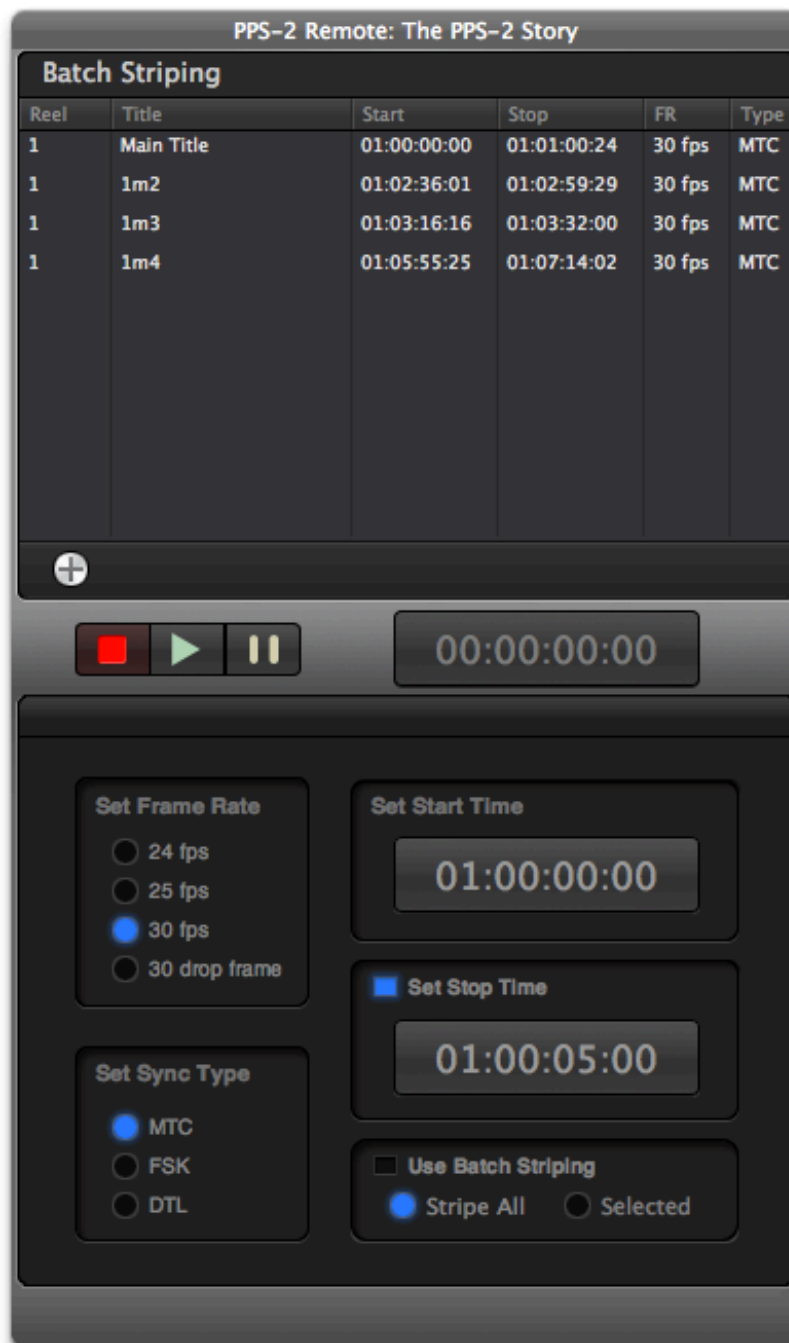


## PPS-2 Remote for Mac OS X™



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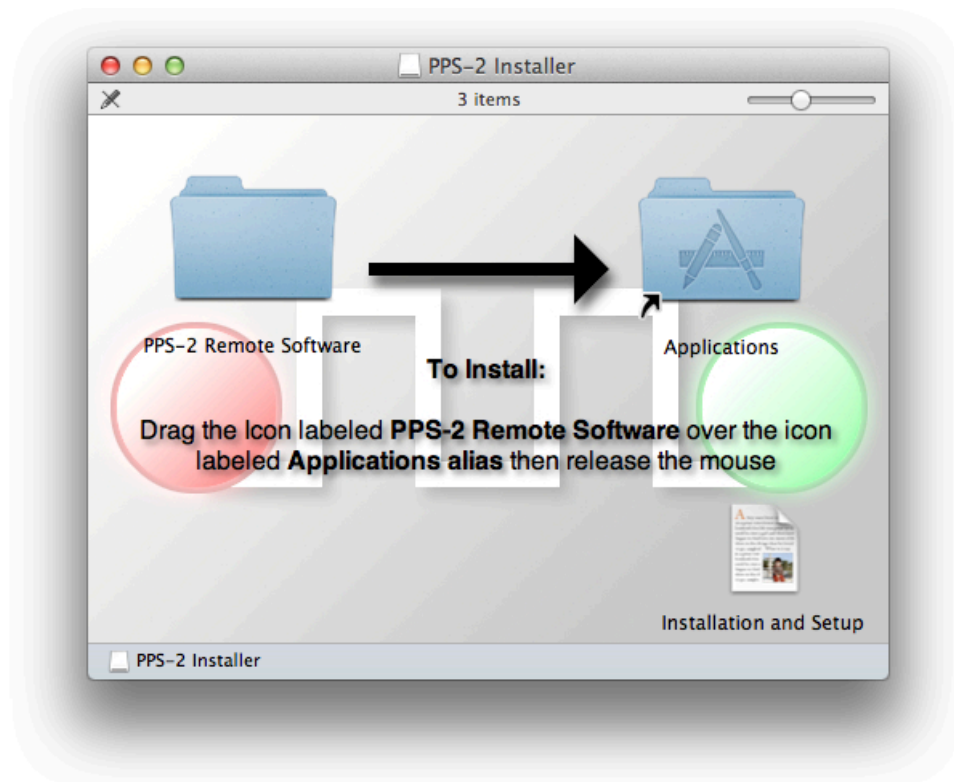
## Introduction

