

QtChange Manual

januari 2017

Version 2.4.8

Platforms: Windows and Mac

www.VideoToolShed.com

Changes since 2.4.7

Added a bit of debug info on loading files.

Changes since 2.4.4

Mac has a bugfix for files > 2 Gb, but you probably want to install [MedialInfo](#)

Changes since 2.4.3

It will now look at File Creation / modified time inside the QT, NOT the file attributes.
(This means, even if a file is copied the wrong way, the right time will be found.)

Changes since 2.4.2

Added an option to choose between File Creation time and File Modified Time

Changes since 2.4.0

Changed NTSC TC writing to be more compatible.

IMPORTANT WARNINGS

DO NOT work with clips on network drives!

Changing TC may corrupt your files, if they live on a network drive.

This is NOT a bug in QtChange, it's something Quicktime or OSX related!

The same trouble can occur if you use FCP 7 to change TC on clips living on network drives!

Most functions work **DESTRUCTIVE**.

(Meaning, original files will be altered instead of copies.)

Using this tool it is very easy to make a huge amount of clips unusable in a matter of seconds.

So if you do not know what you are doing, **DO NOT USE THIS APPLICATION**

Demo limitations:

Batch processing is limited to 2 clips.

Bitc always shows "QtChange Unregistered" instead of the tape name.

Customizing:

In the folder called 'settings', next to the application, you'll find six text files.

Those contain the options available in the pulldown menus if you restart the application.

Feel free to alter them to your liking (open them in a simple text editor)

I would appreciate it if I got some feedback on logical, often used settings.

1 Index

Table of Contents

1 Index	2
2 General remarks	3
2.1 Purpose	3
2.2 Who should use this?	3
2.3 What knowledge do you need to have before you use QTchange?	3
2.4 Please read the manual before you start	3
2.5 Principle / what this thing does:	3
3 Installation	4
3.1 Installing for Mac	4
3.2 Installing for Windows	4
3.3 Registration	4
3.4 Uninstalling	4
4 Introduction	5
4.1 Before you start	5
5 The Menu interface	6
5.1 The Menu functions	6
5.2 Menu 'file'	6
5.3 Menu 'Setup'	6
5.4 Menu "Help"	7
5.5 Pick source folder button	7
5.6 'Use THM /exif ' checkbox	7
5.7 Use ALE data button	7
5.8 Set All / Set None / Inverse selection / remove selected buttons	7
5.9 Save TC attributes	8
5.10 extract sound to BWF button	9
5.11 Offset sound button	10
5.12 Playback Speed button	10
5.13 Add / Change TC track button	10
5.14 Refresh TC track button	11
5.15 Alter existing Reelname button	11
6 Install MedialInfo	15
7 Errors	16
7.1 QTchange will not start or behaves strange	16
7.2 Mac only, clips can't be scanned	16
7.3 Clips do not show the modifications	16
7.4 Avid does not display Reelname	16
7.5 Resolve does not display Reelname or Timecode	17
7.6 If something else is funny	17

2 General remarks

2.1 Purpose

Changing attributes of QuickTime clips, in a destructive or non-destructive way.

2.2 Who should use this?

Anyone who needs to alter QT files for whatever reason.

2.3 What knowledge do you need to have before you use QTchange?

Strong knowledge about your workflow. It can work destructive, so if you make a mistake, you could render your material useless.

2.4 Please read the manual before you start.

A lot of questions you might have will be answered here.

To make this manual easier to read:

on the left side of your PDF viewer there is probably a button that gives you an interactive table of contents while scrolling. Or, enable 'bookmarks' in your PDF viewer.

If you run into trouble, do check the [Errors chapter](#).

2.5 Principle / what this thing does:

This application can alter QuickTime properties and timecode tracks on clips.

