

APPENDIX 8

PROCEDURES FOR TRANSFERRING FILES USING *CURL* (A SCRIPTING METHOD)

To date, two methods for transferring files between your local computer or network server and the FAMWEB host server have been provided. One is through the use of web software (i.e. Dreamweaver) and the other is through the use of Windows Explorer. Unfortunately, these two methods have limitations that require additional work. In this Appendix, we offer a third solution to uploading or downloading files between the FAMWEB host server and the local computer or shared network server, one which offers scripting capability. A program available to make this work using HTTP protocols is called CURL.

NOTE: This program has not gone through the USFS or DOI technical approval process. There is no requirement by the NGWC that GACC website managers and users install this program. Installing the program on your computer is at the discretion of the user. All of the files associated with the program have been run through anti-virus software and have passed successfully. To install the files, you do not need administrative rights.

WHAT IS CURL?

CURL is a command line tool for transferring files with URL syntax, supporting FTP, FTPS, TFTP, HTTP, HTTPS, GOPHER, TELNET, DICT, FILE and LDAP. CURL supports HTTPS certificates, HTTP POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, user+password authentication, file transfer resume, proxy tunneling and a busload of other useful tricks. It is free software. To learn more, go to <http://curl.mirrormonster.com/>.

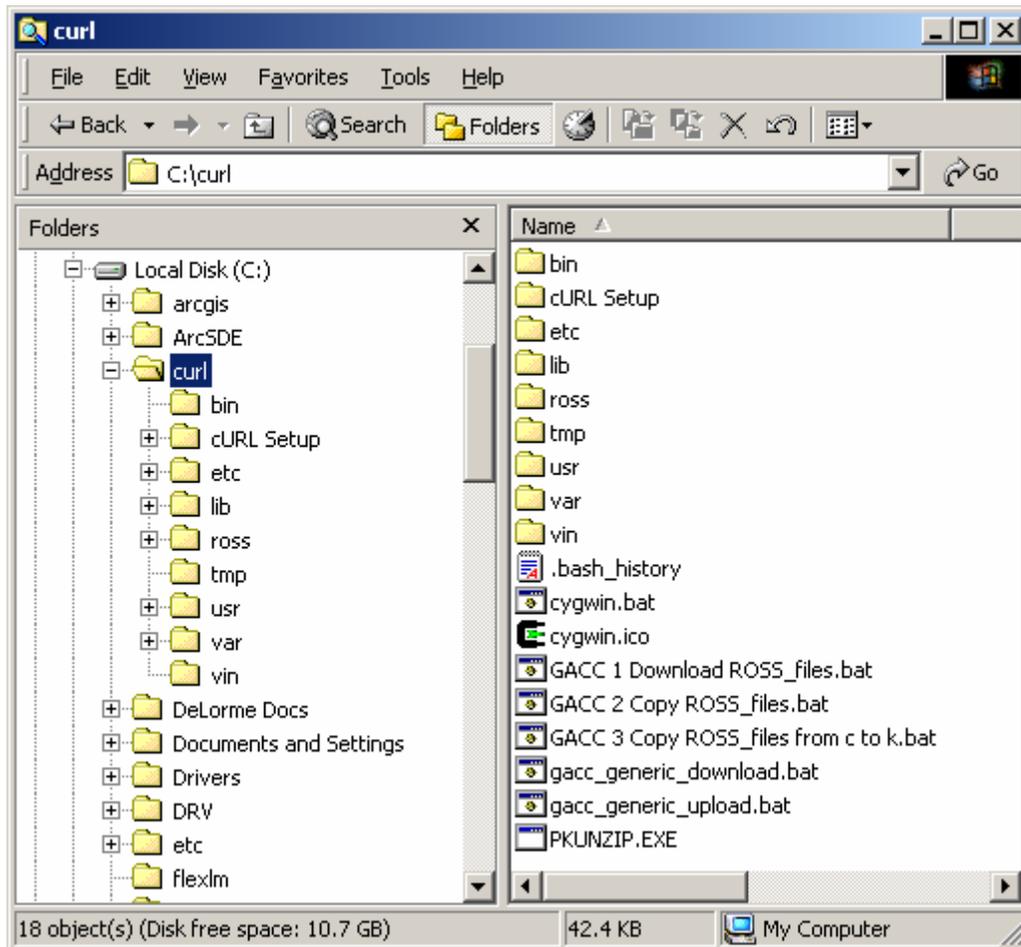
WHY USE CURL?