PPS-2 offers the advantages of several synchronizers in one versatile package. It reads and generates SMPTE time code and converts SMPTE into MIDI Time Code or Direct Time Lock. It also reads and generates JLCopper's "Smart FSK" sync and converts it into MIDI Clock with Song Position Pointer. PPS-2 also offers Jam Sync/Regeneration, Flywheeling and Auto-Merge.

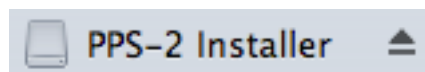
The PPS-2 Remote Software for MAC OS X™ extends these capabilities by offering the ability to set frame rates, start and stop times and to batch stripe a list timecode starts and stops of songs, film cues, etc.

## Installation

After downloading the file **Install\_PPS-2\_Remote\_Software.dmg**, double-click it. In the window that opens, drag the icon labeled **PPS-2 Remote Software** over the icon labeled **Applications alias** and release the mouse. This will cause the Finder to copy the software into the **Applications** folder on your hard drive.



Once the Finder is done copying files, look in the sidebar of any Finder window for the **PPS-2** installer icon. Click the little eject icon next to it to close the installer window.

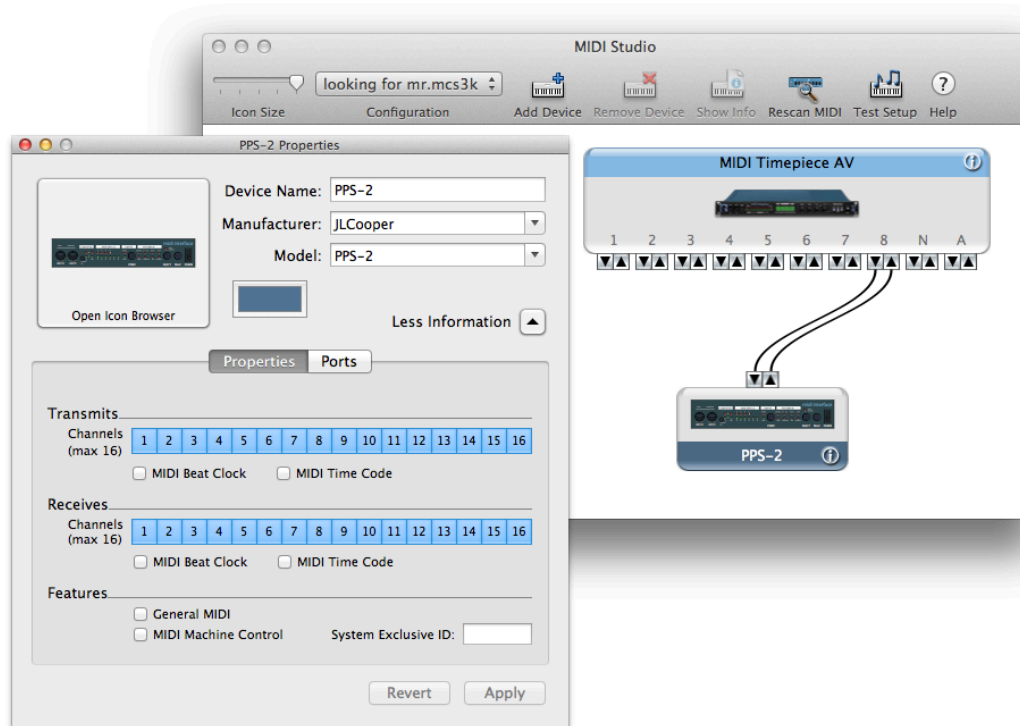


## Setup

Connect the MIDI Out of a MIDI interface connected to your computer to the MIDI In of the PPS-2. Although the PPS-2 Remote software doesn't receive MIDI messages from the PPS-2, other MIDI software you are using probably will, so you should also connect the PPS-2 MIDI Out to the interface's MIDI In.

If you want to see the PPS-2 listed by name in your MIDI applications, open Apple's **Audio MIDI Setup (/Applications/Utilities/)**. If you don't see the **MIDI Studio** window, chose **Show MIDI Window** from the **Window** menu. **Click** on the **Add Device** button, then double click on the **new external device** icon that appears. This will open the Properties editor.

Set up the Properties editor as in the following graphic. You can put anything you want for the Device name. This is what will appear in your MIDI applications. For **Manufacturer** and **Model** you should type "JLCooper" and "PPS-2". **Do Not** use the popup menus to select these settings. The information that Audio MIDI Setup has stored about JLCooper is incorrect, and using these popups can cause a crash.



Close the Properties editor then drag from the PPS icon's input to the output on the MIDI interface icon that matches the physical input that your MIDI cable is connected to. Make a similar connection from the PPS-2 Out to the interface's Input.

