Using R/Apache as the Statistical Engine for Web Applications
http://biostat.mc.vanderbilt.edu/RApacheProject

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Apache 2.0 Multi-Processing Models

Hello World Example: http://localhost/test/hello

```r
library(mod_R)
source(file.path('/', 'var', 'www', 'html', 'test.R'))
handler <- function(r){
  apache.write(r, "<h1>Hello World!</h1>")
}
RreqHandler handler
```

Hello World!
```r
library('GDD')
library('NRart')
r2 <- function(r)
{
    apache.set_content_type(r, "image/png")
    GDD(ctx=apache.gdlib_ioctx(r), w=500, h=500, type="png")
    nr.image(x^3 + .28 * tan(x + t) + cos(x + 2*t)*.3i - 0.7,
             steps=3, points=400, col=rainbow(256), zlim=c(-pi, pi))
    dev.off()
    OK
}
```

**GDD/NRart Example**

**RApache Demonstrations**

- **Full Feature Test Handler**
  - Demonstrates all the capabilities of RApache include CGI, manipulating HTTP headers, and file uploading.
- **EVT-Web**
  - Implements a web interface to a protein searching algorithm using Extreme Value Theory. The web interface takes a group of related proteins as input from the user and generates a profile via an external program (MEME). Then a model is built to predict which other proteins from a large database (MySQL) are also related to the group of proteins that the user specified.
- **Polyart**
  - Demonstrates the use of RApache as a web service to explore images created through the process of finding roots of functions, i.e. using the NRart package.

**Ongoing Work**

- **Rmemcache**
  - Implements client API to memcached, a possibly distributed cache (not a database) of small objects. R objects are stored in memcache server via serialize().
- **udbMySQL**
  - Uses the "User Defined Database" interface to store R objects of arbitrary size and structure in a MySQL table.
- **Getting the next release out the door**
  - Testing against Apache 2.2, R-2.3.1. Looking into getting rid of some of the apache.* methods in favor of a more transparent interface, especially apache.write().