If you have a file or files that you upload to your GACC website on a regular basis and do not want to open Dreamweaver or Windows Explorer to transfer the file(s) each time, CURL will work for you. CURL provides you with the method for transferring those files to the FAMWEB server that may be outside of the Dreamweaver root directory. It is simple to build the scripts and once designed will save you lots of time in transferring files.

An example: Suppose you build your Morning Report in .PDF format and save it to your local drive each morning. When it's time to upload the file to the FAMWEB server, you have to open Dreamweaver or Windows Explorer to do the transfer. CURL eliminates this step. It will allow you to build a script file that you can place on your desktop to transfer the file. Once built, you can create a shortcut on your desktop to the file located in the CURL folder. Double-click the icon and the file will transfer to the web server.

INSTALLING CURL

1. To install CURL, go to the NGWC website at <http://gacc.nifc.gov/ngwc/ngwc.htm> and look in the download area for Appendix 8. Click on **CURL** to download.
2. Save the .ZIP file in a temporary location on your computer. The file is approximately 28mb.
3. Once saved, open "My Computer" and go to the location of the file. Using .ZIP software (i.e. WinZip, PKUNZIP, etc), unzip the file to your **c:** drive. **NOTE:** Make sure it is unzipping to the **c:** drive. Do not create a new folder (i.e. c:\curl) prior to unzipping. Otherwise, you will end up with a **c:\curl\curl** folder. The unzipped file will take up approximately 500mb of space.
4. Once installed on the c:\ drive, it should look like this:



NOTE: CURL will also work on a shared network drive (i.e. k:\ drive for USFS), but to save time and space in this Appendix, we will demonstrate everything using the c:\ drive only.

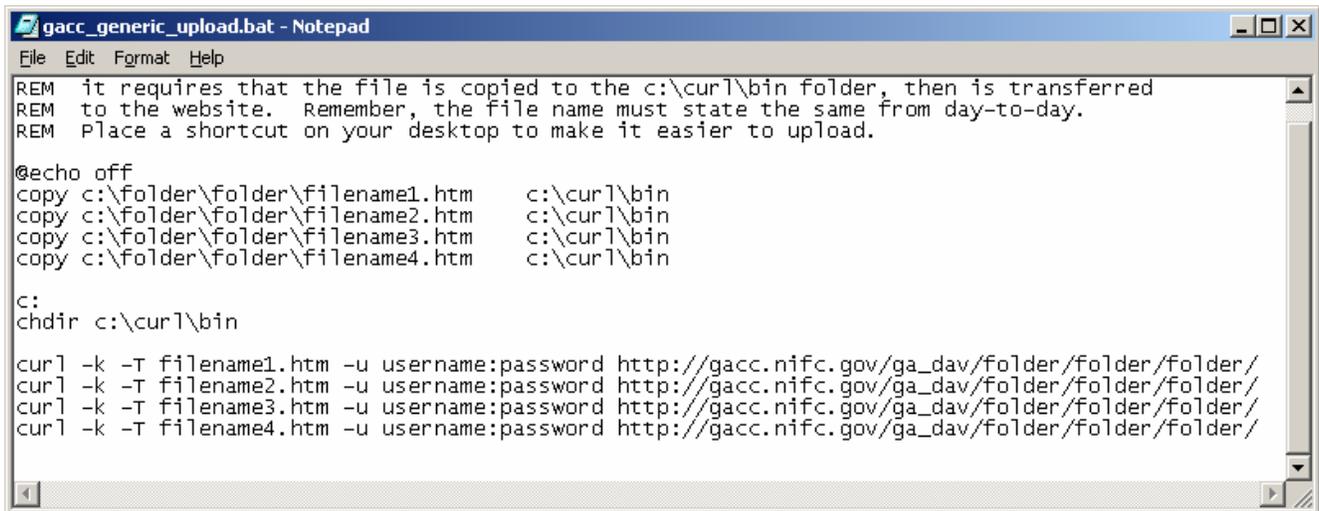
MAKING CURL WORK

In the CURL folder, there are five generic files provided that will assist your GACC in uploading and downloading various files. In this section we will concentrate on only one of the files:

[gacc_generic_upload.bat](#)

Do not delete this file until you are comfortable in building all script files. The remaining four files will be discussed later.

