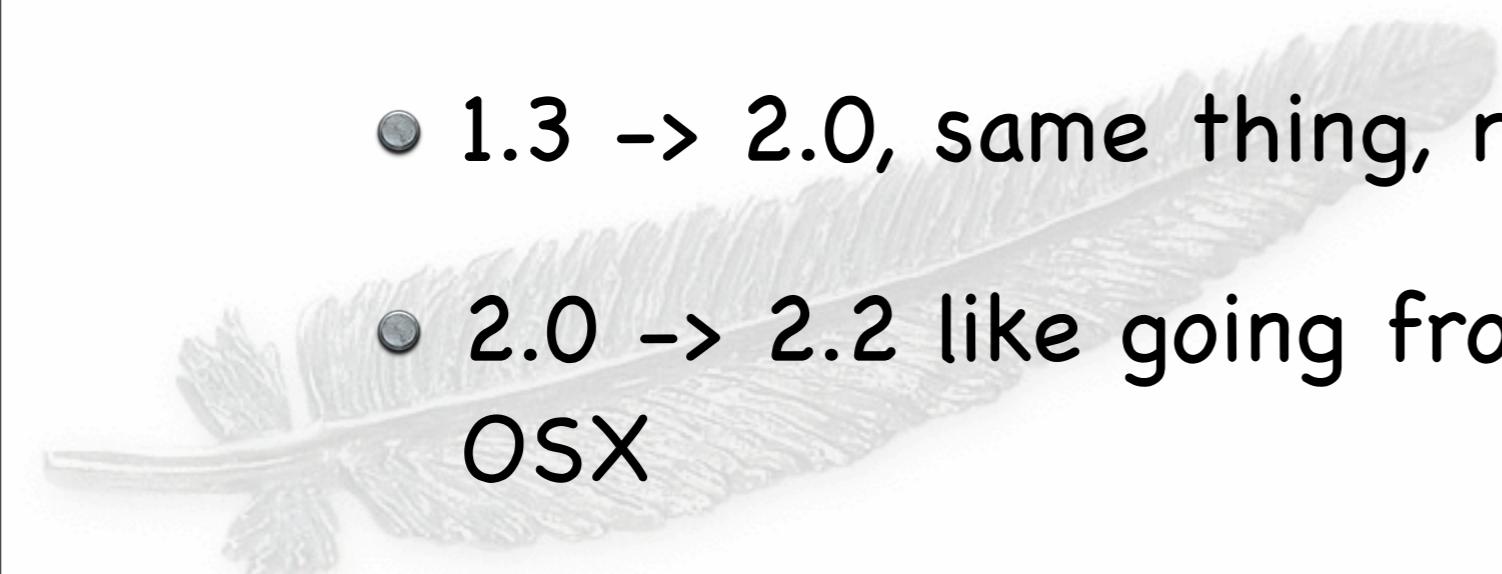
How to install

- --with-apxs2=
- --with-apache2filter=
- --with-apache2hooks=
- All three must point to the apxs binary
(usually in apache/bin/)



Apache 2.2 rocks



- 1.3 -> 2.0, same thing, new way
 - 2.0 -> 2.2 like going from Windows ME to OSX
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More than threading

- New caching fu (2.2)
- Very shiny new Proxy features (2.0 and 2.2)
- mod_dbd (2.2)
- New authentication framework (2.1)
- Smart filtering (2.2)
- Large file support (2.2)
- SSL included as standard module (2.0)
- Cool stuff in mod_info (2.2)
- IPv6 support (2.0)
- Filters (2.0)
- Much better non-Unix support (2.0)
- PCRE (2.0)
- New mod_include features (2.0)
- LDAP authentication (2.0)
- mod_deflate (2.0)
- mod_dav (2.0)
- Multi-protocol (2.0)



What are you missing out on?

- Let's just pick a few things ...

mod_deflate (2.0)

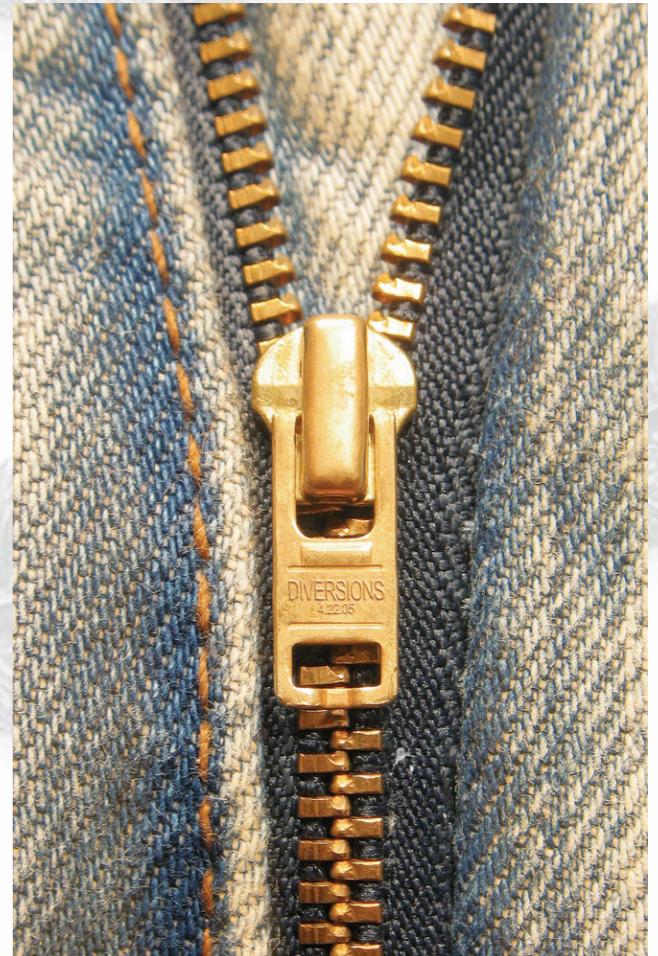
- Compresses output for 50 - 400% faster download speeds



```
AddOutputFilterByType DEFLATE \
text/html text/plain text/xml
```