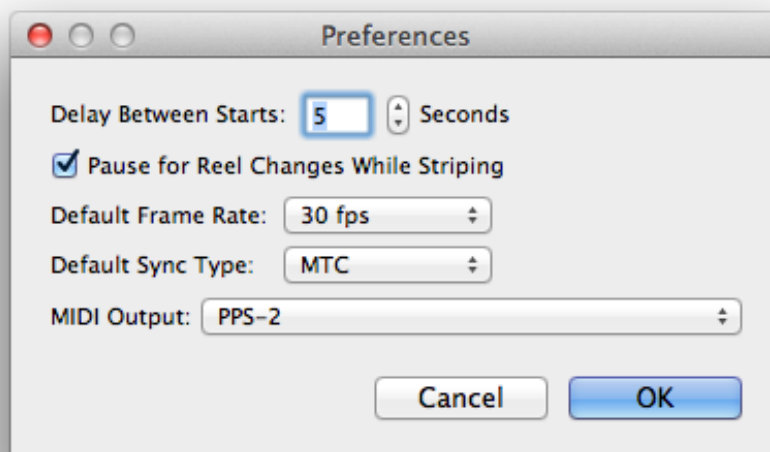
Quit **Audio MIDI Setup**.

Navigate to **/Applications/PPS-2 Remote Software** and double-click on the **PPS-2 Remote** application, then go to **Preferences** under the **PPS-2 Remote** menu.



PPS-2 Remote

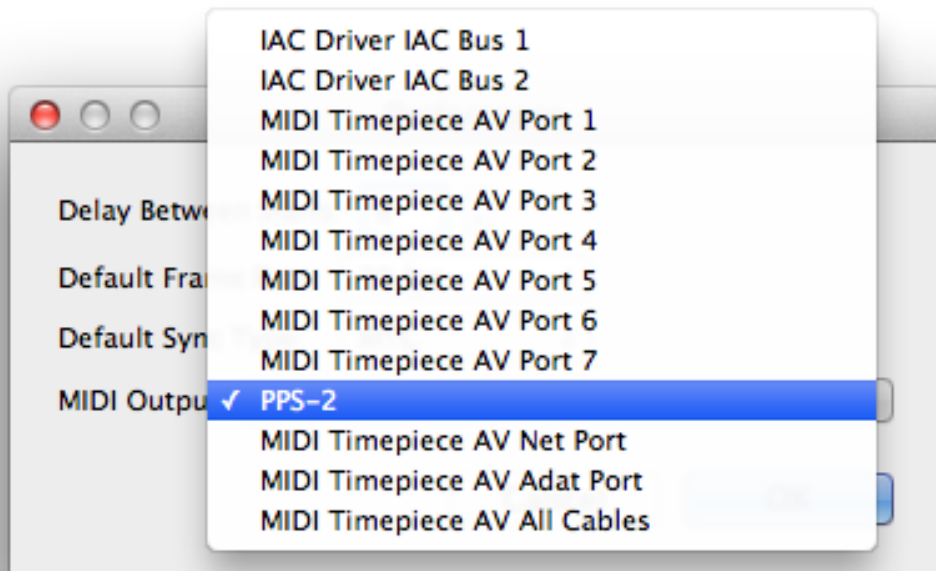
This will open the **Preferences** dialog.



If you will be using the batch striping feature you will want to set the number of seconds of silence between each section of timecode, or **Delay Between Starts**. If you will be batch striping multiple tapes, then you should also make sure that **Pause for Reel Changes While Striping** is checked. These settings will be discussed in more detail, and can be changed at any time.

The **Default Frame Rate** and **Default Sync Type** popups determine what frame rate and sync type settings will be active each time the software is started up. These settings can easily be overridden in the main window.

The MIDI Output popup lists all the MIDI ports that are present in your system. In order for the PPS-2 software to communicate with the PPS-2, it needs to know what ports the PPS-2 is connected to. If you previously created a PPS-2 device in **Audio MIDI Setup** as described above, the name you chose for the PPS-2 will appear in the popups. If not, the name of the port it is connected to will appear. Choose the PPS-2's port from the popup then hit **OK**.

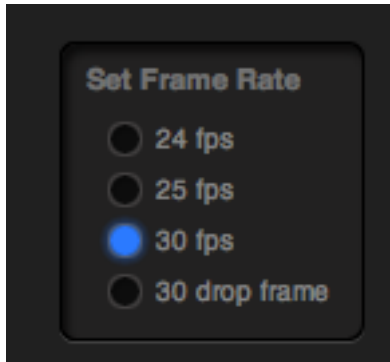


The PPS-2 and the PPS-2 Remote application should now be communicating.

## Operation

The main user interface is divided into several areas, Frame Rate, Sync Type, Start Time, Stop Time, the Batch Striping List, Batch Stripe settings and Striping Controls.

### Frame Rate



The PPS-2 can stripe at four different frame rates- 24 frames per second, 25 frames per second, 30 frames per second, and 30 drop frame.

