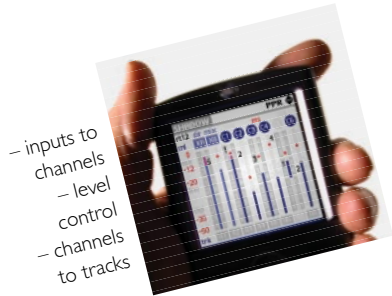


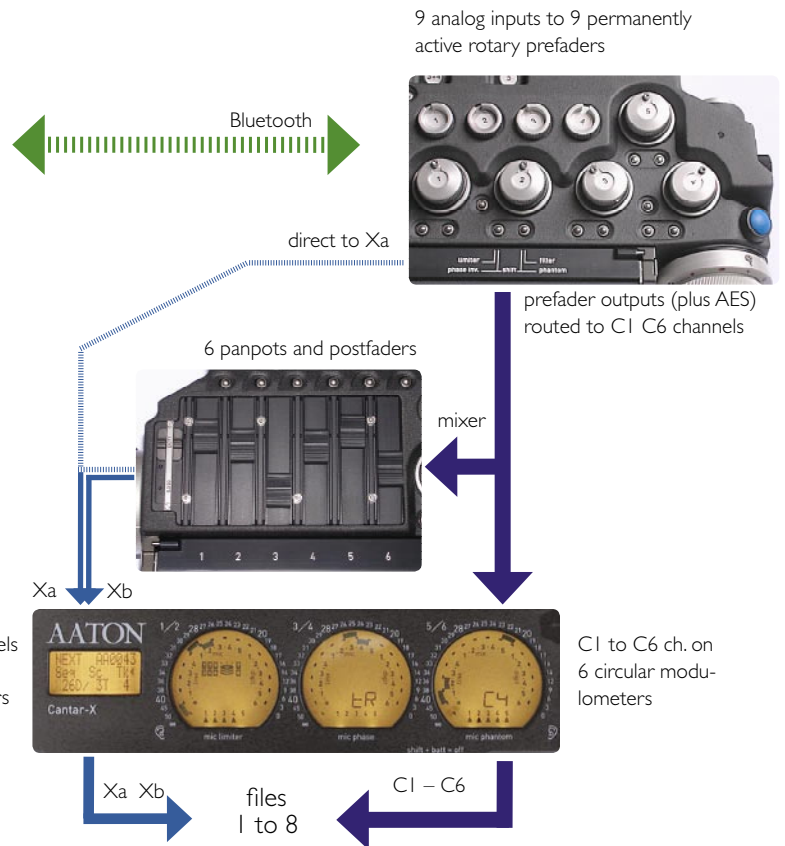
# Aaton audio: PostChain v12

PostChain updates  
[www.soft.aaton.com/swcantar](http://www.soft.aaton.com/swcantar)

- The Aaton ‘reference channels’ and ‘unique filenames’ ensure a smooth workflow from the recorder to the final mix



– inputs to channels  
 – level control  
 – channels to tracks



## Sorting sounds

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## Reference channels

The Cantar filetag-based structure makes for a straightforward flow chart to Avid™, Protocols™, Pyramix™, etc.

To ensure foolproof handling of the reference sounds generated by the Cantar built-in mixer they are recorded on two channels called Xa and Xb clearly separated from the C1 to Cn primary channels.

These reference channels are stored in files 7 & 8 but can also be stored in files 1 & 2. In this later case whatever the way they are exported to the Avid, be it as a polyphonic two track mixdown or within an eight track monophonic file group, the Xa Xb reference sounds always end up on A1 A2 at the top of the audio timeline of all audio workstations.

## The Cantar Pathtree

Cantar sounds are recorded in monophonic files stored in 'Projects' folder and 'Working Days' subfolders opened on each working day. These subfolders are named by the YYYYMMDD date: e.g. 2005 24 06. AAD

Since Cantar and Majax can interleave the original monophonic files into polyphonic groups for those editing machines which can only import polyphonic files, an AAX brother folder, e.g. 2005 24 06.AAX is created to store the polyphonic groups of the day.

## How to get files w/. unique names

AT1254==123A;14R t12==\_1.wav

### First a Filetag AT1254 (or ATS254)

The Aaton InDaw digital audio recorder pioneered the 'filetag' principle in 1997. This system automatically creates an absolutely operator-independent *never twice the same* filetag which links all the files attached to a given take. Placed at the beginning of the filename the filetag is *auto-incremented* to ensure a perfect chronologic sorting of all the takes of a project. It also ensures the automatic and natural gathering and 'alphabetical sorting' of all the avatars of the files of a given take such as mixdown, sample rate conversion, 24 to 16bit reduction, MS to XY translation, Mono to Poly, etc., stored on different disks. Whatever the paths, they all automatically join the original tracks on the central hard drive.

### Then a Suffix \_1.wav

Aaton uses the suffix to show the content of a file on the filename itself.

### Monophonic files

(\_N) flags an independant track.

(-N) flags a track of an 'MS' stereo pair; M on odd, S on even tracks. MS pairs are automatically L/R decoded during playback and in the mixdown: M+S goes to the left, M-S to the right.

*Using Majax, MS pairs can be decoded and replaced by L/R stereo pairs (+N) for export into Avid editing machines which are unable to playback MS tracks.*

The monophonic *ReferenceChannels* Xa and Xb are the result of the sound recordist controlled mixdown of the monophonic primary channels. On Cantar, the Xa and Xb channels are stored in either the 7&8

or 1&2 files.

Performed by Majax the mixdown channels are stored in files 9&10 in order not to overwrite any Cantar track.

The monophonic mixdown is stored with the primary channels in the same day .AAD monophonic folder.

### Polyphonic files (*interleaved tracks*)

They are stored in .AAX polyphonic folders carrying the same date as the original .AAD monophonic folders; their suffixes are of two types:

\_SN\_, e.g. AT1254S8.wav is a polyphonic interleaved file made by interleaving 8 monophonic files into a single polyphonic file. It is used on the image editing machines which can't handle multi-monophonic files.

\_PX\_, e.g. AT1254PX.wav is a stereo polyphonic interleaved file made by interleaving two Xa and Xb *ReferenceChannels*. It is used for telecine rushes, for quick image editing and for playback on stereo consumer machines.

At this point we get Short Filenames recorded by Cantar on its hard drive. Being DOS 8.3 compatible, it can go to any PC and be handled by any EDL sorting system.

### And finally a Descriptor ==123A;14R\_t12==)

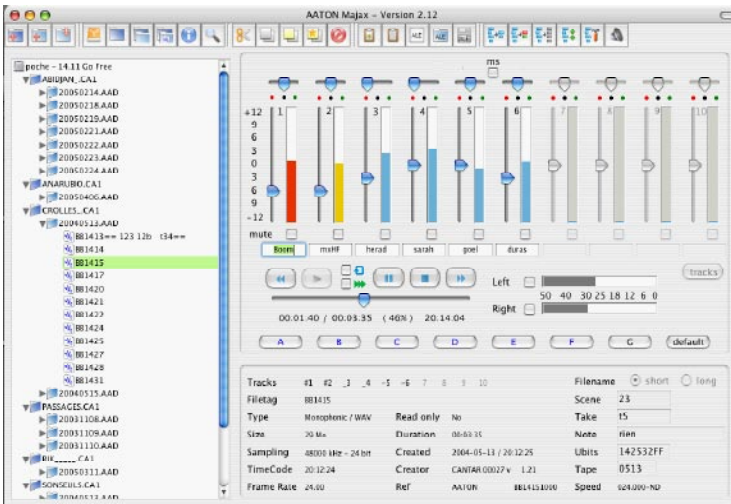
Operator entered, thus error prone, the descriptor is NOT used to sort the files. It is stored in the file metadata (both in the 'bext' chunk and the XML chunk of each BWF file). It shows in the filename between (==) signs, e.g. sequence 123A, scene 14R, take t12 shows as ==123A;14R t12==

The (==) signs make for a well delimited notepad area for the assistant editor to rewrite whatever he wants, PROVIDED he never touches the sacro-sanct six character filetag on its left.

BTW: it is not recommended to superficially correct the descriptors on a Mac or PC desktop, it is much clever to use an Aaton Majax (free Mac/PC application for Cantar files) which applies the correction within the BWF metadata fields themselves.

*Note: The (# mixdown) and (+ stereo pair) signs are no longer used in the file name suffix since the Avid BWF file reader can't handle them. They are shown on the Majax screen only.*

# Sorting the sounds



## Majax functions

Everything a location mixer or a post-prod assistant needs to manage multi-channel files, is found in Majax.

It plays ten tracks on standard laptops and desktops and performs the following tasks:

- 8 to 2 channel mixdown,
- mono-to-poly conversion,
- auto extraction and gathering of wild sounds,
- edition of scene & take and notes,
- individual channel renaming,
- sound-report and ALE generation.