It can do one or more of the following (based on your choice):

- add TC and Reel (Tape) metadata to clips based on an Avid ALE file.
- add TC and Reel (Tape) metadata to clips based on creation or modified time / date
- add TC and Reel (Tape) metadata to clips based on .THM files metadata
- add TC and Reel (Tape) metadata to clips based on previous saved attributes
- extract .THM files if they are embedded in a QT (like on a Canon 60D / 5D MKIII)
- refresh TC tracks if they are somehow incompatible, or need changes
- add incremental TC and Reel (Tape) metadata to clips based on a user definable start
- shift existing TC by a user definable amount of frames
- change Reel info.
- offset sound channels to correct sync problems
- alter Display settings.
- remove tracks
- alter Quality settings.
- export QT audio tracks to BWF (with optional speed change)
- output an .ALE file for ingest in Avid
- save the original (unaltered) parameters in a text file.
- do an overlay of Timecode / Reelname (extremely fast)
- flatten the files
- create QuickTime reference files (for testing or other purposes)
- export to Quicktime (codecs depend on what you have installed)
- export TC info for later use on third party transcoded files

(Of course all in batch.)

3 Installation

All VideoToolShed products come without an installer.
Nothing gets changed to your operating system!

3.1 Installing for Mac

Drag the entire folder to your applications folder on your harddisk.

You can make shortcuts on your desktop / toolbar if you like, just drag the main application there.

DO NOT try to run the application from within the Disk Image, this will NOT work!

Quicktime must be installed, but this is the case on almost any Mac. If you get a warning about Quicktime, download it from Apple. (It's free.)

3.2 Installing for Windows

Drag the ENTIRE folder to your harddisk. Avoid long pathnames, so you could make a Directory called 'videotoolshed' and put the application directory in there.

Right click the application, and select either 'pin to taskbar', or 'pin to Start menu'.

Alternatively, you can drag the icon to your taskbar or start menu.

Note, Quicktime must be installed. If you don't have Quicktime, download it from the Apple site and install. The free version is good enough for QTchange.

3.3 Registration

Choose 'Register' from the file menu. A new window opens. If you have bought the program, you've got a mail with a serial number. Copy / paste the serial number in the Register window, and press 'done'. QTchange will now run in full modus.

3.4 Uninstalling

Just delete the entire application folder. That's it.

4 Introduction

QTchange will only change the attributes when you have clicked the corresponding button.

(The button will turn GREEN if the action is enabled)

If you have enabled a parameter to alter, and change something,

the button will flash Red to show you that you have to confirm your action again.

For each action, you'll be shown what will happen to your clips.

For that, see the info window at the bottom.

Each clip shows it's CURRENT attributes as well as the NEW attributes.

NOTE: the actual changing will be done when you press 'Alter all clips'

For testing, you can check the 'work on test clips' checkbox.

In each folder where a selected QT lives, a new folder is made, called "QTCTest"

In there a Quicktime Reference file is placed.

The operations you run will then happen on the copies rather than on the originals.

(If you want to process the same original clips again, existing ref files will be overwritten)

Thus, you CANNOT choose files from a QTCTest folder as input.

4.1 Before you start

DO start with setting the colorsystem / FPS to your liking using the ' setup ' menu!

If you select 'same as original', not all TC change functions will work

5 The Menu interface

5.1 The Menu functions

On Windows, the Menu is on the top of the QTchange window.

On Mac, the File menu is on top of your screen, if QTchange is the active application. (Click on it to make it the active application.)

5.2 Menu 'file'

- Open folder with Source QT's:

To load your files

- Open ALE for metadata

If you want to add TC / Reel info from an ALE, open the ALE.

(Make sure in Avid you have your Start and Reel column visible, or that info will NOT be in the ALE!)

- Register

Choose this if you have bought a licence. A new window opens. You've got a mail with a serial number. Copy / paste the serial number in the Register window, and press 'done'.

- Quit

To quit the application and save your settings.

5.3 Menu 'Setup'

- First items are to set the FPS you want to use.

Note that this goes for all clips, and you CAN mismatch it, eg. 25 FPS tc on 29,97 material.

So, DO set this correct, and do NOT load clips with different framerates if you try to alter their TC.

- Save TC in .txt file

If you enable this, on 'Do It' the TC info will be saved in text files. You normally do not use this, this is for developers

- Set .txt save location

To pick a folder where the .txt files will end up.

- Set Transcoding output location

To pick a folder where the transcoded files will end up.

(Only relevant if you enabled the 'Export / Transcode' checkbox in the graphical interface.)

- Change QT export settings

Opens the standard QT export dialogue, here you can choose how transcodes will be done.

(Only relevant if you enabled the 'Export / Transcode' checkbox in the graphical interface.)