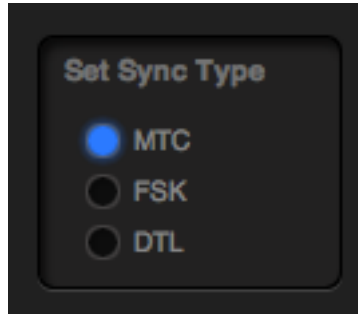
It should be noted that in the video world, 30 frames per second actually runs at 29.97 frames per second, but the displayed timecode rolls over to the next displayed second every 30 frames. Video 30 frame timecode will lose 18 frames every 10 minutes compared to the clock on the wall. In the music world, 30 frames per second often actually means 30 frames per second. This is the case with the PPS-2.

30 drop frame also runs at 29.97 frames per second, but its counter skips over frames 0 and 1 of each minute (except for minutes that are multiples of 10) so that the displayed timecode matches the clock on the wall. This is the format that the PPS-2 uses when it is set for 30 drop frame.

The Frame Rate setting overrides the Default Frame Rate set in the Preferences dialog.

Changes to the Frame Rate setting are undoable and redoable.

## Sync Type



The PPS-2 can work with three different synchronization types, MTC (MIDI Time Code) Smart FSK (Frequency Shift Keying) and DTL (Direct Time Lock). MTC and DTL are protocols for converting SMPTE time code into MIDI information that music software and hardware can synchronize to. Neither of these settings affect how the PPS-2 stripes SMPTE.

When the PPS-2 is in FSK mode, it doesn't stripe a tape with SMPTE. Instead it stripes the tape with a tone. When the tape is played back, the PPS-2 converts the tone into MIDI Song Position Pointer and MIDI Clock messages. Some older music software and hardware use this method of syncing to tape.

Since frame rate has no meaning when FSK is being used, the Frame Rate controls are disabled when you choose FSK. They will be re-enabled when you choose either MTC or DTL.

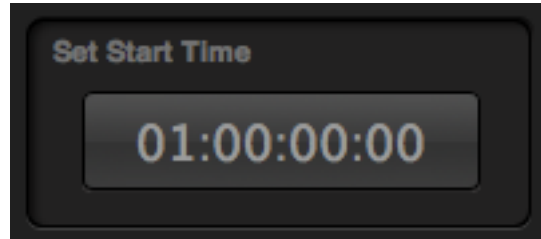
DTL and FSK are rarely used anymore, and you will probably keep the Sync Type set to MTC.

The Sync Type setting overrides the Default Sync Type set in the Preferences dialog.

Changes to the Sync Type setting are undoable and redoable.

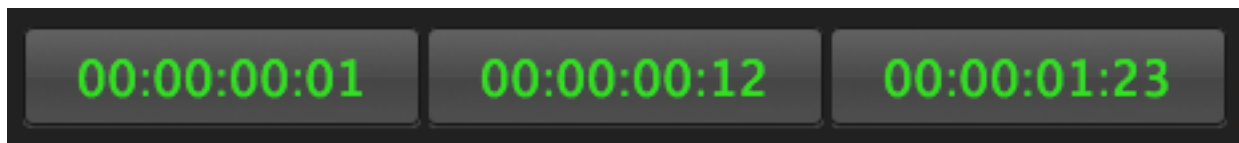


## Start Time



The Start Time is the timecode number that the PPS-2 will begin with when you tell it to start striping. It is displayed as HOURS:MINUTES:SECONDS:FRAMES.

To change the start time, click on it. The timecode number will turn green. Start by typing a digit. The digit you typed will appear in the ones column. Each time you type another digit, the current timecode will shift one column to the left and the new digit will go into the ones column. There is no need to type ":" The colons are inserted automatically.



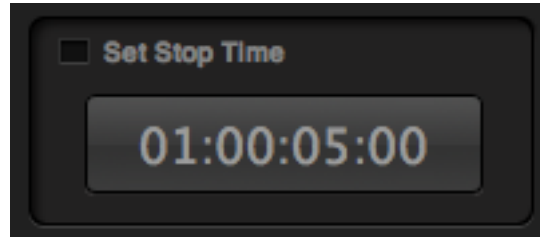
If you make a mistake, hit the BACKSPACE key and the whole number will shift one column to the right.

When you have typed the whole timecode number, hit the ENTER, RETURN or TAB key, or click on the start time. If the if you have entered a valid timecode number, it will be accepted and the number will return to its gray color. If the timecode isn't valid, the Mac will beep and the number will stay green until you correct it.

Reasons that a timecode number could be invalid are HOURS larger than 23, MINUTES larger than 59, SECONDS larger than 59 or FRAMES equal to or larger than the frame rate. For example, if the frame rate is 25 frames per second, then a value of 24 or higher for FRAMES will be invalid. If the Frame Rate is 30 drop, then any timecode ending in 00:00 or 00:01 where the minute is not a multiple of 10 will also be flagged as invalid.

Changes to the Start Time are undoable and redoable.

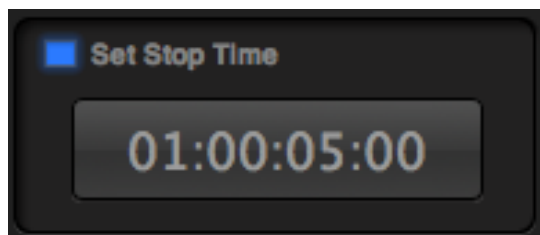
## Stop Time



If no Stop Time is set, then once the PPS-2 has started stringing, it will keep going until you manually stop it. If a Stop Time has been set, then the PPS-2 will stop striping when it's generated timecode matches the Stop Time.