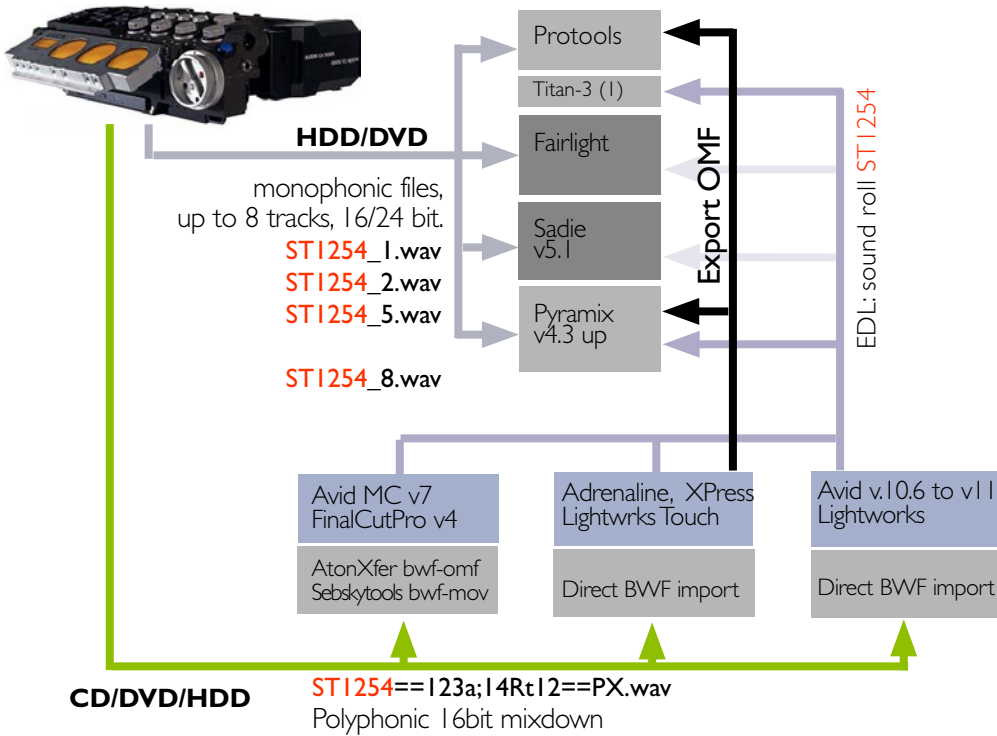
Majax runs on both Mac & PC platforms, *it only works with Cantar recorded files.*

ID	Filetag	Scene	Take	Notes	TC start	Duration	XA	XB	C1	C2	C3	C4	C5	C6	Size
1	BB1413	123/12b	134	bruit de perche	20:05:12	00:01:45	# mixl	# mixr	herad	sarah	nelly	duras			14 Mo
2	BB1414	1 / 1	29w	Mix en 1/2	20:08:02	00:01:19	# mixl	# mixr	favre	masson	thierry	duras			11 Mo
3	BB1415	23	15	Mix perche	20:12:24	00:03:35	Boom	# mixHF	herad	sarah	goel	duras			29 Mo
4	BB1417	12a	32	Mix porcho	20:19:19	00:01:27	Boom	# mixHF	herad	sarah	nelly	duras			12 Mo
5	BB1420	1 / 1	35 w	Mix perche	20:25:17	00:02:19	Boom	# mixHF	herad	sarah	nelly	duras			19 Mo
6	BB1421		36	Mix perche	20:28:42	00:02:02	Boom	# mixHF	herad	sarah	nelly	duras			16 Mo
7	BB1422		37	Mix en 1/2	20:32:36	00:02:52	# mixl	# mixr	favre	masson	thierry	duras			23 Mo
8	BB1424		39		20:38:34	00:00:54	# mixl	# mixr	favre	masson	thierry	duras			7 Mo
9	DD1425		40		20:39:29	00:01:07	# mixl	# mixr	favre	joe blof	thierry	duras			9 Mo
10	BB1427		42		20:41:19	00:01:46	# mixl	# mixr	favre	masson	thierry	duras			14 Mo
11	BB1428		43	mix en 1'2	20:44:36	00:02:42	# mixl	# mixr	favre	masson	thierry	duras			22 Mo
12	BB1431	er21	15	Mix 7/8 en 1/2	20:47:48	00:02:10	# mixl	# mixr	favre	masson	thierry	duras			17 Mo

## Majax Sound Report

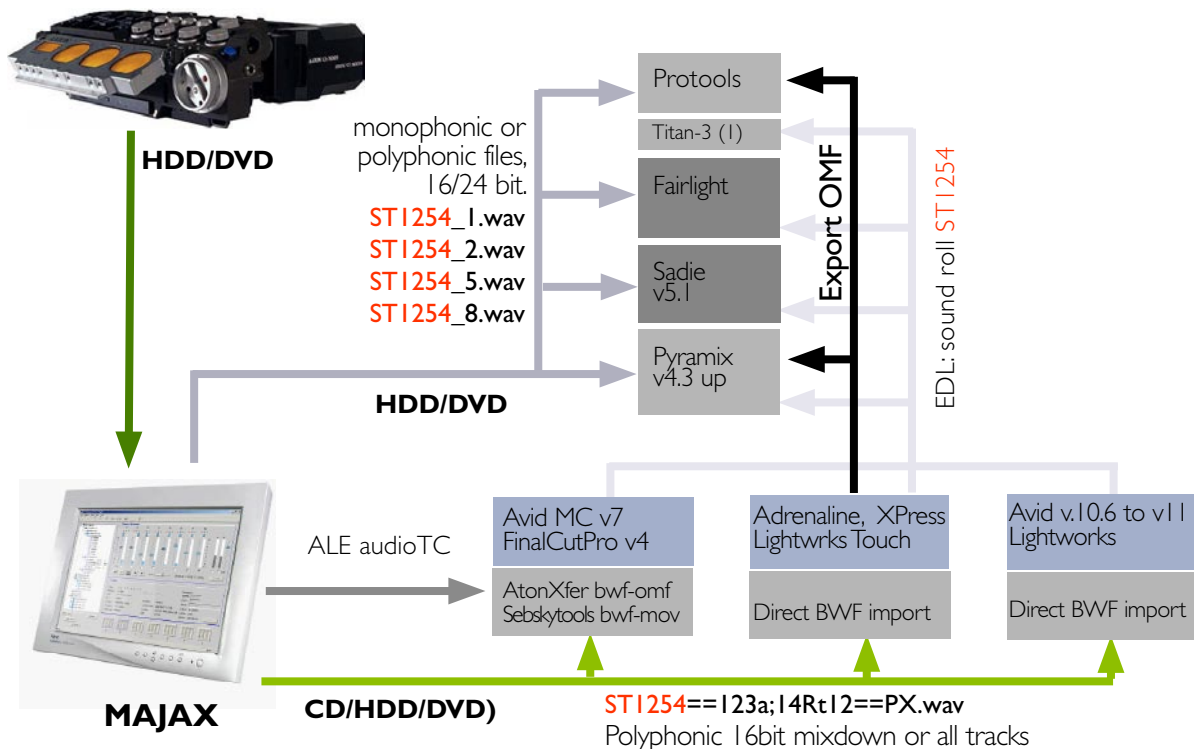
The Majax automatic sound-report is a powerful tool which shows the channel correlation on each channel header, the timecode and duration of each take and the individual track names.

## 1. Cantar alone



The Aton 'Filetags' (STI 254) ensure a 'natural' file sorting on any computer desktop, and provide error free conformation between the 16bit mixdown sent to the editor, and the 24bit original files used for the final mix.

## 2. with Majax



## Editing w/. reference sounds only

Some image editors prefer to work with the reference channels only, e.g. the mixdown. After editing, an audio-EDL is generated which 'autoconforms' the original multichannels on Titan3/ProTools or Pyramix to get instant access to the original 16/24Bit channels of the entire project.

The video/audio TC links are imported in the editing station with ALE/Flex lists **before image digitization** followed by an 'autosync' of the files directly imported from Cantar DVDs. Using this method the editor can listen to a high quality audio mixdown.

At the end of the editing session the audio EDL carries the audio TC and Filetag of the original audio files. That is the way it worked in the film editing industry (including old Avid v7 stations) for years. Sound import and EDL making must obey the rules described [p.12-13].

## NEW

## Editing w/. video rushes only

Images and sounds are synchronized on InDaw and the sync rushes are delivered to the edit room (the links are stored in the InDaw ATN database). The video rushes are digitized in the editing station with no need for ALE import nor autosync. This is the way the TV industry is working for years, the editor gets the sounds from the video tape analog tracks where they carry the same videoTC as the images.

At the end of the editing session the 'audio' EDL is in fact carrying videoTCs (these TCs were used to conform **mirror DATs** which only contained the sound of the transferred takes).

Using the InDaw '**reverse EDL**' function it is possible to convert the false 'audio' EDL into a real audio-EDL by using the video/audio links stored in the ATN database previously made by InDaw while syncing the rushes.

**Advantage:** while keeping the speed and simplicity of the plain video import that many editors do prefer, there is no more need to make 'videoTC' mirror DATs, and the sound editor can get instant access to the original sound files in which he finds the handles, the non transferred takes and wild sounds which previously were too much time consuming to retrieve.

## Editing w/. all tracks

More and more editors – taking advantage of the audio performances of the new generation of editing stations such as Adrenaline or Avid Xpress – prefer to have permanent access to all the tracks while editing the images. They import both the mixdown tracks A1, A2 – which carry the 'reference sound' of the film conceived by the sound recordist –, and all other tracks.

There is no longer a need to rely upon an audio EDL, it is faster to export the video+audio editing work to the sound editing and mixing stations through OMF1.