- Change BWF export settings

Opens a dialogue where you can set the bitdepth and channels for BWF export

5.4 Menu "Help"

- To see the version number and to open this manual. The Graphical interface

5.5 Pick source folder button

Start with pointing at a folder containing your QT files.

Check the 'include subfolders' checkbox if you like, all files inside the folder will be added as well.

If you want to use only a few files, use 'pick file(s)'

If there are already files loaded, the ones you picked will be added to the list.

Or, select the files / folders and drop them onto the application window.

5.6 'Use THM /exif' checkbox.

If you want to use the metadata out of .THM files, or embedded EXIF info, check this checkbox.

This will extract the file creation time / date from the content of the .THM files

rather than from the actual file. This has two advantages:

If you have converted the QT's prior to importing them in QTchange, you still can use the original time / date.

And, the time is more accurate. The .THM files store the time accurate to 1/100 of a second.

Very important if you try to sync the files to other files (probably BWF from dual system audio)

If you have shot with a DSLR camera that does not write THM files, chances are the info is inside the QT.

If in doubt, just check the checkbox and open a file or folder.

If you see 'THM found' after the clip info, there is THM data.

You can extract the THM for later use with the 'Extract THM' option.

(Handy for later use, eg if you transcode your files first, then add timecode)

5.7 Use ALE data button

If you want to add TC / Reel info from an ALE, open the ALE.

(Make sure in Avid you have your Start and Reel column visible, or that info will NOT be in the ALE!)

5.8 Set All / Set None / Inverse selection / remove selected buttons

You can select clips with the mouse to remove, these buttons will aid in making a faster selection.

5.9 Save TC attributes

You can also extract TC attributes for use later on.

Example, you have QT files that you want to transcode with an application that does not retain the TC.

You can load the originals, press ' save TC attributes' button, and you get an .ATT file for each QT.

Copy these .ATT files to the folder containing the rendered clips, and load those with the ' use TC from saved attributes checkbox checked.'

If you then use ' refresh TC track', the new files will get the same TC / Reel info as the originals.

NOTE:

The THM or ATT files must be in the same folder as the originals or converted new clips.

The new QT's must have a name that starts with the same as the .THM, / . ATT but the name CAN be longer.

So if you have a folder like this:

/volumes/media/myclips/MVI_1234.MOV

/volumes/media/myclips/MVI_1234_Converted_with_These_Settings.MOV

it will still work.

If the 'use THM' or 'use TC from saved Attributes' checkbox is enabled, QTchange will assume source TC from the data in the THM / ATT, ignoring the QT TC track that might be in the file.

Sound

5.10 extract sound to BWF button

If you want to export the sound as BWF (broadcast Wave):
Go to menu “setup” and pick “change BWF export settings”
Set the parameters to your liking.

Keep in mind, the sample rate you set here does NOT
change the duration of the file, it will resample the files but keep the duration.

If you want to change duration, (for speed up/down),
do it with 'force sample rate to:' !

Each QuickTime audio track becomes one BWF file.
BUT, a QuickTime audio track can be mono or stereo!

Captured clips normally contain one or more mono files,
but Canon DSLR created clips contain one stereo file.

So, depending on your QuickTimes,
set the following dialog to either Mono or Stereo.

Each QuickTime audio track will be converted to BWF
(meaning, exported to WAVE and get a timestamp).
The timestamp will be the new timestamp if you also change the TC.

Optional, you can change the speed with a pitch shift (thus no quality loss).
If you don't know why this can be useful, don't touch it.

Each QT audio track will get a new wave file.
Naming will be origfilename.mov -> origfilename_1.wav origfilename_2.wav etc.

If you set it to Mono while you have DSLR created clips, you end up with a mixdown to mono!
If you set it to Stereo while you have 4 channels of mono sound in your QuickTime,
You end up with 4 Stereo files, where each file has identical left/right sound!

5.11 Offset sound button

This will shift the sound channels forward or backwards.

Some DSLR cameras as well as Arri files sometimes do not have sound and video in sync.

You can set a custom offset to fix this.

Enter a value in Milliseconds. The info under 'select input'

will show you how many Milliseconds are in one frame for your current setup.

Example, a frame of 25 FPS video is 40 Milliseconds.

(1 second = 1000 milliseconds, thus, $1000 / 25 = 40$ Msecs per frame)

If sound is early, use a positive value

(on a timeline, sound will shift to the right compared to the video)

If sound is late, use a negative value

(on a timeline, sound will shift to the left in respect to the video)

Thus, if your sound is 1.5 frame behind your video, and you work in Pal, enter -60 Msecs.