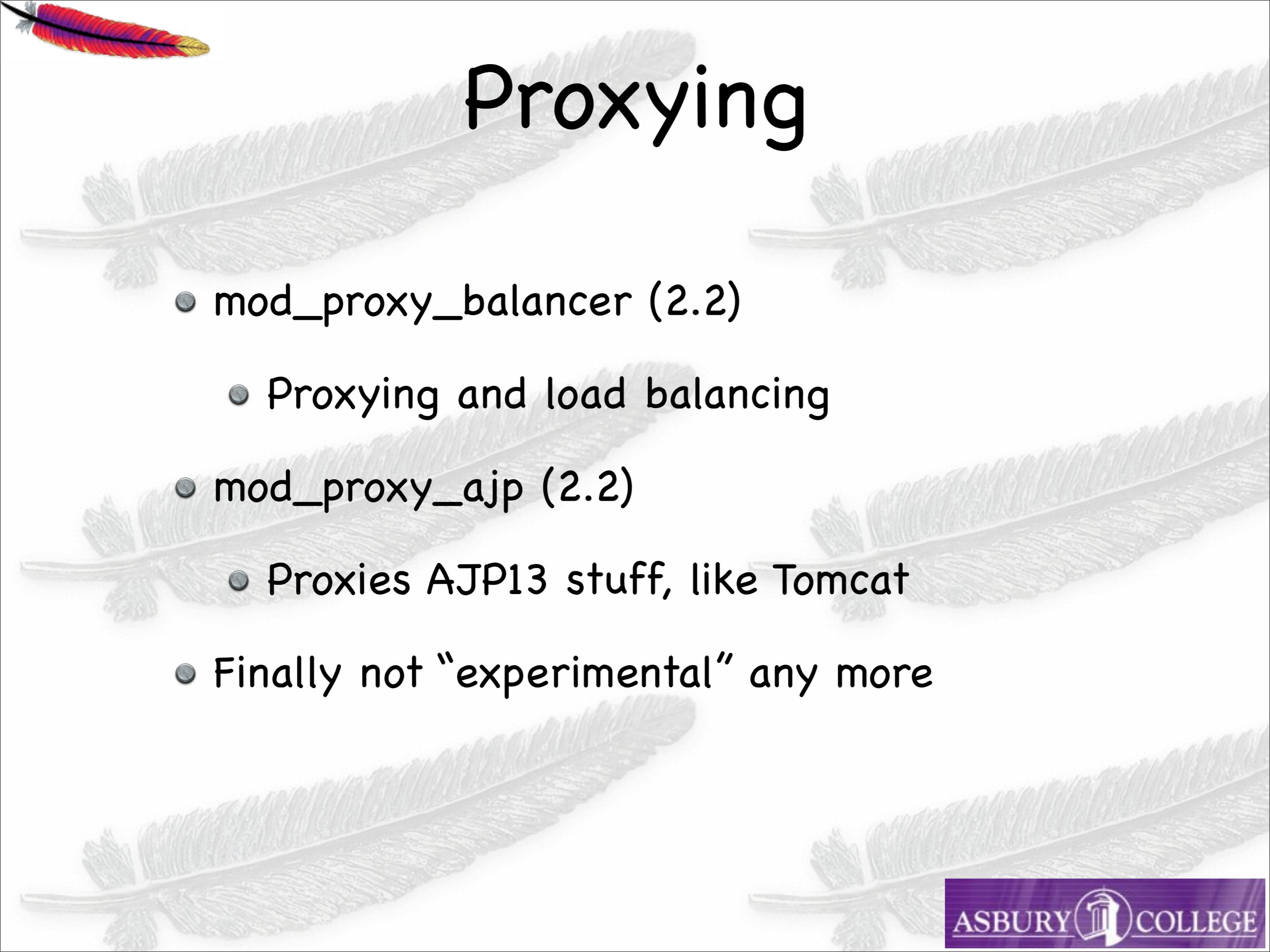
Yes, there's mod_gzip

- Performance isn't quite as good
- Last release was 2002-10-01
- Configuration tends to be far more complex





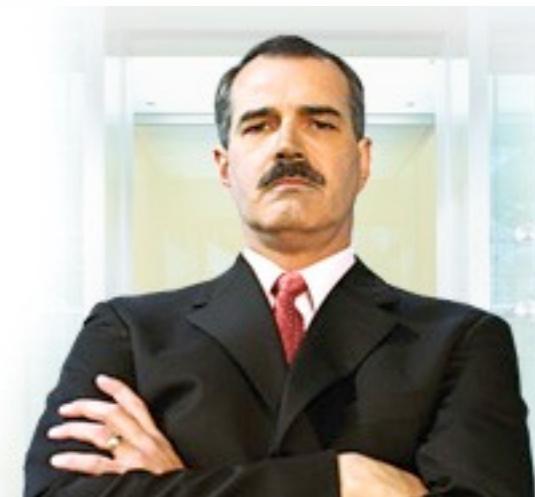
Proxying



- mod_proxy_balancer (2.2)
 - Proxying and load balancing
- mod_proxy_ajp (2.2)
 - Proxies AJP13 stuff, like Tomcat
 - Finally not “experimental” any more

AAA

Identify
yourself



- Authentication, Authorization, and whatever it is that other A stands for
- Mix and match authentication and authorization techniques
- Basic/Digest/LDAP
- Text/DBM/Database/LDAP/Whatever



Auth example

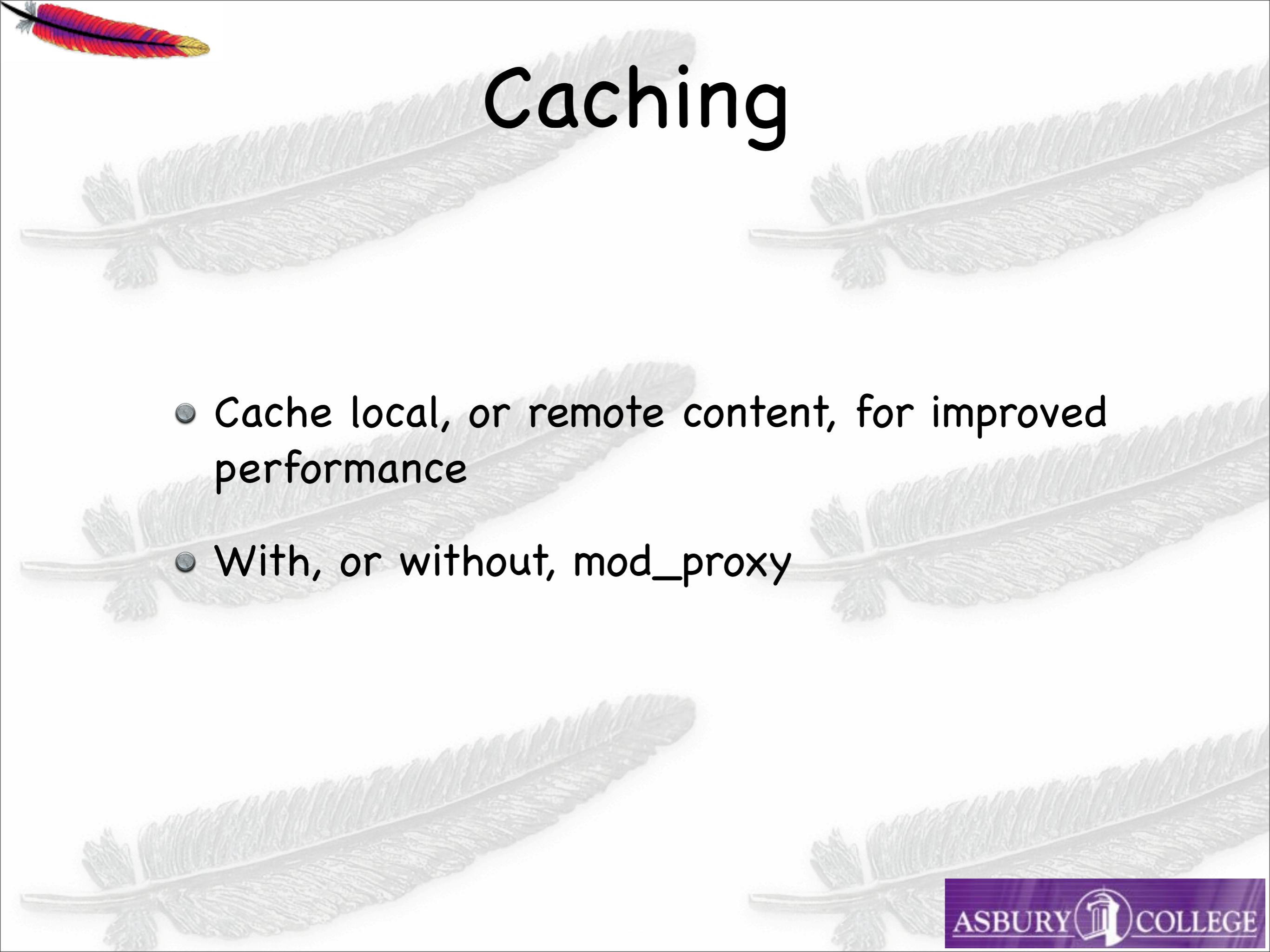
```
<Directory /www/docs/private>
  AuthName "Private"
  AuthType Basic
  AuthBasicProvider dbm
  AuthDBMUserFile /www/passwords/passwd.dbm
  Require valid-user
</Directory>
```