Even if the audio files have been imported at 16bit, the Pyramix v4.3.x is able to reconfirm the 24bit originals to 16bit OMF exports (see last page).

## Monophonic or polyphonic

Two methods are used to transport multichannel audio files into NLE stations.

1. Direct copy of the monophonic files (Lightworks, Protools, Pyramix).
2. Interleaving\* the monophonic files into polyphonic files. This makes for bulkier files with the risk to hit the 2Gbyte barrier, and it takes time to desinterleave them back into monophonic files... but these steps are necessary for an Avid composer to create unbreakable links between the original channels. [p.11]

\* *Polyphoniking* can be done by Majax installed on the Avid Mac/PC desktop.

## Which machines?

### Editing

- Avid v7, still works in many places. [p. 6-7]
- Avid v10.6 to v12, first BWF compliant NLE. [p.8-9]
- Avid Adrenaline 24bit, HD. [p. 8-9]
- XpressPro, 24bit [p. 8-9]  
(see Job Ter Burg site)
- Lightworks Touch, new version of the first film devoted nonlinear editing instrument. [ [www.soft.aaton.com/swcantar/](http://www.soft.aaton.com/swcantar/) The Lightworks Post Chain by D. Stein ]
- FinalCutPro, Apple in the editing world. [p. 12-13]

### Mixing

- Protools with Titan3. [p.14]
- Pyramix, the most versatile for conforming. [p.15]
- Fairlight, Nuendo, Sadie, etc. will be added later.

## Syncing Cameras & Cantar

To sync HD, SD, DV video cameras with a digital audio recorder, three main methods are proposed.

### Method One

Transmit the *rec.run videoTC* of the camera to the digital audio recorder set in **external** clock, then perform an 'external-TC' break detection to clearly separate and stamp the digital files at each camera stop and start. This system relies on power hungry and not-always-reliable radio transmissions. And worse, it only works for a single camera on the set.

### Method Two

Record the digital audio recorder *free.runTC* on the video LTC track of the camera and genlock the camera frame rate to that external signal. While correct in principle, this system leaves a discontinuous *free.run videoTC* as the TC reference of the video tape, and this is a real hindrance in post. Not to mention the many different camera standards to take into account when it comes to genlock them!

### Method Three

Record the digital audio recorder *free.runTC* on one of the many unused audio tracks of the video camera\*. This leaves the continuous *rec.run videoTC* of the camera (different in each) totally untouched, and creates a strong link between the videoTC and the discontinuous *free.run audioTC*, which is identical in all machines on the set.

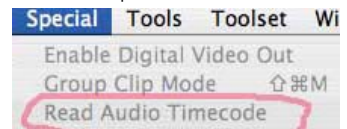
\* Attach a low-power (120h autonomy) ultra stable (1ppm) Aaton GMT-s mini LTC generator to the video camera. Connect its LTC-out to the **line input** of the camera, **do not apply automatic gain** to this track. Reset the GMT-s clock twice a day from the Cantar LTC-out.

Compared to the power hungry radio transmissions, plus the necessary take break detection, plus the single camera limitation of **Method One**... Compared to the cost and logistics, plus the post-prod problems induced by **Method Two**, **Method Three** works in multicamera shooting, offers low power consumption, is simple and not expensive (even works with consumer DVcam).

### Method Three (practice)

During image capture the Avid extracts the TC from the audio track and attaches this audioTC to the videoTC of each image. Thanks to their common audio TC, the Avid 'autosync' function instantly batch-syncs the audioTC indexed images to the Cantar sound clips.

This is the very same method that's been used for twenty years to sync Aatoncode films transferred to video!



AvidXpressPro v4.6 or later.

**Note1:** to leave the Avid AIA2 channels free to later import and 'autosync' of the Cantar audio files, remember to digitize the video tapes in the Avid 'V only' mode, not 'V A1 A2'. You should select 'V A3 A4' if you want to copy the stereo sounds recorded on the video tape itself.

**Note2:** If you want to get sync rushes before digitizing and autosyncing your images on an editing system, it is very simple (using the LTC recorded on the audio track) to on-the-fly sync the video tape to the Cantar sound disks played by an Aaton InDaw.

Use an HORITA VG-50 LTC->VITC generator to convert the LTC output of the camera audio track into a VITC signal burnt in the analog video sent to InDaw.

The audio disks can come from Cantar and from ALL other digital audio recorders (an advantage of InDaw over the DV40)... or from the conversion of Nagra/DAT tapes to hard drives through InDaw.

## Importer BWF dans AVID v7 (Camera 24Fps/Edit 24Fps)

- 1- Fichiers BWF Polyphonic 16Bit
- 2- Convertir en OMF avec AtonXfer-2 (<http://soft.aaton.com/swcantar/>) 20 fichiers par 20 fichiers (photo1).
- 3- Créer un nouveau Bin dans Avid (photo2).
- 4- Importer les fichiers OMF créés (photo2).
- 5- Dupliquer la Colonne 'NetFileName' en colonne 'Sound Roll' (photo3).
- 6- Dupliquer la Colonne 'ProdName' en colonne 'Name'

- pour recuperer les descripteurs 'Scene/Take' du Cantar.
- 7- Avant la création de l'Edl vérifier dans le montage que des pistes '2' ne soient pas montées toutes seules et décalées car le TimeCode et le Nom du fichier ne sont portés que par la piste 1 !!
  - 8- Préparer EDL manager avec 'SoundRoll' et 'PalFilm2' (photo 4).
  - 9- Créer une EDL 4 pistes par 4 pistes (photo 5-8).

**AtonXfer** Available on [www.soft.aaton.com/swcantar/](http://www.soft.aaton.com/swcantar/) the AtonXfer-2 BWF to OMF converter ensures the importation of BWF files w/ timecode into Avid v7 film composers working under Mac OS-9.

1. The Avid v7 must be a FilmComposer.
2. The files should be polyphonic 16bit stereo files, Cantar or InDaw generated only.
3. The AtonXfer icon should permanently stay on the Macintosh desktop.
4. For fast access the disks carrying the BWF audio files must be copied onto the Mac hard-drive.

5. Drag the .wav files (no .txt, no .idf nor .idw files) onto the AtonXfer icon. The conversion of a two channel, 16 bit file on a Mac G4 machine is performed in one tenth the audio real time.
6. Since the file in- process is stored in the RAM, make sure you have more physical RAM than the heaviest file to be converted. Virtual memory doesn't help. Twenty files at a time is a good first try.
7. Conversion done, import the resulting OMF files into the project where they are immediatly parsed under AIFF and stored in the project audio bin.

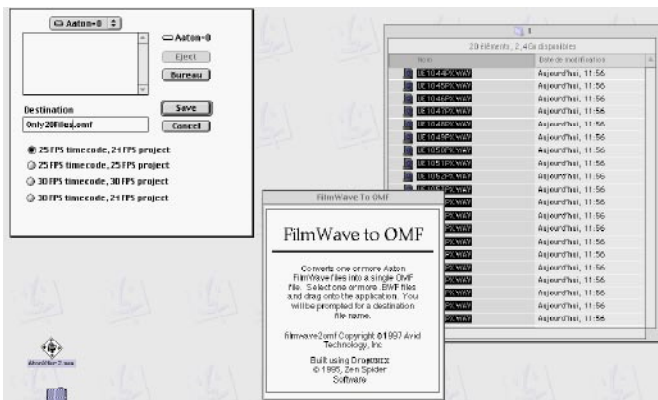


Photo 1

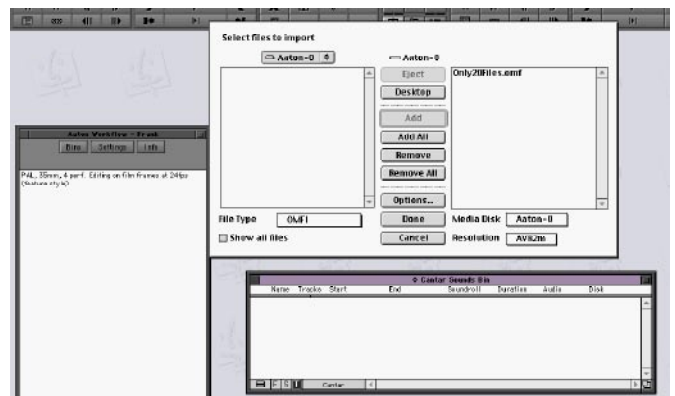


Photo 2

**Auto-Sync** With image-LTC / audio-LTC links, such as the ones brought by ALE transfer lists or by the audio-LTC recorded on a video tape sound track (see p.5), *Auto-Sync* instantly syncs the audio files stored on the media composer hard drive to their image counterparts.

The ALE transfer files, created on Aaton Keylink or InDaw, carry the video/audio sync points. If they show VAIA2 (start of line) indexes, you must batch replace them by V only; not making this correction will prevent you later to properly add BWF sounds since the Avid composer considers it already digitized some sync sounds (AIA2) with the images. Without video/audio links, *Auto-Sync* can't work but you can nevertheless sync your BWF files by manual slate syncing, the good old way.

