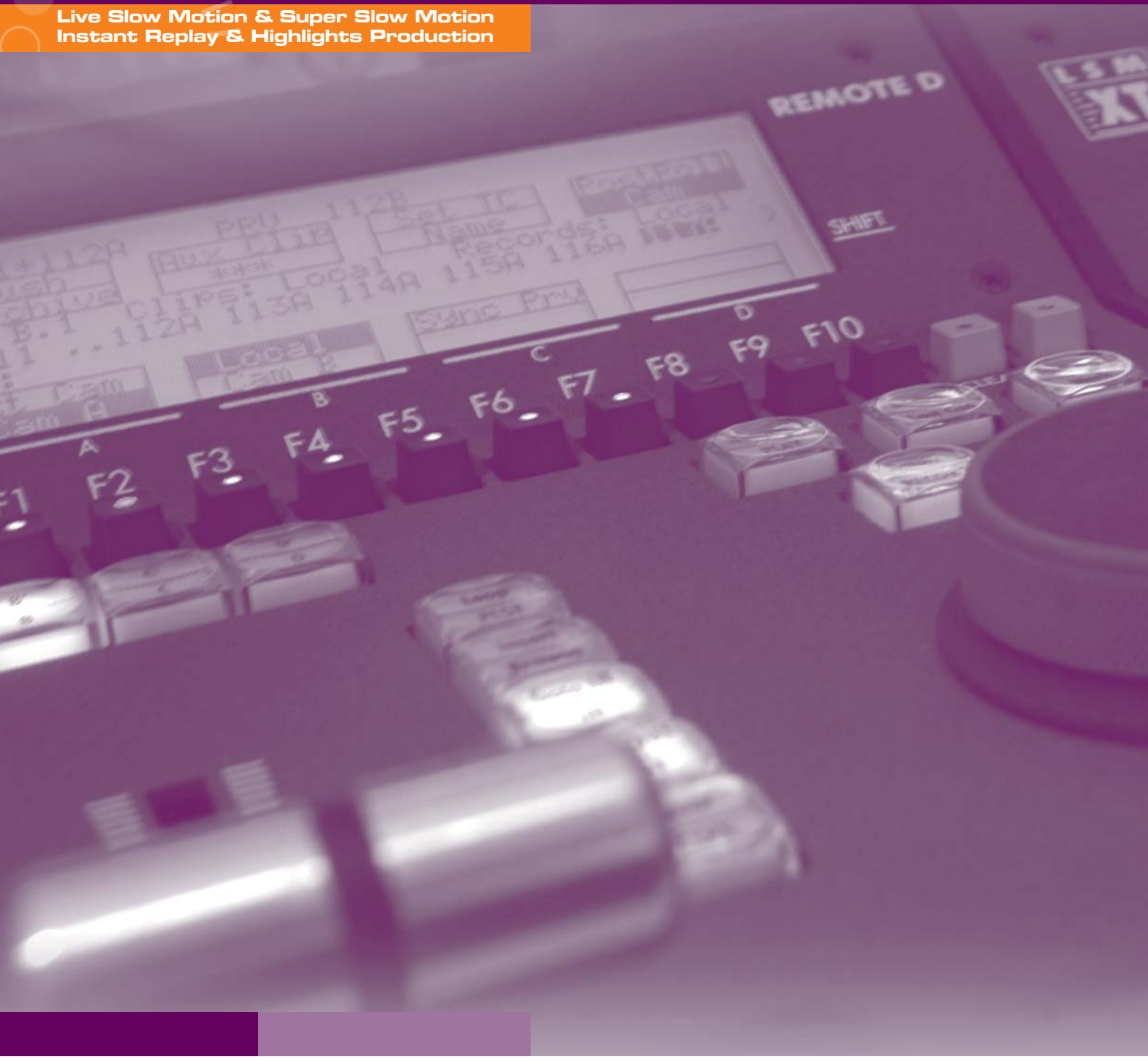
Multicam (LSM) ReplayOnly (LSM)

User's Manual - Version 9.00 - March 2008

Live Slow Motion & Super Slow Motion
Instant Replay & Highlights Production



EVS

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IMPROVEMENT REQUESTS

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.tv.

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Overview

The aim of this manual is to familiarize the operator with the Multicam software for EVS High Definition and Standard Definition XT[2], and its Remote panel, so as to learn as quickly and efficiently as possible the basic operations.

The CLIP & playlist MANAGEMENT functions allow the operator to keep up to 4000 clips on disks and of course to replay all or some of them. A playlist consists of a list of clips (90 playlists can be defined) with video and audio transitions.

The XNet option networks XT[2] systems into a fully integrated production environment. Any clip, recorded by any XT[2] on the network is available instantly for editing and/or play-out to any other operator.

The SPLITSCREEN (horizontal, vertical or mix) option displays simultaneously two synchronized actions side by side on the main program output.

The PAINT option (Telestrator) draws and applies keying on the recorded pictures. Sport actions can be analyzed using different coloured circles, arrows and lines.

The TARGET TRACK option follows a target with a highlighted circle, box or ellipse, and can zoom in the selected portion of the recorded pictures.

1. Application Selection

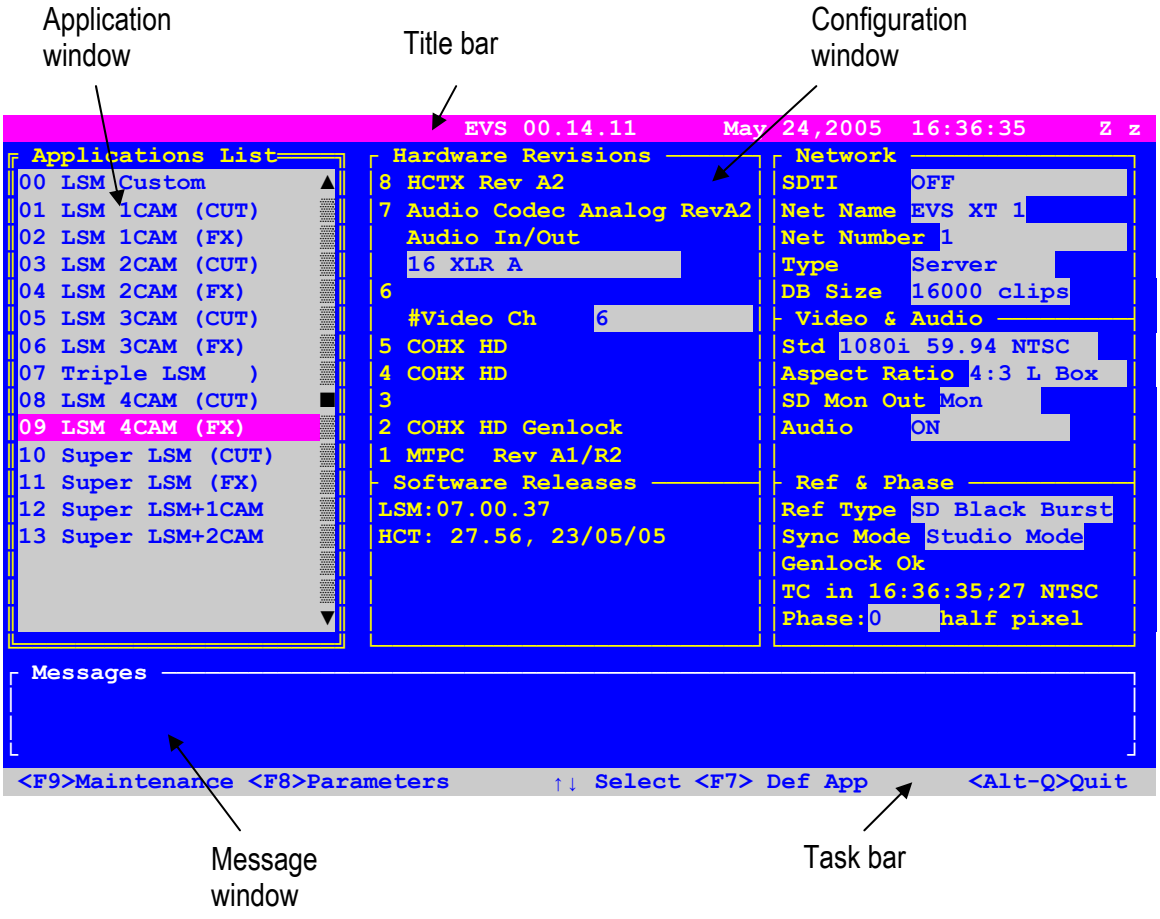
The EVS software is used for configuration and maintenance operations. It is also used to select which application configuration to run, since EVS disk recorders have the ability to run various standard and customized configurations. (LSM 1 CAM, LSM 2 CAM, LSM 3 CAM, LSM 4CAM, TRIPLE LSM, SLSM, SLSM+1CAM, etc.)

When turning on the EVS mainframe, the first step is the PC boot sequence, and then the EVS software is started.

If a default application has been previously selected, this application will start automatically after a few seconds if no key is hit.

If a default application hasn't been defined or if the space bar is hit, the system will remain in the EVS main menu and wait for the operator's next command.

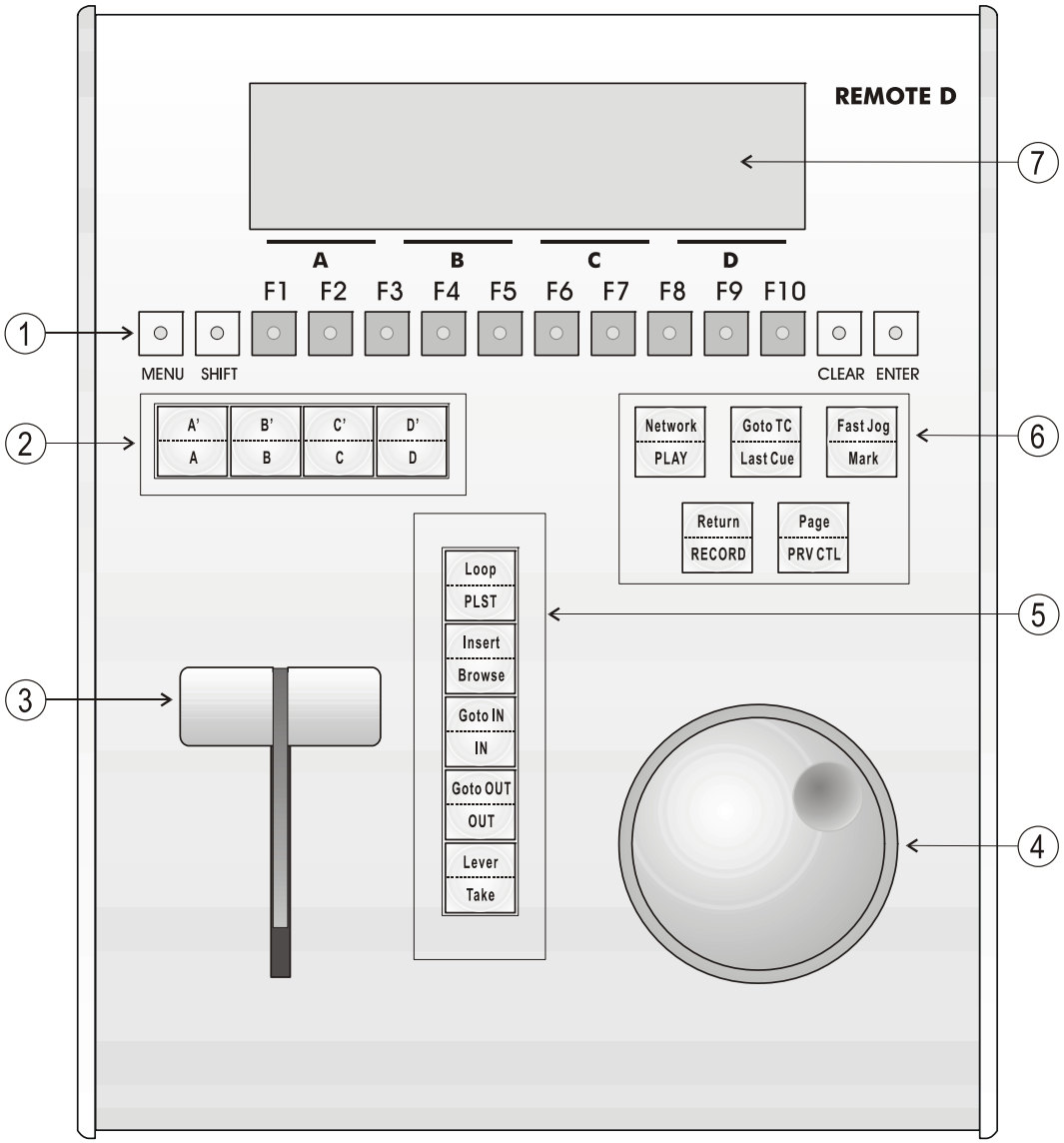
Please refer to the Software Technical Reference manual for complete information regarding the EVS Menu.



2. Remote Controller

2.1 GENERAL LAYOUT

The following diagram shows the Remote panel along with a brief description of each area.



Note

The operational buttons have PRIMARY and SECONDARY functions and are divided into upper and lower sections. By pressing the SHIFT button you gain access to the secondary functions.

1.	**F-keys & small buttons**	Multi-purpose keys
2.	**Soft keys**	With LCD display, allows the operator to enter the Multicam MENU system
3.	**Lever**	Initiates slow motion and playlist replay
4.	**Jog dial**	Used to accurately cue disk recorder
5.	**Operational block 1**	

PLST	Initiates active playlist
LOOP	This option records the main output (PGM1) to the first input (CAM A) of Multicam.
BROWSE	Used to browse through clips, playlists, cue points
INSERT	Used in playlist management to insert clips into a playlist
IN	Sets Mark IN at the current position
GOTO IN	Goes to the defined Mark IN
OUT	Sets Mark OUT at the current position
GOTO OUT	Goes to the defined Mark OUT
TAKE	In PGM+PRV mode, pressing this button swaps cameras on PGM and PRV monitors In Multi-PGM mode, pressing this button toggles between CAM selection and PGM selection modes. In Playlist Edit mode, pressing this button inserts the clip loaded on the PRV channel into current playlist.
LEVER	Changes the lever range to secondary mode (see setup menu for range selection)

6.	**Operational Block 2**	

PLAY	Initiates playback
NETWORK	Enters the XNet menu. (connect to other servers on the network)
LAST CUE	Re-cues machine to previous cue point
GOTO TC	Allows time code entry, with «F» keys
FAST JOG	Used with jog dial for rapid, manual re-cue. This mode is automatically reset after PLAY/LIVE commands.
MARK	Used to enter re-usable cue point (256 cycling cues).
RECORD	Initiates “E2E” mode

RETURN	Inside a clip, allows the operator to return to the same picture inside the record train, if it still exists.
PRV CTL	Enables/disables the Preview Control mode.
PAGE	Selects current clip page, from 1 to 10.

7. LCD Display Provides current status of system

2.2 LED COLOURS

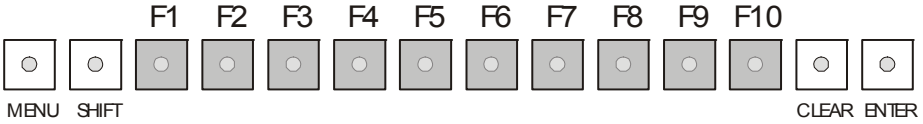
A selected key lights red.

When a key lights green, it means a value in relation with this key exists.

For example: **F1** to **F0** keys

- Green light means a clip has been stored in relation with the key.
- Green flashing light means a clip is being created.
- Red light means the clip associated to the key is playing or is ready to play.
- Red flashing light means a clip is being deleted (in network mode)

2.3 F-KEYS & SMALL BUTTONS

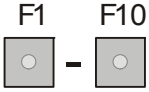


This button provides access to the Secondary Menu. Also used as **CANCEL** in some messages when confirmation is required.

Note: SHIFT + **MENU** returns to Main menu

Enables use of the secondary key functions.

Note: This key remains active even if released, until another key has been hit.



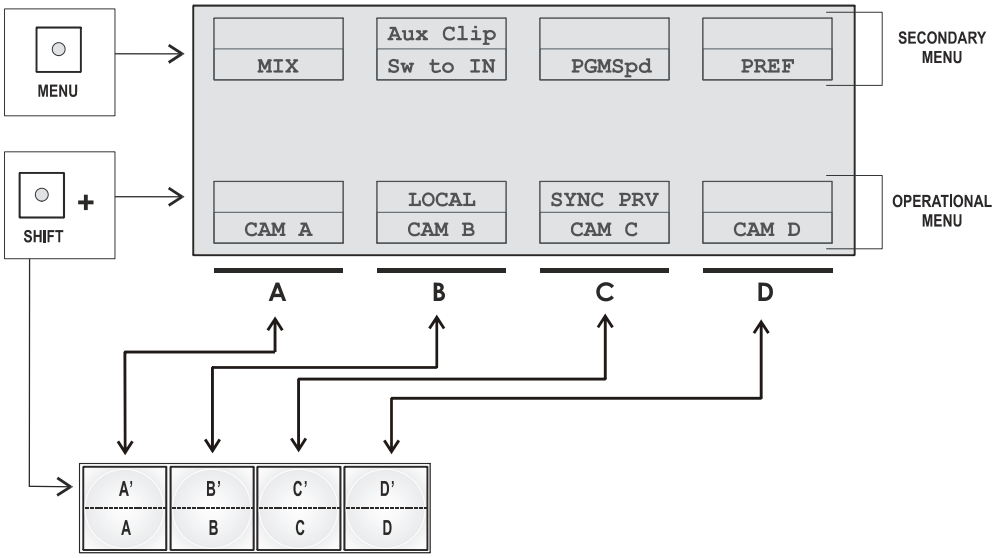
Stores or recalls clips, recall playlists and enter time code information.

Is a multi-purpose key used to clear clips or playlists, and to clear IN/OUT points.

Is used to append clips at the end of the current playlist, and to validate other options and messages.