LDAP auth



- Authentication against one or more LDAP directories
 - Auth against Active Directory
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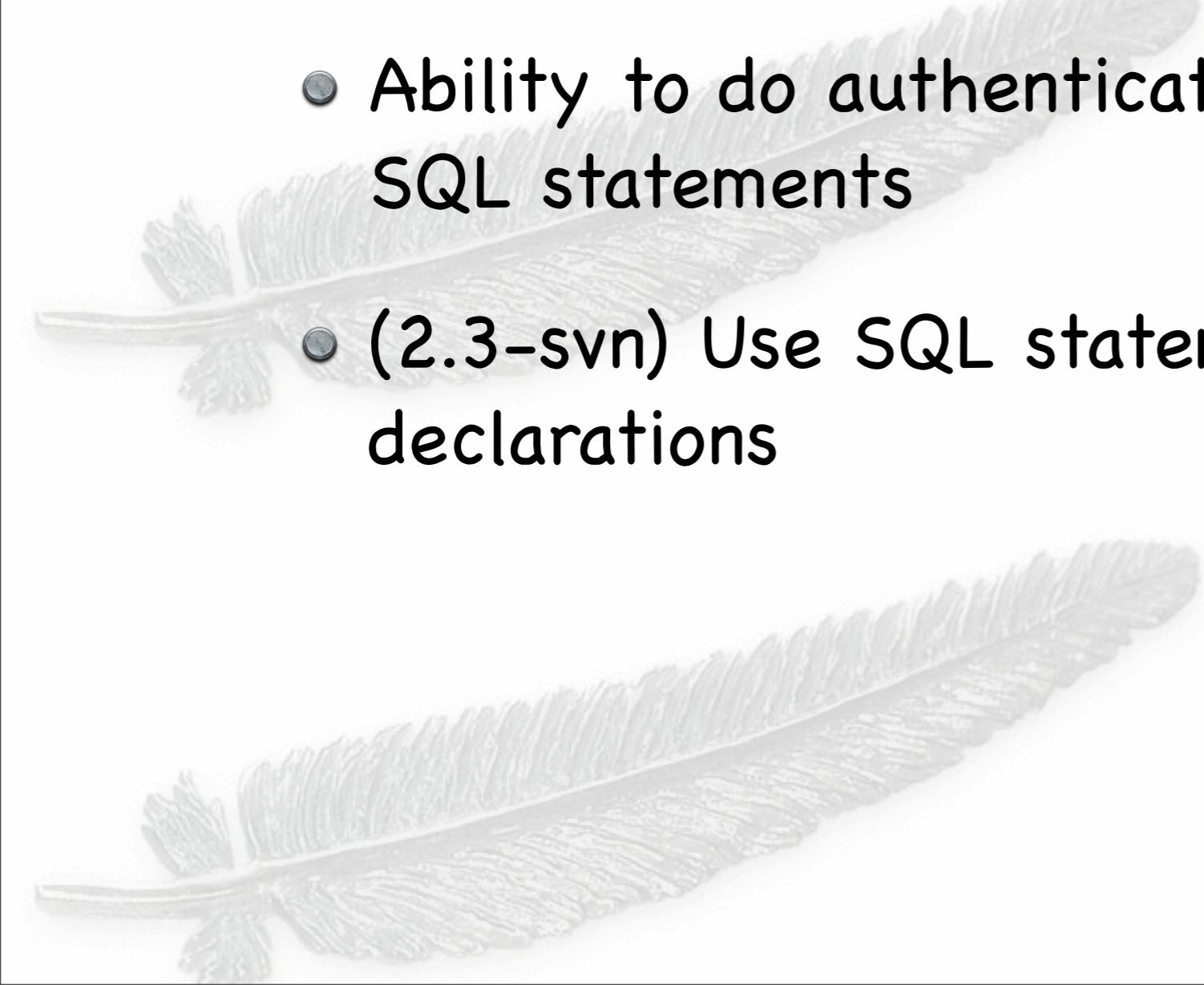
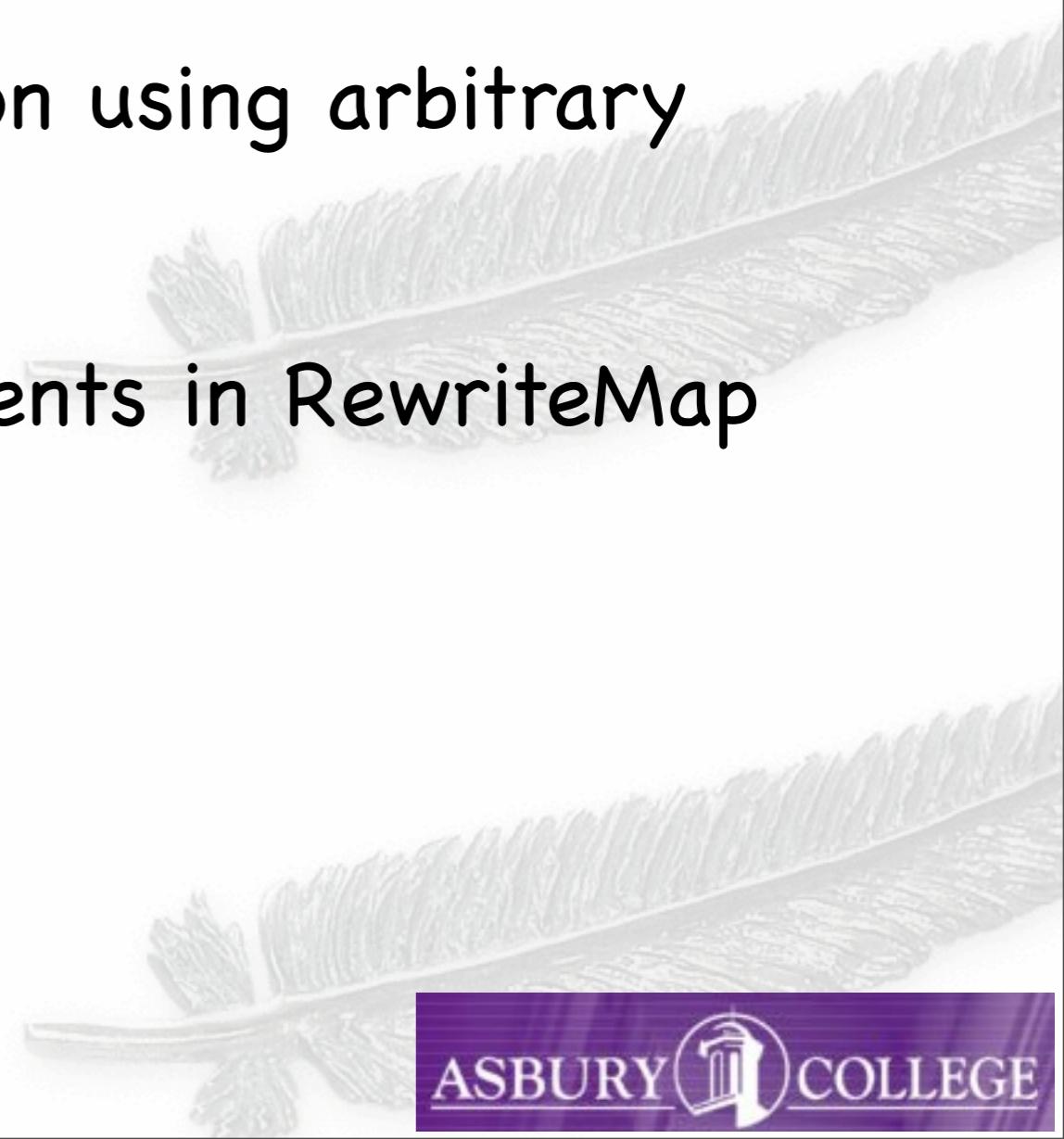
Caching