1. Duplicate [Apple•D] the SndTC column into the AuxTC column of the audio bin, and duplicate the image FilmTC column into the AuxTC column of the image bin; then perform a Group Sync.
2. If the Avid shows 'TC not matching', verify that sound and film dates are **identical**, not only showing the same **date** but the same FullYear/Month/Day syntax, e.g. 2004-09-24 (not 09 24 04). If not, batch-modify the incorrect dates as explained below.
3. To batch modify the dates, copy the bin ShootDate column into an AatonDate column in which wrong date entries can be corrected; place this column before the AuxTC column (where the film-TC is stored), then make an [Apple•E] to sort the files by ascending date & time.

## Filetag compliant Edl

1. Some editors prefer to work with a single polyphonic pair, 16 or 24bit, made of the mixdown (bounce) of the Cantar many tracks.
2. Some editors prefer to work with all the original monophonic tracks (files). To be correctly digested by Avid composers, they should be grouped (auto-synced) before performing the audio/video sync.
3. To get a filetag compliant Edl, the TapeID column which carries the Cantar Filetags (first six digits of the file name) must be batch duplicated [Apple•D] and put into the SoundRoll column of the audio bin *before starting the editing* (Photo 3).

Name	Tracks	Start	End	Soundroll	RefFileNames	Duration	Audio	FileTitle
122 / 111	A1-2	09:11:11.00	09:11:30.03	UE1044PX.WAV	UE1044PX.WAV	19.03	48000.0	Cantar by austin
122 / 112	A1-2	09:11:42.00	09:12:31.05	UE1045PX.WAV	UE1045PX.WAV	49.05	48000.0	Cantar by austin
122 / 113	A1-2	09:14:15.00	09:15:09.21	UE1046PX.WAV	UE1046PX.WAV	54.21	48000.0	Cantar by austin
122 / 114	A1-2	09:16:21.00	09:17:35.17	UE1047PX.WAV	UE1047PX.WAV	1:34.17	48000.0	Cantar by austin
122 / 115	A1-2	09:29:22.00	09:29:55.20	UE1048PX.WAV	UE1048PX.WAV	33.20	48000.0	Cantar by austin
122 / 116	A1-2	09:32:16.00	09:32:54.02	UE1049PX.WAV	UE1049PX.WAV	38.02	48000.0	Cantar by austin
122 / 117	A1-2	09:33:25.00	09:34:00.04	UE1050PX.WAV	UE1050PX.WAV	35.04	48000.0	Cantar by austin
122 / 118	A1-2	09:34:31.00	09:35:16.09	UE1051PX.WAV	UE1051PX.WAV	45.09	48000.0	Cantar by austin
122 / 211	A1-2	10:28:55.00	10:29:43.21	UE1052PX.WAV	UE1052PX.WAV	1:10:21	48000.0	Cantar by austin
122 / 212	A1-2	10:41:32.00	10:42:18.05	UE1053PX.WAV	UE1053PX.WAV	46.05	48000.0	Cantar by austin
122 / 213	A1-2	10:13:29.00	10:14:32.09	UE1054PX.WAV	UE1054PX.WAV	1:03.09	48000.0	Cantar by austin
122 / 214	A1-2	10:14:40.00	10:15:56.19	UE1055PX.WAV	UE1055PX.WAV	1:08.19	48000.0	Cantar by austin
122 / 215	A1-2	10:23:29.00	10:25:52.17	UE1056PX.WAV	UE1056PX.WAV	2:23.17	48000.0	Cantar by austin
122 / 216	A1-2	10:28:27.00	10:28:52.07	UE1057PX.WAV	UE1057PX.WAV	25.07	48000.0	Cantar by austin
122 / 217	A1-2	10:29:57.00	10:29:58.10	UE1058PX.WAV	UE1058PX.WAV	09.10	48000.0	Cantar by austin
122 / 311	A1-2	10:30:53.00	10:32:09.16	UE1059PX.WAV	UE1059PX.WAV	1:38.16	48000.0	Cantar by austin
122 / 312	A1-2	10:40:03.00	10:40:36.10	UE1060PX.WAV	UE1060PX.WAV	27.10	48000.0	Cantar by austin
122 / 313	A1-2	10:40:44.00	10:41:28.02	UE1061PX.WAV	UE1061PX.WAV	41.02	48000.0	Cantar by austin
122 / 314	A1-2	10:41:44.00	10:42:16.15	UE1062PX.WAV	UE1062PX.WAV	34.15	48000.0	Cantar by austin
122 / 315	A1-2	10:42:25.00	10:43:21.17	UE1063PX.WAV	UE1063PX.WAV	56.17	48000.0	Cantar by austin

Photo 3

3. When it comes to generate the Edl, open the Avid EDL Manager and select *SoundRoll* instead of *Tape* as the source, and *PalFilm2* (Photo 4).
4. For a film shot at 24fps, select 'Output-24' even if the film has been transferred in 'PalVideo'.
5. The Edl must be CMX 3600 and should contain four audio tracks only and no video.

Photo 4

```

TITLE: SEQ 122
001 UE1045PX A C 09:11:48:01 09:12:29:11 01:00:00:00 01:00:43:04
* FROM CLIP NAME: 122 / 1 T 2
002 AX A2 C 00:00:05:20 00:00:47:05 01:00:00:00 01:00:43:04
* FROM CLIP NAME: 122 / 1 T 2
003 UE1056PX NONE C 10:23:29:00 10:25:44:16 01:00:38:21 01:03:00:00
AUD 3
* FROM CLIP NAME: 122 / 2 T 5
004 AX NONE C 00:00:00:00 00:02:15:16 01:00:38:21 01:03:00:00
AUD 4
* FROM CLIP NAME: 122 / 2 T 5
005 UE1059PX A C 10:41:51:24 10:42:15:21 01:02:30:18 01:03:21:15
* FROM CLIP NAME: 122 / 3 T 4
006 AX A2 C 00:00:07:16 00:00:31:13 01:02:56:18 01:03:21:15
* FROM CLIP NAME: 122 / 3 T 4
    
```

```

TITLE: SEQ 122
001 UE1051PX NONE C 09:34:33:20 09:35:14:14 01:01:30:03 01:02:12:17
AUD 3
* FROM CLIP NAME: 122 / 1 T 8
002 AX NONE C 00:00:02:17 00:00:43:11 01:01:30:03 01:02:12:17
AUD 4
* FROM CLIP NAME: 122 / 1 T 8
003 UE1059PX A C 10:30:35:19 10:32:03:10 01:02:02:07 01:03:33:16
* FROM CLIP NAME: 122 / 3 T 1
004 AX A2 C 00:00:04:14 00:01:32:05 01:02:02:07 01:03:33:16
* FROM CLIP NAME: 122 / 3 T 1
    
```

```

TITLE: SEQ 122
001 UE1045PX A C 09:11:48:01 09:12:29:11 01:00:00:00 01:00:43:04
* FROM CLIP NAME: 122 / 1 T 2
002 AX A2 C 00:00:05:20 00:00:47:05 01:00:00:00 01:00:43:04
* FROM CLIP NAME: 122 / 1 T 2
003 UE1056PX NONE C 10:23:29:00 10:25:44:16 01:00:38:21 01:03:00:00
AUD 3
* FROM CLIP NAME: 122 / 2 T 5
004 AX NONE C 00:00:00:00 00:02:15:16 01:00:38:21 01:03:00:00
AUD 4
* FROM CLIP NAME: 122 / 2 T 5
005 UE1059PX A C 10:41:51:24 10:42:15:21 01:02:56:18 01:03:21:15
* FROM CLIP NAME: 122 / 3 T 4
006 AX A2 C 00:00:07:16 00:00:31:13 01:02:56:18 01:03:21:15
* FROM CLIP NAME: 122 / 3 T 4
    
```

```

TITLE: SEQ 122
001 UE1051PX NONE C 09:34:33:20 09:35:14:14 01:01:30:03 01:02:12:17
AUD 3
* FROM CLIP NAME: 122 / 1 T 8
002 AX NONE C 00:00:02:17 00:00:43:11 01:01:30:03 01:02:12:17
AUD 4
* FROM CLIP NAME: 122 / 1 T 8
003 UE1059PX A C 10:30:35:19 10:32:03:10 01:02:02:07 01:03:33:16
* FROM CLIP NAME: 122 / 3 T 1
004 AX A2 C 00:00:04:14 00:01:32:05 01:02:02:07 01:03:33:16
* FROM CLIP NAME: 122 / 3 T 1
    
```

Photos 5-8



# Import BWF into Avid v10.5.3/10.6/11/12/Adrenaline, XPress (1 of 3)

## Import Fichiers Polyphoniques, (cam24Fps/edit 24Fps). v10.5.3 & v10.6, v12,

1- Fichier Poly 16Bit. (ou 24 qui sera tronqué)

## v11, v12, Adrenaline, XPress-Pro

1- Fichier Poly 16Bit. (ou 24) Adrenaline et XPress-Pro fonctionnent en 24Bit.

2- Créer un nouveau Bin dans Avid (photo 1).

3- Importer les audio files .wav (photo 1).

4- Dupliquer la colonne 'TapelD' sur la colonne 'SoundRoll' (photo2). Parfois vous pouvez aussi la mettre en colonne 'Name' (voir note suivante).

Note: la duplication de TapelD sur 'Name' n'est pas une bonne idée dans beaucoup de cas, essayez d'abord la chaine complete d'autoconfo avec votre monteuse !

