



imageConvert | imageEnhance | imageRestore



## Application Note

### Mini - Avid Capture

December 14, 2005 - Rev 1.1

O. Peters

S. Ackerman

## Table of Contents

---

Application Note .....	1
Table of Contents .....	2
1 Preface.....	3
2 Overview.....	4
3 Procedure.....	5
3.1 Capture Control .....	5
3.2 Bin Menu.....	6
4 Processing Delay's .....	10

## 1 Preface

---

Copyright © 2005 Silicon Optix Incorporated. All rights reserved.

Printed in the United States of America

All data and information contained in or disclosed by this document is confidential and proprietary information of Teranex Incorporated, and all rights therein are expressly reserved. By accepting this material the recipient agrees that this material and the information contained therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, not its contents revealed in any manner to others without the express written permission of Silicon Optix Incorporated.

Information in this document is preliminary and subject to change and does not represent a commitment on the part of Silicon Optix Incorporated.

Version	Date	Comment	By
1.0	2005.12.14	Draft Release	S. Ackerman
1.1	2005.12.14	Initial Release	S. Ackerman
1.2			
1.3			
1.4			

References:

## 2 Overview

---

This Application Note describes how to adjust the capture timecode in an Avid systems when using the Teranex Mini In-Line.

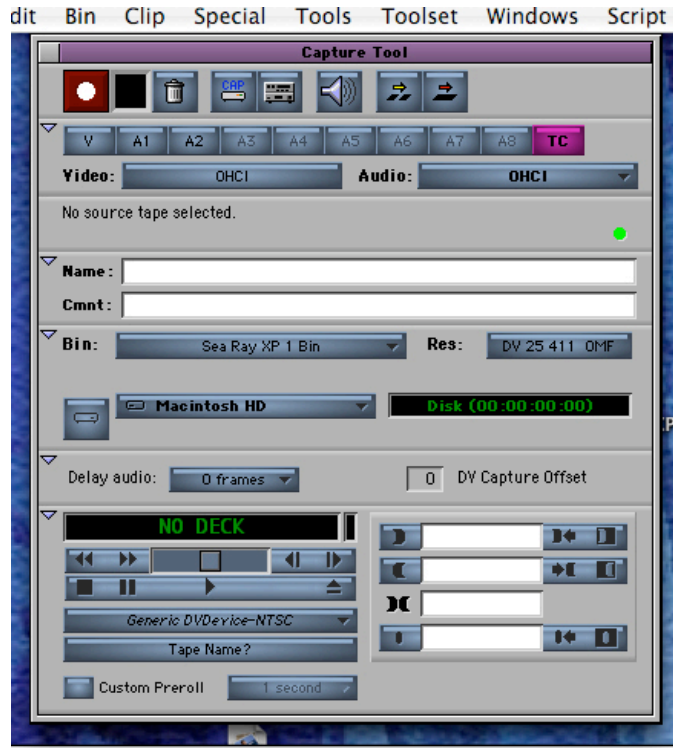
When the Teranex Mini is used as a format converter, the video signal is delayed four frames to accommodate the processing. The Mini can be placed in-line between the VTR output and the NLE input to enable real-time up/down/cross-conversion as part of the clip capture step of the editing process. The Mini uses the Serial Digital Interface (SD/HD-SDI) to carry the video signal with embedded audio. If your VTR and capture card support embedded audio on the SDI stream, then both audio and video will be captured in sync by the NLE. Although audio and video are delayed together, most NLE's typically receive their timecode information over the RS-422 device control port. This is not delayed by Mini, which means that use of the Mini will place the audio/video signal four frames out-of-sync with the timecode signal for that tape.

Most modern NLE's let you set up a custom device control setting or adjust the captured timecode values to compensate for this delay. The follow description will instruct you how to modify the timecode in the Avid Xpress, Media Composer and Symphony systems.