- Cache local, or remote content, for improved performance
- With, or without, mod_proxy



mod_dbd

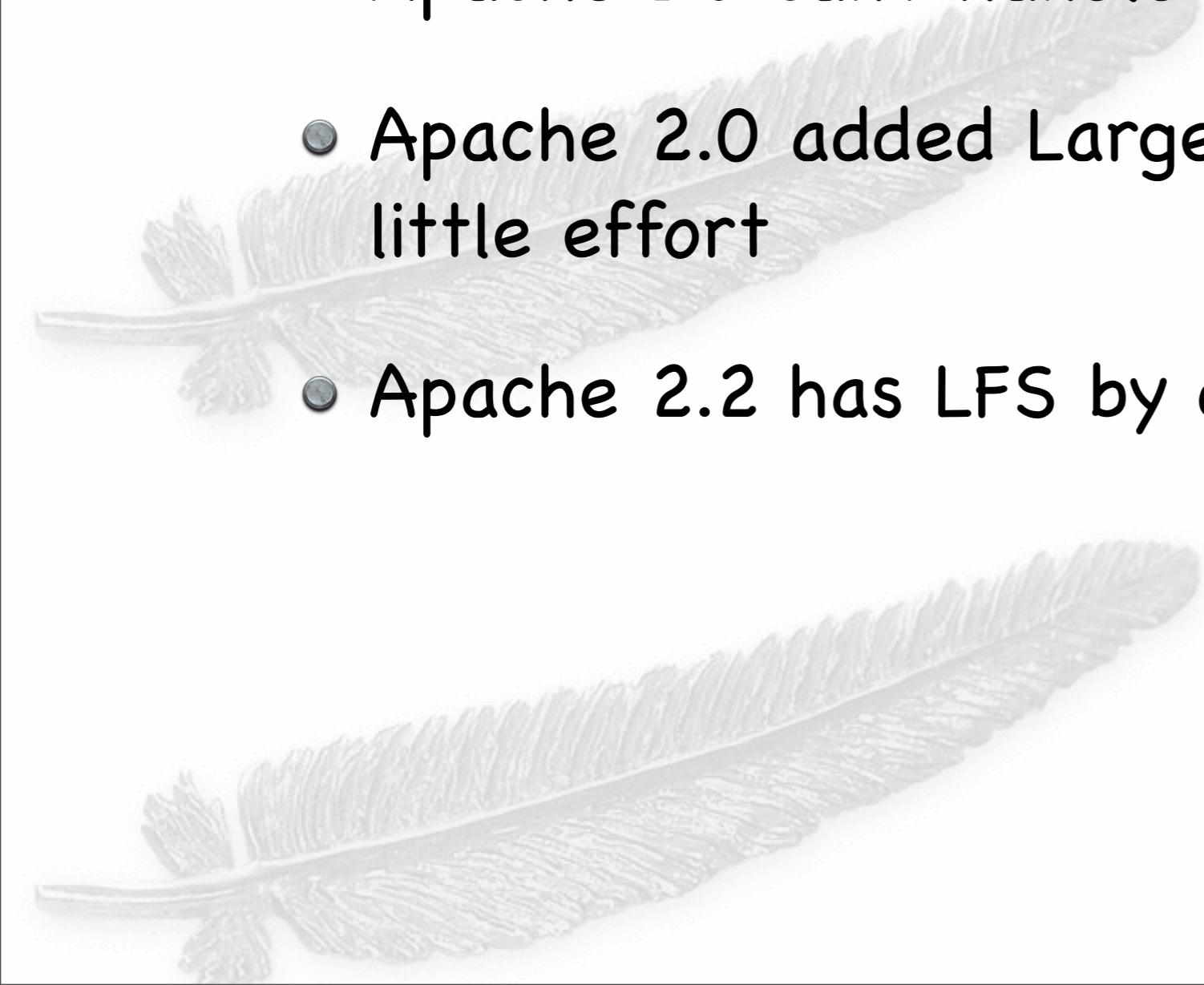
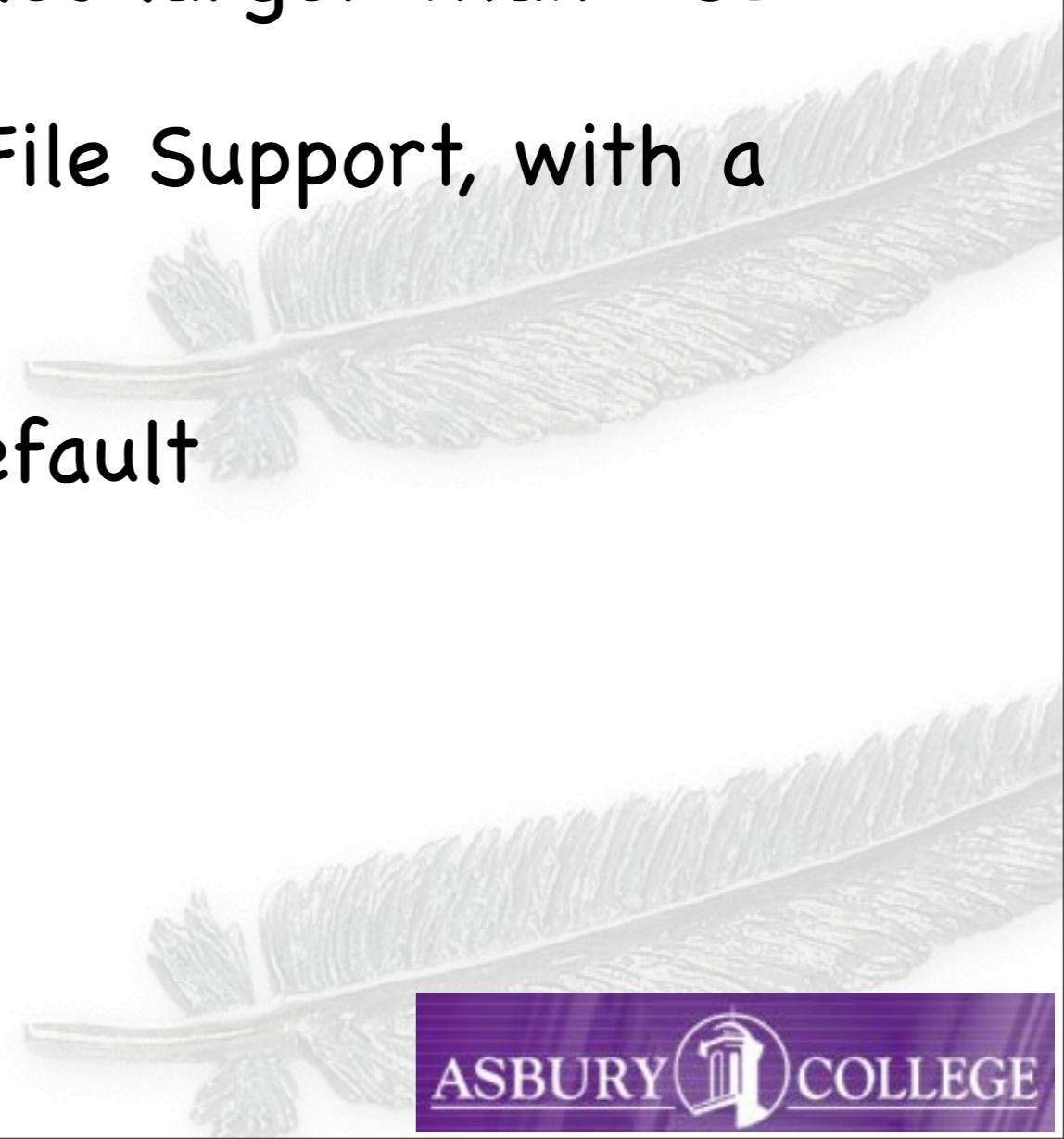