5- Dupliquer la colonne 'Start' sur 'TC24' en convertissant les TimeCode pour recuperer les noms des TimeCode d'origine du Cantar (fin en 00) (photos 3).

6- Dupliquer colonne 'TC24' sur 'SoundTC' (photo 4).

7- Programmer EDL-manager avec selection de 'SoundRoll', 'SoundTC' & 'Output24' (photo 5).

8- Créer des EDL 4 Pistes par 4 Pistes (photos 7 & 8).

## Import BWF-P (polyphonic)

16 and 24bit audio files are directly imported (no Aton-Xfer needed). Avid v10 to v12 accept 24bit files but truncate them to 16Bit. Adrenaline and XPress-Pro handle 24Bit files. To get filetag compliant Edls or OMF, the TapelD column which carries the Cantar Filetags (first six digits of the file name) must be batch duplicated [Apple•D] into the SoundRoll column of the audio bin **before starting editing** (Photo 3).

**Auto-Sync** If you get image-LTC/audio-LTC links, such as the ones brought by ALE transfer lists or by the audio-LTC recorded on a video tape sound track (see page 5), **Auto-Sync** can be performed: the audio files stored on the media composer hard drive are instantly **synced** to their image counterparts.

The ALE transfer files, created on Aaton Keylink or InDaw, carry the video/audio sync points, if they show VAIA2 (start of line) indexes, you must batch replace them by V only. Not making this correction will prevent you to later properly add BWF sounds since the Avid composer considers it already digitized sync sounds (AIA2) with the images.

Obviously, in the absence of these links auto-sync can't be performed but you can nevertheless sync your BWF files with manual slate-syncing, the good old way.

1. Duplicate [Apple•D] the SndTC column into the AuxTC column of the audio bin, and duplicate the image FilmTC column into the AuxTC column of the image bin; then perform a Group Sync.

2. If the Avid shows 'TC not matching', verify that sound and film dates are **identical**, not only showing the same **date** but the same FullYear/Month/Day syntax, e.g. 2004-09-24 (not 09 24 04). If not, batch-modify the incorrect dates as explained below.

3. To batch modify the dates, copy the ShootDate column of the bin into an AatonDate column in which wrong date entries can be corrected; place this column before the Aux-TC column (where the film-TC is stored), then make an [Apple•E] to sort the files by ascending date & time.

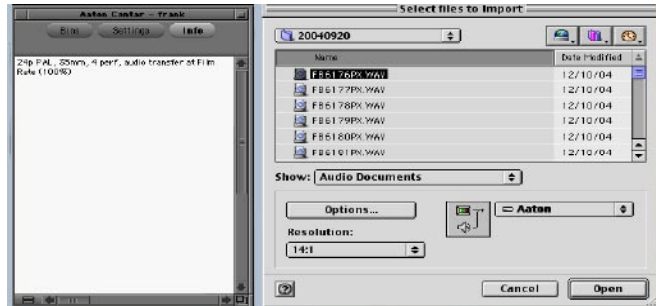


Photo 1

Name	Tracks	Start	End	TapelD	Soundroll	Shoot Date
64A/ 1/1 1	A1-2	10:18:44:04	10:19:12:08	FB6180PX.WAV	FB6180PX.WAV	2004-09-20
64A/ 2/1 1	A1-2	09:55:19:17	09:55:54:22	FB6176PX.WAV	FB6176PX.WAV	2004-09-20
64A/ 2/1 2	A1-2	10:02:55:17	10:03:20:22	FB6177PX.WAV	FB6177PX.WAV	2004-09-20
64A/ 2/1 3	A1-2	10:05:35:01	10:06:10:07	FB6178PX.WAV	FB6178PX.WAV	2004-09-20
64A/ 2/1 4	A1-2	10:09:37:23	10:10:14:12	FB6179PX.WAV	FB6179PX.WAV	2004-09-20

Photo 2

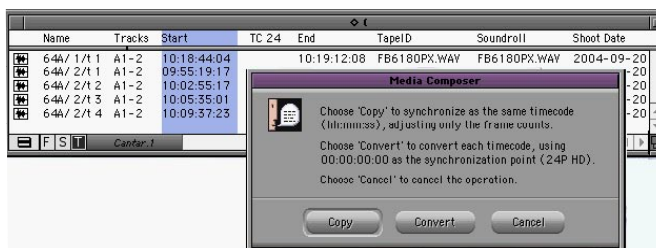


Photo 3

Name	Tracks	Start	TC 24	Sound TC	End	Soundroll	Shoot Date
64A/ 1/1 1	A1-2	10:18:44:04	10:44:31:00	10:19:12:08	10:19:12:08	FB6180PX.WAV	2004-09-20
64A/ 2/1 1	A1-2	09:55:19:17	10:20:08:00	10:20:08:00	09:55:54:22	FB6176PX.WAV	2004-09-20
64A/ 2/1 2	A1-2	10:02:55:17	10:28:03:00	10:28:03:00	10:03:20:22	FB6177PX.WAV	2004-09-20
64A/ 2/1 3	A1-2	10:05:35:01	10:30:49:00	10:30:49:00	10:06:10:07	FB6178PX.WAV	2004-09-20
64A/ 2/1 4	A1-2	10:09:37:23	10:35:02:00	10:35:02:00	10:10:14:12	FB6179PX.WAV	2004-09-20

Photo 4

# Import BWF into Avid v10.6/11/12, Adrenaline, XPress (2 of 3)

## Make a filetag compliant Edl

1. To get a filetag compliant Edl, the TapelD column which carries the Cantar Filetags (first six digits of the file name) must be batch duplicated [Apple•D] and put into the SoundRoll column of the audio bin **BEFORE starting the editing** (Photo 2).

2. When it comes to generate the Edl, open the Avid EDL Manager and select *SoundRoll* instead of *Tape* as the source, and *PalFilm2* (Photo 5).

3. For a film shot at 24fps, select 'Output-24' even if the film has been transferred in 'PalVideo'.

4. The Edl must be CMX 3600 and should contain four audio tracks only and no video.

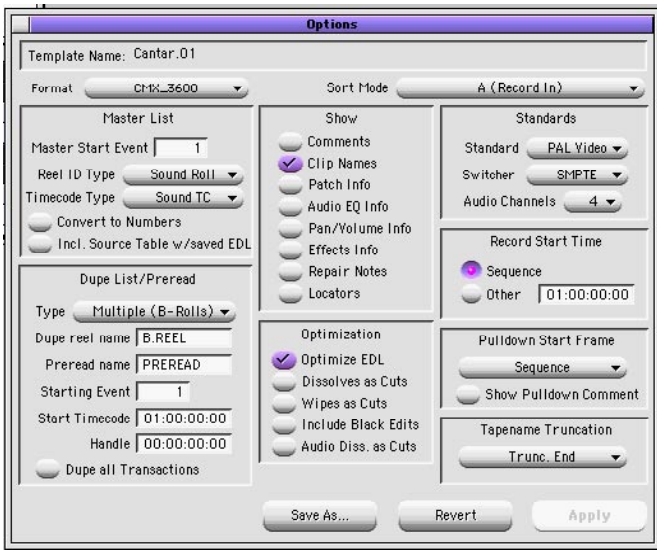


Photo 5

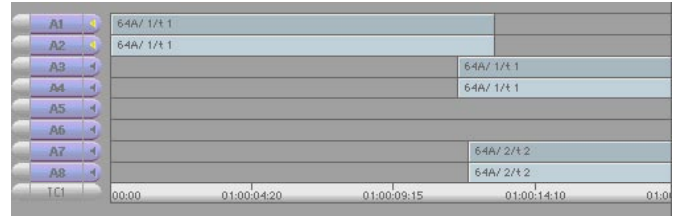


Photo 6

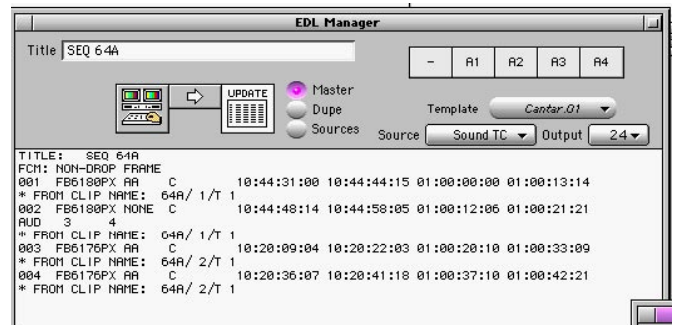


Photo 7

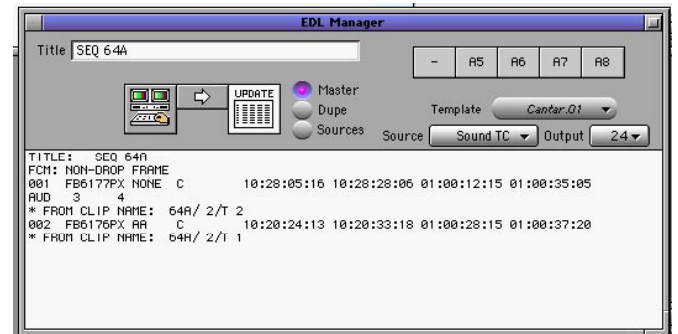


Photo 8

Feb 2006, a Cantarist sent us the following advice:

*It IS still possible to do the conform with Titan even if the TapelD column has not been duplicated into the SoundRoll column before starting the editing, you still can do that AFTER the editing, although a bit more complicated. First you do that Apple-D duplicate thing in the sound bins that contain all the Masterclips. Now, the problem is that the subclips of the edited sequence still do not have the new entry in the SoundRoll column. Therefore you have to open the bin of the edited sequence and tell the Avid to display all the referenced clips in that bin. When you open the bin with the masterclips now, the subclips get updated and contain the needed information in the SoundRoll column. The assistant who did that for me told me that for some reason he has not been able to directly duplicate the TapelD column into the SoundRoll column. So, he created a custom column labeled SoundInfo, duplicated the TapelD into SoundInfo and then he was able to duplicate that new SoundInfo column into the SoundRoll column. The bottom line is that, although all sound mixer using Cantar should inform the cutting room that it is really important to duplicate that TapielD column BEFORE STARTING THE EDITING, it is still possible to conform the tracks months later if this has not been done.*

# Import BWF into Avid v10.6/11/12, Adrenaline, XPress (3 of 3)

## Import de fichiers Monophoniques dans Avid v10.5.3 & 10.6 (Tournage 24Fps/Montage 24Fps).

1. Créer un nouveau Bin (photo1).
2. Importer les fichiers audio .wav Monophoniques 16Bit ou 24bit (les fichiers 24bit seront tronqués à 16bit). (photo1).
3. Synchroniser les pistes ensemble en utilisant la fonction 'Autosync' (photo2).

4. Continuer la procédure en ligne 4 des AVID versions 10.5.3 & 10.6 polyphoniques. [p.8-9]

## Import de fichiers Monophoniques v11, v12, Adrenaline et XPress-Pro (Tournage 24Fps/Montage 24Fps).

Actions 1 à 3 identiques à ci-dessus puis continuer la procédure en ligne 4 des versions v11, v12, Adrenaline et XPress-Pro v4.6 polyphoniques. [p.8-9]

## Monophonic import

The direct copy of *monophonic* files is standard in the NLE world: Lightworks, Protools, Pyramix, Fairlight, etc. But the problem is that Avid NLEs composers need to receive a *polyphonic* file to create the proper links between the tracks of a take during the digitization process. A shortcut have been proposed – such as the one described on this page – but this is another step for the operator to perform. Furthermore this shortcut is hindered by its inability to let the 'matchframe' to an original monophonic track of a group work!

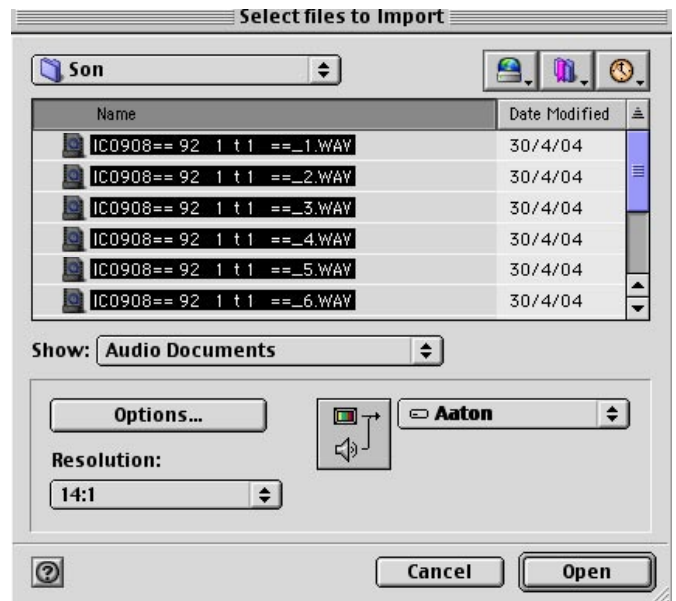


Photo 1

## The two step process

### Import Monophonic files into Avid v10.5.3 & 10.6 (camera 24Fps / editing at 24Fps).

1. Create a new Bin (photo1).
2. Import the 16 or 24bit audio .wav files.

the 24bit files are truncated to 16bit (photo1).

3. Synch the tracks together by using the 'Autosync' function (photo2).
4. Follow up the process from line 4 in v10.5.3 & 10.6. polyphonics instructions. [p8-9]

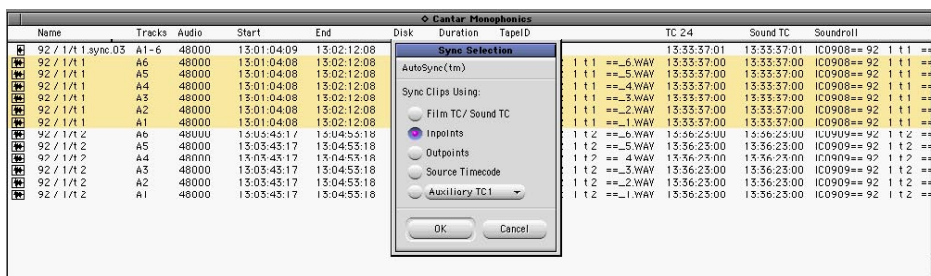


Photo 2

## Import Monophonic files into Avid v11 & v12, Adrenaline and XPress v4.6 (camera 24Fps / editing at 24Fps).

Same 1 to 3 actions as above, then from line 4 in v11, v12, Adrenaline, XPress-Pro v4.6 polyphonic instructions [p.8-9]

# Import BWF into FinalCut w/. SebskyTools

<http://www.dharmafilm.com/>

## FinalCut est sourd au 'bwf'

FinalCut d'Apple ne sait pas lire le 'Broadcast Wave Format' generé par les enregistreurs numériques professionnels!. Il serait inutilisable dans le monde BWF sans le plugin BWF2QT de **SebskyTools** de Peter Reventlow qui écrit pour lui-même ce soft d'extraction du TimeCode BWF.

En important les fichiers Cantar vérifiez que Sebsky indique bien "First 6 characters of File Name" pour être sûr de trouver les filetags AB1234 du Cantar dans les Edls générées par FCP. Pour importer des fichiers monophoniques, mettre "merge BWF tracks = none".

Pour conserver les métadatas des originaux BWF,

cochez l'option 'create FCP Batch List' dans Sebsky, Choisissez 'English' dans le menu local 'batch list' header (il y a bug si vous choisissez 'French'). Avant d'importer cette 'batch list' dans FCP il est nécessaire de passer FCP lui aussi en Anglais. Aller dans 'Applications' faites [pomme +i] sur l'icone FCP puis désélectionner 'French' dans l'onglet 'Langues'.

Lancez FCP et importez la batch list créée par Sebsky, Pour simuler l'autosync d'Avid faire [ctrl] and 'Merge' ; choisir TC.

Le Merge ne fonctionne pas à 24fps à cause de la manière incohérente dont FCP gere le 24i/s en Pal. Pour exporter des EDL, conformez-vous aux captures d'écrans ci-dessous.



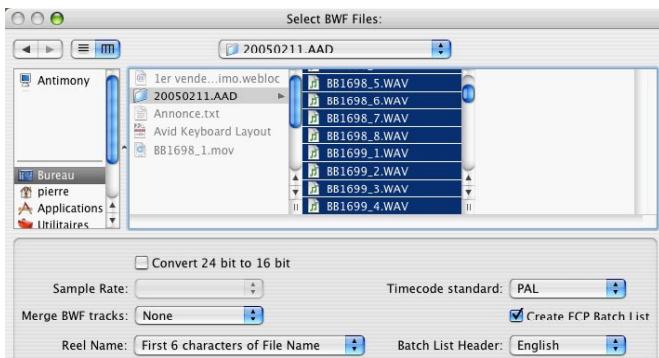
## FCP and 'bwf'

all professional audio recorders record BWF files, but FinalCut can't import their production timecode. It wouldn't be usable in the professional audio world if it was not for Peter Reventlow the

Dane who wrote Sebskytools to extract the timecode for his own usage <http://www.dharmafilm.com/>

Using the BWF2QT plugin you can save the BWF metadata, such as Scene & Take IDs, by checking the box 'Create FCP Batch List'. When importing Cantar files make sure the 'Reel Name' field shows 'First 6 characters of File Name'.

This way you get the AB1234 filetags which will show in the Edls made by FCP for the sound auto-conforming. To import monophonic files, select "merge BWF tracks = none".

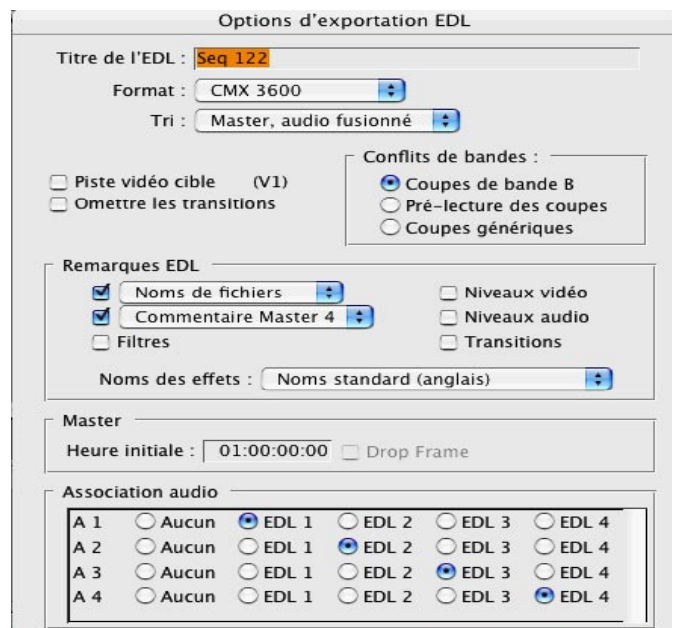


Sebskytools import menu

To sync sounds check 'Merge clips'. To generate Edls, comply to the following screen shots menus. To perform what Avid calls 'Autosync', select the sound and video clips, press [CTRL] and select the 'Merge' function, then merge by TC.