## 3 Procedure

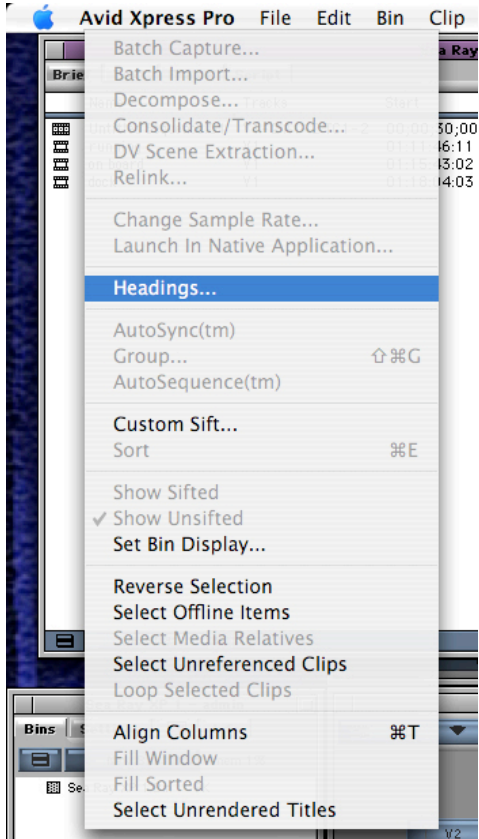
### 3.1 Capture Control

When you open the capture control, you will notice that there is only a DV capture offset value (Xpress DV and Xpress Pro only). This is intended to offset the timecode when controlling a deck over the FireWire connection. In some systems, like Media Composer Adrenaline, there is no offset control. This control, when present, does not change settings for RS-422 control. On an Avid system you must first capture the media without any offset for timecode. The timecode will be altered after capture.

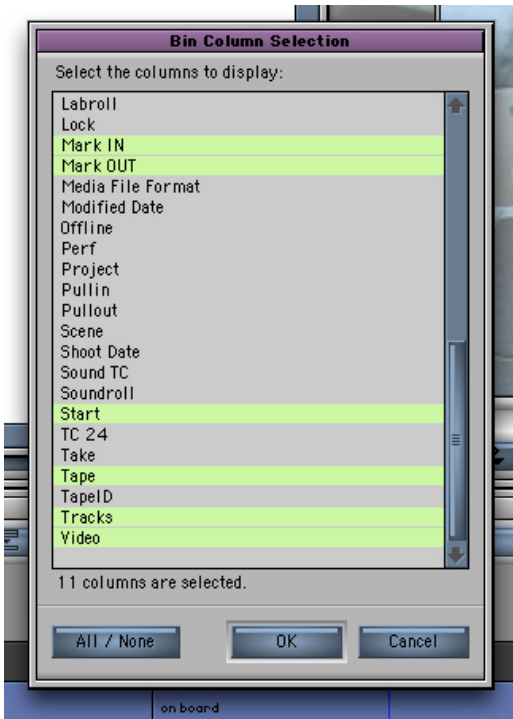


### 3.2 Bin Menu

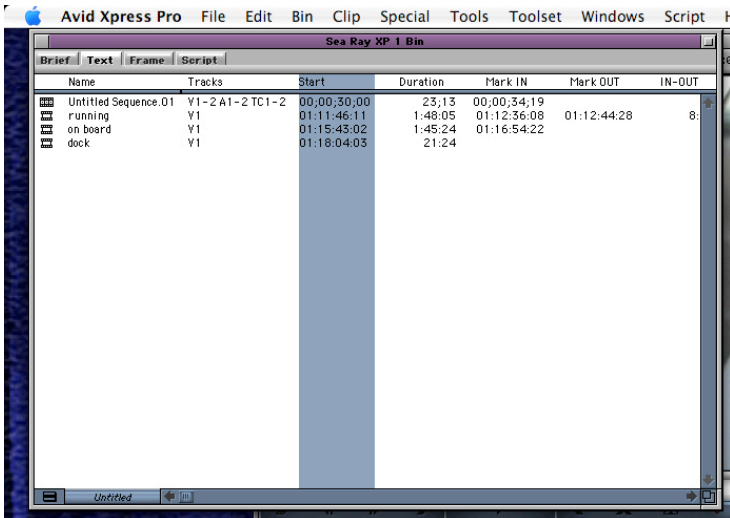
When you have completed the capture, you will need to alter the starting timecode value of each media clip. Open the Bin menu and select Headings.