Let's take a look at the "gacc_generic_upload.bat" file. To do this, right-click on the file and select "Edit".



```
gacc_generic_upload.bat - Notepad
File Edit Format Help
REM it requires that the file is copied to the c:\curl\bin folder, then is transferred
REM to the website. Remember, the file name must state the same from day-to-day.
REM Place a shortcut on your desktop to make it easier to upload.

@echo off
copy c:\folder\folder\filename1.htm c:\curl\bin
copy c:\folder\folder\filename2.htm c:\curl\bin
copy c:\folder\folder\filename3.htm c:\curl\bin
copy c:\folder\folder\filename4.htm c:\curl\bin

c:
chdir c:\curl\bin

curl -k -T filename1.htm -u username:password http://gacc.nifc.gov/ga_dav/folder/folder/folder/
curl -k -T filename2.htm -u username:password http://gacc.nifc.gov/ga_dav/folder/folder/folder/
curl -k -T filename3.htm -u username:password http://gacc.nifc.gov/ga_dav/folder/folder/folder/
curl -k -T filename4.htm -u username:password http://gacc.nifc.gov/ga_dav/folder/folder/folder/
```

To make this file work for you, you will need to do some additional work to fit your needs.

There are four sections to this basic script file.

- **Section 1** – This is the REMARKS section (i.e. REM). REM allows you to disable a command or write a comment. Displays when you run script, but carries no action.
- **Section 2** – This is the COPY section. Unfortunately, CURL, as far as can tell, will only transfer files from the "...:\curl\bin" folder. Thus, we have to copy the file(s) from your working location on the computer/shared drive to this folder before they can be transferred to the web server.

Where it says "c:\folder\folder\filenameX.htm", insert the location on your computer where the file is located that you want to transfer. Do not change the "c:\curl\bin" verbiage.

- **Section 3** – This section tells the receiving server where the files to be transferred are located.
- **Section 4** – This is the section that transfers the file to the FAMWEB web server. Additional commands for this section can be found on the CURL website (<http://curl.mirrormonster.com/docs/manpage.html>).
 - -k = Command for insecure transfers. Makes all connections considered "insecure" to fail unless -k is used. If -k is used, the file is transferred over secure lines. Required.
 - -T = Command to upload file(s). This transfers the specified local file(s) to the remote URL.
 - filenameX.htm = file to be uploaded.

Enter the full file name and extension of the file to be uploaded.

- o -u = username:password.

Enter your assigned user name and password with a “colon” separator.

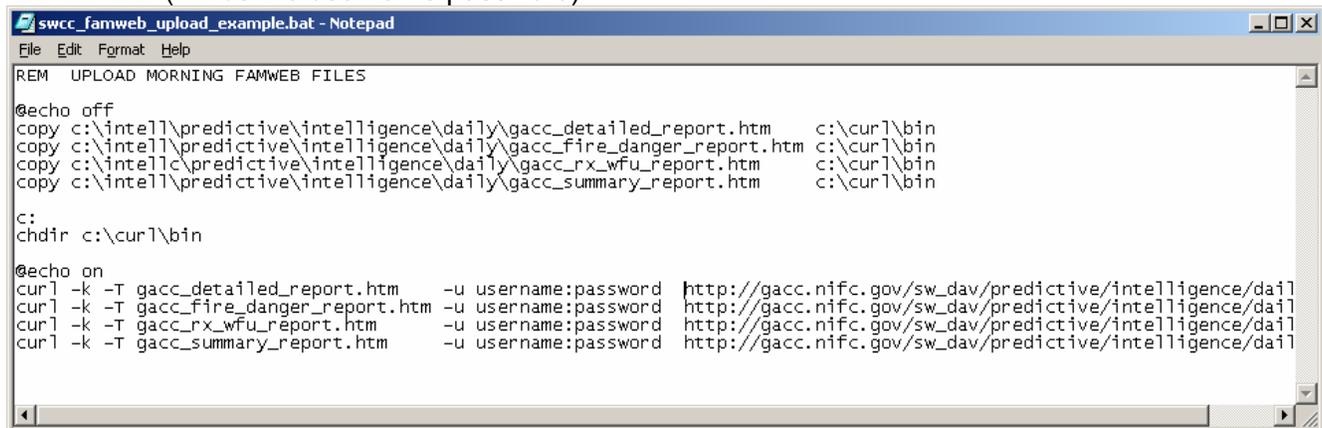
- o http://gacc.nifc.gov/ga_dav/folder/... = remote location where file will be transferred to.