Note

if you shift the sound a positive value, the start of your video will be trimmed as many frames as you have set the offset, rounded upwards to round frames!

You can only set an offset ONCE!

So do test first on copies! The 'work on testclips' is very handy to test this!

Playback Speed

5.12 Playback Speed button

With these options you can set how QT will interpret the speed.

Note, just very few applications will take this into consideration, do not expect miracles from this function.

Add / change TC / Reelname

The top part is to add TC if there is none, or to batch alter existing TC.

This is great if you have material without TC, and want to log / find back / dupe detect your clips.

5.13 Add / Change TC track button

Will add / modify existing TC based on what you select. Either fill in a TC by hand, or use the checkboxes to modify your choices. Note that the list in the bottom will show you what will happen to your files.

NOTE: (MAC ONLY)

If you want to use 'file creation time', Qtchange will look inside the file for the file creation time, but only if the file is smaller than 2 Gb. If the file is bigger than 2 Gb, it will try to use [MediaInfo](#) if you have that installed.

As a fallback, it will search for the file time as the operating system sees it. If you have copied the card in a wrong way, this might be off!

5.14 Refresh TC track button

This will give you freshly created TC, either based on the original TC, or external TC from loaded Attributes files.

This can also be handy if you have corrupt or incompatible TC, or increase / decrease the existing TC. Using this function you can also change the TC to another FPS, While maintaining the start time.

If you use any of the other TC functions: there is no need to use this, as a fresh track will be made anyways.

For the increase / decrease function, it can be very handy, as otherwise you might end up with a new TC you do not want!

Check the 'file creation time' or 'file modified time' checkbox, and the TC will be from the shooting time. (Thus, like Free Run on a normal camera.)

Some cameras set the file modified time at the end of the recording more accurate than the creation time.

To use that, you could use 'file modified time' and check the '- (minus) duration' checkbox.

Since version 2.4.4, the applicatin tries to find the times inside the QT metadata rather than the file attributes!

If you Uncheck the 'file time' checkbox, you can set the starting time for the first clip.

Each clip will get a unique timecode, like your camera was set up in Rec Run.

The 'new round hour per folder' checkbox is interesting if you have enabled the 'include subfolders' checkbox.

With this checked, clips in each folder will get a TC one hour higher than the previous one.

Thus, clips from the first folder will be 01:00:00:00 – 01:12:23:12 etc.

Clips from the second folder will be 02:00:00:00 – 02:23:14:03 etc.

This way it is nearly impossible to have duplicate timecodes.

5.15 Alter existing Reelname button

Check 'use folder' to use the (sub)folder name as reelname.

So a clip stored as 'macHD/Raw material/day01/myclip0023.mov' will get 'day01' as Reelname.

In addition OR instead, you can use the shooting date as reelname.

(You probably want to use that in combination of 'use shooting time' for the timecode)

In addition OR instead, you can use the clipname as reelname.

So a clip stored as 'macintosh HD:Raw material:day01:myclip0023.mov' will get 'myclip0023' as Reelname.

The bottom part is to alter existing reelnames.

If there is no Reelname info (like on Color 1.0 renders), you can add it.

But if there is a Reelname, you can remove it and replace it for something else.

For Rec run recorded material, most likely you want to include the hours of the TC in it.

Using the checkbox, you can do so.

Also enter something in the leading or trailing field. Press the 'set Reelname to' button, and you can see your changes in the cliplist.

In case you have sloppy ingested material, you can remove spaces, change spaces etcetera, or convert from UPPER to lower case.

Display settings

You can alter the Normal size and the Current size of clips.

These values are called the same as if you open the clip in QT player and ask for Inspector, or press CMD J.

But if you look in the movie properties, and check the Visual Settings for the video track, the Current Size is suddenly called Display size. (Also, no idea what that is.)

So, pick a resolution from the pulldown menu, then press the button above it. You can see your changes in the cliplist.

Together these values seem to control the aspect ratio.

Unless you know what you are doing, run a couple of tests first, or stay away!

The Quality setting is how the video will be displayed in the QT player (and some other players).

