Re-autocal from cams archives

I just recorded a 46-minute video that shows how to manually re-autocal sessions from the archives. In the last 16 minutes, I retested the steps for 03/05 and that went pretty quickly.

Here is the video link:
<http://davesamuels.com/cams/camsupdates/documentation/Re-autocal-from-archive-2023-10-12_1-16-53.mp4>

It's quite large - sorry.

**Steps to re-autocal from cams archives**

If all you're after is updating all the calibrations for the session, follow these steps...

1. Use Total Commander for these instructions.
2. Unzip the selected archive zip file to a submissionfiles directory.
	* In the left pane of Total commander, navigate to the "**D:\cams\_Archive\archived\_SubmissionFiles\**" directory.
	* To make things easier to search, press **Ctrl+S** and enter: **2023\_??\_??\_009021\*.zip**. This will filter the list so that you don't accidentally process board 1 files - only board 0 files.
	* In the right pane of Total commander, navigate to the "**D:\cams2\_board0\CAMS\SubmissionFiles\**" directory.
	* In the left pane, hold the right mouse button down on the zip file for the selected session, and then select **Extract All**.
	The **Select a Destination and Extract Files** dialog appears.
	* Change the path to: "**d:\cams2\_board0\CAMS\SubmissionFiles**" (it's not case-sensitive)
	* Click the **Extract** button. A directory matching the session will appear in the "**D:\Cams2\_Board0\CAMS\SubmissionFiles**" directory. Also, an Explorer window appears in the target directory.
		+ **Close that explorer window**.

At this point, you have a directory matching the pre-archive state of that session. However, it's CapturedFiles directory will be devoid of FF\*.bin files. You will need to calibrate from the ArchivedFiles instead.

1. In the right pane, navigate to "**d:\cams2\_board0\cams\submissionfiles\[session]\ArchivedFiles\[session]**", where [session] means the <date>\_<camera>\_<time> or <date>\_<time>.
2. **Sort** descending by date, and then **delete** all of the files **except** those that are in the 230000 to 235959 time. We do this because it is 10x faster to autocal.
For example, with the 03/01 already successfully calibrated in 10 minutes, for 03/02 it autocal'd in less than a minute when only the 2300 set of files was used.
3. Recalibrate the camera for the selected [session].
	* In a command shell, use the **CD** command to navigate to **D:\cams2\_board0\CAMS**. This is the directory where the FTP\_meteorcal\_autoupdate.exe is.

	   d:
	   cd \cams2\_board0\cams
	* Press the **Up arrow** if you have run it before. This will enter the command for you and then edit it to match your new source directory. For example, for 03/02/2023 you can do this:

   ftp\_meteorcal\_autoupdate.exe -1 50 2.5 d:\cams2\_board0\cams\cal

* + Then use the GUI dialogs to navigate to the FF files directory (which in this case is **d:\cams2\_board0\cams\submissionfiles\2023\_03\_02\_009021\_17\_51\_38\archivedfiles\2023\_03\_02\_17\_51\_38**). Or, you could type that as the last command line argument. But it's a little more cumbersome.
	It takes about 1-10 minutes or so.

	It also runs much quicker if the cmd.exe window is minimized, or at least mostly covered up.

1. Copy the CAL files to the FTP dir.
	* In the right pane of Total commander, navigate to **d:\cams2\_board0\cams\submissionfiles\[session]\ftp\**
	* In the left pane of Total commander, navigate to **d:\cams2\_board0\cal\BinFiles\**
	* Press **Ctrl+S**, and enter: **cal\_009??\_20230302\_23\*.\*** to filter the directory for only the cal files for that session.
	* Use the **right mouse** click to select (selected files are red) files to copy.
	* Press **F5** to copy all the CAL files to the FTP dir.
2. Copy the FF\*.bin files that match the cal files to the FTP dir.
	* Press **Ctrl+S** to filter all the FF\*.bin files for the session by changing the filter to: **FF\_009??\_20230302\_23\*.\***
	* Press **F5** to copy all the FF\*.bin files for the session to the FTP folder.
3. Copy the FTPdetectinfo file to the FTP directory.
	* Navigate to the **d:\cams2\_board0\cams\submissionfiles\[session]\ArchivedFiles\[session]**  directory
	* **sort** descending by date
	* right-click the **FTPdetectinfo\*.tx**t file.
	* Press **F5** to copy the detectinfo file to the FTP directory.
4. Update the detectinfo file with the new calibrations:
	* From the d:\cams2\_board0\cams> prompt, enter this command:

ftp\_applycal2detectinfo

Then use the GUI dialog that appears to navigate to the ftpdetectinfo file. In this case, it would be the one in "**d:\cams2\_board0\cams\submissionfiles\[session]\FTP**".

It applies the new cal files to the detect file and it produces a FTPdetectinfo\***C**.txt file.

* + Rename the FTPdetectinfo\***C**.txt file to FTPdetectinfo\*.txt and select "Overwrite".
	(In Total Commander, you can hold the right-mouse button down on a file name and it will open a popup menu with a Rename option).

At this point, the  "**d:\cams2\_board0\cams\submissionfiles\[session]\FTP**" directory is staged so that the upload\_queue.bat script can package it up and upload it to the nasa FTP server.

1. Delete the zip file for the session from the **d:\cams2\_queue\Transmitted**  dir. We do this so that it will produce a new zip file for transmission.
2. Run the upload\_queue.bat script to perform the upload.
	* From a command shell in **d:\cams2\_queue\runfolder**, run:

upload\_queue.bat

1. Update the archive zip file with the new FTP files.
	* In Total Commander, in the left pane, navigate to "d:\cams\_Archive\archived\_SubmissionFiles".
	* Double-click on the [session].zip file to open the zip file.
	* In the zip file, navigate to the "[session]\FTP" directory.
	* In the right pane, navigate to "d:\cams2\_queue\Transmitted ".
	* Then open the "[session].zip" file.
	* Select all files and click the "F5 Copy" button to copy the FTP files into the archive zip.
2. Clean up
	* In the right pane, navigate to "d:\cams2\_board0\cams\submissionfiles\".
	* Delete the session that you just calibrated.