Where it says “gacc.nifc.gov”, change the “gacc” to reflect your GACC. For example, nrcc=Northern Rockies, sacc=Southern Area. (Removed 11/15/05)

Where it says “ga dav”, change the “ga” to your 2-letter GACC identifier and leave the dav. For example nr=Northern Rockies (nr_dav), sa=Southern Area (sa_dav), etc.

Where it says “... /folder/folder/folder/”, enter the location folder on the web server where the file will eventually reside. A “/” has to go at the end of the URL. Otherwise, CURL thinks you are copying a file instead of placing the file in a designated folder. For example, “.../predictive/weather/graphs/”

EXAMPLE: (minus the username:password)



```
swcc_famweb_upload_example.bat - Notepad
File Edit Format Help
REM  UPLOAD MORNING FAMWEB FILES

@echo off
copy c:\intell\predictive\intelligence\daily\gacc_detailed_report.htm c:\curl\bin
copy c:\intell\predictive\intelligence\daily\gacc_fire_danger_report.htm c:\curl\bin
copy c:\intell\predictive\intelligence\daily\gacc_rx_wfu_report.htm c:\curl\bin
copy c:\intell\predictive\intelligence\daily\gacc_summary_report.htm c:\curl\bin

c:
chdir c:\curl\bin

@echo on
curl -k -T gacc_detailed_report.htm -u username:password http://gacc.nifc.gov/sw_dav/predictive/intelligence/dail
curl -k -T gacc_fire_danger_report.htm -u username:password http://gacc.nifc.gov/sw_dav/predictive/intelligence/dail
curl -k -T gacc_rx_wfu_report.htm -u username:password http://gacc.nifc.gov/sw_dav/predictive/intelligence/dail
curl -k -T gacc_summary_report.htm -u username:password http://gacc.nifc.gov/sw_dav/predictive/intelligence/dail
```

As you notice in the above, you can transfer one or more files at a time. It is simply up to you. Also, as noted before, the script file will work on a shared network drive. You simply have to convert Sections 2 and 3 to match up with the location of the folder where CURL will reside and where the files are located on the shared drive.

Once you have created a new script file, save with a new file name. For example, you can use the “gacc_generic_upload.htm” file to create your first script, just remember to “Save As” another file name.

Once the file has been created under the new name, you can create a shortcut to the file for your desktop. To do this, simply right-click on the file and select “Send to,” then choose “Desktop.”

ADDITIONAL FILES

The other four generic files are optional. They are provided as a courtesy for you to use or not.

1. [gacc_generic_download.bat](#)

This file is an example that can be used to download files from a specified location on the web server to your c:\ drive. It's similar to the uploading method, but in reverse.

2. GACC 1 Download ROSS_files.bat

This script file is provided as a courtesy to Intelligence Coordinators to assist in downloading files from the ROSS Data Delivery System.

Simply insert a user name and password, and change the ".../GA-GAC/GA-GAC" in the URL to your GACC. For example, " NM-SWC/NM-SWC " or " MN-EAC/MN-EAC ". Save file with a new file name.

For those files you don't want to download when you run the script, either insert REM at the beginning of the line or remove the line(s) from the script file.