(It alters the QT the same as you can do in QT, if you open movie properties, and check the Visual Settings for the video track. Bottom right you can see the flags.)

DV by default has the quality flag switched to LOW.

Some applications seem to render with that low quality setting.

FCP however totally ignores these settings.

Note:

For both the size and quality, this is only QT metadata.

The actual video data will NOT be altered!

Burn in TC button

If you enable this, a QT text track will be inserted, showing TC and Reelname.

(also known as BITC, Burned In Time Code)

Since there is NO rendering involved, it will be lightning fast.

You can set the text position (relative to the left top corner of the QT), fontsize and alignment.

If you check the 'overwrite' button, it will assume that the last QT track is a text track containing the BITC, and will overwrite that with the current settings.

NOTE

QT text tracks are not supported by FCP, VLC and some other applications.

However, 'some versions' of QT player will display them very well.

Some conversion applications (like Compressor) will be able to burn them into the video.

Thus, adding BITC with QTchange can be a huge timesaver, as it does not have a significant render time.

This will work if the conversion application uses QT to decode.

Otherwise, you can choose to export / transcode your files from QTchange, and use that file to input to your conversion application.

Delete Tracks.

Select the tracks you want to delete...

It will only delete the tracks if they are there...

& output ALE checkbox

If you enable this, an Avid ALE file will be created.

You do have to set the pulldown menus with your project settings

(Pal / NTSC / HD and your speed)

Extract THM:

This is only for QT's that have EXIF info embedded in the clips (like the Canon 60D)

If you enable this, the THM file that is embedded in the QT will be extracted and saved.

Extract THM:

This is only for QT's that have EXIF info embedded in the clips (like the Canon 60D)

If you enable this, the THM file that is embedded in the QT will be extracted and saved.

Flatten

If you enable this, a copy of the files will be made,

and the copies will be flattened after processing.

This is only needed if you want to delete tracks and you want to make sure the deleted parts are truly gone.

Sometimes deleting a TC track will not be enough for applications to ignore it.

Same goes for sound tracks.

If you flatten, it is the same as a 'save as' in QT pro,

no rendering is involved so the quality stays exactly the same.

However, it does take a bit of time since the data has to be copied!

You can choose to delete the originals after the flattened movie is made.

If you choose NOT to delete the originals, they will be renamed to filename.bak.

(So you can rename them back to filename.mov if you end up needing them.)

Work on testclips

If you enable this, QT reference files will be made in a subfolder next to the originals.

The app. will work on that instead of the originals.

Export / Transcode:

If you enable this, your originals stay unaltered.

The application will first export the sources to your liking

and then alter the parameters as you have set them in the interface.

You can set the QT export codec / sound properties through the Setup menu.

This might be handy to make a burned in copy of BITC,

for encoders that do not use QT to decode files. If you have multiple folders on input,

the folder structure is maintained in the output folder.

Reset or Alter

If you press the 'reset all changes' button, the list will be refreshed and everything will be reset to 'no changes'.

(Except the ALE information, if there is any)

If you press 'Alter all clips!', you get a warning (if you have more than one clip to process).

TAKE THIS SERIOUS!**YOU CAN EASILY DO SERIOUS DAMAGE TO YOUR EXISTING PROJECTS****IF YOU DO NOT KNOW WHAT YOU ARE DOING!**

6 Install MedialInfo

Note, this is only needed for Mac!

If you want to use 'file creation time' or 'file modified time' as a source for new TC, and you have files bigger than 2 GB, you may want to install MedialInfo.

It's free, you can get it here:

https://mediaarea.net/en/MedialInfo/Download/Mac_OS

Make sure you get the CLI version, NOT the GUI or DyLib!

Once installed, run Qtchange. The status line will show you if MedialInfo is installed correctly.

7 Errors

In case you run into trouble, first things to check:

7.1 QTchange will not start or behaves strange.

On Mac, if your language is set to Russian, the application might not start. Switch to another language.

Make sure you run the application with Admin rights. The application needs Read / Write permissions in it's own folder, and subfolder.

(Right click on the folder and choose 'properties', it should be set to Read and Write.)

If you get an 'Unable to load the movie playlist' error warning:

First check if you have indeed copied the entire folder.

If so, you're probably on Sierra (OS 10,12,1), and some users have issues with that. Sorry, there is no fix of workaround yet, but we're working on it.