2.4 SOFT KEYS

The soft keys have PRIMARY and SECONDARY functions and are divided into upper and lower sections.



The LCD display is divided in two menus.

- To access the secondary functions in the operational menu (**A'** to **D'**), press the **SHIFT** button.
- To access the secondary menu, press **MENU** from the remote controller. The secondary menu is used to define settings that do not require regular changes, without having to return to the Setup menu.
- To return to the operational menu, press the **MENU** key again.
- To return to the Main menu in Multicam, press **SHIFT** + **MENU**.

2.5 TRANSPORT CONTROLS

2.5.1 JOG DIAL

The JOG DIAL  allows the operator to pass into Search mode and thus to choose exactly the Short OUT or Short IN image. Move the jog dial clockwise to search forward and move it counter-clockwise to search backwards. One revolution of the jog dial will produce a jump of approximately 35 frames. This number can be multiplied by enabling the Fast mode. The multiplication factor is defined in the Setup menu.

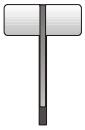
Note

The jog dial is also used:

- to set parameters in the Setup menu.
  Refer to the Setup menu section for more information.
- to browse inside the clips database, the cue points or the current playlist.
  Refer to the explanation of the BROWSE function for more details.

The jog dial is active at all times when the system is in Play & Record modes.

2.5.2 LEVER



The LEVER is used to start a play or to modify slow motion speed. Its run can be of two different types regarding the lever mode.

Normal run

In this mode, the lever run goes from 0 up to 100%.

Second range

Different ranges are available to play material from –400% to 400% (see Setup menu - page 6.1 - F5 for selection).

To gain access to this second speed range, press **SHIFT** + **LEVER** from the remote controller.

Note

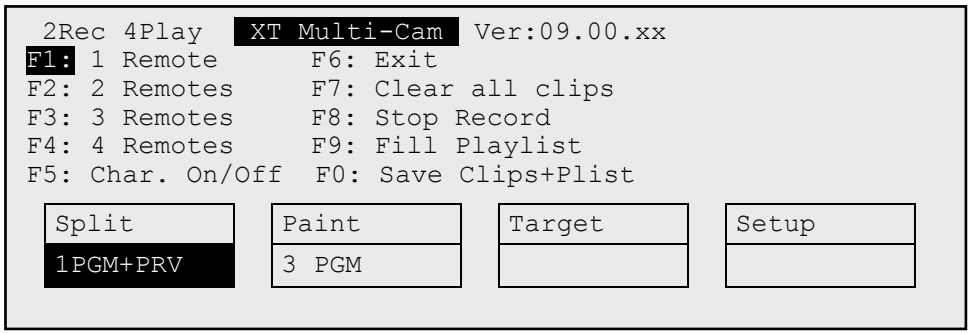
When SD SUPER MOTION material is loaded on the primary channel, the lever range as a larger, flat step at 33%.

With HD SUPER MOTION, the step is at 33% or 50% depending on the camera.

The lever is also used to adjust speed, and effects type and duration in Playlist Edit mode.

3. Main Menu

After the boot sequence of the Multicam system, the LCD screen of the Remote Control panel will display the Main menu:



Note

If 2 channels are available for the 1st Remote, the B key will display **2 PGM**. If 3 channels are available, the B key will display **3 PGM**.

The Main menu has special function key operations as shown above, as well as the "soft" keys options to enter 1PGM, 1PGM+PRV, 2PGM, or 3PGM modes (if available) and to enter the Setup menu to configure your remote controller or to add special functions to your application.

How to Return to the Main Menu

From any section of the application, except Playlist mode, press **SHIFT + MENU** on the first Remote Control panel to return to the Main menu.

Function Keys in the Main Menu

Select the corresponding Function key (**F_** key), and then press **ENTER** to validate the selection.

Function Key	Use
F1 to F4	If desired, the Multicam system can be run using 1, 2, 3 or 4 EVS Remote panels. Depending on the number of play channels available in the current configuration, 1-, 2-, 3- or 4- Remote modes will be available from the Main menu.
F1: 1 Remote	One Remote panel is used in the configuration
F2: 2 Remotes	Two Remote panels are used in the configuration. If 4 play channels are available, when selecting the 2 Remotes mode, the operator can chose between 2

Function Key	Use
	configurations: • **2 play channels for each remote**: In this configuration, each Remote panel can select PGM+PRV or 2PGM mode. Each Remote panel can manage video transitions (cut, dissolve, wipe) in PGM+PRV and playlist modes. • **3 play channels for the 1st remote and 1 play channel for the second remote.** In this configuration, the 1st remote can select PGM+PRV or 3PGM mode and can manage video transitions. The 2nd remote is forced to 1PGM mode and can only handle cut transitions.
F3: 3 Remotes	Three Remote panels are used in the configuration.
F4: 4 Remotes	Four Remote panels are used in the configuration.
F5: Char. On/Off	Enables or disables the on-screen display (Time code, Clip ID,...) on the output monitors.
F6: Exit	Exits the Multicam software and returns to the EVS Menu.
F7: Clear all clips	Clears all clips. All clips will be lost. A confirmation of this command is required. For more information to this action, refer to the section 11.2.12 “How to Clear all Non Protected Clips”, on page 92. **Note:** This command is not similar to the **Clear Video Disks** from the Maintenance menu. If you wish to refresh completely the server, i.e. to clear all clips including the protected ones, you need to use **Clear Video Disks** rather than **Clear all clips**.
F8: Stop Record	Stops the record. The **REC** key will go off and the **F8** function key is now used to restart the record.
F9: Fill Playlist	«Dump» feature which allows all clips to be «dumped» at the end of the current playlist. This allows the operator to save all material to tape, as a backup feature after a show is complete. You can select in the Setup menu which camera angles have to be included in the Fill Play-List function. If your clips are currently connected to another XT[2] server on the network, the clips from that server will be added to your current playlist. *Make sure the playlist you have selected is an empty one. This function will append the clips at the end of an existing playlist.*

Important

In order to guarantee the validity of data and clips previously saved, it is advised to properly exit the application by pressing **ALT+ Q** and **ENTER** from the keyboard, or **F6** and then **ENTER** from the Remote panel. **DO NOT TURN OFF THE SYSTEM WHILE THE APPLICATION IS RUNNING.**

4. Setup Menu

Important

Prior to using Multicam, the operator should enter the Setup menu and set all necessary parameters. If clips are stored with certain parameters and the operator wishes to change them afterwards, those clips and playlists will not change. It is thus important to set these parameters first.

The Setup menu allows the operator to define parameters regarding some functions. The new parameters are saved as soon as they are modified.

4.1 HOW TO ACCESS THE SETUP MENU

To access the Setup menu, proceed as follows:

1. If you are in Playlist mode, press **RECORD** first to exit this mode.
2. Press **SHIFT** + **MENU** key to go to the Main menu:

Split	Paint	Target	Setup
1PGM+PRV	2/3 PGM		

3. Select **Setup** by pressing **SHIFT** + **D** to enter the Setup menu.

   The Setup menu is divided in sections (clips, playlists, special effects, audio, control, GPI, etc.) When entering the setup, a menu presents these sections.
4. To access a section, press the corresponding **F_** key.

4.2 HOW TO NAVIGATE IN THE SETUP MENU

The navigation within the Setup menu follows the following principles:

- To move to the previous/next page inside a section, use **F9** and **F10**.
- To more directly to another section when you are inside a section, press **SHIFT** + **F_** key corresponding to the section to access.
- To move from a section to the next one, press **F10** when you reach the last page of a section. You will access the first page of the next section. By starting on the first page and pressing **F10**, the operator goes

through all pages: p.1.1 → p.2.1 → p.2.2 →...

- To move from a section to the former one, press **F9** when you reach the first page of a section. You will access the last page of the previous section.

- To leave a section and go back to the main page of the Setup menu (see screenshot below), press the **MENU** key.

```
LSM Setup Menu          Main page
[F1]OSD Settings    [F6]EVS Controller
[F2]Record Trains   [F7]RS422 Control
[F3]Clips           [F8]GPI
[F4]Playlist        [F9]Special Effects
[F5]Audio       Clr+[F0]Restore Defaults

[Menu]Quit   [Clr+F_]Default   [F0]PgDn
```

- To exit the Setup menu when you are in the main page of the Setup menu, press the **MENU** key.

4.3 HOW TO SELECT AND TO MODIFY PARAMETERS

To modify the parameters, you can proceed as follows for most of the parameters:

1. Go to the desired page as explained in the Section 4.2.
2. Select the parameter to be modified by pressing the corresponding **F_** key.
3. Make adjustment by rotating the jog dial.
4. Press the corresponding **F_** key again to validate the modification.
5. Press **MENU** to return to the main page of the Setup menu.

4.4 HOW TO RESET THE DEFAULT VALUES

To restore the default value of a parameter in the Setup menu, proceed as follows:

1. Go to the desired page as explained in the Section 4.2.
2. Press **CLEAR** and the **F_** key that corresponds to the parameter on which to restore the default values. Confirm the action.

To restore the default values on the entire Setup menu, press **CLEAR** + **F0** and confirm the action.

4.5 OSD SETTINGS

```
OSD Settings            p.1.1
[F1]Genlock Error Msg:  Yes
[F2]Disk Error Msg :    Yes
[F3]Network Error Msg:  Yes
[F4]Cue number on OSD:  Yes
[F5]Keyword info  :     No

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.5.1 GENLOCK ERROR MSG

Possible values: Yes (default) / No

This function enables or disables the Genlock information on the output monitor. If Genlock reference is not correct, the !GkV message appears on the output monitor.

4.5.2 DISK ERROR MSG

Possible values: Yes (default) / No

This function displays an error message (!Dsk) on the output monitor when a disk is faulty.

Note

The XT[2] is equipped with a RAID disk array. This means that the operation can continue seamlessly even with 1 faulty disk. If 1 disk is disconnected during operation, the "!Dsk" message appears on all output monitors, and another message appears when the operator shuts down the application, to invite him to replace the disk and rebuild the RAID array.

Refer to the Technical Reference manual for details on the RAID system and its maintenance.

4.5.3 NETWORK ERROR MSG

Possible values: Yes (default) / No

This function displays an error message (!Net) on the output monitor when the network connection is faulty and another message (→Net) when the network becomes available again and the system is trying to re-connect.

4.5.4 CUE NUMBER ON OSD

Possible values: Yes (default) / No

When set to “Yes”, the cue number is displayed on the OSD of the output monitors when a cue point is recalled inside a record train.

4.5.5 KEYWORD INFO

Possible values: No (default) / Yes

Up to 3 keywords and a ranking can be assigned to every clip. When the **Keyword Info** parameter is set to “Yes”, these keywords and ranking appears on the OSD of the output monitors when the clip is loaded on its Short IN point. As soon as the operator starts jogging into the clip or initiates a playback, this information is removed from the OSD so that the video content is clearly visible.

4.6 RECORD TRAIN SETTINGS

```
Record Trains                    p.2.1
[F1]Auto make clip for cam A  : Yes
[F2]Auto make clip for cam B  : Yes
[F3]Auto make clip for cam C  : Yes
[F4]Auto make clip for cam D  : Yes
[F5]Auto make clip for cam E  : Yes
[F6]Resync to TC ref
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.6.1 AUTO MAKE CLIP FOR CAM A

Possible values: Yes (default) / No

This function selects the automatic camera creation. When creating clips, the clip corresponding to the camera on which IN/OUT points have been marked are always saved. It is possible to save automatically the same action on the other cameras.

4.6.2 AUTO MAKE CLIP FOR CAM B

Possible values: Yes (default) / No

Make clip on CAM B even if no IN or OUT point has been marked on this one.

4.6.3 AUTO MAKE CLIP FOR CAM C

Possible values: Yes (default) / No

Make clip on CAM C even if no IN or OUT point has been marked on this one.

4.6.4 AUTO MAKE CLIP FOR CAM D

Possible values: Yes (default) / No

Make clip on CAM D even if no IN or OUT point has been marked on this one.

4.6.5 AUTO MAKE CLIP FOR CAM E

Possible values: Yes (default) / No

Make clip on CAM E even if no IN or OUT point has been marked on this one.

4.6.6 RESYNC TO TC REF

The Multicam application uses an internal table to reference all time code discontinuities detected on the LTC input of the system. This table is used to match a recorded field to its time code. When the number of TC discontinuities is too important, a "!TC" warning appears on the OSD of the output monitors and the system switches to the "internal time code mode. The operator can clear the TC discontinuities by calling the **Resync to TC ref** function. This function synchronizes the internal TC to the time code read on the LTC input of the server. From that moment on, the system will assume that the time code was continuous for previously recorded material, and will take into account the new time code discontinuities.

Note that the above explanation is only valid for record trains. For clips, the time code of the first field of the clip is memorized at the creation of the clip, and the time code is always assumed continuous inside the clip. Clearing the internal TC table will consequently have no effect on the time code of recorded clips.

To call the **Resync to TC ref** function, simply press the **F6** key. The function is immediately performed and the message "TC resynchronization done" is displayed.

```
Record Trains                 p.2.2
[F1]Guardbands              : 05s00fr
[F2]Default clip duration   : 04s00fr
[F3]Mark cue points         : Live
[F4]Preroll                 : 02s00fr
[F5]Record trains OUTs      : Play Through
[F6]Freeze on cue points    : No
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.6.7 GUARDBANDS

Range: from 00s00fr to 60s00fr. Default: 05s00fr

This option specifies the amount of «guardband» before and after clips.

Note

A clip is created immediately when the operator saves it by pressing the **F_** key on the Remote, and is thus limited by the amount of material recorded at that time. This might create a shorter guardband than indicated in the setup, if the material recorded beyond the OUT point is shorter than the default guardband duration.

The only exception is the creation of a clip by marking an IN point but no OUT point. In this case, the clip has a duration defined by the **Default Clip Duration** parameter of the setup, and the guardband beyond the OUT point has the duration defined by the **Guardband** parameter. If the material recorded when the operator presses the **F_** key to save the clip using this technique is not long enough, the **F_** key will blink an the clip will not be available until the required duration, including the guardband, is recorded.

4.6.8 DEFAULT CLIP DURATION

Possible values: Disable, or 00s01fr to 30s00fr. Default: 04s00fr

This option allows setting the duration of clips created with only IN point or only OUT point. When set to “Disable”, both IN and OUT points are required to be able to create a clip.

4.6.9 MARK CUE POINTS

Possible values: Live (default) / Playback

Live: memorizes cue points based on the time code of the LIVE input. **Playback:** memorizes cue points based on the time code of the field loaded on the main play channel.

4.6.10 PRE-ROLL

Range: from 0s01fr to 5s00fr. Default: 0s05fr

Pre-roll duration used when recalling a cue point.

4.6.11 RECORD TRAIN OUTS

Possible values: Play through (default) / Freeze

When this parameter is set to “Freeze”, and an OUT point is marked in a record train, Multicam will countdown to the OUT point and automatically freeze on that picture (if the Post-Roll mode is disabled) or on that picture + the Post-Roll duration (if the Post-Roll mode is enabled) when replaying that section.

When the parameter is set to “Play through”, Multicam will still countdown to the OUT point, but will keep playing through this point. In a clip, Multicam always freezes on the OUT point (or OUT point + Post-Roll duration when Post-Roll mode is enabled).

4.6.12 FREEZE ON CUE POINTS

Possible values: No (default) / Yes

The purpose of this functionality is to allow marking cue points on any field of a record train and freeze on the cue point when the playback reaches it. This is similar to the freeze on OUT point functionality but because it will be done on cue point, you will be able to freeze on any field (impossible with OUT points).

When playing record trains where cue points have been marked, the playout freezes on the cue point if the parameter is set to “Yes”. It plays through if the parameter is set to “No”.

The Post-Roll parameter is not taken into account for this functionality.

```
Record Trains                p.2.3
[F1]Internal Loop Mode    : Video+Audio
[F2]Make Clip rem. Trains : Ctrled Cams



[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.6.13 INTERNAL LOOP MODE

Possible values: Video + Audio (default) / Video only

This parameter defines which components of PGM1 output must be recorded back into the server when the Loop mode is engaged.

- **Video + Audio:** Both video and audio signals of PGM1 are recorded back into CAM A input.
- **Video only:** Only the video signal of PGM1 is recorded back into CAM A input. This allows the operator to continue the record of live audio tracks during the Loop process. This can be useful to add music, voice or live sound to an edit for example.

Note

In audio embedded, the audio is always looped, whether the loop mode is set to video + audio or video only.

4.6.14 MAKE CLIP REM. TRAINS

Possible values: Ctrled Cams (default) / All cams

This parameter allows clipping all cameras of a remote server if at least one record train of that server is controlled.

4.7 CLIPS SETTINGS

```
Clips                      p.3.1
[F1]Protect pages        : 1 2 3 4 5 6 7 8 9 10
[F2]Confirm delete clips : No
[F3]Auto name clips      : Disable
[F4]Clip Post-Roll       : 02s00fr
[F5]Call channel VGA     : Disable
[F6]Clip edit by network : Disable
[Menu]Quit  [Clr+F_]Dft  [F9]PgUp  [F0]PgDn
```

4.7.1 PROTECT PAGE

Possible values: No (default), or select one or more clip pages from 1 to 10

This function allows users to protect clips stored on selected pages from accidental deletion. These clips are also protected when using the **Clear All Clips** function from the main menu of the Remote panel.

Note

When doing a "Clear All Clips" from the main menu of the Remote panel, protected clips will not be deleted. When doing a "Clear Video Disks" from EVS Maintenance menu, all clips are deleted, including protected ones!

Note

The OSD will display a key icon next to the clip number when the clip is protected.

HOW TO PROTECT CLIPS ON SELECTED PAGES

To protect clips on selected pages, proceed as follows:

1. In the 1st page of Clip settings, press the **F1** key to edit this setting.
2. Press the **F_** key corresponding to the page number you want to protect/unprotect.