Editing the Stop Time is identical to editing the Start Time. Click on it then type the digits of the desired timecode number. Hit the ENTER, RETURN or TAB key or click on it to accept the number you have typed.

In order for the Stop Time to take effect, the **Set Stop Time** box must be checked. Any time you try and set a Stop Time that is less than or equal to the Start Time, the software will change the Stop Time to equal the Start Time plus five seconds.



Changes to the Stop Time and Set Stop Time setting are undoable and redoable.

## The Batch Striping List

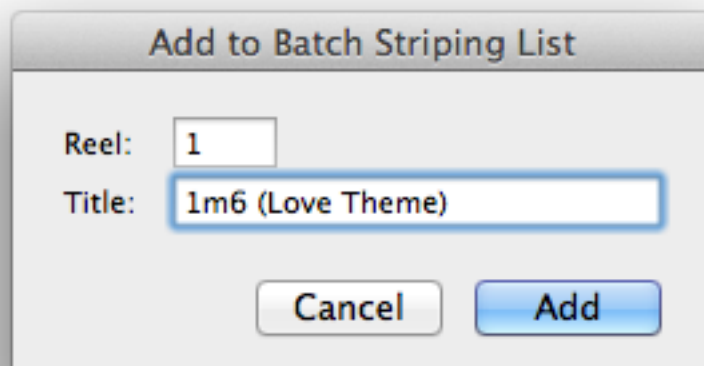


Reel	Title	Start	Stop	FR	Type

If you are going to batch stripe your tapes, this is where you will list all the start and stop times.

If you have set a Stop Time and have checked the **Set Stop Time** box, then the **Add to Batch Stripe List** button (“+”) will appear. Clicking it will bring up the **Add to Batch Striping List** dialog, where you can add a reel number and a title.

The Reel Number will default to be the same as the hour of the Start Time, but can be changed to any number you want. The Title can be a song title, a film cue number, or any other name that helps to identify what this timecode is being used for.



**Add to Batch Striping List**

Reel:

Title:

Hit **Add** and a new entry will appear in the Batch Stripe List.

Batch Striping					
Reel	Title	Start	Stop	FR	Type
1	1m6 (Love Them)	01:08:12:03	01:09:44:26	30 fps	MTC

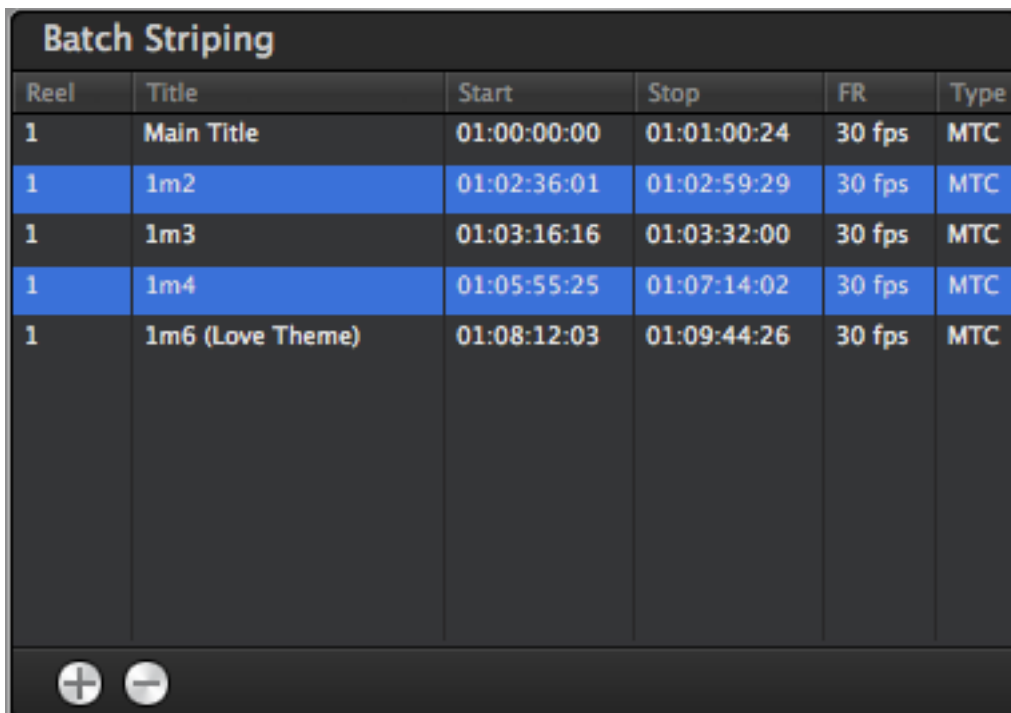
The list is automatically sorted as entries are added. The sorting order is based on the reel number, the start time, the title and the stop time. If two items are the same after these criteria are applied, then the one that was entered first will be first in the list.

Batch Striping					
Reel	Title	Start	Stop	FR	Type
1	Main Title	01:00:00:00	01:01:00:24	30 fps	MTC
1	1m2	01:02:36:01	01:02:59:29	30 fps	MTC
1	1m3	01:03:16:16	01:03:32:00	30 fps	MTC
1	1m4	01:05:55:25	01:07:14:02	30 fps	MTC
1	1m5	01:07:30:00	01:07:45:03	30 fps	MTC
1	1m6 (Love Theme)	01:08:12:03	01:09:44:26	30 fps	MTC

Adding entries to the Batch List is undoable and redoable.