7.2 Mac only, clips can't be scanned.

Sometimes a file can be picked, but it refuses to be scanned or gives an error.

You can try the following:

Unmount the drive. Go to Finder menu Go>Go to Folder and enter /Volumes/

You may see one or more aliases with the name of your external drive,

with or without and added number. Delete the unwanted aliases. Now mount the drive again.

7.3 Clips do not show the modifications

There is something funny about QT. Sometimes QT seems to have a 'memory' for files.

Same goes for Adobe Premiere.

If things do not appear to be right, start by emptying your trashcan.

Sometimes the OS is complaining that files are 'in use', even when you are sure they are not.

Solution can be to open QTplayer (just the player, do not open a clip) and quit it.

Or, try renaming the output file(s) to something else.

If that does not 'cures' things, it's time for a restart of your system.

7.4 Avid does not display Reelname

This is typical Avid behaviour. Avid simply ignores the Reelname on input.

Either attach a Reelname in Avid, or export an ALE out of Qtchange, and use that to "merge with selected clips" in an Avid bin.

7.5 Resolve does not display Reelname or Timecode

You need to tell Resolve to actually look at it.

To do this: go into the project settings.

There, go to the 'Master project settings'

Scroll down to 'conform options'

then: check the "Use Timecode embedded in the sourceclip" radio button

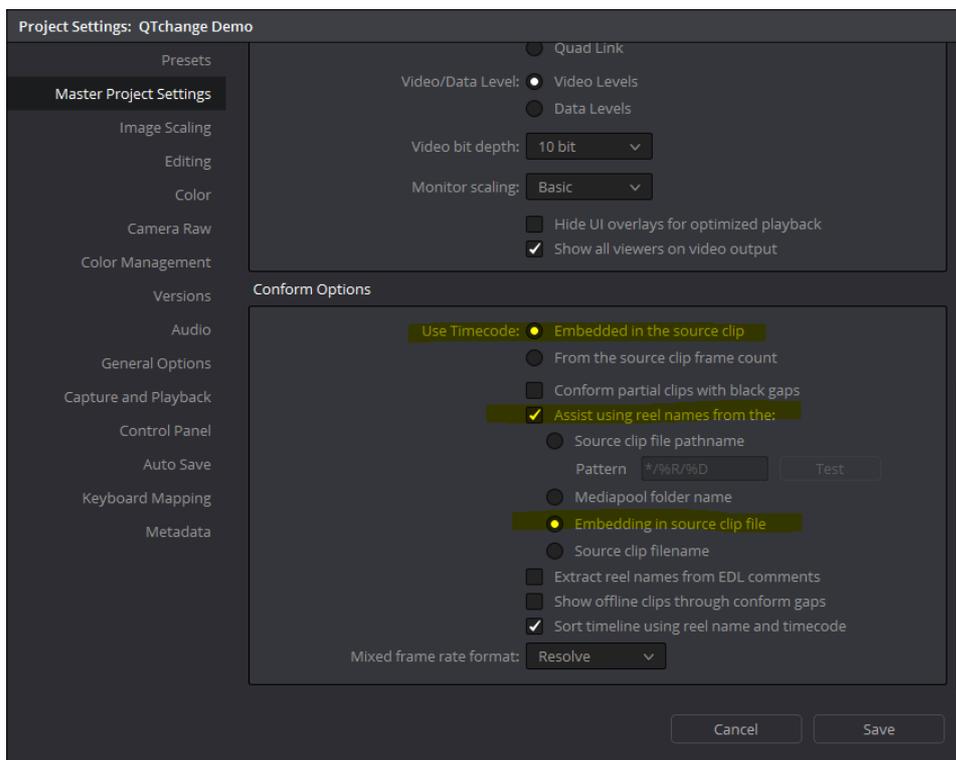
also: check the "assist using Reelnames from the:" checkbox

and: check "embedding in the source clip file" radio button

Now, the Reelname shows up in the bin.

(Perhaps not immediatly in the Media Pool, sometimes Resolve needs a restart.

But TC and Reel should show up in a bin...)



7.6 If something else is funny

DO NOT have funny characters (chars with accents, slashes, (semi) colons in your pathnames or file names.

In all cases, if something does not seem to work, try renaming your file to something simple, and move it to an internal drive.

See if that works, it's step 1 to troubleshooting.