   Protected pages will be highlighted on the LCD and the corresponding **F_** key lights red. **F_** keys of unprotected pages light green.
3. Press **ENTER** to validate your selection.

The LCD display indicates the progress of the status update for the selected pages. This might take several seconds, depending on the number of clips in the pages that must be updated. In the above example, pages 3, 5 and 6 are protected.

4.7.2 CONFIRM DELETE CLIP

Possible values: No (default) / Yes

No: clips are deleted immediately

Yes: a confirmation is required when deleting clips, either from the Remote or from the keyboard.

Note

This parameter does not apply to the **Clear All Clips** command (Main menu) which already has its own confirmation message.

4.7.3 AUTO NAME CLIPS

Possible values: Disabled (default) / TC IN / CAM Name / ID Louth / VAR ID

If this function is enabled, the value of the selected field will automatically be used to name the clip upon creation.

The values from the following fields can be used to automatically name clips:

Value	Meaning
Disabled (Default)	No name is assigned to a clip when it is created.
TC IN	The time code of the IN point of the clip is automatically assigned to a clip when it is created.
CAM Name	The name of the recorder channel is automatically assigned to a clip when it is created.
ID Louth	The ID Louth of the clip, i.e. the unique identifier for the clip on the XNet network, is assigned to a clip when it is created.
VAR ID	The VAR ID of the clip is assigned to a clip when it is created. When this option is selected, the VAR ID used to assign a name to the clip will be limited to the first 8 characters of this field.

4.7.4 CLIP POST-ROLL

Possible range: 00s00fr to 30s00fr. Default: 02s00fr.

When the **Post-Roll** function is enabled from the secondary clip menu, the clip will play through its OUT point for a duration defined by the Post-Roll parameter. This is also valid inside record trains if the Record Train OUTs parameter is set to “Freeze”.

4.7.5 CALL CHANNEL VGA

Possible values: Disable (default) / Enable

This parameter disables or enables the **Call Channel** function on the VGA Clip screen. This function allows the operator to select on which PGM channel the clips called from the keyboard/tablet and VGA should be loaded.

4.7.6 CLIP EDIT BY NETWORK

Possible values: Disable (default) / Enable

If this function is enabled, other users on the network can trim, rename, delete, etc. your clips, or modify the keywords and ranking assigned to your clips. If disabled, only the local operators can modify or delete clips on the server and edit their metadata.

```
Clips                              p.3.2
[F1]Keywords file                 : Football [F8]Delete
[F2]Keyword Mode                  : List
[F3]PUSH Machine 1                : Peter  #04
[F4]PUSH Machine 2                : Paul   #05
[F5]PUSH Mode                     : Short
[F6]PUSH Receive Pg               : 1 2 3 4   6 7 8 9 0
[Menu]Quit  [Clr+F_]Dft  [F9]PgUp  [F0]PgDn
```

4.7.7 KEYWORDS FILE

Possible values: -------- (default), SERVER, or the name of a keywords file present on the XT[2] server

This parameter specifies the keywords file to use to assign keywords to clips or to search the clips database:

Value	Meaning
--------	No keywords file is selected, and the keyword assignment and related search functions are not available.
SERVER	The keywords file sent by the active network server to all systems on the network will be used.
Keyword file name	Other file names will appear if keywords files (files with a .KWD extension) have been loaded in the C:\LSMCE\DATA\KWD directory of the system. Keyword files can be imported using the **Import/Export Setup Files** function of the Maintenance menu of the EVS Menu (refer to the Technical Reference for XT[2] Server manual for details). The **F8** key allows the operator to delete the selected file (confirmation required). Details about the keywords file format and keywords-related functions are available in the Section

"Keyword Management".

4.7.8 KEYWORD MODE

Possible values: List (default), Numeric

This parameter specifies the keyword assignment/search mode on the EVS Remote panel:

- **List:** It will display the keywords by groups of 8 on the LCD of the Remote panel and the operator can select them with the corresponding **F_** key.
- **Numeric:** It doesn't display the keywords list on the LCD, but allows the operator to enter directly the keyword ID using the **F_** keys. The Numeric mode is faster when the operator knows the position of the keywords inside the keywords file, either from memory, using the VGA keyword screens, or using a print of the keywords list.

4.7.9 PUSH MACHINE 1 & 2

Possible values: network system name and number. Default: -------- #--

This parameter specifies which machine(s) on the network clips must be sent to when using the PUSH function on the EVS Remote panel. Users can define two push machines: (**F3**): PUSH Machine 1, (**F4**): PUSH Machine 2. The clips will be pushed in sequential order.

4.7.10 PUSH RECEIVE PAGE

Possible values: Select one or more clip pages from 1 to 10. Default: p.5

This parameter specifies the page of your machine where clips sent to you by other network operators using the PUSH function must be stored.

How to Specify PUSH Receive Page(s)

To specify the page(s) to which the clips pushed from another network operator will be stored, proceed as follows:

1. In the 2nd page of Clip parameters, press the **F5** key to edit the PUSH Receive Page parameter.
2. Press the **F_** key corresponding to the page number you want to select/unselect as PUSH Receive Page.

   The selected pages will be highlighted on the LCD and the corresponding **F_** keys light red. **F_** keys of unselected pages light green.

3. Press **ENTER** to validate your selection.

```
Clips                        p.3.3
[F1]PLST Receive Pg        : 1 2 3 4 5 6 7 8 9
[F2]Protocol receive Page  : 06
[F3]Default XFile          : XFile  #31
[F4]Grab image             : Disable
[F5]Browse button          : Browse
[F6]Reset Archive Status
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.7.11 PLST RECEIVE PAGE

Possible values: Select one or more clip pages from 1 to 10. Default: Page 10

This function allows the operator to automatically create a local copy of all network clips when copying a local or network playlist. In this setting, you need to select the page(s) of your machine where clips received when using the PLST+CLIPS copy function must be stored. Refer to the description of the Playlist copy function for details. Clip pages can be assigned simultaneously as PUSH and PLST Receive Pages.

4.7.12 PROTOCOL RECEIVE PAGE

Default: Protocol Receive page 6

This setting defines in which page the clips created by protocol are stored. When a page is full, clips are stored on the next page.

Only clips created on this page (and the other protocol pages if the first page is full) are visible for protocols.

4.7.13 DEFAULT XFILE

Value: XFile name and network number. Default: -------- #--

This setting defines the XFile where clips must be sent to when using the ARCHIVE function from the EVS Remote panel or VGA screens.

4.7.14 GRAB IMAGE

Possible values: Disable (default) / Enable

When the function is enabled and a default XFile has been assigned, the grab function is coupled with the **Mark** key on the Remote. Each time the **Mark** key is used, a cue point is marked and a command is sent to the XFile to save that image. The grab can also be activated on the keyboard with the combination **CTRL** + **G**.

4.7.15 BROWSE BUTTON: BROWSE/SORT-TC

Possible values: Browse (default), Sort-TC

This allows the user to convert the function of the **BROWSE** button:

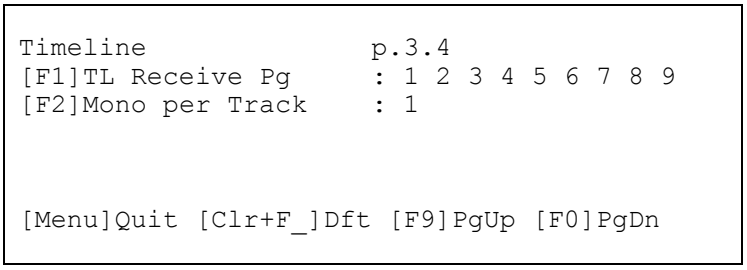
- In the default **BROWSE** mode, it will activate the Play-list Browse directly.
- If the value is changed to **SORT-TC**, the system will perform a Sort TC directly. The system will not prompt the user with a select menu, and it will use the current TC on the channel to search with the last selected criteria.

If the user wants to perform a search with different criteria (Search Net or Local, StartDate, EndDate, CAM/CLIP, etc...), the user should use the normal Sort-TC selection in the upper menu.

4.7.16 RESET ARCHIVE STATUS:

Pressing **F6** will reset the archive status of all clips present on the system. A confirmation is required. Refer to the description of the **Archive** function for details.

4.8 TIMELINE SETTINGS



4.8.1 TL RECEIVE PAGE

Default: 0

This parameter allows specifying where clips created as part of the timeline editing process will be stored.

4.8.2 MONO PER TRACK

The timeline edit feature still has only two audio tracks for editing, but we will allow more than one mono to be assigned to each audio track.

For instance, if you are working in 4 tracks, you can assign the first stereo pair to audio track 1 and the second to audio track 2.

The **Mono Per Track** parameter on page 3.4 is used in the following way:

Possible values:

Number of audio in AVCFG	Value 1 (default)	Value 2	Value 3
2	1	2	
4	2	4	
8	4	8	2+6[1]

4.9 PLAYLIST SETTINGS

```
Playlist                      p.4.1
[F1]Video effect duration      : 00s10fr
[F2]Audio effect duration      : Lock to Vid.
[F3]Wipe type                  : Vert.  L>R
[F4]Default plst speed         : Unk.
[F5]Insert in playlist        : After
[F6]Confirm Ins/Del clips      : No
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.9.1 VIDEO EFFECT DURATION

Possible range: 0s00fr to 20s00fr. Default: 00s10fr

This parameter sets the duration of video transition effect. The specified value is used as default value in Playlist Edit mode. Note that the duration of the video transition when using the **TAKE** button in 1PGM+PRV mode has its own parameter in another section of the Setup menu.

[1] Note: the 2+6 feature is particularly useful when working in Dolby audio to assign a timeline track to the stereo pair and the other track to the Dolby 5.1 audio.

4.9.2 AUDIO EFFECT DURATION

Possible values: Lock to video (default), or 0s00fr to 20s00fr

This parameter is only used when Split Audio Editing is enabled. It sets the duration of audio transition effect. Used as default value in Playlist Edit mode. If Split Audio Editing is disabled, the video and audio transitions will always have the same duration, based on the setup for the video transition, whatever the value of the Audio Effect Duration defined in the setup menu. If this parameter is set to "Lock to video", you will not be able to define different durations for the audio and video transition inside a playlist, even if the Split Audio Editing is enabled.

4.9.3 WIPE TYPE

Possible values: Vert. L>R (default) / Vert. R>L

This parameter specifies the vertical wipe effects from Left to Right or from Right to Left.

4.9.4 DEFAULT PLST SPEED

Possible values: Unknown (default), then from 0% to 100%

This defines the default speed used for clips entered into playlist. Unknown means that the speed of the previous clip in the playlist will be used as a reference for the current clip. 0% will force the playlist to pause at the end of the previous clip.

4.9.5 INSERT IN PLAYLIST

Possible values: After (default) / Before

This setting defines how the **Insert** function of playlist will be performed: depending on the value specified in this setting, the new clip will be inserted after or before the current clip in the playlist.

4.9.6 CONFIRM INS/DEL CLIP

Possible values: No (default) / Yes

If enabled, a confirmation will be required each time the operator wants to add a clip to the playlist or remove a clip from the playlist.

```
Playlist                    p.4.2
[F1]Split audio editing      : Disable
[F2]Extend split transition  : End Cut
[F3]Swap audio tracks        : Auto
[F4]Playlist loop           : No
[F5]Load playlist           : Always
[F6]Playlist auto fill      : All Cam
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.9.7 SPLIT AUDIO

Possible values: Disable (default) / Enable

This parameter enables or disables the Split Audio Editing option in Play-List mode. Changing this parameter modifies the display on the output monitors and adds special function keys on the LCD screen to define different transition points and durations on the video and audio tracks.

Note

A specific license code (option 112: Playlist Mgmt Advanced) is required to enable split audio editing.

4.9.8 EXTEND SPLIT TRANSITION

Possible values: Center (on) Cut / End (on) Cut / Start (on) Cut / Ask

This parameter determines how the transition should be extended when the transition duration on the audio or video track only is modified. This parameter is only useful when performing split audio editing. The following values can be defined:

Value	Meaning
Center Cut (default)	Extend equally on both sides of the transition
End Cut	Extend the beginning of the transition to the left so that the end of the transition is unchanged
Start Cut	Extend the end of the transition to the right so that the beginning of the transition is unchanged
Ask	Allows the operator to select any of the above options when editing the duration of the transition

4.9.9 SWAP AUDIO TRACKS

Possible values: Auto (default) / Manual

This parameter is only useful when performing split audio editing with at least 2 mono audio tracks per video.

- **Auto:** the audio tracks to swap are automatically selected by the application when inserting a swap point.
- **Manual:** the operator can define which audio tracks he wants to swap when inserting a swap point.

Refer to the section 13.2 “Split Audio Mode”, on page 143 for details.

4.9.10 PLAYLIST LOOP

Possible values: No (default) / Yes

This parameter makes it possible to loop playlists and replay them continuously.

4.9.11 LOAD PLAYLIST

Possible values: Always (default) / Conditional

This parameter is only used in 2PGM or 3PGM mode.

- **Always:** This always loads the selected playlist in PGM/PRV mode.
- **Conditional:** This loads the selected playlist on the selected PGM only if only 1 channel is active when entering the PLST EDIT mode. Allows loading and playing multiple playlists using a single Remote panel.

4.9.12 PLAYLIST AUTO FILL

Possible values: All Cam (default) / Prim+Sec / Primary / Secondary / Cam A / Cam B / Cam C / Cam D / Cam E / Cam F

This parameter selects which camera angles will be used when using the Playlist Auto Fill function from the main menu of the remote.

4.10 AUDIO SETTINGS

```
Audio                      p.5.1
[F1]Audio slow motion    : No
[F2]Lipsync value(ms)    :  0
[F3]Audio meters on OSD  : Yes
[F4]Audio meters adj.(db):  0
[F5]Aux track output     : Prv

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.10.1 AUDIO SLOW MOTION

Possible values: No (default) / Yes

Playback or mute the audio track when playing off-speed (speed different than 100%).

4.10.2 LIPSYNC VALUE (MS)

Range for PAL: From -41,458 ms to 14,708 ms ➔ 848 à 3544 (samples)

0 ms ➔ 2838

Range for NTSC: from -34,625 to 12,125 ms ➔ 688 à 2932 (samples)

0 ms ➔ 2350

The Lipsync parameter is the delay (in ms) between video and audio signals. A positive value means video is ahead of audio. A negative value means audio ahead of video.

This parameter is also available from the Channel Parameters option of the EVS Maintenance menu. Changing the Lipsync value in the Setup menu will update it in the EVS menu and vice versa.

Note

This adjustment is done during the record process. A new Lipsync value will apply for the next recorded pictures only.

4.10.3 AUDIO METERS ON OSD

Possible values: Yes (default) / No

This parameter enables/disables the display of audio meters at the bottom of each output monitor.

4.10.4 AUDIO METERS ADJ.(DB)

Possible range: -12 to +12 by 2 dB steps. Default: 0 dB

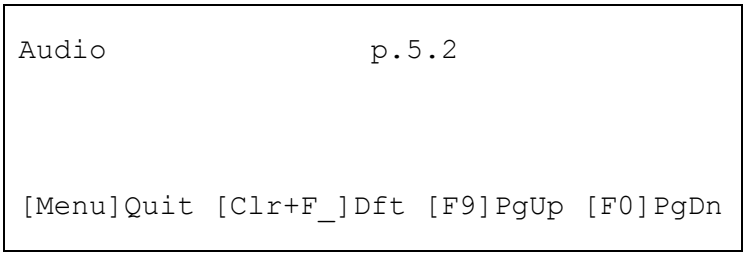
This parameter allows adjusting the sensitivity of audio meters on the OSD of the output monitors. A positive value means that the meters will be more sensitive.

4.10.5 AUX TRACK OUTPUT

Possible values: Prv / Prv&7-8/15-16 / PGM

This parameter defines to which audio outputs the Aux. Track of the playlist will be played out of.

Value	Meaning
PRV (default)	The Aux. Track will use the audio outputs normally assigned to the PRV channel. If no PRV channel is available, the Aux Track will not be assigned to any audio output.
PRV&7-8/15-16	The Aux. Track will use the audio outputs normally assigned to the PRV channel if there is one, plus all the audio outputs from 7-8/15-16 that have not yet been assigned to another channel. Use this option if you need an aux track without PRV channel available.
PGM	The Aux. Track will use the audio outputs normally assigned to the PGM channel.



This page is intentionally left blank and is reserved for future developments.

4.11 EVS CONTROLLER SETTINGS

```
EVS Controller              p.6.1
[F1]Effect duration for Take: 00s05fr
[F2]Fast jog                : 20x
[F3]PGM Speed/Var Max       : 50%
[F4]Lever engage mode       : Direct
[F5]Second lever range      : -100% <-> +100%
[F6]Recall clip Toggle      : Enable
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.11.1 EFFECT DURATION FOR TAKE

Possible range: 00s00fr to 20s00fr. Default: 00s05fr

This parameter defines the duration of the transition when using the TAKE key to chain 2 sequences in PGM+PRV mode.

4.11.2 FAST JOG

Possible values: 01 to 20 times. Default: 20x

This parameter sets the increment of the jump when in Fast Jog mode.

4.11.3 PGM SPEED/VAR MAX

Possible values: 1 – 400%. Default: 50%

During playback, if **PGM Spd** or **VarMax** has been enabled in the secondary menu of the Remote panel, the lever range will be adapted so that:

- the only playback value for any position of the lever other than 0, is the one specified by this parameter in the setup (PGM Spd mode ON)

  OR

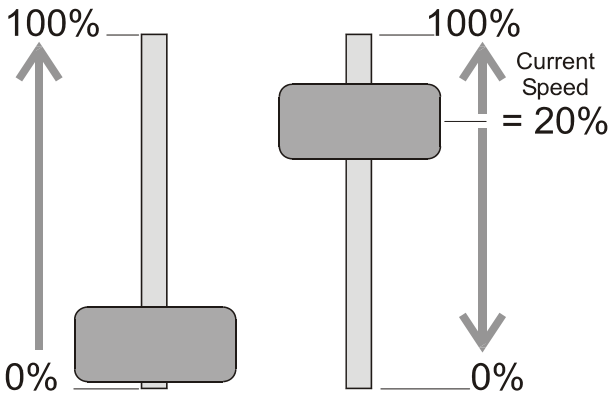
- the speed range defined by the lever is limited to the value specified by this parameter (VarMax mode ON).

4.11.4 LEVER ENGAGE MODE

Possible values: Direct (default) / Current speed

The speed variation depends on the position of the T-Bar lever.

- **Direct mode:** the lever will engage directly when moved, resulting in a speed jump to the desired speed determined by the lever arm position.
- **Current speed mode:** the lever will only engage when it reaches the current playback speed, whereas a move of the lever arm in the opposite direction of the current speed will result in a direct speed change.



4.11.5 SECOND LEVER RANGE

The lever can be used in normal mode to play back clips at slow motion speed from 0 to 100%. A secondary range is available to playback material at the following speed ranges:

-100% ➔ ±100% (default)

0 ➔ 200%

-200% ➔ ±200%

0 ➔ 400%

-400% ➔ ±400%

To gain access to the secondary speed from the remote controller, press **SHIFT** + **LEVER/TAKE**.

The second lever range is also available when editing the speed of playlist clips.

4.11.6 RECALL CLIP TOGGLE

Possible values: Enable (default) / Disable

This option allows the operator to select the camera of a clip through the Function keys. Pressing several times the **F_** key browses to CAM A, CAM B, CAM C, CAM D, CAM E and CAM F.