The FCP Merge doesn't work in PAL@24fps because FCP strips out the original 25fps TC given by the telecine and puts a new 24fps TC starting from the first image of each take, incremented from there with a 24 numeration which quickly loses its correlation to the original BWF audio TC....

A new BWF2QT version will be released by the end of February 2006.



Final Cut Edl export menu

# Import BWF into FinalCut and Conform w/. XML-Pro

www.gallery.co.uk/

From the Gallery's leaflet: found at <http://www.gallery.co.uk/>

## Before editing iXML Sound Roll Import

XML-PRO includes a powerful function to batch import iXML compliant BWF audio files. The iXML metadata (including timestamp, roll, scene, take and notes) is translated in to an XML file which imports an entire sound roll in to FCP, in one simple operation.

**Warning: this method works for FCP 4.5, not for FCP 5.02. If you insist on using v5.02 you must import the XML files into FCP 4.5, then save the project, and open this with FCP5 and copy the bins across.**

## After editing XML-Pro leverages FinalCut's excellent XML export capability.

XML-Pro is designed for FinalCutPro workflows for large scale projects such as motion pictures. In such workflows, there is a strong requirement for turnover from picture to sound departments to utilise compositions which reference original source files. FinalCut's own OMF export functionality uses an embedded media technique which does not refer back to original sources, and as such is not suitable for use in these types of workflow. Additionally, there is a strong demand to preserve level automation defined by the picture editor across to audio post production, but this is also omitted from FCP's OMF export.

To address these requirements, XML-Pro leverages FinalCut's excellent XML export capability, and converts this rich export into Pro Tools sessions, or AES-31-3 ADL files.

Both formats are compositions referencing the original sound media imported into Final Cut. Level information is also translated from the XML into both formats. The translation is very quick, efficient and reliable, and yields a composition file

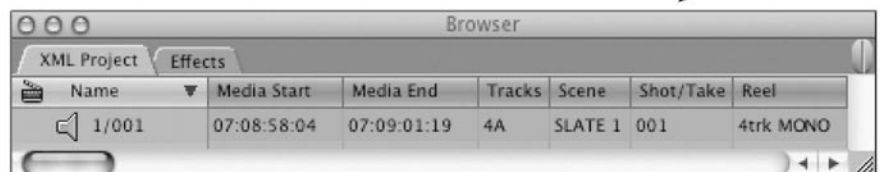
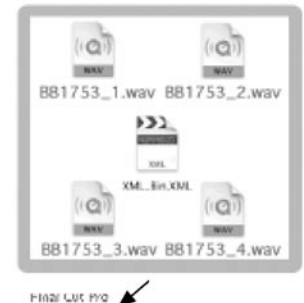
which can be emailed from picture to sound in order to turn over edits (sound department already has the same source media to hand).

This contrasts with an OMF turnover which requires all the audio to be copied and embedded in the OMF, and delivered to post, where any changes cannot be referenced back to earlier copied media. Additionally, OMF files have an upper size limitation of 2GBytes which can easily be hit on a long form project. This 2GByte limit is an additional barrier which is bypassed when using XML-Pro.

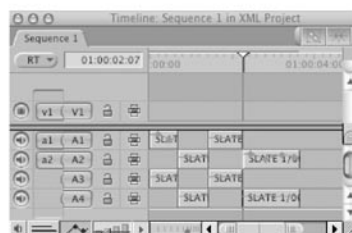
1) BWF Field Recorder \*with Majax  
Delivers mono BWF  
files with iXML Metadata



2) XMLPro translates  
iXML into FCP XML  
and enhances BWF media



3) FCP XML File is imported into Final Cut Pro and clips appear as multichannel masterclip entries grouped together, with timestamp and full metadata, automatically named 'scene/take'



XML\_Test.pts



4) After FCP Editorial, the finished sequence is exported to XML and XMLPro converts this to a Pro Tools session with level automation. This session still directly references the original source BWF files recorded by the iXML recorder.

# Conform BWF w/. Loco->Protools

www.neutronicsolutions.com/loco.php

Loco is a new entry in the audio conforming market, it has been used on a feature film w/. 6000 Cantar recorded clips with great success.

On the other hand some sound editors complain about their inability to use it. As we never tried this software ourselves, if you have a problem please contact its creator: Ultan Henry <ultan@darkmatterdigital.com> The text below is an abstract of the 'Neutronic Solutions' leaflet.

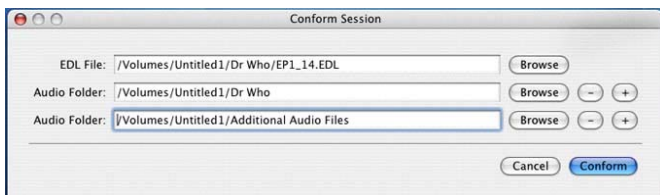
**Under Mac OS-X and Windows XP, 'Location Conforming'** reads all common EDLs formats, it intelligently analyses BWAV metadata from location recorders, and automatically links EDL events to BWAV source files.

- Project loads directly into Protools or other workstations using AAF or AES31.
- Preserves alternate takes.
- Allows use of original 24-bit recordings in post production regardless of the sample rate or bit-depth used during picture editing.

The EDL is used to indicate where audio is needed on a timeline to match the picture. Instead of having to use logging sheets to manually locate the correct piece of audio, Loco automatically searches through one or more folders assigned by the user for BWAV (BWF) files containing suitable audio material.

The selection of suitable audio material is made by searching for files matching various criteria. Most importantly, the software looks a match between the timecode in the file and the EDL. In order to narrow down the search, the software then examines the file's metadata to find files which match the reel number stored in the EDL.

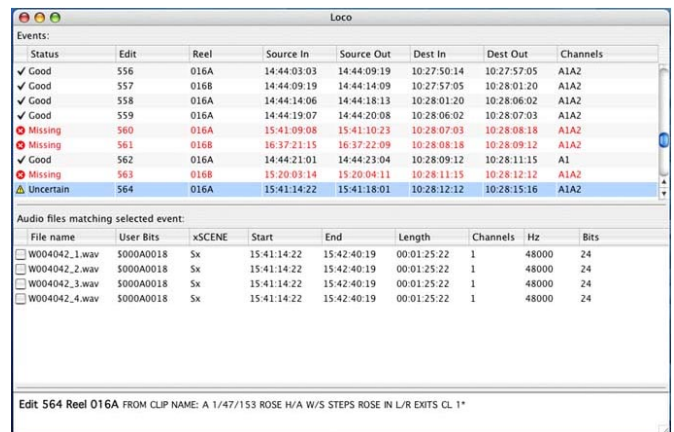
The current generation of location recorders encode reel information in various ways depending on the machine or the recordist's needs. Some allow it to be stored as part of the filename. Others embed this within the file or even encode it into the timecode User Bits recorded with the file's metadata on location.



Loco automatically scans the files and is able to extract this information intelligently without any manual configuration being necessary. If automatic selection of an audio file for an event cannot be made, the software will guide the user through the process of selecting alternate files matching appropriate criteria. As an

example, this could occur if a file was incorrectly labeled on location.

In a matter of seconds, all the audio files are spotted as events across multiple tracks on a timeline. The resulting timeline can then be saved as either an AAF file (for loading directly into Protools) or an AES31 ADL file for loading into other workstations.



To conform a session, the user is first asked to select an EDL file and one or more folders containing the BWAV files to be conformed. The software will scan through nested folders to find audio files to conform.

After pressing **Conform**, the software will analyze the audio files to find suitable media to match the events in the EDL. The following screen is then shown which lists all the events in the EDL. By selecting an event, the screen will also show details of the event and audio files that could be assigned to it.

If audio files exist with suitable metadata to match an event in the EDL, this event will be labeled as 'Good' and will automatically be included in the output of the conform. For some events, the software may only be able to find a partial match between the metadata in an audio file and an event.

As an example, this could occur if the timecode information is matched but the Reel/Scene do not match. These events will be labeled as 'Uncertain'. The user is presented with a list of the audio files that partially match the event so that these can also be included in the conformed output if required. There may also be events in the EDL for which no audio exists (for example, where audio has not yet been recorded). These will be labeled as 'Missing'.