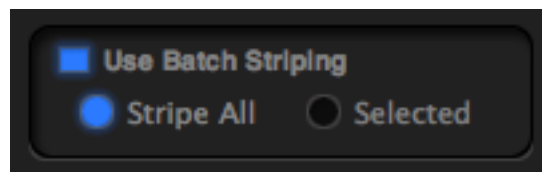
You can select an entry by clicking on it. You can select a contiguous range by clicking on the first item in the range and SHIFT-clicking on the last item in the range. Discontiguous items can be selected by COMMAND-clicking.

Once one or more items have been selected, the **Remove Selected Items from Batch List** button (“-”) will appear. Clicking on it will delete the selected items. They may also be deleted by hitting the BACKSPACE key. Deleting is undoable and redoable.



Reel	Title	Start	Stop	FR	Type
1	Main Title	01:00:00:00	01:01:00:24	30 fps	MTC
1	1m2	01:02:36:01	01:02:59:29	30 fps	MTC
1	1m3	01:03:16:16	01:03:32:00	30 fps	MTC
1	1m4	01:05:55:25	01:07:14:02	30 fps	MTC
1	1m6 (Love Theme)	01:08:12:03	01:09:44:26	30 fps	MTC

### Batch Stripe Settings

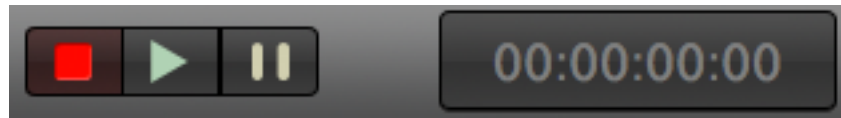


When the **Use Batch Striping** box is left unchecked, then striping will be based on the current Start and Stop times. If it is checked, then striping will be controlled by the Batch Stripe List. The **Use Batch Striping** box will not be selectable unless there is at least one entry in the Batch Striping List.

The default setting is to stripe all the items in the list, but if any of them are selected, you can choose to only stripe the selected items.

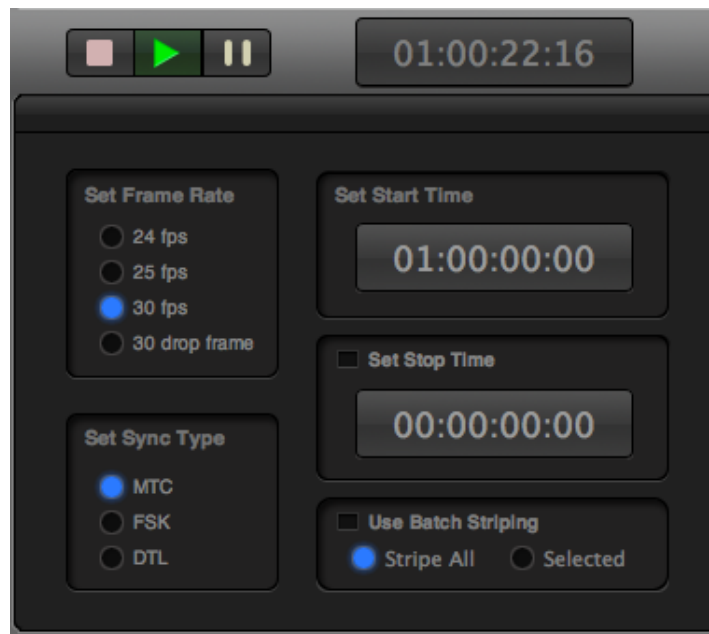
All changes to the Batch Stripe Settings are undoable and redoable.

## Striping



The Striping Controls consist of a Stop Button, a Play Button, a Pause button and a timecode display. What happens when you click each one varies slightly depending on the Stop Time Settings and the Batch Stripe settings.

The timecode display will show the timecode numbers being generated by the PPS-2. If the PPS-2 is generating FSK, then the timecode display counts from the Start Time, and continues until striping stops.



If neither **Set Stop Time** nor **Use Batch Striping** is checked, then when you hit Play, the PPS-2 will start striping from the Start Time, and continue until you hit Stop or Pause. If you hit Stop, then the next time you hit Play, striping will start from the Start Time again. If you hit Pause, then the next time you hit Play, striping will start from where it was when you hit Pause.