```
EVS Controller            p.6.2
[F1]Record key        : Start REC + Live
[F2]Pointing device   : Tablet
[F3]VGA & RMT Sync    : No
[F4]PGM/PRV Mode      : Enable

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.11.7 RECORD KEY

Possible values: Start REC+Live (default) / Live

This parameter changes the function of the **RECORD** key on the remote:

- **Start REC+Live:** Pressing the **RECORD** key starts the record process and switches to **LIVE** mode.
- **Live:** Pressing the **RECORD** key only switches to last recorded picture, but the record is not restarted if it has been previously stopped by the operator.

4.11.8 POINTING DEVICE

Possible values: Tablet (default) / Touch Screen

This setting initializes the Tablet or the Touch Screen. If the tablet is not properly calibrated, use this function to re-initialize it. If using the Touch Screen, this one must always be connected to RS422 port #6 of the XT[2], and defined as such at page 7.1 of the setup.

4.11.9 VGA & RMT SYNC

Possible values: No, Yes, Server Nbr

This parameter selects whether and how the current clips machine, page and bank of VGA screens and EVS Remote panel must be synchronized.

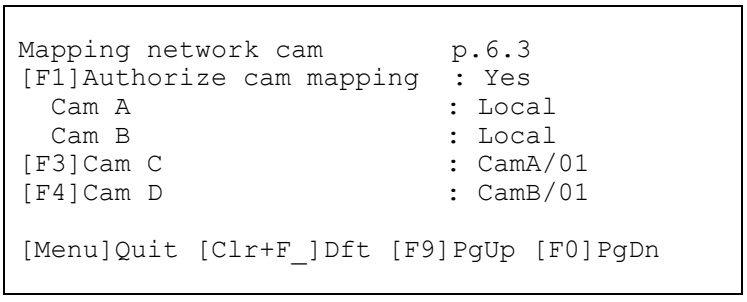
Value	Meaning
No (Default)	Clip machine, page and bank can be selected independently on the VGA screen and on the EVS Remote panel.
Yes	Clip machine, page and bank are synchronized between VGA screen and EVS Remote panel. Connecting to the clips of a network machine or coming back to the clips of the local machine, or selecting a new page or bank on one side will be automatically reflected on the other.
Server Nbr	Clip pages and banks can be selected independently on VGA and remote, but connecting to the clips of a network machine or coming back to the clips of the local machine on the VGA or Remote panel will automatically reflect on the other.

4.11.10 PGM/PRV MODE

Default: Enable

When this setting is enabled, the user has the possibility to select the PGM/PRV mode on the LCD display as a function accessible from the **A** button on the Remote's main menu. Otherwise, the PGM/PRV mode selection is not accessible from the **A** button.

4.11.11 MAPPING NETWORK CAM



This is a software option that allows mapping network trains to an unused local camera position up to camera D. For more information on this option, refer to the section 14.8 "Mapping network cameras", on page 171.

4.12 CONTROLLER AND PROTOCOL SETTINGS

```
  Port   Device/Protocol   p.7.1
  RS422 #1 EVS Remote  [F7]ID Type:
[F2]RS422 #2 EVS Remote    ID LSM
[F3]RS422 #3 EVS Remote
[F4]RS422 #4 Sony BVW75
[F5]RS422 #5 Sony BVW75
[F6]RS422 #6 Touch Screen
[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

This page is used to define what type of device/controller is connected to each RS422 port of the XT[2].

4.12.1 RS422 #1

Value: EVS Remote

When working in LSM base configuration, the first RS422 port must always be connected to an EVS remote. No other possible selection

4.12.2 RS422 #2

Possible values: EVS Remote, Sony BVW75, XtenDD35, Odetics, VDCP, EVS AVSP, EVS IPDP, Edit Rec, ---------

Default: EVS Remote

4.12.3 RS422 #3

Possible values: EVS Remote, Sony BVW75, XtenDD35, Odetics, VDCP, EVS AVSP, EVS IPDP, Edit Rec, ---------

Default: EVS Remote

4.12.4 RS422 #4

Possible values: EVS Remote, Sony BVW75, XtenDD35, Odetics, VDCP, EVS AVSP, EVS IPDP, Edit Rec, ---------

Default: Sony BVW75

4.12.5 RS422 #5

Possible values: Sony BVW75, XtenDD35, Odetics, VDCP, EVS AVSP, EVS IPDP, Edit Rec, ---------

Default: Sony BVW75

4.12.6 RS422 #6

Possible values: Sony BVW75, XtenDD35, Odetics, VDCP, EVS AVSP, EVS IPDP, Edit Rec, Touch Screen, ---------

Default: Touch Screen

Note

- It is preferable to assign all EVS remotes to the first RS422 ports. Avoid interleaving protocols and EVS remotes in this list.
- The Touch Screen can only be assigned to RS422 port #6.

4.12.7 ID TYPE

Possible values: ID LSM (default) / UmID

Defines the type of clip ID used by RS422 protocols (XtenDD35, Odetics, Louth VDCP, EVS AVSP) to identify clips:

- **ID LSM:** It identifies clips using their page, bank, clip and camera number (ex: 245C).

- **UmID:** It is another identifier that is either assigned by the protocol when creating the clip (ex: CLP00001), or defined automatically by Multicam when the clip is created using the EVS Remote panel, or when the protocol doesn't specify this ID.

  When it is defined by Multicam, the UmID is a coded ID (ex: 3x2QogRW) that is unique for every clip created on any XT[2] server, and is based on the serial number of the server, and creation date and time of the clip.

4.13 SPECIAL CONTROL SETTINGS

```
Special Control Settings      p.7.2
     Main  RS422   Second. RS422
PGM1:  EVS Remote   -- [F5]Sony BVW75 04
PGM2:[F2]EVS Remote -- [F6]Sony BVW75 05
PGM3:[F3]EVS Remote -- [F7]---------- --
PGM4:[F4]EVS Remote -- [F8]---------- --

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

This page is used to define which device/controller can control which PGM channel. For each PGM channel, you must define the main controller, selecting from the list defined on page 7.1.

- In LSM mode, the main controller for PGM1 must always be an EVS remote. This can not be changed by the operator.
- If the main controller is an EVS Remote, the RS422 port will be automatically assigned and is not specified by the operator.
- If the main controller is an EVS remote, it is then possible to specify a secondary controller for that channel, that can be a protocol defined on page 7.1. The EVS remote controlling that channel can then decide at any time to pass the control to, or to retrieve the control from the secondary controller.
- Like for page 7.1, all EVS remotes must be the first in the list of Main controllers, without gap. It is not allowed to have a protocol preceding an EVS remote in this list.
- A protocol (other than EVS AVSP or EVS IPDP protocols) can only be assigned to 1 channel at a time.
- EVS AVSP and IPDP protocols can be assigned to several channel simultaneously. If you need to assign some channels to an AirBox, you must set the main controller for these channels to EVS AVSP. If you need to assign some channels to an IP Director, you must set the main controller for these channels to EVS IPDP.

4.13.1 MAIN CONTROLLER FOR PGM1

Possible values: EVS Remote

When working in LSM base configuration, the PGM1 main controller must always be an EVS Remote. No other possible selection

4.13.2 MAIN CONTROLLER FOR PGM2/3/4

Possible values: EVS Remote (default) + list of protocols-RS422 ports

defined on page 7.1

4.13.3 SECONDARY CONTROLLER FOR PGM1/2/3/4

Possible values: list of protocols defined on page 7.1. Default: ---------- --

Available only if the main controller for that channel is an EVS remote.

```
Special Control Settings      p.7.3
     Main  RS422   Second. RS422
PGM5:[F1]---------- -- [F5]---------- --




[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

Multicam is now capable of operating in LSM Base Config with 5 play channels assigned. On this Protocol assignment page, the user can define the protocols and ports to manage this channel.

The LSM Remote by itself cannot control PGM5.

4.13.4 CONTROL TYPE

```
Special Control Settings      p.7.4
Control type          OSD Display
PGM1:[F1]Parallel     [F5] Main
PGM2:[F2]Exclusive
PGM3:[F3]Exclusive
PGM4:[F4]Exclusive

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

Default: Exclusive

This setting makes it possible to allow channels to either be controlled in 'Exclusive' control (same as allowed in the past with 2nd Control Mode) or in Parallel Mode.

In Parallel mode, the user can define which device will manage the OSD display characters (i.e. the main or the secondary controller).

```
Special Control Settings      p.7.5
Control type        OSD Display
PGM5:[F1]Exclusive  [F5] Main




[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

This page is the same as Page 7.4, but assigns PGM5

4.14 GPI IN SETTINGS

```
GPI In Settings          p.8.1
GPI#  Channel/Device Port   Function
 1   [F1]PGM1      -- [F5]Play
 2   [F2]PGM2      -- [F6]Play
 3   [F3]PGM3      -- [F7]Play
 4   [F4]PGM4      -- [F8]Play

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

```
GPI In Settings          p.8.2
GPI#  Channel/Device Port   Function
 5   [F1]RMT1      -- [F5]Play
 6   [F2]RMT1      -- [F6]Next
 7   [F3]RMT1      -- [F7]Skip
 8   [F4]RMT1      -- [F8]Pause

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

These 2 pages define the settings for the GPI inputs of the XT[2] server. For each GPI input, the operator has the possibility to define the following parameters:

- Channel that the GPI will affect or the device that the GPI is assigned to.

  A device can be an EVS Remote #1 or one of the protocols defined in page 7.1 (if some GPI must be used by the AirBox in a mixed configuration LSM+AirBox, or if a GPIs must trigger some actions on a channel controlled by a Sony protocol, etc.). If the operator selects EVS Remote #1, the GPI will trigger the selected action on all channels controlled by that remote.

- Function that the GPI will trigger: **Play**, **Pause**, **Recue**, **Previous** (recue to previous clip inside the playlist), **Next** (go to next clip inside the playlist), **Skip** (skip the next clip in the playlist), **--------** (no action is taken).

  If a GPI is assigned to an AVSP protocol for use with the EVS AirBox or AirEdit application, the function of this GPI will be defined by the AirBox / AirEdit software.

The representations of pages 8.1 and 8.2 of the LCD screen show the default values for GPI inputs 1 to 8. For the pinout of the GPI connector and wiring instructions, please refer to the XT Technical Reference.

```
GPI Setting              p.8.3
GPI#  Function       Type
 1   [F1]----------   [F5]----------
 2   [F2]----------   [F6]----------
 3   [F3]----------   [F7]----------
 4   [F4]----------   [F8]----------

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

The GPIs OUT have been implemented primarily for the Replace function. On the IN/OUT point when executing the replace, users can trigger GPI OUTs.

POSSIBLE FUNCTIONS

- Replace
- (Empty): not used (default value)

Possible values

- Low
- Low Pulse
- High
- High Pulse

EXAMPLE

Users can select all types of GPIs. The behaviour varies accordingly:

	Before the IN	**On Replace IN**	Between IN and OUT	**On Replace OUT**	After the OUT
High	Low	**High**	High	**Low**	Low
Low	High	**Low**	Low	**High**	High
High Pulse	Low	**High Pulse**	Low	**High Pulse**	Low
Low Pulse	High	**Low Pulse**	High	**Low Pulse**	High

4.15 GPI OUT SETTINGS

```
GPI OUT Setting            p.8.4
[F1]GPI Delay           : Disable
[F2]GPI Out Advance     : Disable
[F3]GPI Pulse Duration  : 01s00fr



[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.15.1 GPI DELAY

Possible values: Disable (default, immediate reaction) / 00s01fr to 02s00fr

This parameter defines the delay for the XT[2] server to react to the reception of a GPI trigger.

4.15.2 GPI OUT ADVANCE

Possible values: Disable (default) / 00s01fr to 02s00fr

Possible values: up to 2 seconds, frame by frame (like GPI delay)

When a GPI out advance setting is set (for instance 2 fr.), the GPI out is sent 2 frames in advance.

4.15.3 GPI PULSE DURATION

Possible values: Disable / 00s01fr to 02s00fr. Default: 01s00fr.

Set the default duration for pulse GPIs.

4.16 SPECIAL EFFECTS

```
Special Effect           p.9.1
[F1]Paint/Target trans.  : 00s05fr
[F2]Set colour for       : Cursor
[F3]Colour: White [F4]Y  : 240
          [F5]U: 128
          [F6]V: 128
[F7]Split Screen Tracking: No
[Menu]Quit [Clr+F_]Dft [F9]PgUp
```

4.16.1 PAINT/TARGET TRANSITION

Possible values: 0s01fr to 5s00fr. Default: 0s05fr

This setting sets the duration of the Dissolve effect for the key in Painting and Target Tracking modes.

4.16.2 SET COLOUR FOR

Possible values: Cursor (default) / Wipe / Split.

This setting applies the default colour to a specific tool: to the cursor, to the border of the wipe effect or to the delimiter of the split screen.

4.16.3 COLOUR

Possible values: white (default), black, custom

This setting defines the colour to assign to the cursor/wipe/split.

4.16.4 CUSTOM COLOUR

F3, F4, and F5 are used to set the border colour for the split screen, the wipe effect and the cursor

Custom Y: (0 – 360)

Default: 240

Custom U: (0 – 128)

Default: 128

Custom V: (0 – 128)

Default: 128

4.16.5 SPLITSCREEN TRACKING

Possible values: No (default) / Yes

This setting enables or disables the auto-tracking inside the Split Screen effect.

```
Special Effect          p.9.2
[F1]Paint/Target OSD Monitoring: SD




[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

4.16.6 PAINT/TARGET OSD MONITORING

Default value: SD

Sets whether the user using paint and target works on the SD monitoring or HD output monitor.

5. SETUP Module

The Setup Configuration module, also called VGA Setup screen in this manual, and in the user interface, aims at configuring the Multicam software and defining server settings in relation to time codes, protocol communication, etc.

This module contains several pages, i.e. windows, some of which are described shortly or in depth in this section.

The following table presents the windows and settings covered in this section:

Page 1 See Section 5.1.	It includes several general settings on: • the time codes • the OSD • the VGA • the network • the clip management • the record trains • the channel names
Page 2 See Section 5.2	It includes detailed settings on the insertion of VITC or ANC time codes, channel by channel.

Note

The other windows are described in the Software Technical Reference manual on XT[2] Servers.

How to Access the Setup Configuration

The VGA Setup screen is available by pressing simultaneously **SHIFT-F2** on the keyboard with **CAPS LOCK** disabled. The Setup Configuration is not accessible if **CAPS LOCK** is ON.

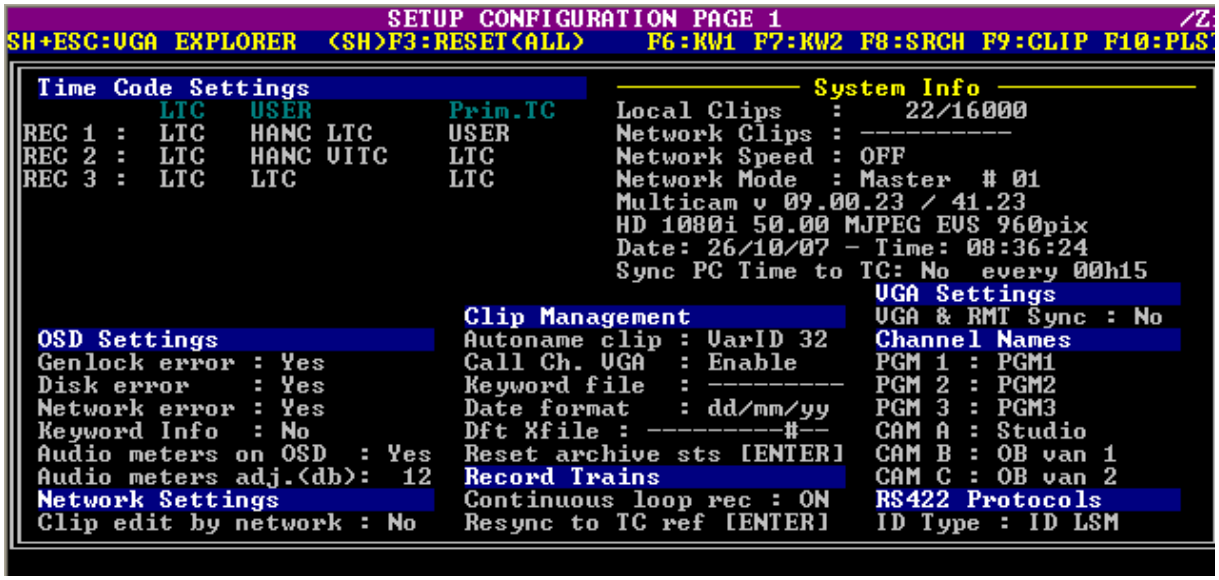
How to Move Inside the Setup Configuration

- Use **<TAB>** / **SHIFT-<TAB>** to move from one parameter to the next/previous, and the ←/→ arrow keys to change the value of a parameter.
- Use **PAGE UP** / **PAGE DOWN** to access the Time code configuration screen.