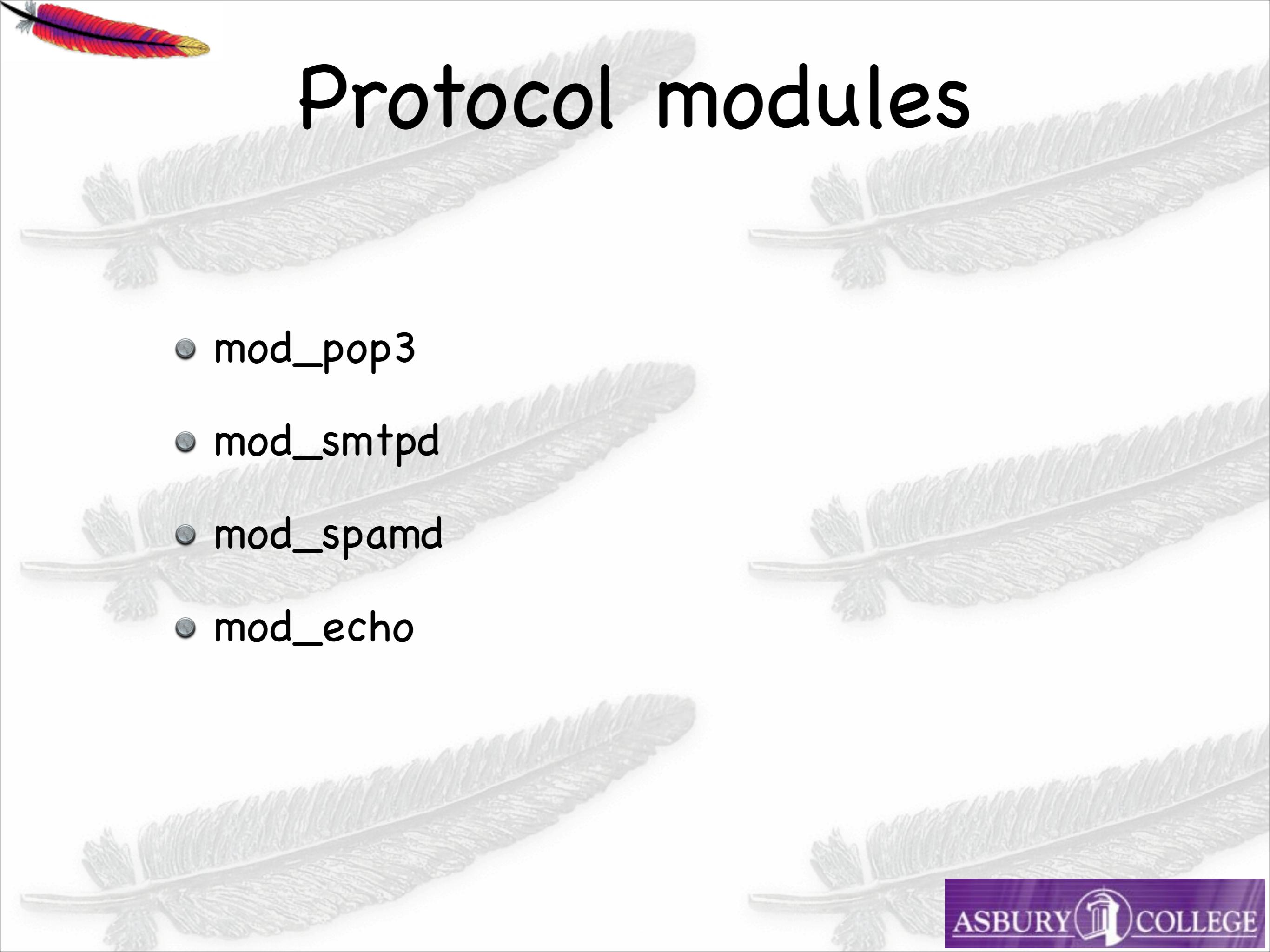
- Adds database connection management
 - Ability to do authentication using arbitrary SQL statements
 - (2.3-svn) Use SQL statements in RewriteMap declarations
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LFS