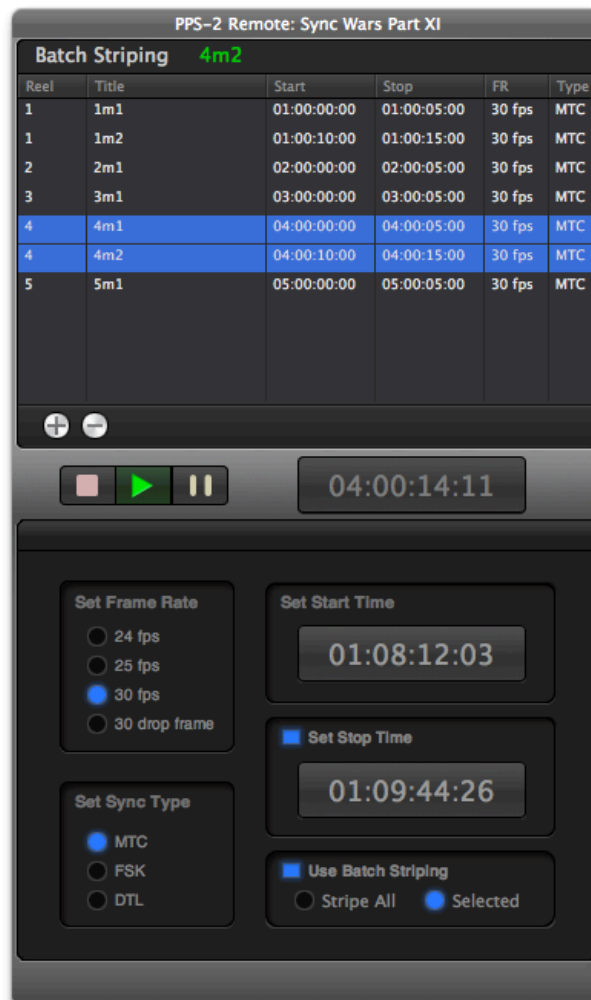
If **Set Stop Time** is checked but **Use Batch Striping** is not, then hitting Play will cause the PPS-2 to stripe from the Start Time to the Stop Time, then stop striping. If you hit Stop or Pause before the Stop Time is reached, they behave as above. Stop terminates striping and resets the counter to the Start Time. Pause terminates striping but leaves the counter unchanged so hitting Play will start striping where it left off.

## Batch Striping

If **Use Batch Striping** is checked, then striping will be controlled by the Batch Striping List. Hitting the Play button will start striping from the first item (or first selected item, depending on settings) in the list. Hitting either Stop or Pause will terminate striping and reset the time and item counters. So after stopping or pausing, pressing Play again will start over from the beginning.

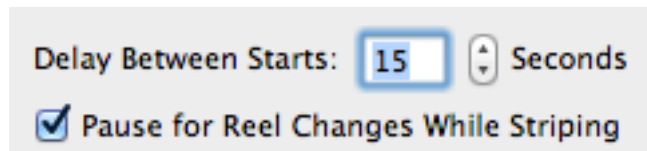
There are a couple of settings that affect how the Batch Stripe List is used. **Stripe All** causes striping to start with the first entry in the list, and continue sequentially, striping each item until the end of the list is reached. If at least one entry in the Batch Striping list is selected, then the **Stripe Selected** choice becomes available. In this case, only the selected items in the list will be striped.

While batch striping is in progress the title of the entry currently being striped is displayed at the top of the window.

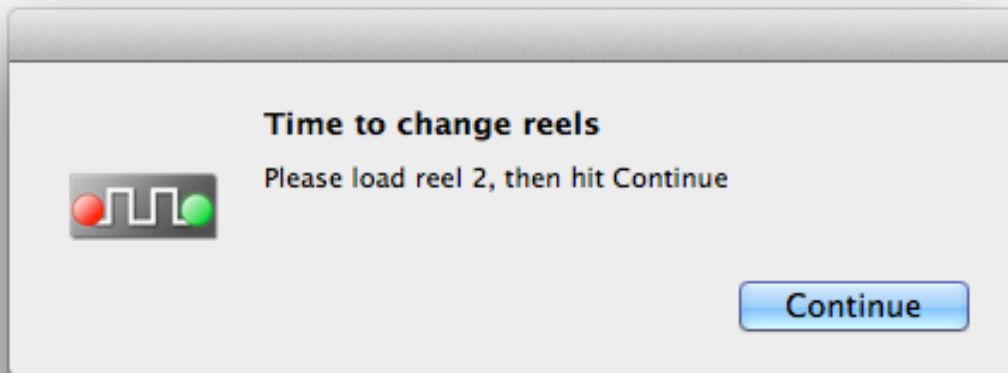


There are two preference settings that affect Batch Striping. To access them, go to **Preferences** under the **PPS-2 Remote** menu.

**Delay Between Starts** determines how much silence will be left on the tape in between the end of one entry and the start of the next one. It can be any whole number between 1 and 60 seconds, and can be set either by typing or with the up/down arrows. The default setting is five seconds, but you should set it long enough so that you always have time to take the tape machine out of record before the next song.



**Pause for Reel Changes While Striping** is useful if you are striping multiple reels of tape, but don't want to “babysit” the entire striping process. If this box is set, then during striping, any time a reel change is encountered striping will pause and an alert will be displayed. Once you have changed reels and put the tape machine into record, click **Continue** and striping will resume.



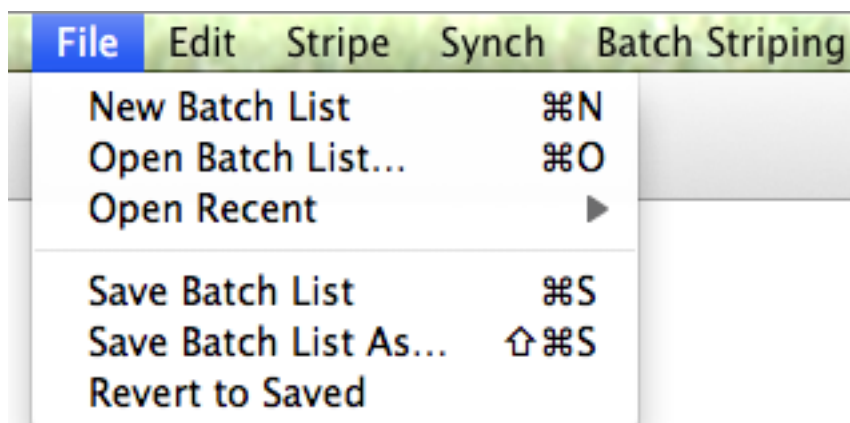
## Saving and Restoring

The settings in the Preferences dialog are automatically saved to your preferences file and retrieved each time the program is opened.