5.1 GENERAL SETTINGS

The first page of the VGA Setup screen contains some parameters from the Setup menu of the Remote panel that are useful to adjust when working in a mode where no Remote panel is used.

Some parameters included in the VGA Setup screen are common with those in the Remote Setup menu. Therefore, a modification in the VGA Setup screen is reflected immediately in the Remote Setup Menu, and vice-versa.



Only some parameters of the Remote Setup menu are included in the VGA Setup screen. These settings have been described in Chapter 4 “Setup Menu”, on page 11.

The settings relative to functions that are specific to the EVS Remote have not been included in the Setup screen since they are not useful when this panel is not used (Video Delay and Slave modes).

Some parameters are specific to the VGA Setup screen, and are not present in the Setup menu of the EVS Remote panel. These are described in the following sections.

5.1.1 SYSTEM INFORMATION

The Setup screen also provides the following information:

- actual and maximum number of local clips on the server: 4096 clips.
- actual and maximum number of clips of the database for the entire network: 6000 or 16000 clips, depending on the setting in the EVS Configuration menu.
- network speed, network mode and network number as defined in the EVS Configuration Menu

- version of the Multicam software
- codec and video configuration, and bitrate used.

5.1.2 CLIP MANAGEMENT SETTINGS

DATE FORMAT

(dd/mm/yy)

This is the date format used for the dates in searches or in clip information display. This parameter is read-only and provided for information purpose.

DELETING A KEYWORD FILE FROM THE SETUP SCREEN

Move the cursor to the Keywords File parameter using the **<TAB>** / **SHIFT-<TAB>** keys, then press **CTRL-DEL**, and confirm whether you want to delete the current keywords file from disk, or not.

5.1.3 CHANNEL NAMES

Play and Rec channels can be named (12 characters max.). The name of record channels will be displayed on the OSD of the video output monitor when a record train is loaded, displayed on the E/E monitoring outputs and can also be used to name clips automatically when the **Autoname Clip** parameter is set to “CAM name”.

The name of the player channel will be displayed on the OSD, but truncated to 4 characters.

Note

The channel names become very important for IPDirector usage. These names cannot currently be defined from an IPDirector system, and must be defined on this screen.

5.1.4 GENERAL TIME CODE SETTINGS

From Multicam version 9 onwards, the management of time codes has been improved. The users are now given the possibility to choose which type of time code should be used as the reference to work on a given recorder of an XT[2] server.

The time code settings specified on the **first page of the VGA Setup screen** (accessed via SHIFT-F2) allows the users to define:

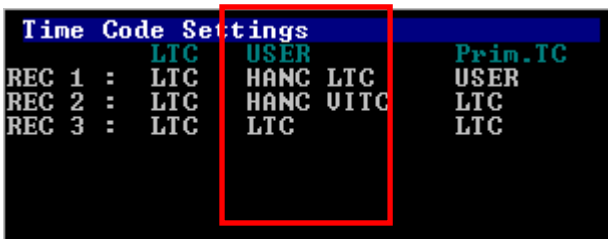
- The second type of time code that can be used on a recorder besides the LTC.

  For more information, refer to the section “Time Codes Types Available on a Recorder” below.

- The primary time code, i.e. the time codes with which the user will work.

  For more information, refer to the section “Time Code Type Used on a Recorder” below.

5.1.4.1 TIME CODES TYPES AVAILABLE ON A RECORDER



The operators can use two types of time codes to work with the video material stored by a given recorder on an XT[2] server:

- The LTC time codes are automatically stored in the first time code jump table, i.e. the ‘LTC table’. This is specified in the LTC field, which is not editable.

- The second type of time codes has to be specified by the user in the USER field. It will be stored in the second time code jump table, the ‘USER TC table’.

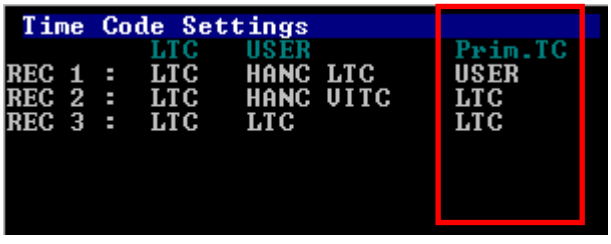
The users can specify one of the following time code types in the USER setting:

- LTC and VITC time codes in SD

- LTC, HANC LTC and HANC VITC in HD

The user will have the possibility to work with one of the time code types defined for the recorder. Usually, an LTC time code is used to perform operations on live events. A VITC time code is used for video material ingested from tapes as it is the time code embedded in the video signal.

5.1.4.2 TIME CODE TYPE USED ON A RECORDER



On the first page of the VGA Setup screen, the **Primary TC** field specifies which time code type will be displayed at the bottom the VGA and will be used to work with the video material stored on the given recorder.

POSSIBLE VALUES

The values can be the following:

LTC	LTC time code, which is automatically stored in the LTC table. It is specified in the LTC field.
USER	User-defined time code, which is stored in the USER TC table and specified in the USER field.

TIME CODE COLOUR ON THE VGA

Depending on the value selected for this setting, the time code displayed at the bottom of the VGA will have a different colour:

- If the LTC time code is selected, the time code colour will be white.
- If the USER time code is selected, the time code colour will be yellow.

5.1.4.3 HOW TO SETUP THE PRIMARY TC AND USER FIELDS

To set up the primary TC or USER field, proceed as follows:

1. Press **SHIFT-F2** to open the VGA Setup screen.
2. Use the **<TAB>** key to position the cursor on the field to edit.
3. Use the right and left arrows to go through the possible values for that field.

   The value defined when you leave the field will be saved.

5.2 VITC/ANC MANAGEMENT

The second page available in the Setup Configuration menu (**SHIFT-F2**) on XT[2] servers allows the channel-by-channel management of VITC or ANC TC management.

It also allows the users to clean or not the VBI information: the VITC being recorded in the active video lines, it can be disrupted in PlayVar because of interpolation or parity violation on some fields. Moreover, if the server inserts VITC on the output while there is already VITC on another line, it can create problems.

The server allows now to totally clean the VBI information from the vertical blanking at playback or to clean it only when it would not have been preserved.

5.2.1 VITC/ANC MANAGEMENT IN SD IN AND OUT

In SD, the page is as follows:

The following parameters can be defined:

IN LOOP

D-VITC	The TC and user bits are always written on the SD outputs of the record codec and are the same as on the source video.
Lines	Lines on which the VITC must be written on the loop of the input. By default, these are lines 14-16 in NTSC and 19-21 in PAL.

SD OUT

D-VITC	Field to specify if embedded time code has to be inserted in the output. The possible values are: **No** — No new time code inserted in the output. **In (default)** — Same time code as in the input inserted in the output. **LTC** — Time code from the LTC table inserted in the output. **USER** — User-defined time code inserted in the output.
Lines	Lines on which the specified time code must be written on the output.
UserBits	Yes/No flag to specify if the user bits have to be included in the output. The default value is 'Yes'.
Clean VBI	Field in which the use specifies whether the VBI needs to be cleaned on the output. The possible values are: **No** — The VBI is not cleaned in the output. **Always** — The VBI is always cleaned in the output. **If not OK** — The VBI is cleaned in the output if it is not correct (PlayVar mode, vertical split screen, etc.)

5.2.2 VITC/ANC MANAGEMENT IN HD IN AND HD/SD OUT

In HD, the page is as follows:

The following parameters can be defined:

IN LOOP

D-VITC	The TC and user bits are always written on the monitoring SD outputs of the record codec and are the same as on the source video.
Lines	Lines on which the VITC time code must be written on the loop of the input. By default, these are lines 14-16 in NTSC and 19-21 in PAL.

HD OUT

HANC LTC	Field to specify if embedded time code has to be inserted in the output. The value specified has to be the same as for the HANC VITC field. The possible values are: **No** — No new time code inserted in the output. **In (default)** — Same time code as in the input inserted in the output. **LTC** — Time code from the LTC table inserted in the output. **USER** — User-defined time code inserted in the output.
UserBits	Yes/No flag to specify if the user bits have to be inserted in the output. The default value is 'Yes'.
HANC VITC	Field to specify if embedded time code has to be inserted in the output. The value specified has to be the same as for the HANC LTC field. The possible values are: **No** — No new time code inserted in the output. **In (default)** — Same time code as in the input inserted in the output. **LTC** — Time code from the LTC table inserted in the output. **USER** — User-defined time code inserted in the output.

SD OUT		
D-VITC	Field to specify if embedded time code has to be inserted in the output. The possible values are:	
	No	No new time code inserted in the output.
	In (default)	Same time code as in the input inserted in the output.
	LTC	Time code from the LTC table inserted in the output.
	USER	User-defined time code inserted in the output.
Lines	Lines on which the specified time code must be written on the loop of the input. By default, these are lines 14-16 in NTSC and 19-21 in PAL.	
UserBits	Yes/No flag to specify if the user bits have to be inserted in the output. The default value is 'Yes'.	
Clean VBI	Field in which the use specifies whether the VBI needs to be cleaned on the output. The possible values are:	
	No	The VBI is not cleaned in the output.
	Always	The VBI is always cleaned in the output.
	If not OK	The VBI is cleaned in the output if it is not correct (PlayVar mode, vertical split screen, etc.)

5.3 SAVING AND LOADING SETUP FILES

Twenty setup files can be saved on the XT[2] system disk.

5.3.1 HOW TO SAVE CURRENT SETUP

To save the current setup, proceed as follows:

1. Press **F4**.
2. Enter a file name. The file name contains max. 8 characters, no space or special character.
3. Press **ENTER**.

5.3.2 HOW TO LOAD A SETUP FILE

1. Press **F5**.
2. Select the desired file with the ↑/↓ arrow keys.
3. Press **ENTER**. A user message pops-up for the user to confirm which settings to load back.
4. Answer to the message by selecting the letter corresponding to the requested settings to load back :
   - (O) Operational settings (pages 1 to 6 of the Remote setup)
   - (T) Technical settings (RS422 ports, GPI, PGM names and TC settings)
   - (A) All settings (operational and technical)

5.3.3 HOW TO DELETE A SETUP FILE

1. Press **F5**.
2. Select the desired file with the ↑/↓ arrow keys.
3. Press **DEL**. The setup file is immediately deleted.

5.3.4 IMPORTING/EXPORTING A SETUP FILE

Setup files can be imported from/exported to a floppy disk using the 'Import/Export Setup Files' option in the EVS Maintenance menu.

For more details, see the Maintenance menu of the EVS application in the XT Technical Reference.

6. Remote panel operations

6.1 OPERATIONS

RECORD

This key lights red when the system is recording. Pressing this key brings the system in E/E ("live") mode, and starts the record if necessary (depending on the settings of the Setup menu). The E/E mode is actually playing pictures already recorded by the system, and has a delay of 3 frames compared to the live source, on all audio and video tracks.

MARK

This function marks up to 256 cues that can be marked while recording or playing. The cues are marked on the LIVE or PLAYBACK program depending on the value set in the Setup menu. When the operator has marked 256 cues, the next one will overwrite the oldest one.

LAST CUE

This function re-cues the machine to previous cue point relative to the current time code position. Each time the Last Cue button is pressed, the machine re-cues to the previous cue, etc. When recalling a cue point, the cue number appears in the upper left corner of the OSD if this option is enabled in the Setup menu (page 1.1, F4)

PLAY

This function initiates a forward motion. It can also be used to start playback of playlists and clips (refer to PLST command).

When **Pgm Spd/Var Max** is OFF, the default playback speed when pressing the **PLAY** key is 100% for standard pictures, 33% for Super Motion pictures with a Triple Speed camera (SD), and 50% for Super Motion pictures with a Double Speed camera (HD),.

When **Pgm Spd/Var Max** is ON, the value defined in the Setup for this parameter is used.

IN

This function defines the IN point of a clip. The key will light differently depending in the following situations:

Green key	The key lights green if an IN point exists but is not the image you see.
Red key	The key lights red if the on-air image is at this IN point. This point can be entered while recording.
Flashing (green or red) key	In Split Audio mode, this key can be flashing green or flashing red. Refer to the section 13.2 “Split Audio Mode”, on page 143 for more details.

OUT

This function defines the OUT point of a clip. This operates similarly to the **IN** button.

Note

The OUT point (field) is always excluded. When playing a clip, it will freeze on the field preceding the OUT point marked by the operator.

MODIFICATION OF CLIP IN / OUT POINTS

Select the clip that you wish to modify, use the jog dial to position the material at the new IN or OUT point, and re-mark the IN or OUT point(s) as required.

Important

When IN/OUT points are set and a clip is saved, the system automatically write-protects a user definable length of material before and after the IN/OUT points respectively. These are referred to as the guardbands. Their duration can be set in the Setup menu under «Guardbands» (page 2, **F2**) as required.

The duration of the guardband after the OUT point can be reduced according to the quantity of video/audio material available when saving the clip.

JOG KNOB

This function is used to accurately cue material.

FAST JOG

When selected, this option enables fast picture search: the actual speed of this fast jog is adjustable in the Setup menu. Starting a play or returning to E2E mode resets the Fast Jog mode.

Important

The jog dial is active at all times when the system is in play & record. The brake is automatically turned on when starting a playback with the **PLAY** key or with the lever, or when returning to E2E mode with the **RECORD** button.

LEVER

This function is used to perform slow-motion from 0 to 100%, and to playback material from - 100 to + 100% or from - 200 to + 200% when Secondary Lever range is selected. The lever has a continuous, linear range, except when Super Motion material is loaded on the primary channel. In this case, there is a “flat step” at 33% (SD Super Motion) or 50% (HD Super Motion) to help the operator locating easily the ideal playback speed.

Important

When playing Super Motion material in slow motion, to obtain the smoothest replay, it is important that the replay speed is exactly the ideal slow motion speed, i.e. 33% for SD Super Motion or 50% for HD Super Motion. If the replay speed is slightly off these ideal values, movements might appear staggered. These ideal speeds can also be called directly by pressing the **PLAY** button when the current element is Super Motion. The PGM speed and Var Max modes can also be used to facilitate this. See Chapter 8 “PGM-PRV Mode” on page 66 for a description on these modes.

PLST

This function is not active if the current playlist is empty. If the current playlist is not empty, pressing **PLST** once enters the Playlist Edit mode.

- Pressing **PLST** from the Playlist Edit mode enter the Playlist diffusion mode.
- Pressing **PLST** from the Playlist Diffusion mode re-cues the playlist to its beginning.
- Pressing 3 times **PLST** will always cue up the playlist ready to roll.

To play back a playlist that has been cued, press the **PLAY** button and it will roll at the preset speeds.

BROWSE

When **a clip is loaded** on the primary channel, pressing the **BROWSE** key allows the operator to browse inside all local clips of the database by turning the jog dial.

When **a cue point exists** for the current picture on the primary channel (the **CUE** button lights red), pressing the **BROWSE** key allows the operator to browse through all existing cue points by turning the jog dial.

When the current picture on the primary channel is neither a clip nor a cue point, or if the operator is in Playlist mode, pressing the **BROWSE** key allows him to browse inside the clips of the current playlist by turning the jog dial.

INSERT

This function inserts a clip before or after (depending on the Setup menu) the current position inside the playlist.

ENTER

This function appends clip(s) at the end of the current playlist. This is also used to confirm saving of clips, and validate various options and messages.

MENU

This function allows the operator to gain access to the secondary menu.

SHIFT+MENU on the Remote gains access to the Main menu.

Also used as an **ESCAPE** key to cancel some options and messages.

CLEAR

This function clears the IN / OUT/ playlist / CLIPS / CUE points.

Note

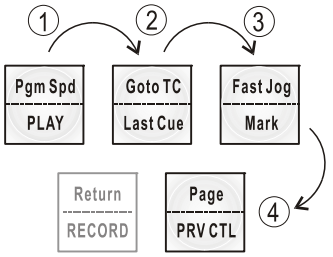
- To clear one CUE point, recall the desired cue point and press **CLEAR** + **MARK** key.
- To clear all cues: when current picture is not a CUE point, press **CLEAR** + **MARK** key. A message appears to confirm the command.

REBOOTING THE SYSTEM FROM THE EVS REMOTE PANEL

«Hard Reboot»

In the event that the system needs to be rebooted, the process can be accomplished from the Remote panel. Keep in mind that doing this while Multicam is running will of course force the Multicam application to close abruptly, and up to 1 minute of the material being recorded and not clipped could be lost.

To reboot, press the following key sequence,



Between step 3 and step 4, the RECORD button will flash GREEN and the PAGE button will flash RED. Hitting the PAGE button will reboot the system. Hitting the RECORD button will return to normal operation.

«Soft Reboot» from the keyboard

It is also possible to run a «soft reboot» which will exit the software and return the user to the EVS Menu. Here, the software can be selected and entered again without having to reboot the entire system. When running the following procedure, the system will automatically save all recorded material (record trains, clips, playlists) upon exit.

Hit ALT + Q on the keyboard or press F6 from the Main Menu, and confirm with ENTER or cancel with ESC. You will exit the Multicam software and go back to the EVS Menu.

NETWORK

This function gives access to the clips and/or record trains of other machines on the network. After the selection of the machine, the way of selecting clips and camera angles is similar to clips selection on the local LSM system. See Chapter 14 “XNet SDTI Network”, on page 162 for complete details.

GOTO TC

The Goto TC option allows the user to jump to a given time code in the loaded train or clip.