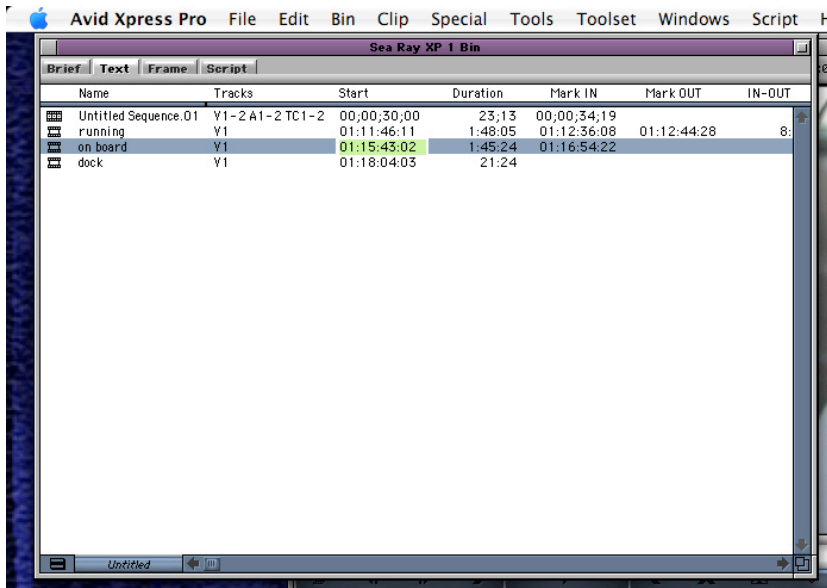
Make sure that the Start timecode column is enabled.



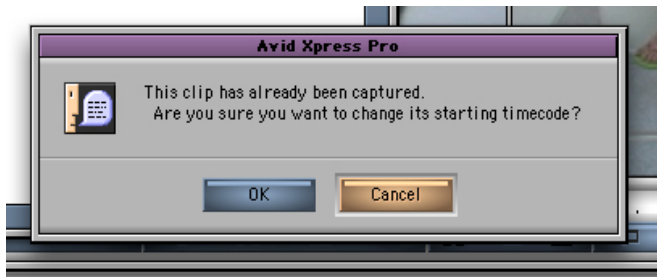
When you click OK, the bin columns should include a column of Start timecode values.



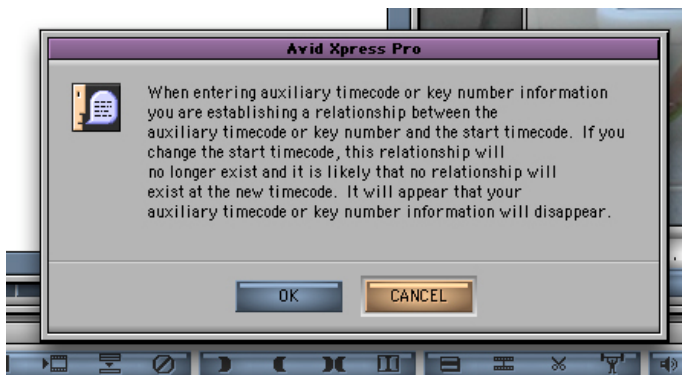
Select a Start timecode for a clip that was captured using the Mini. Highlight it and type the adjusted timecode into the field. This new timecode should be a value that compensates for the delay through the Mini.



When you change this timecode value you will receive several warning messages. Click OK to the first one.



Click OK to the second warning.





Now your Start time should reflect the correct value to be in sync with the video. The necessary offset amount and verification of the proper timecode can be determined by capturing a test clip with visual timecode display. The first frame of the captured media will be the same as the timecode number in the start column. This will be different by the amount of delay through the Mini (typically four frames), so type in the updated number to match the timecode on your video. That offset will be the proper value for further changes.

## 4 Processing Delay's

---

The following delay values are valid for software/firmware release 1.11.0.512 and later

Input	Output	Delay
480i59.94	480i59.94	4
480i59.94	720p59.94	4
480i59.94	1080i59.94	4
576i50	576i50	4
576i50	720p50	4
576i50	1080i50	4
720p50	576i50	5
720p50	720p50	5
720p50	1080i50	5
720p59.94	480i59.94	5
720p59.94	720p59.94	5
720p59.94	1080i59.94	5
1080i50	576i50	4
1080i50	720p50	4
1080i50	1080i50	4
1080i59.94	480i59.94	4
1080i59.94	720p59.94	4
1080i59.94	1080i59.94	4