3. GACC 2 Copy ROSS_files.bat

This script file is provided as a courtesy to Intelligence Coordinators to assist in placing the downloaded ROSS files in a designated location on the PC or shared drive so the files can be used in MS-ACCESS or MS-EXCEL.

- Step 1 portion of this script file copies all of your .MDB files from the " c:\curl\bin " folder to a location.
- Step 2 copies the .ZIP downloaded files from the c:\curl\bin folder to the c:\curl folder so that the file(s) can be unzipped.
- Step 3 uses PKUNZIP to unzip the file(s), rename the unzipped file(s) to a .MDB or .XLS file, and delete the .ZIP file(s) once completed.
- Step 4 renames and copies UNZIPPED files to specified folders in the c:\curl\ross... folder.
- Step 5 deletes the files created by the PKUNZIP process from c:\curl folder.
- Step 6 copies the files placed in the c:\curl\ross\... folder to a designated folder where you will use in MS-ACCESS or MS-EXCEL.

4. GACC 3 Copy ROSS_files from c to k.bat

Some GACCS use a shared network drive (i.e. k:\ or another drive) to work on files downloaded from ROSS Data Delivery. This script file is provided as a courtesy to Intelligence Coordinators designed to copy the files from the c:\curl folder to a designated location on the shared drive or another location on the c:\ drive.

Where " GA-GAC " is located, change to your State and GACC identifier.

Where " k:\fam\intell\intell_folders\ ... " is located, change to the location where you would like the files to be copied to and eventually reside.

TASK SCHEDULING

Once you've used CURL to build a script file, you can easily set up a time for the file to execute automatically using the Task Scheduler in Windows or any other Operating System. The Task Scheduler is an excellent program for setting up any file on your computer or shared network to execute automatically, whether uploading or downloading.

Example:

You've set up the "[GACC 1 Download ROSS_files.bat](#)" file above to work and now you want it to be automatically downloaded on your computer or shared drive each morning so you can run DDS Reports from ROSS.

To make this work:

- Go to "Start," click on "Settings," then select "Control Panel"
- Select "Scheduled Tasks," then select "Add Scheduled Task"
- The "Scheduled Task Wizard" will appear. Click "Next."
- Click on "Browse..." and find the file "c:\curl\GACC 1 Download ROSS_files.bat"
- Once located, highlight and "open" the file.
- Schedule when you want the file to execute (i.e. daily, weekly, monthly, etc) and click "Next."
- Insert the time you want the download to occur and when you want to the task to perform (i.e. every day, weekly, or every so many days). Click "Next."
- Insert your computer (i.e. Windows) logon password and verify.
- You now have successfully scheduled the task to execute at a given time and frequency.
- If you want to schedule the task more than once per day/week, etc., enable the "Open advanced properties for this task..." with a checkmark.
- A new pop-up will occur with the file name at the top.
- Select "Schedule" and then the "Advanced..." button.
- Enable the "Repeat Task" section with a check mark.
- Enter the number of minutes or hours you want the file to execute later.
- Enter the duration for the file to execute. This number must be greater than the number of minutes or hours inserted. Click "OK."
- Once it returns to the main pop-up, click "Apply" then "OK."

You can now set to schedule the "[GACC 2 Copy ROSS_files.bat](#)" and "[GACC 3 Copy ROSS_files from c to k.bat](#)" to execute after you've downloaded the ROSS files.

CLOSING

We have provided you with a tool you can use for transferring files from your local computer/shared server to the GACC hosted website server in a much more expeditious manner. We realize there are a number of tasks and different ways in which CURL can be used. Unfortunately, we do not have the time or the skill level to go over every aspect of CURL and how it can be used. Feel free to use the program to your advantage by building other type scripts.

Many thanks to Pete Masiel, formerly of the Southern Area Coordination Center, for introducing CURL to the Intelligence community. Pete was the first to set up procedures for downloading ROSS files to the local computer for analysis and report writing.

Obviously, there will be a number of questions pertaining to the installation and use of this program and method. Feel free to give Jay Ellington a call at 505-842-3874 or e-mail at jayellington@fs.fed.us.

Happy Scripting...