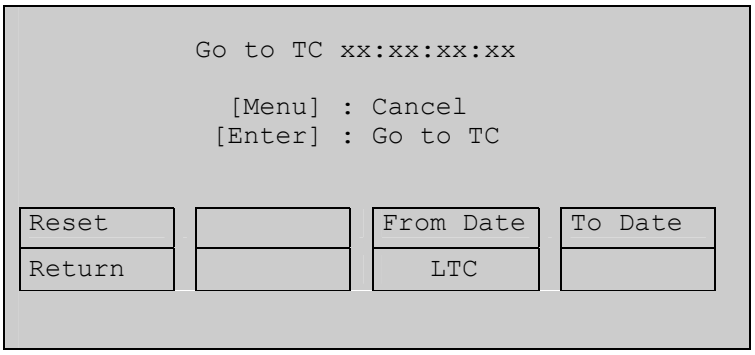
How to Go to a Given Time Code

To jump to a given time code of the loaded train or clip, you can use the **Goto TC** option on the Remote panel.

To go to a given time code, proceed as follows:

1. Press **SHIFT+GOTO TC** key on the Remote.

   The GOTO TC window is displayed on the Remote panel :



2. To specify a date from which the search should be executed, press **SHIFT+C**, enter the date in the following format dd/mm/yy using the **F1** to **F10** keys and press **ENTER** on the Remote.
3. To specify a date up to which the search should be executed, press **SHIFT+D** and enter the date in the following format dd/mm/yy using the **F1** to **F10** keys and press **ENTER** on the Remote.
4. To specify whether to go to a LTC, USER time code or any of both (LTC/USER), press **C** until the requested time code type is displayed.
5. Enter the requested time code using the function keys **F1** to **F10**.

   Eight digits: hh:mm:ss;ff (f=frame) are displayed on the LCD screen of the Remote.

   - If you enter all 8 digits, Multicam will automatically go to the required time code.
   - If you enter less than 8 digits (when the last digits are zeros), press **ENTER** on the Remote to validate the entry and reach the requested time code.

   Once you have entered the Goto TC, you can observe it has been correctly entered on the display of the Remote LCD screen and on the output monitor. This Time code display appears in the centre of the LCD display, just above the menu options.
6. Press **ENTER** on the Remote.

If the time code is from the LTC table, it will be displayed in white on the output monitor.

If the time code is from the USER TC table, it will be displayed in yellow output monitor.

If nothing happens after confirming the TC entry with **ENTER**, this means that the field corresponding to the selected Time code does not exist on disk any longer.

To exit the **GOTO TC** function at any time, press the **MENU** key.

GOTO IN / GOTO OUT

When you are in CLIP mode, this key combination enables the operator to go to IN / OUT points of CLIPS, instantly.

LOOP

It enables the loop mode. The button will flash red in this mode and “LOOP” will appear on the OSD of the output monitors. When the user selects the Loop mode, the loop has to be cabled from the HD/SD “clean” output of PGM1 to the Loop In connector.

The loop is performed on the audio and video components of the PGM1 output, or on the video only, depending on the “Internal Loop Mode” parameter of the Setup menu, p. 2.3 **F1**. In audio embedded, the audio is also looped, whether the loop mode is set to video + audio or video only.

Note

By default, users have to connect the clean SDI output to the Loop In connector given that the OSD of the output monitors are not disabled. If users want to use the output monitor with characters out, they have to start the Multicam application with the following parameter : /LOOP_SDI_MON.

This is very useful to “consolidate” effects and edits, or adding live sound or music or voice to previously recorded material when only the video is looped back into the server.

Example of use to consolidate a playlist: Load the playlist, activate the LOOP mode and roll the playlist. The playlist will be recorded onto the disks (Channel 1 – CAM A) as a continuous video/audio stream. Exit the playlist mode and go back to LIVE record. Simply jog back and you will see the playlist recorded with all its transitions and at the speed they were played. Now it can be stored as one big clip (This can be useful if some of the 90 playlist locations need to be made available). You can also use this function for any effect that you would like to record as regular video inside the server (split screen, target tracking, painting, etc). Depending on the parameter in the setup menu, both video and audio can be looped back into the system, or only the video track is looped and the system keeps recording the live audio at the same time.

Note

When playing back at 200% in loop mode, then replaying the looped sequence at 50%, you can obtain a “film effect”.

RETURN

Inside a clip, press the RETURN key to remain on the same picture, but inside the record train instead of the clip (if that picture still exists in the record train). This is useful when a clip is too tight and you want to use material beyond the current IN or OUT point.

PAGE

Use this key to select a new clips page. After pressing the PAGE key, you must press a F_ key to select the corresponding page (1 to 10).

6.2 SELECTION OF CLIP BANKS AND PLAYLISTS

SHIFT + F1 - F9 = CLIPS BANK

This allows access to clip banks 1 through 9 within the clip page (1 to 10).

SHIFT + F1 = BANK 1

SHIFT + F2 = BANK 2, etc. (up to bank 9)

Once in the bank, selection of the **F1 – F10** keys will call up the respective clips. If **Recall Clip Toggle** is enabled in the Setup menu, pressing several times on the same **F**_ key will call successively all camera angles of that clip.

The clip numbering system is as follows:

Example: Clip 547 where

- "5" refers to the clip page number (1 to 10).
- "4" refers to the clip bank (1 to 9)
- "7" refers to the clip number (1 to 10) inside the bank

Note

To identify remote clips when using the XNet SDTI network, the number of the clip is followed by the number of the machine on the network. i.e. Clip 547B/04

SHIFT + F10 = playlist BANK

This combination of keys gives access to the playlists' banks. Within each clip page there are 10 playlists. Selecting F1-F10 at this point calls up the corresponding playlist.

Example: Playlist 51 where

- "5" refers to the clip page
- "1" refers to the playlist number (1 to 10)

Note

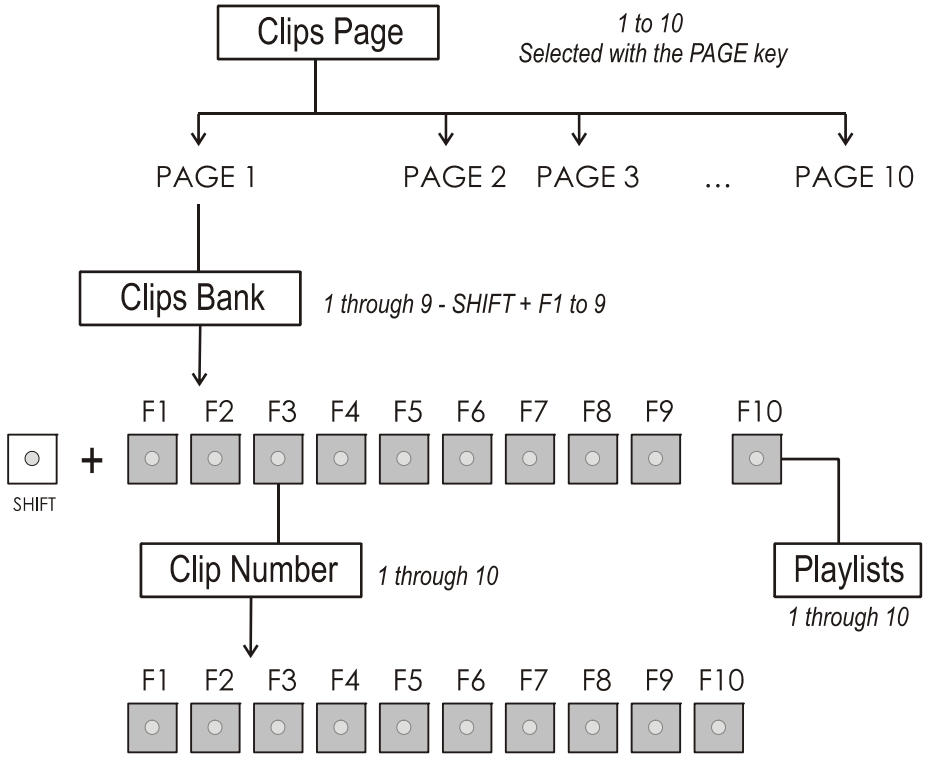
- The playlist bank of page 10 is not available from the EVS remote, since it is actually reserved for the EVS AVSP protocol (for Air Box and Air Edit).
- To identify remote playlists when using the XNet SDTI network, the number of the playlist is followed by the number of the machine on the network, i.e. Playlist 51/04

6.3 CLIP NUMBERING HIERARCHY

Multicam can store up to 900 (multiplied by the number of cameras) clips and 100 playlists in its libraries. 900 clips with up to 6 camera angles per clip results in 5400 "clip registers" in the memory.

But the maximum number of clips on a XT[2] system is actually limited to 4096. This number is displayed in the upper right window of the VGA Setup screen (**SHIFT+F2** from the PC keyboard). If you are working with XNet SDTI network, keep in mind that the total number of clips on the entire network is limited to 6,000 or 16,000, depending on the network settings. This number is displayed in the same area on the VGA Setup window.

The following diagram represents the hierarchy of the Multicam clip numbering system. As an example, clip number "112" is used:



7. Control Mode

Multicam can be set in three different basic modes, depending on commands used.

7.1 LIVE (E2E) MODE

This mode selected at start-up can also be selected by pushing the **RECORD** key. Multicam records the input signal and plays it at the same time on the program output.

7.2 SEARCH MODE

This mode is selected by moving the jog dial.

In this mode, the operator has the opportunity to search for an image, in order to define cue points or clips. Moving the command knob clockwise will force Multicam to search forward, moving the command knob counter clockwise will force it to search backwards. The most important thing to note is that Multicam never stops recording while searching.

7.3 PLAYBACK MODE

Moving the lever or pressing the **PLAY** key selects this last mode.

Multicam plays the incoming signal delayed, a clip or a playlist, in slow motion, and of course, continues to record the incoming signal on disks.

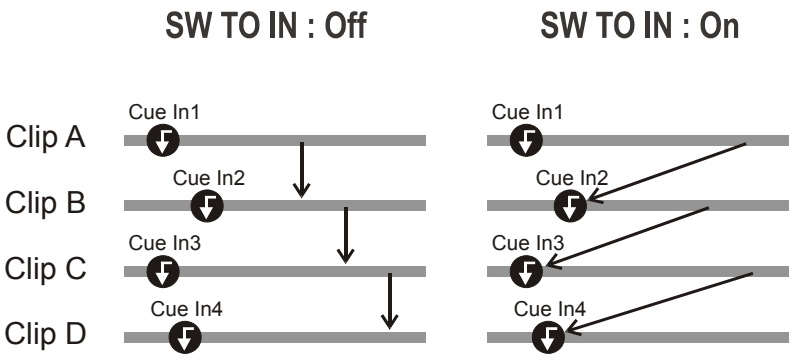
As soon as the lever is moved, Multicam starts playing back from the current picture. The playback speed is defined by the lever position. This is used to start the playback of a normal slow motion, as well as the playback of a clip or a playlist. During playback, the system never stops recording

Each operation on the Remote panel with the command **KNOB** or **LEVER** will be associated to the Search or Playback mode respectively.

7.4 SYNCHRONISATION MODE (SWITCH TO IN)

If the synchronisation mode is OFF, a request for camera change will produce a jump at the same time code on the requested camera. This mode allows synchronous change of camera angle.

If the synchronisation mode is ON, a request for a camera change (by pressing CAM A, CAM B CAM C or CAM D in the Multicam menu) will lead to a jump to a predefined CUE IN point.



If a CUE IN point has not been previously defined, Multicam acts as in SW to IN OFF mode (even if SW to IN ON is shown) because the system has no reference to jump to.

7.5 DEFINITION OF CONTROLLED AND PRIMARY CHANNELS

Important

The notions of Primary Channel and Controlled Channel are very important and will be constantly referred to in this manual.

CONTROLLED CHANNEL

A channel is “controlled” when the operator can control it with the jog dial. In this case, the words “FULL CTRL” are present on the top of the OSD of the output monitor of that channel.

PRIMARY CHANNEL

The primary channel is the first controlled channel. It is identified by stars around its name on the OSD of the output monitor and on the LCD display of the Remote panel (ex: *PGM1*).

Examples:

- In 3PGM mode, if the operator controls PGM2 and PGM3, the primary channel is PGM2.
- In PGM+PRV mode with PRV CTRL OFF, the primary channel is PGM.
- In PGM+PRV mode with PRV CTRL ON, the primary channel is PRV.

7.6 PREFERENCE MODE (PREF)

When this option is ON and a clip is recalled, the preferred camera will be displayed on the main output, even if another camera angle was previously loaded on that output.

The preferred camera is the one, which was on the primary output channel when the clip was created.

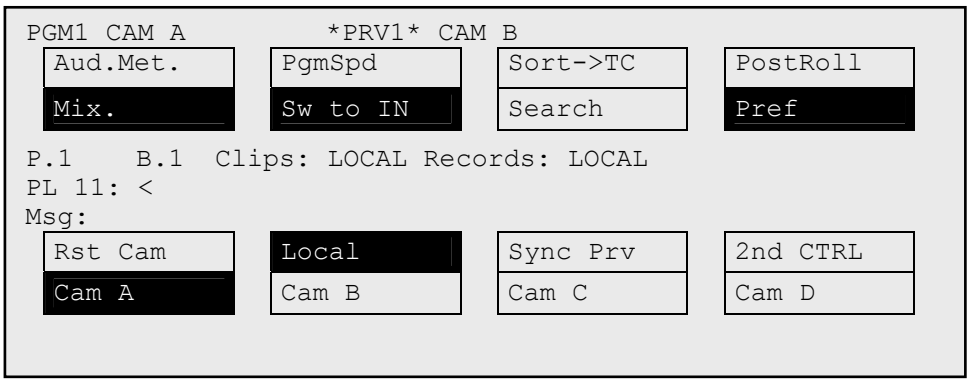
The second preferential camera (“secondary camera”) is the one that was loaded on the next channel when the clip was created.

In the Clip screen, the first preferential camera is indicated by a star: 111B* and the second preferential camera is indicated by 2 dashes: 111B=.

When the preference option is disabled, the PGM output stays on the camera currently selected when the clip is called.

8. PGM-PRV Mode

8.1 1PGM+PRV (PRESS A FROM MAIN MENU)

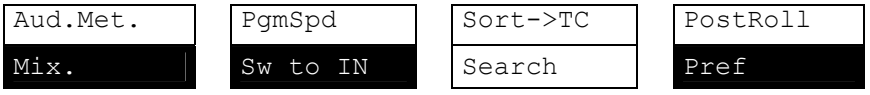


At least 2 playback channels must be available to run this configuration.

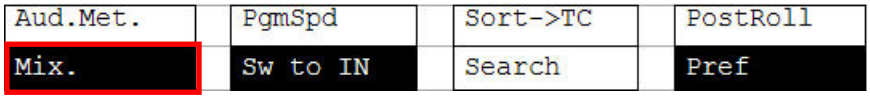
This mode allows the operator to make replays with/or without transition effects between all outputs. A string of replays can be put together and played back at the operator's discretion.

The LCD display is divided in two menus controlled by soft keys (A,B,C,D). To gain access to the upper menu, press **MENU** from the Remote panel.

8.1.1 SECONDARY MENU



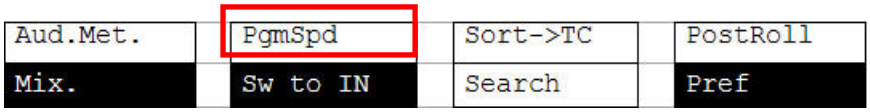
MIX / WIPE L>R / WIPE R>L / WIPE U>D / WIPE D>U / CUT



These options determine the transition effect that will occur between the PGM and PRV pictures. The mix, wipe and cut are on the same location. Pressing this button will browse through these effects, showing the active

one on the LCD menu. Please refer to Setup menu to select the duration of the transition effect.

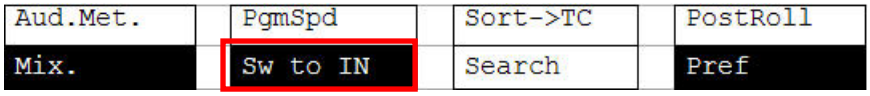
PGMSPD/VARMAX



Pressing **PgmSpd** once enables the Program Speed mode and highlights this function on the LCD. Pressing the key once more enables the Var Max mode and highlights this function on the LCD. The **PLAY** key is flashing red while either of these modes is enabled.

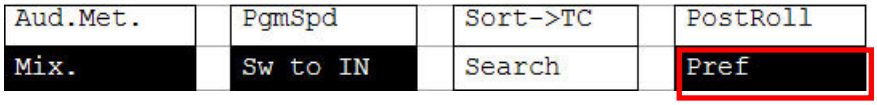
- **Program Speed mode:** In this mode, only two speed values are available from the lever: 0% when the lever is in the lower position, or the speed defined in the setup (p.6.1 F3) for any other position of the lever.
- **Var Max mode:** the speed range defined by the lever is limited between 0% and the speed value defined in the setup (p.6.1 F3).

SW TO IN



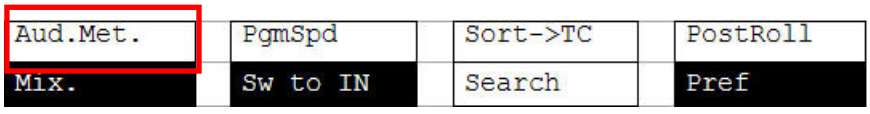
When this function is enabled (highlighted), a camera change will cause a jump to the corresponding IN point if existing. It will switch in Sync if no IN point exists for the current element, or if SW to IN is OFF.

PREF



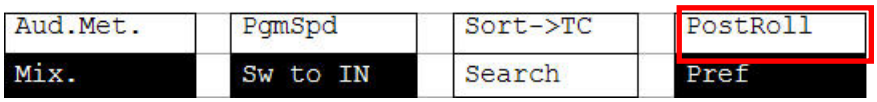
Selecting this function enables the Preference mode.

AUD.MET.