- Apache 1.3 can't handle files larger than 2GB
 - Apache 2.0 added Large File Support, with a little effort
 - Apache 2.2 has LFS by default
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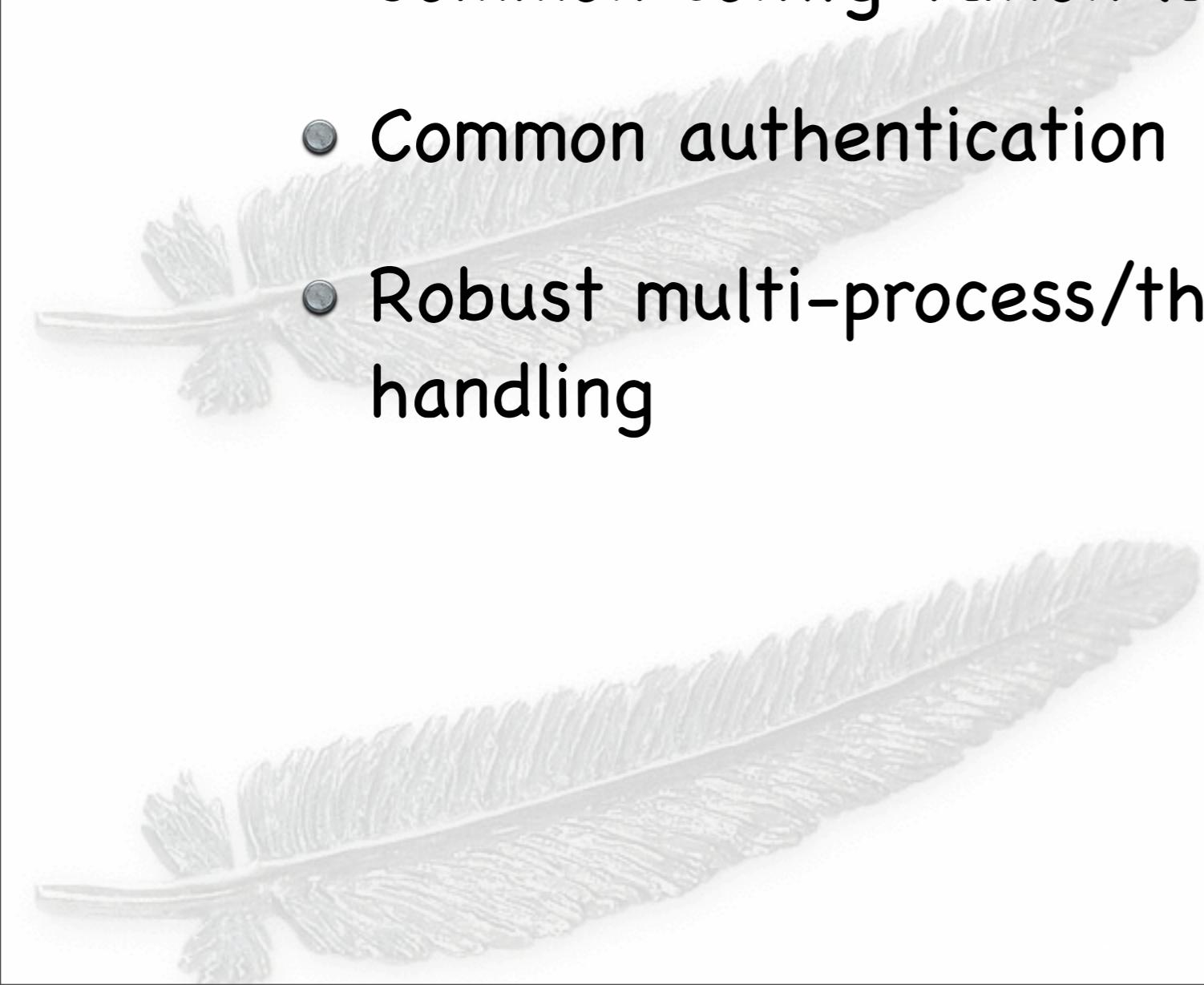
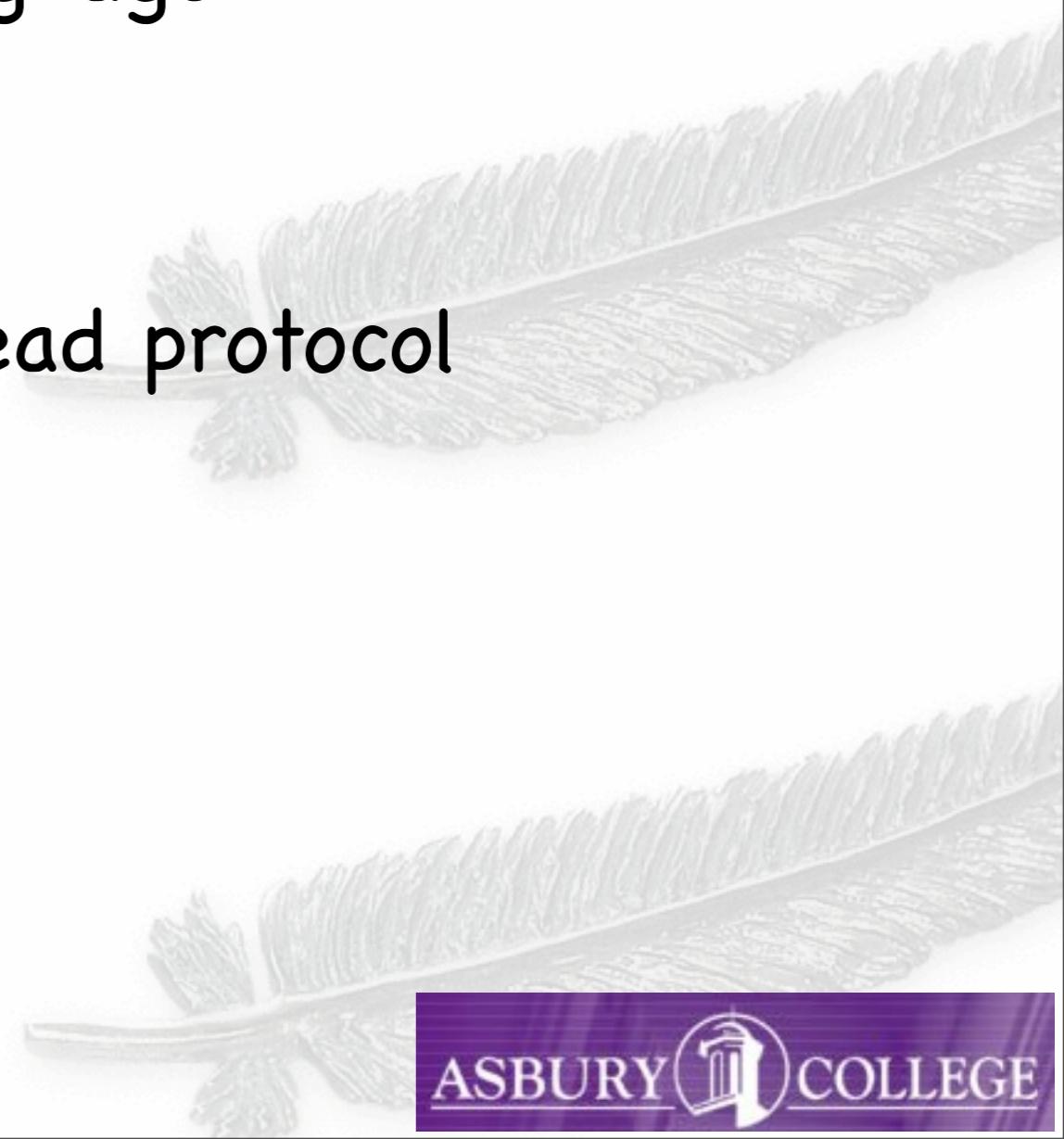
Protocol modules

- mod_pop3
- mod_smtpd
- mod_spamd
- mod_echo



Why?

