

CGI and AppleScript

Within an *AppleScript* CGI, you can process data or instructions entered into a form. You can initiate a database search, assemble text, produce charts or graphics, all driven from the user's choices. Or you can send an e-mail, assemble new HTML for subsequent Web pages or deal with runtime errors.

A Sample AppleScript CGI

Suppose you maintain a regularly-updated database of information in a database that includes a table of numeric values, and you want to provide, on demand to your Web users, the table in the form of a chart. The following *Classic Mac OS* script uses three familiar applications: *FileMaker Pro*, to hold the data, *DeltaGraph Pro*, to make a chart of the data, and *Clip2Gif*, to store the chart in a GIF file. You can use redirection, provided by the Location URL in `reply_header`, to point to the Web server to the GIF file. The script is intended as inspiration, not as a working sample.

```
property crlf : (ASCII character 13) & (ASCII character 10)
property reply_header : "HTTP/1.0 302 FOUND" & crlf & ¬
  "Server: WebSTAR/1.0 ID/ACGI" & crlf & ¬
  "Location: http://www.your.site/home.html" & crlf & ¬
  "URI: http://www.your.site/home.html" & crlf & crlf
property error_header : "HTTP/1.0 200 OK" & crlf & ¬
  "Server: WebSTAR/1.0 ID/ACGI" & crlf & ¬
  "MIME-Version: 1.0" & crlf & "Content-type: text/html" & crlf & crlf
-- CGI Handler
on «event WWWΩsdoc» path_args ¬
  given «class post»:post_args, «class meth»:method, «class addr»:client_address
  try
    -- Body of CGI goes here.
    -- Interpret CGI arguments here.
    -- Obtain user's choices from the CGI arguments.

    -- retrieves data from database
    tell application "FileMaker Pro"
      Open alias "Macintosh HD:Databases folder:Web DataBase"
      set numRecs to Count of Record in Document 1
      -- make tab-delimited data for Deltagraph
      set dataString to "Month" & tab & "Amount" & return
      repeat with i from 1 to numRecs
        copy dataString & Cell "month" of Record i & tab & ¬
          Cell "amount" of Record i & return to dataString
      end repeat
    end tell

    -- creates desired chart
    tell application "DeltaGraph Pro"
      Data dataString
      Plot Options Text Font "Palatino" Text Size 12 Colorstyle "blue"
      Set Axis Lengths for X 100 for Y 100
      Output PICT
      set dataChart to Plot chart chartType
    end tell

    -- makes GIF file for the redirect
    tell application "clip2gif"
      save dataChart as GIF in file "Macintosh HD:home.html"
    end tell

    -- returns reply data to the server and exits CGI handler
    return reply_header -- reply and exit

    -- creates page of HTML text in event of error
    on error errMsg number errNum
      set return_page to error_header & ¬
```

```
"<HTML><HEAD><TITLE>Error Page</TITLE></HEAD>" & ␣
"<BODY><H1>Error Encountered!</H1>" & return & ␣
"An error was encountered while trying to run this script." & return
set return_page to return_page & ␣
"<H3>Error Message</H3>" & return & errMsg & return & ␣
"<H3>Error Number</H3>" & return & errNum & return & ␣
"<H3>Date</H3>" & return & (current date) & return
set return_page to return_page & ␣
"<HR>Please notify the webmaster at " & ␣
"<A HREF=\"mailto:webmaster@your.site.com\">mailto:webmaster@your.site.com</A> "
" of this error." & " </BODY></HTML>"
return return_page
end try
end «event WWWΩsdoc»
```

Excerpt from *CGI and AppleScript*, Dr. Dobb's Sourcebook, Nov/Dec, 1995.