This option enables/disables the display of audio meters for all channels using the OSD of the output monitors.

POSTROLL



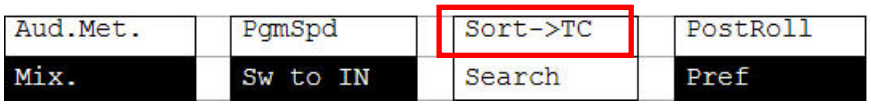
When the Post-Roll mode is enabled, that function is highlighted on the LCD and a "P" appears on the OSD of the output monitors.

When the user exits Multicam with the Post-Roll mode on, this mode will still be enabled when Multicam is restarted.

The Post-Roll mode works as follows depending on the element played:

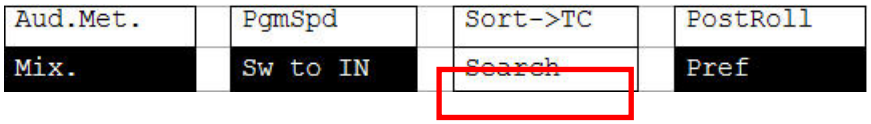
- When a clip is played, it will not stop on the Short OUT point, but will continue to play through the Short OUT point by the Post-Roll duration defined in the Setup Menu.
- When a record train is played, the same will happen if the **Record Train OUTs** parameter is set to "Freeze" in the Setup menu.
- When a playlist is played, the Post-Roll will apply only to the last clip of the playlist.

SORT->TC



This function allows the operator to search for all clips that contain a particular time code. For more information on this function, refer to the section "Sort->TC ", on page 89.

SEARCH



This function allows the operator to search the database using keywords and ranking. Refer to the section 12 "Keyword Management" on page 112 for further details.

To return to the operational menu, press the **MENU** key from the Remote panel.

8.1.2 OPERATIONAL MENU

Rst Cam	Local	Sync Prv	2nd CTRL
Cam A	Cam B	Cam C	Cam D

CAM A/ B /C /D

This parameter allows selecting the camera on the PGM output if PRV CTL is OFF and on PRV output if PRV CTL is ON.

Note

In 5CAM configuration (5 recorder channels and 1 player channel) or when loading a clip where CAM E or F exists, the operational menu will display:

Rst Cam	Local	Sync Prv	2nd CTRL
Cam A	Cam B	Cam C	--->

By pressing the **D** key (**---->**), the operator has access to the D, E and F cameras. The operation menu becomes:

Rst Cam	Local	Sync Prv	2nd CTRL
Cam D	Cam E	Cam F	<---

Press the **D** key (**<---**) to return to CAM A, B, C selection.

RST CAM

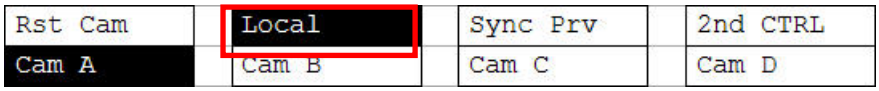
Rst Cam	Local	Sync Prv	2nd CTRL
Cam A	Cam B	Cam C	Cam D

This function restores the position of cameras on the active channels: CAM A on PGM1, CAM B on PRV.

Note

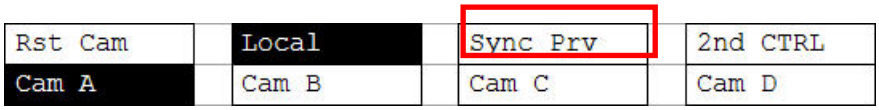
When a clip/playlist is loaded on a channel, switching back to Live mode will recall the record train, which was last used on that output. This avoids too frequent uses of the RST CAM function.

LOCAL



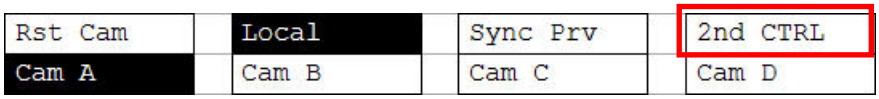
This function allows the user to reconnect to the local LSM after having accessed distant clips or record trains. The function is highlighted when the user is connected to both clips and record trains on the local LSM. It is displayed only on Master/Server LSMs when they are connected to the SDTI network.

SYNC PRV



This option allows the user to synchronize the PRV with the time code and speed of the PGM output. This function is not available with remote record trains.

2ND CTRL



This function allows the operator to swap the control of one or several play channels between the EVS Remote panel and a third-party controller using the Sony BVW75 or XtenDD35 protocol. Both controllers receive permanently the status of the channel(s), but only one controller at a time is able to actually control a channel. The secondary controllers are defined in Section 7 of the Remote Setup menu.

Press this function to enter the 2nd CTRL menu, select the channels that you want to pass to the secondary controller by pressing the corresponding **A** or **B** key, then press **D** (DONE) to validate your selection. Do the same to bring the control of a channel back to the EVS remote.

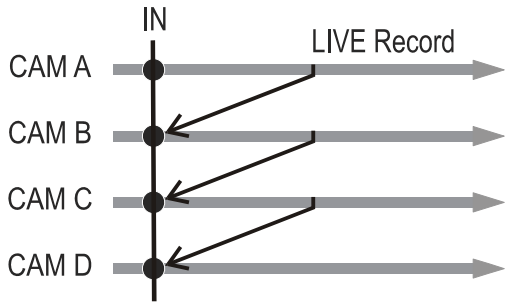
8.2 FULL CONTROL AND LEVER CONTROL

Controlling both PGM and PRV is done when PRV CTL (direct access key from the remote) is not activated.

Once selecting PRV CTL the operator will have control of the PRV with the jog dial and most buttons, while the lever and the Play button will control the PGM output. At this point, selecting clips will call them up on the PRV side.

USEFUL FACILITY

The combination of the PRV CTRL and the SW to IN functions allows the operator to auto-chain cameras from the same IN point.



When an IN point has been marked, the operator activates the PRV CTL and sets ON the SW to IN option. Then the slow motion of one camera can be started from this IN point. The operator selects another camera in the PRV output and, via the **TAKE** button, can auto-chain cameras from the same IN point on the PGM output.

9. Multi PGM Mode

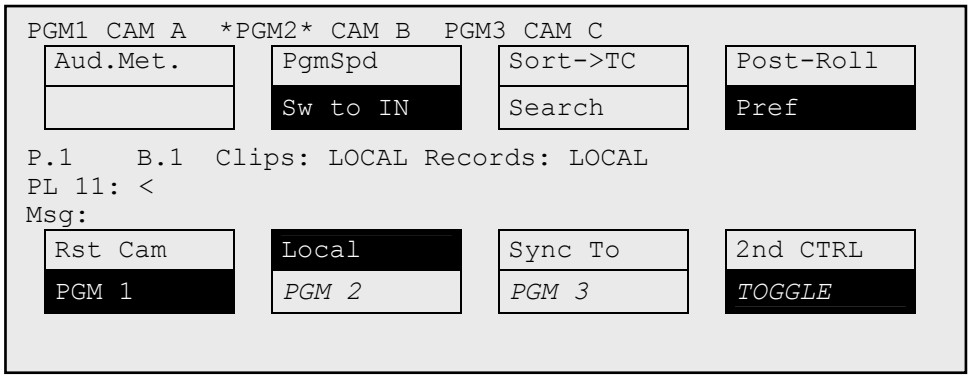
9.1 1/2/3 PGM MODES (PRESS A OR B FROM MAIN MENU)

Multicam has two modes for its basic operation, 1 PRV/PGM mode or Multi PGM mode:

- The **1PGM+PRV mode**, as described previously, is the more powerful of the two, allowing for interaction between all outputs. Here, synchronized replays can be rolled and chained between the cameras with either a mix, wipe, or cut between them.

- The **MULTI PGM** mode is more basic, which gives the operator independent control of all outputs.

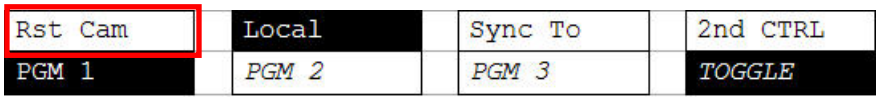
In this mode, all outputs can be controlled together (such as jogging back to a certain action, with all outputs) or they can be controlled individually (either PGM 1, 2 or 3).



The secondary menu can be called by pressing the **MENU** key and is similar to the 1PGM+PRV mode, except that the **A** function is empty since it is not possible to create a transition between the channels in this mode. Please refer to the Chapter 8 “PGM-PRV Mode”, on page 66 for description of the other functions of the secondary menu.

The primary menu in Multi PGM mode gives access to the functions detailed in the following paragraphs:

RST CAM

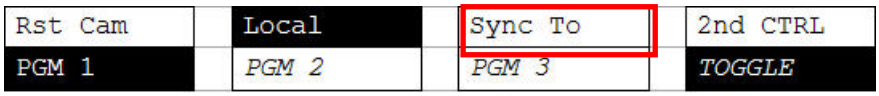


This function restores the position of cameras on the active channels: CAM A on PGM1, CAM B on PGM2,...

Note

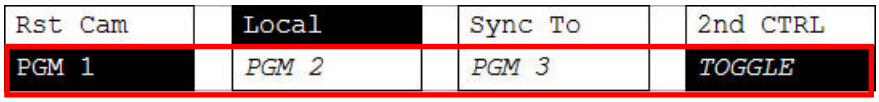
When a clip/playlist is loaded on a channel, switching back to Live mode will recall the record train, which was last used on that output. This avoids too frequent uses of the Rst Cam function.

SYNC TO



This button allows you to synchronize the selected PGM in use with another one. Press this button and then select the PGM to be used as a reference. This function is not available with network trains.

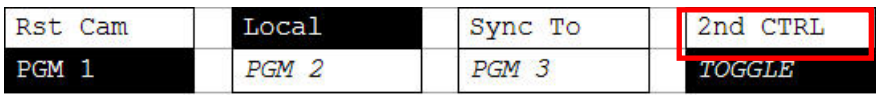
TOGGLE / ALL



The **Toggle** function is only available in 3PGM mode:

- **Toggle OFF:** Selecting an output channel results in controlling that channel and disables the control on others.
- **Toggle ON:** Selecting a channel will alternatively enable/disable the control over that channel without changing the control on the others.
- **All:** This enables the control on all channels.

2ND CTRL



This function allows the operator to swap the control of one or several play channels between the EVS remote and a third-party controller using the Sony BVW75 or XtenDD35 protocol. Both controllers receive permanently the status of the channel(s), but only one controller at a time is able to actually control a channel. The secondary controllers are defined in Section 7 of the remote Setup Menu.

Press this function to enter the 2nd CTRL menu, select the channels that

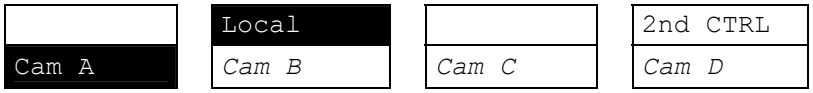
you want to pass to the secondary controller by pressing the corresponding **A**, **B** or **C** key, then press **D** (DONE) to validate your selection. Do the same to bring the control of a channel back to the EVS remote.

SELECTING A CAMERA ON A CHANNEL

This function makes it possible to select first the channel where you want to change the current camera. You can notice that the **TAKE** key at the bottom of the remote lights red. If you press the **TAKE** key now, it lights green and the menu on the LCD display changes to let you select the desired camera. To return to the PGM selection menu, press the **TAKE** key again.

Note

The 1PGM mode is a simplified version of the 2 or 3PGM modes. The operational menu has less functions:



Also, the user does not need to select a channel to enable or disable the secondary controller. Since there is only 1 channel available in this mode, the operator just has to press **SHIFT** + **D** to swap the control between the secondary controller and the EVS remote.

PLAYLIST CONDITIONAL MODE

This mode is only available in 2PGM and 3PGM modes. It allows the operator to load and control several playlists simultaneously from the same Remote panel, or to load a playlist on one channel while performing other operations on the other channel(s). To use this mode, the “Load Playlist” parameter of the setup menu must be set to “Conditional” (p.4.2 F5).

To use this mode, select one channel (for example PGM1), and press the PLST key once, twice or three times to enter the PLST EDIT or the PLST DIFF mode (refer to the “Playlist Management” Section of this manual for details about these modes). You can notice that the **TAKE** key button lights green. Pressing the **TAKE** key will allow the operator to return to the PGM selection menu, and select another PGM channel where he can start a replay, load a clip or another playlist, etc.

In this mode, if the operator selects a PGM channel where a playlist is loaded and presses the **TAKE** key, he will enter again the PLST EDIT or PLST DIFF mode.

When playlists are loaded on all channels currently controlled by the operator in MULTI PGM mode, the **TAKE** key lights red. If the **TAKE** key is pressed, the remote will enter a specific PLST DIFF mode, where the operator can control several playlists simultaneously, and browse them or roll them in sync. **NEXT** and **SKIP** functions are also available and will apply on all controlled playlists. The **TAKE** button will not light red if one of the controlled channel does not contain a playlist.

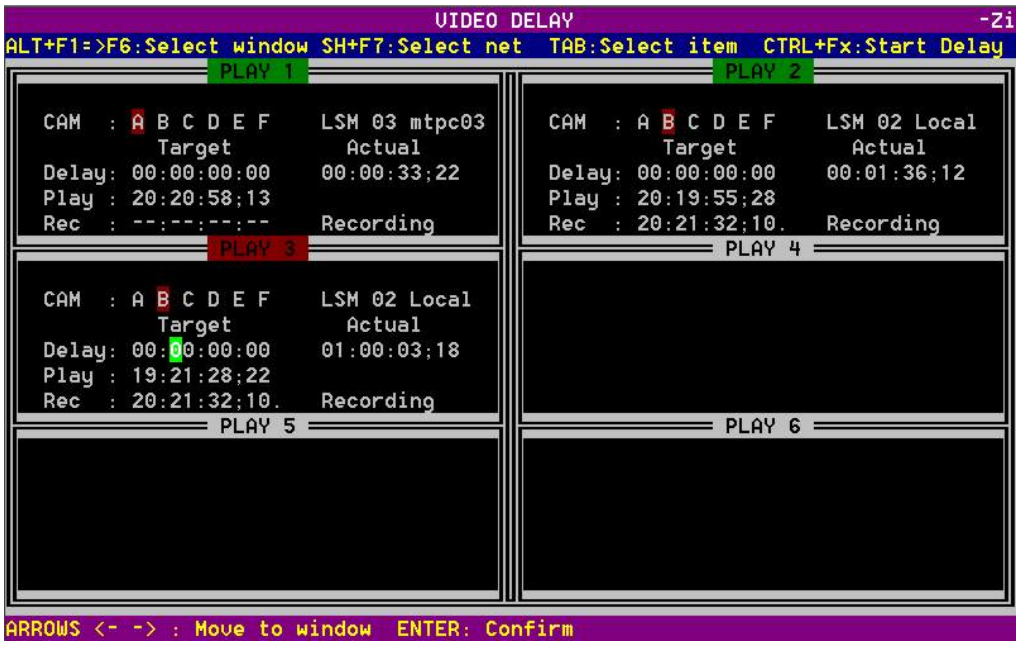
Practical example

The operator builds a playlist with Fills and another playlist with Keys. He sets the “Playlist Load” parameter to “Conditional” in the setup menu, then enters the 2PGM mode, selects the Fills playlist as current playlist, presses A to gain control on PGM1, presses PLST two or three times to enter the PLST DIFF mode and cue up the Fills playlist to its 1st clip. Then he presses the **TAKE** key to return to the PGM selection menu, selects the Keys playlist as current playlist, presses B to gain control on PGM2, presses PLST two or three times to enter the PLST DIFF mode and cue up the Keys playlist to its 1st clip. Then he presses the **TAKE** key to return to the PGM selection menu, presses D to gain control on both PGM channels, then presses **TAKE** to enter the PLST DIFF menu. He will see on the LCD screen the content of both playlists side by side, and can browse them or play them in Sync at any speed, and perform **SKIP** and **NEXT** commands as needed.

10. Video Delay

When the Multicam software has been configured with a base configuration = Video Delay in the Channel Parameters menu, the Delay Screen will appear automatically when the application is started. In this case, all play channels will be available from the Delay screen.

If Multicam is running a base configuration different than Video Delay, this screen can be called manually from the Clip screen, Playlist Screen or Network Screen by pressing **SHIFT-F7** on the keyboard. In this case, only the play channels assigned to user #1 (i.e. the 1st EVS Remote panel if the base configuration is LSM or maXS, or the 1st protocol if the base configuration is in slave mode).



For each play channel, the operator can adjust:

- the video and audio source (camera angle, and source server if several units are connected on an SDTI network);
- the desired delay in hh:mm:ss:fr.

For each play channel, the operator can view:

- the actual delay in hh:mm:ss:fr;
- the time code of the on-air picture
- the time code of the incoming picture on the associated record channel;
- the status of the associated record channel (Recording / Idle)

HOW TO CONFIGURE THE VIDEO DELAY PARAMETERS OF A PLAY CHANNEL

1. Select the play channel to configure by pressing **ALT**+ the corresponding **F**_ key on the PC keyboard (ex: **ALT+F1** for PGM1, **ALT+F2** for PGM2/PRV, etc)

2. If you want to use another server on the SDTI network as a source, press **SHIFT-F7** on the PC keyboard to call up the network list. Use the **arrow keys** to select a server, and press **ENTER** to validate.

3. Select the camera angle: use the **left / right arrow keys**, or the **<TAB>** key to move the green cursor on the desired camera, the press **ENTER**. The new camera angle is loaded on the channel.

4. Set the new value for the delay: use the **left / right arrow keys**, or the **<TAB>** key to move the green cursor over the TARGET DELAY field, and enter the desired delay value in hh:mm:ss:fr. Press **CTRL** + the corresponding **F**_ key on the PC keyboard to activate the new delay on the selected channel (ex: **CTRL + F1** start the new delay on PGM1). If the duration of the record train is lower than the target delay, the channel will pause on the first recorded picture until the record train is long enough for the desired delay. In this case, the message “WAIT” is displayed on the OSD of that channel.