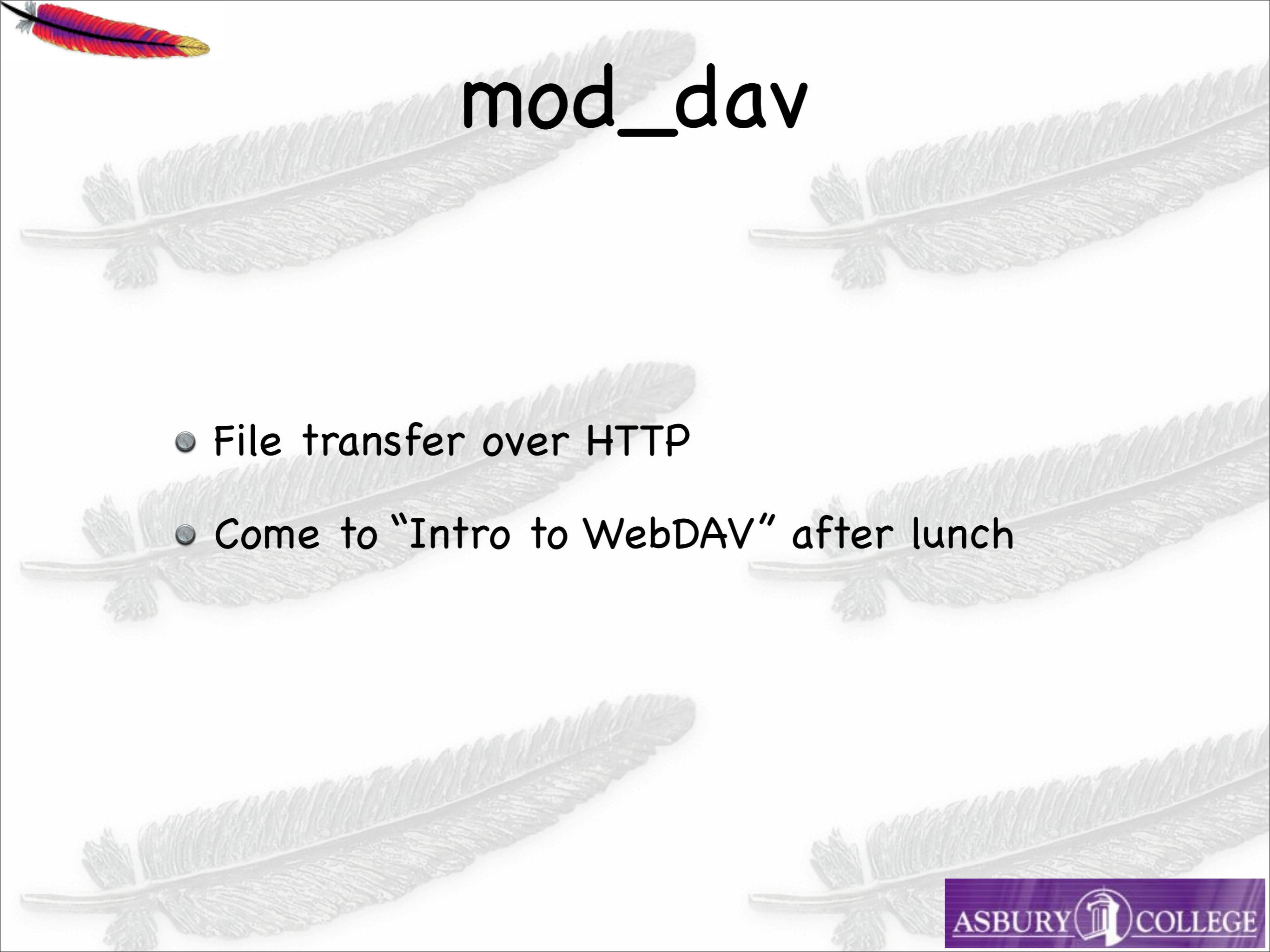


- Common configuration language
 - Common authentication
 - Robust multi-process/thread protocol handling
- 
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mod_info

- /server-info?config
- /server-info?<module-name>
- /server-info?hooks
- /server-info?list
- /server-info?server