## Titan-3

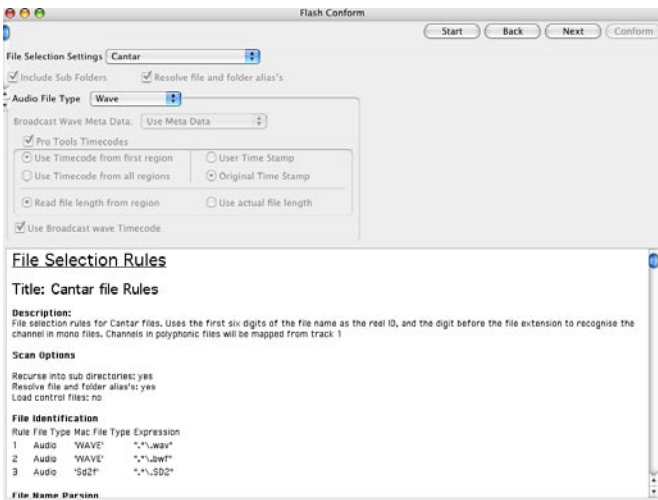
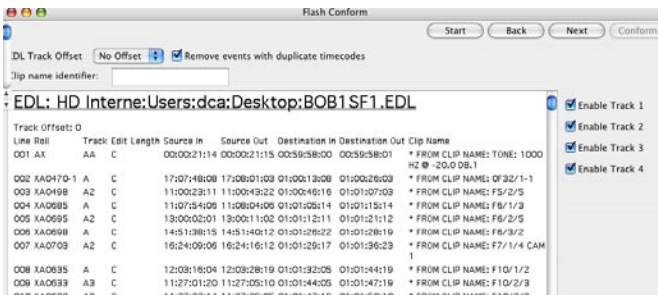
Contrary to a false gossip, Titan3 does generate sample accurate sounds, provided the **FixSync** process is performed right after the EDL driven Flash conform.

**Flash Conform** (on screen instructions below)

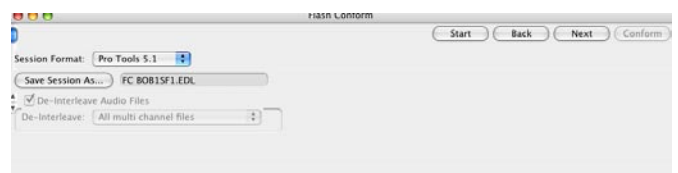
**Fix Sync** ensures a perfectly sample accurate resync of the audio samples by using the two track 16bit OMF export out of the Avid. The Protools adds 8 bits to make 24bit files from the received 16bit files.

The Titan-3 application runs on Mac OS-X only. It must feature the CantarRule found on <http://www.synchroarts.com/beta/Cantar.tsc> Select **SaveAs** and put it into the ScanControl folder which is the Titan directory; Cantar-R appears in the file selection rules.

**CantarRule** looks at the first 6 digits of the file names (filetags) and the first 6 digits of the SoundRoll name in the Edl; then it looks for the number preceding the .wav which identifies the channel.

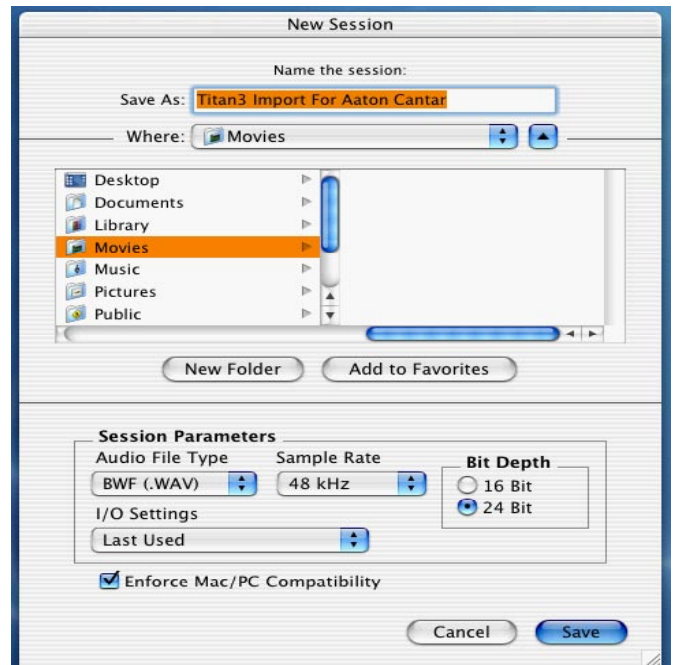


For multi channel files the track will default to 1 if no track number is found. The CantarRule also handles the identifiers which replace the ( ) separator on linked pairs: MS (-), XY (+), and mixdown (#).



## Protools

While importing Cantar files, and moving the audio files from the input bin to the timeline, switch to 'spot mode', a menu opens, select 'go to original time stamps'. That is the way to get the CantarTC stored in the BWF files.



# Conform BWF w/. Pyramix

## Relink original sounds using OMF (24 or 16 bit)

Preliminary notice:

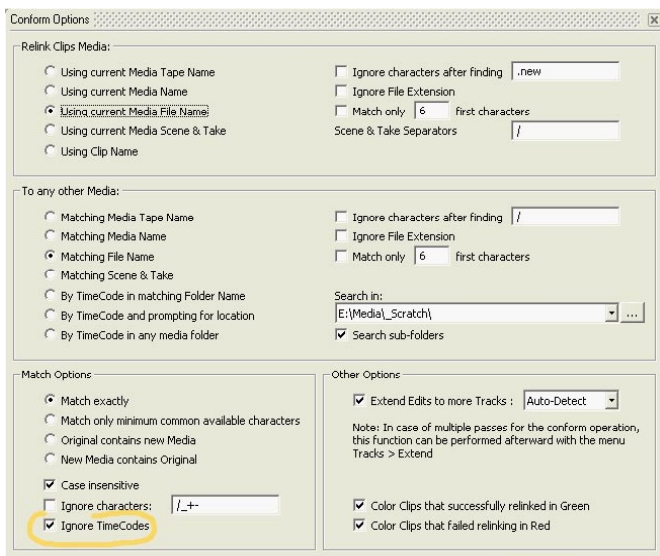
24bit sound files can be imported in all Avid NLEs but only Adrenaline and Avid Xpress Pro v4.6 handles them in the 24bit world. Other Avid machines truncate them to 16bit. This is not a problem provided the 24 bit original files are autoconformed to the truncated ones as explained below.

The Pyramix *Virtual Studio v4.3 & up* offers **ReConform** a feature that Protools does not yet have for auto-conforming originals files to the edited tracks. Even if you export a 16bit OMF from an Avid v7 or from a Meridien version 11, you can apply all the sound editing effects made on the Avid, including level tuning, to the 24bit originals. If **ReConform** can't find a sound in the originals, e.g. music or wild sounds coming from another source than Cantar, it imports them under their 16 bit state from the OMF and mixes them to the 24 bit Cantar location sounds.

**ReConform**, including 'Re-link To New Media' allows a complex editing imported from a Video editing station referencing 16 bits stereo files to properly re-link 24 bits multi-channel original location recording files.

The ability to re-link sessions transferred to Pyramix not only through EDL but also through OMF or AAF definitely solves sync issues that are common with CMX EDLs. All edits are seamlessly extended to whatever number of tracks the original media was recorded to.

**Thanks to ReConform, exporting EDLs no longer makes sense!**



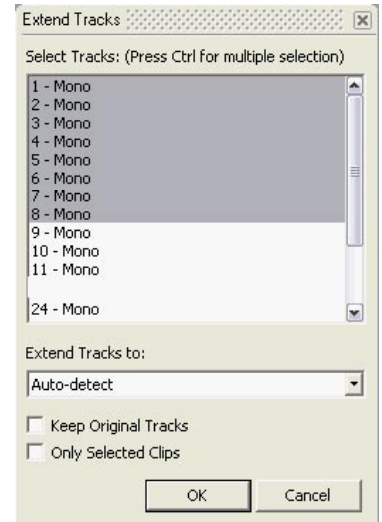
Pyramix Re-conform screen

### Instructions:

1. 'Mount' the folders in which the monophonic 24bit Cantar original audio files are stored.

**Warning :** *be sure your sound files are directly accessible to the host computer (leaving them on an external Firewire connected disc enduces conformation abortion).*

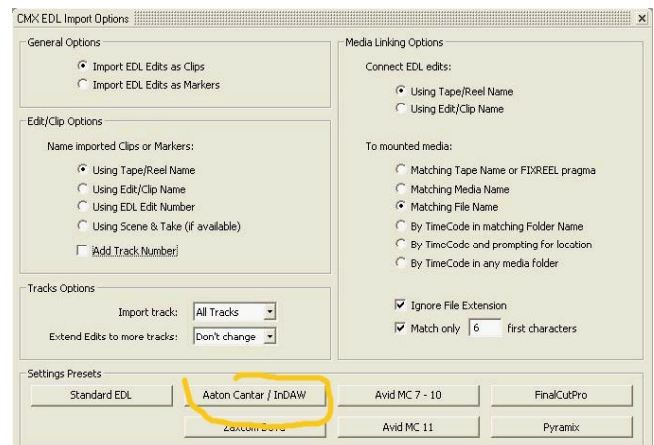
2. Import the Avid OMF (or EDL) : go to **Project**, select **Import**, select OMF and activate the options as shown on the screenshots. We nevertheless show the EDL conform screen shot opposite page for those who don't have the Pyramix v4.3 and later softwares.



The menu **Tracks>Extend Tracks**, extends the clips over the original tracks.

### Former Pyramix softwares

Here below is the EDL conform screen-shot for those who don't have the Pyramix v4.3 and later softwares.



Pyramix pre-v4.3 version