You can also save and open Batch Lists. This makes it possible to prepare for a session ahead of time, even on a different computer from the one that will be controlling the striping. Just bring the saved Batch List to the session and open it in PPS-2 Remote and start striping.



The commands under the File menu work just like they do in other Mac applications:



**New Batch List** creates an empty Batch List, giving you a chance to save your current work first.

**Open Batch List...** opens a previously saved Batch List, using the standard Mac Open dialog. You have a chance to save your current work first.

**Open Recent** presents a list of recently opened Batch Lists. Choosing one from the list opens it, after giving you a chance to save your current work.

**Save Batch List** will save a previously saved Batch List to its original location. If the Batch List has never been saved, then **Save Batch List** actually performs a **Save Batch List As...** command. It is only available if the current Batch List has never been saved or if it has changed since it was last saved.

**Save Batch List As...** allows you to name and save a previously unsaved file to a location of your choice. It will also let you save a copy of a previously saved file with a new name and/or location. It uses the standard Mac Save dialog.

**Revert to Saved** will reopen the last saved version of the current Batch List. It is only available if the current Batch List has been previously saved, and has changed since it was saved.

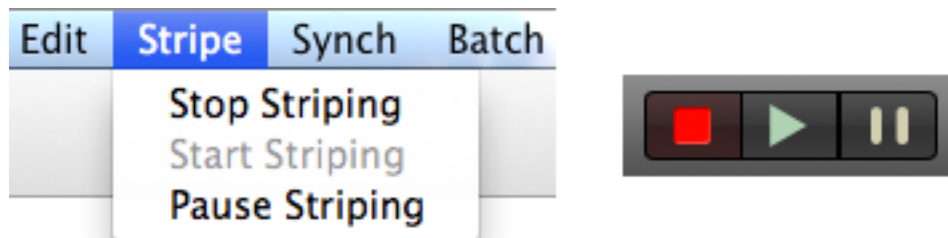
## Other Menus

### Edit Menu

**Undo** and **Redo** are the only Edit menu items that apply to **PPS-2 Remote**. As mentioned earlier they apply to all changes that can be made in the main user interface. The number of undo/redo levels is unlimited.

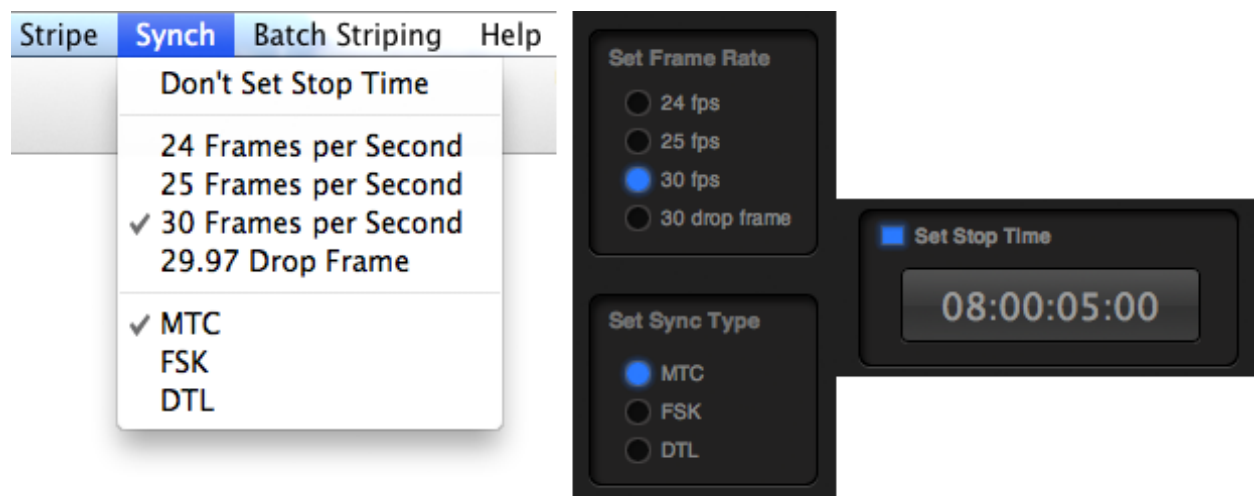
### Stripe Menu

The items in the Stripe menu match the Striping Controls- Stop Striping, Start Striping and Pause Striping. Choosing one of these commands has the exact same effect as clicking on one of the Striping Controls.



### Synch Menu

The items in the Synch menu correspond to the Frame Rate, Synch Type and Set Stop Time controls in the main user interface. Choosing one of these commands has the exact same effect as clicking on one of those controls.



## Batch Striping Menu

The items in the Batch Striping menu correspond to the Batch Striping Controls in the main user interface. Choosing one of these commands has the exact same effect as clicking on one of those controls. **Add to Batch Stripe List** duplicates the functionality of the **Add to Batch Stripe List** button (“+”).