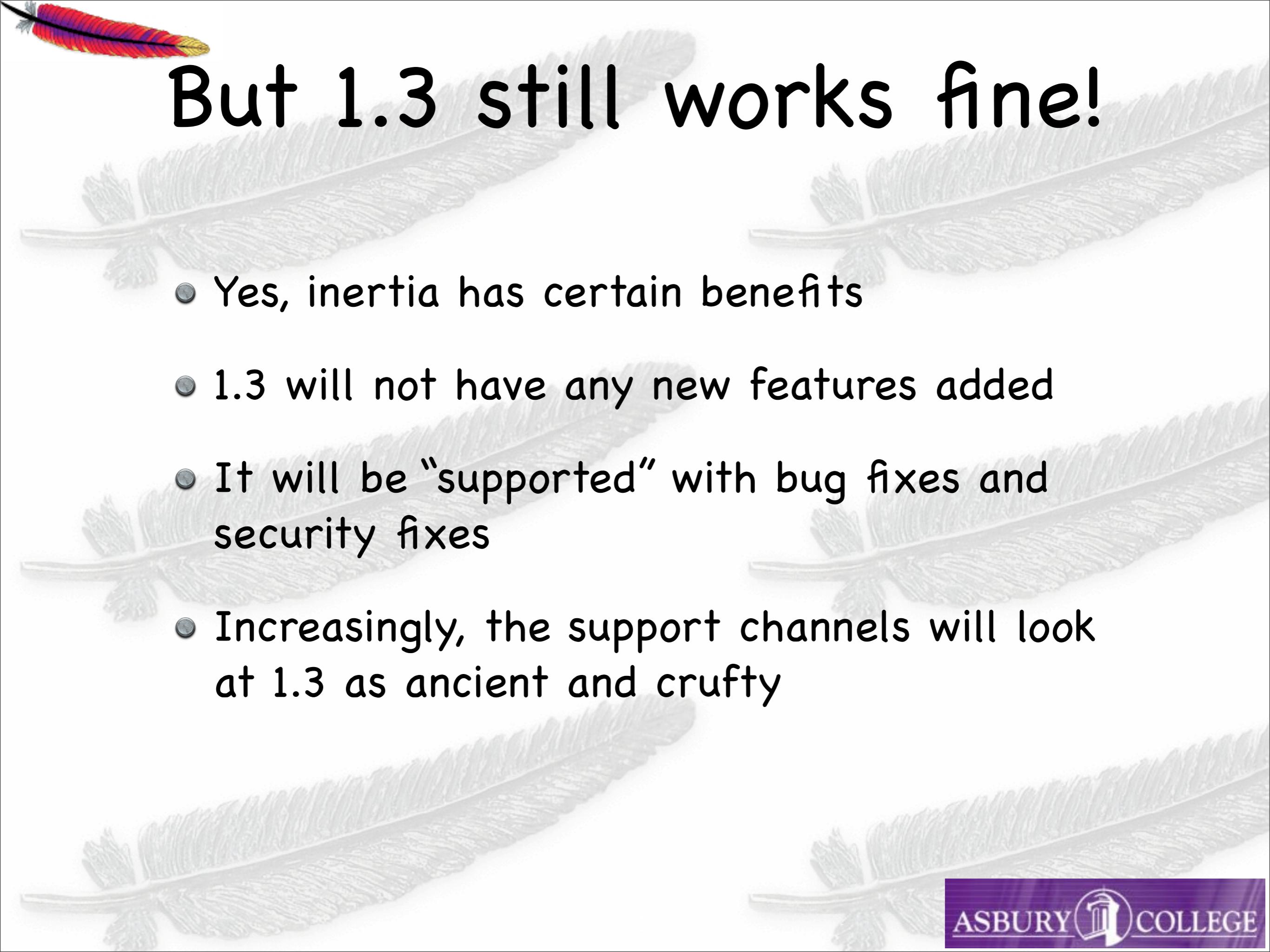


mod_dav

- File transfer over HTTP
- Come to “Intro to WebDAV” after lunch



But 1.3 still works fine!



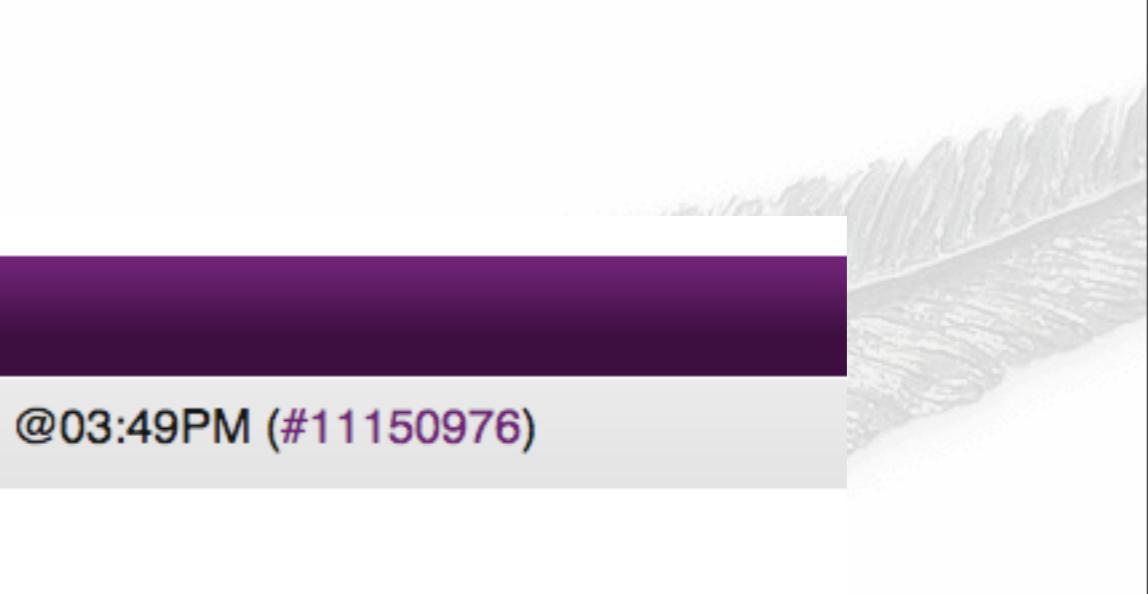
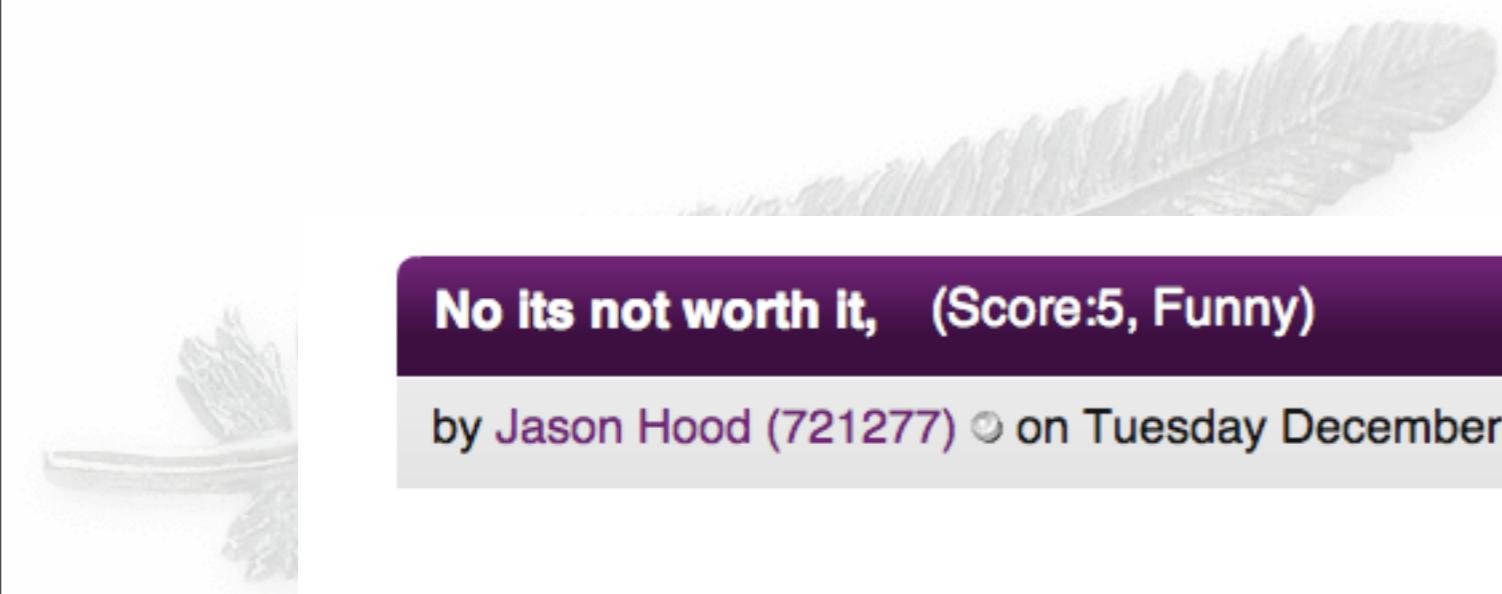
- Yes, inertia has certain benefits
- 1.3 will not have any new features added
- It will be “supported” with bug fixes and security fixes
- Increasingly, the support channels will look at 1.3 as ancient and crufty



Questions?



- We have all the answers



No its not worth it, (Score:5, Funny)

by Jason Hood (721277) • on Tuesday December 21, @03:49PM (#11150976)

Stick with kernel 1.3.79 and Apache 1.1 just to be "safe".