11. Clip Management

11.1 INTRODUCTION

11.1.1 CLIP STRUCTURE

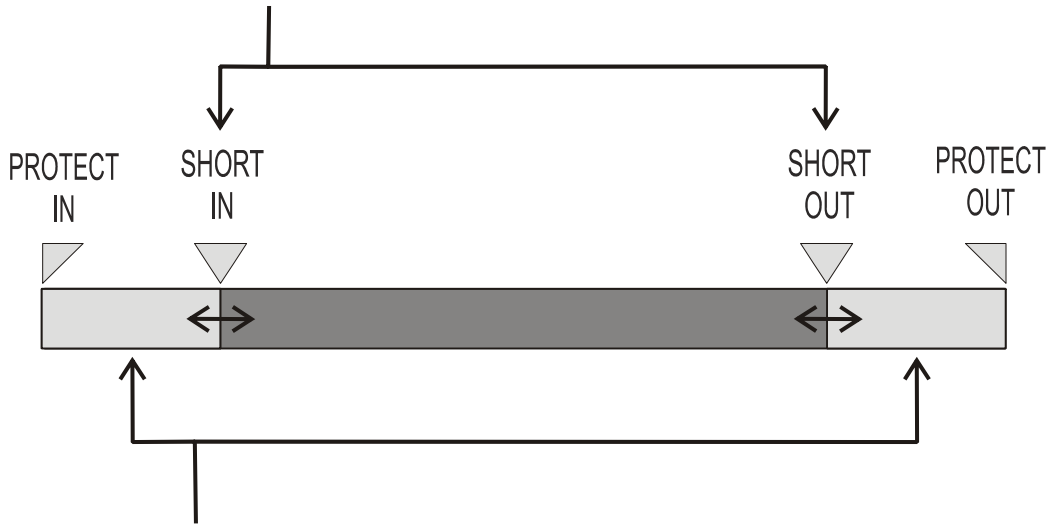
A clip is defined by Short IN and Short OUT points. When referring to Short IN and Short OUT points, the operators usually use the terms IN point and OUT point.

When Short IN and Short OUT points are set, the system automatically write protects a user definable length of material before and after the Short IN/OUT points respectively, these are referred to as the guardbands.

For this reason, the IN point before the guardbands and the OUT point after the guardband are called Protect IN point and Protect OUT point.

It is possible to trim a clip by redefining Short IN and Short OUT points.

If Short IN and Short OUT points are defined, only the fields between those two points will be played if the sequence is recalled (the same applies when the sequence is included in a playlist).



Fields between Protect IN and Short IN and fields between Short OUT and Protect OUT (**guardbands**) can be reached with the jog. So the Short IN and Short OUT points can be redefined.

Note

- Protect IN & Protect OUT points of a clip cannot be replaced by new ones.
- Short IN & Short OUT points of a clip can be replaced by new ones.
- Short OUT point is excluded. The clip freezes on previous field when playing back (with Post-Roll disabled).
- (Short) IN & OUT are always on even fields. This is automatic.
- The guardband beyond the Short OUT point is created with the material available when the operator saves the clip by pressing the selected **F_** key. Therefore, this guardband can sometimes be shorter than the value defined in the Setup menu.

11.1.2 CLIP AVAILABILITY ON DISKS

Various clip types can be distinguished depending on whether they are available on the disks or not. Depending on the clip availability on disks, you can perform specific actions on the given clip or not.

Clip on disk	Clips which are protected on disks, and which have Short IN and Short OUT points present on disks. All the material is available on the disk.
"Record in progress" clip	Clips which are protected on disks, and which have an Short IN and Short OUT points defined on disks. Since the record process is still undergoing, some of the material is already on the disk but not all of it.
Reserved clip	Clips for which the position has been reserved on the SDTI database but for which there is no Short IN and Short OUT points, nor any protect present on disks.

11.2 USING THE EVS REMOTE PANEL

11.2.1 HOW TO DEFINE A CLIP

To define a clip, proceed as follows:

1. Select the LIVE mode.
2. Use the jog dial to go in Search mode and define your Short IN or Short OUT point.
3. Press the **IN** key to mark your Short IN point of the clip.
4. Search for the desired Short OUT point and then press the **OUT** key to mark it.

A clip can be created with only IN point or only OUT point. The system will automatically define the clip duration according to the default duration defined in the Setup menu.

Note

You can mark an IN or OUT point on a paused record train and go back to live without losing the point marked by pressing **SHIFT-<Return>**.

11.2.2 HOW TO STORE A CLIP

To store a clip on a given location, proceed as follows:

1. Define a clip by marking the IN and/or OUT points
2. Select the page where the clip will be stored by pressing **SHIFT + PAGE + F_** key corresponding to the page.

   Page 1 contains clips 110 to 199. Page 2 contains clip 210 to 299, and so on.
3. Select the bank where the clip will be stored by pressing **SHIFT + F_** key corresponding to the bank.
4. Select the location of the clip to store by pressing the corresponding **F_** key.

The clip is created on the specified location. The primary time code of the clip is the primary time code defined on the train where and when the clip has been created.

Example

To create the clip on the position n°212 (page 2, bank 1, clip location 2):

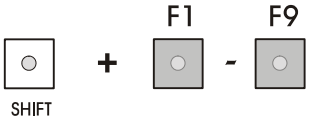
1. Press **SHIFT+PAGE+F2** to select page 2.
2. Press **SHIFT+F1** to select bank n°1.
3. Press **F2** to select location n°2 on the selected page and bank.

Important

The **AUTO-SAVE** process automatically saves clips and playlists at least every minute. **With Multicam 5.03.25 or higher, playlists are included in the AUTO-SAVE process**. Exiting the software (**ALT+Q**) or doing “Save Clips+Plst” from the main menu will also save the clips and playlists.

11.2.3 HOW TO RECALL A CLIP

1. Select the Clip page 1, 2, 3, ... to 10 (PAGE key).
2. Select the bank in which the desired clip is located



3. Select the desired clip via the **F1 - F10** keys.

PREF SETTINGS AND CLIP RECALL

If **PREF** is ON, the preferred camera angle of the clip will appear on the primary channel, the secondary camera angle on the next controlled channel, then the other camera angles on the next channels in alphabetical order.

Example: If the preferred camera angle for clip 124 is camera C, when loading the clip, 124C is loaded on the primary channel, whatever the camera present on that channel before loading the clip.

If **PREF** is OFF, when recalling the clip, the camera angle will be the same as the one who was already present on each controlled channel. If that camera angle does not exist, the first available camera angle of the clip will be used.

Example: If camera B is the current camera on the primary channel, when calling clip 124, it is 124B that appears on the primary channel, even if it is not the preferred camera angle.

When the operator is controlling only one channel (such as with **PrvCtl**), the clip will appear at that location only. In the case of a clip containing a single camera angle (only an «A», «B», «C» or «D» clip), when in full control of all outputs, the clip recalled will appear on the primary channel.

If "Recall Clip Toggle" is enabled in the Setup Menu, pressing several times the **F**_ key will always recall the first frame of the clip, but showing the next camera angle every time the **F**_ key is pressed.

11.2.4 HOW TO PLAYBACK A CLIP

1. Store a clip.
2. Recall the defined clip which will be played, the corresponding F key lights red.
3. Move the lever or press the **PLAY** key to start the playback of this clip in slow motion mode.

11.2.5 RECALL AND PLAYBACK OF "RECORD IN PROGRESS" CLIPS

You can recall and play "record in progress" clips, i.e. clips that are in the process of being created on a disk.

They will blink green when they are called and red when they are loaded on the Remote panel.

If the play reaches the end of the available material, the play will freeze until new material is available for playout. When new material is available, the play resumes.

When the OUT point of the clip is known, the remaining time is displayed.

When the OUT point of the clip is not known, the remaining time display switches to --:--:--:-- until the entire clip is copied.

11.2.6 HOW TO CLEAR A CLIP

Clips that are available on disks, or for which the record is in progress, can be deleted.

The function key that corresponds to the clip location on the Remote panel must be green for the user to be able to delete it:

- Loaded clips can not be deleted.
- Clips included in a playlist or currently used by another operator, cannot be cleared either in network mode.

In all cases, a warning message will appear.

To clear a clip, proceed as follows:

1. Select the appropriate page and bank where the clip to be erased is stored.
2. Press **CLEAR,** followed by the **F_** key that corresponds to the clip.

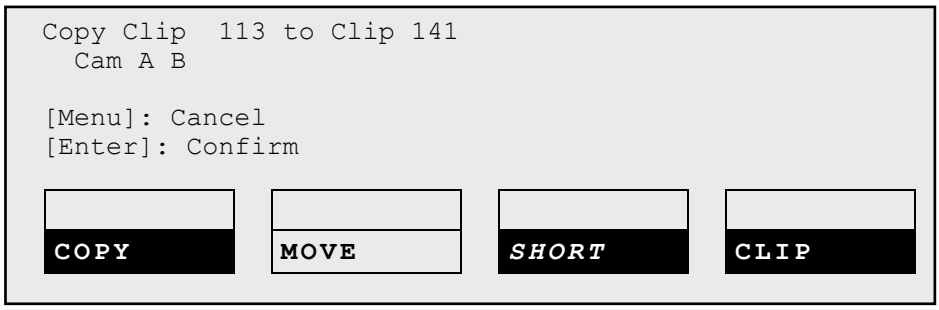
   Attention: In most cases, no confirmation is required and the clip will be instantly deleted.
3. If the clip is protected or if the **Confirm Delete Clip** parameter is set in the Setup menu, a warning message appears.
4. Press **ENTER** to confirm and the selected clip will be erased.

11.2.7 HOW TO COPY / MOVE A CLIP FROM THE REMOTE PANEL

It is possible to copy or move a clip on the same XT[2] server or to another XT[2] server. “Record in progress” clips can also be copied and moved.

To copy or move a clip from the Remote panel, proceed as follows:

1. Select the original clip.
2. Select an empty location on the same machine.
3. A new menu appears on the LCD display of the Remote panel, with the corresponding message on the OSD of the output monitors:



4. Select the **COPY** or **MOVE** function by pressing the **A** or **B** key.

   The corresponding function will be highlighted on the LCD and the message on the OSD will be updated accordingly.
5. Select the CLIP or CAM mode with the **D** key.

   See Section “Settings on Copy/Move Clips” below.
6. In case of network copy, select the SHORT or LONG mode with the **C** key.

   See Section “Settings on Copy/Move Clips” below.
7. Press **ENTER** to confirm or **MENU** to cancel.

When doing a network copy, the VGA displays the % copied of each clip.

11.2.7.1 SETTINGS ON COPY/MOVE CLIPS

When you copy/move a clip, two settings are available to specify how the clip should be copied or moved:

Clip Mode/Cam Mode

Pressing the D key in the Copy/Move LCD window allows the user to select a value for this setting:

- **CLIP mode:** all camera angles of the clips will be copied/moved.
- **CAM mode:** only the camera angles of the clip loaded on the controlled channels will be copied/moved.

Short/Long Mode

This option is only available for a network copy, not for a local copy or for a move.

Pressing the **C** key in the Copy/Move LCD window allows the user to select a value for this setting:

- **SHORT mode:** only the material between the Short IN and Short OUT points of the original clip, augmented by the duration of the guardbands defined on the destination system, will be copied.
- **LONG mode:** the entire original clip, including its guardbands, will be copied to the destination system. Copying a clip on the same machine as the original, or moving a clip, is always done in LONG mode.

Default Settings

The default settings for the COPY/MOVE menu are: COPY, SHORT, CLIP. If the operator changes these settings, the new settings will be re-used the next time this menu is called. The default settings will be automatically restored when starting a new Multicam session.

11.2.7.2 ABOUT COPIED CLIPS

Copying a clip gives a new clip which is totally independent from the original. It can therefore be trimmed, named, deleted, etc. without affecting the original.

Copying clips on the same server does not duplicate the original material on the video drives, it simply creates a separate reference to the same video material. This means that the capacity will not decrease when making copies of clips on the same machine. It also means that deleted copies of clips will not increase the available capacity of the server, as long as 1 instance of the clip remains.

Copying clips across the network will reduce the capacity of the server where the clip(s) is (are) copied by the duration of the clip(s).

11.2.7.3 ABOUT MOVED CLIPS

When moving a clip using the **Move** function, the reference to this clip in playlists will automatically be updated. This is very useful when an operator wishes to re-organize his clips across different pages and banks, since playlists will not be affected. If he copies the clips and then delete the originals instead of using the **Move** function, the reference to the original clips will be removed from the playlists when deleting these clips.

11.2.8 HOW TO CANCEL A NETWORK COPY

11.2.8.1 ON THE REMOTE

When the clip is copying, its light flashes green. Pressing **CLEAR +** the corresponding **F_ key** allows cancelling the network copy. A confirmation screen comes up to cancel the network copy: "Cancel network copy ? MENU: Do not cancel copy - ENTER: Cancel copy"

11.2.8.2 ON THE VGA

Select the clip and press the **CTRL+DELETE** keys. A confirmation screen comes up. "Cancel network copy? ESC: Do not cancel copy - ENTER: Cancel copy"

If the **Copy Clip** option copies several cams of the same clip and some of them have already been copied before the Cancel function, the cancel does not do a delete of the copied files, it just cancels the cam(s) still copying or to be copied of that clip. It does not cancel the copying of other clips.

The Cancel function remains possible even if the page where the clip is being copied is protected.

11.2.9 HOW TO SHORTEN A CLIP

1. Recall the desired clip by pressing the corresponding **F_** key.
2. Move the jog dial to browse the clip and reach to the desired Short IN point.
3. Press the **IN** key to mark a new Short IN point. The new Short IN point is instantly saved.
4. Move the jog dial to reach the desired Short OUT point.
5. Press the **OUT** key to mark a new Short OUT point. The new Short OUT point is instantly saved.

Move the lever or press the **PLAY** key to play the clip. The replay will stop at the new Short OUT point (or after the Short OUT point if the Post-Roll mode is enabled).

GOTO IN and GOTO OUT

You can use **Goto IN** and **Goto OUT** functions to jump immediately onto Short IN or Short OUT points respectively.

11.2.10 How to Restripe the Time Code of a Clip

The function to restripe the time code of a clip via the Remote panel is more restricted than via Multicam on the VGA:

- You cannot choose which time code type you modify: you will automatically modify the primary time code of the clip.
- You cannot modify the date of the clip.
- You cannot modify the type for the primary time code of the clip.

If you want to modify the date, the type of the primary time code or the user-defined time code, you need to go to the Set Time Code screen in the VGA. For more information, refer to the section 11.3.9.4 “How to Restripe the Time code of the Current Clip”, on page 102.

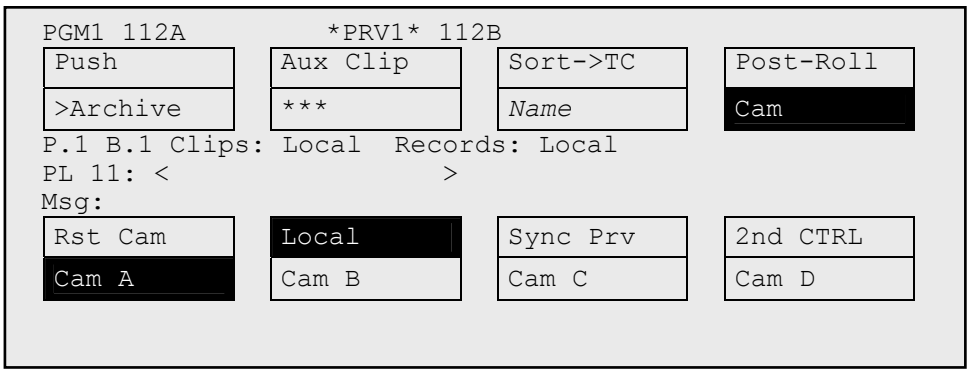
To restripe the time code of a clip on the Remote panel, proceed as follows:

1. Recall the clip by pressing the corresponding **F_** key.
2. Move the jog dial to reach the picture where you want to define a new time code.
3. Press the **MENU** key to access the secondary menu.
4. Press **SHIFT+C** to call the Set TC function.
5. Enter the new time code for the current picture.
6. In 59.94Hz modes (NTSC), you can select between Drop Frame and Non Drop Frame modes by pressing **SHIFT+MENU**.
7. Press the **D** key to select CAM or CLIP mode.
   - **In CAM mode**, only the time code of the camera angle loaded on the primary channel will be changed.
   - **In CLIP mode**, the time code of all camera angles of the clip will be changed.
8. Press **ENTER** to confirm or **MENU** to cancel.

The primary time code of the entire clip is updated according to the new time code value so that the time code remains continuous inside the whole clip. The next time this function is called the value previously used will be set as default.

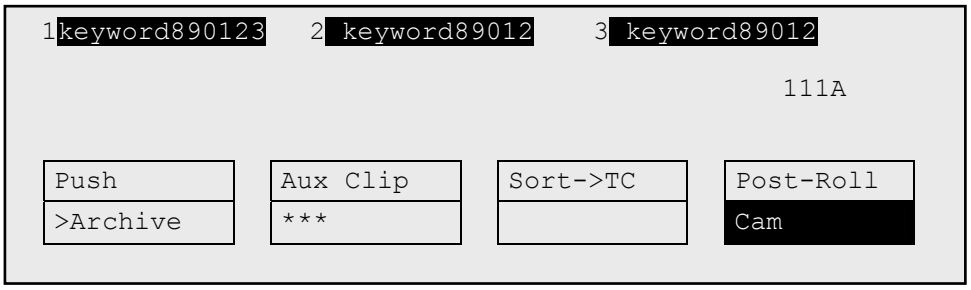
11.2.11 SECONDARY MENU IN CLIP MODE

In Clip mode, the secondary menu of the Remote panel is different from the Record Train mode:



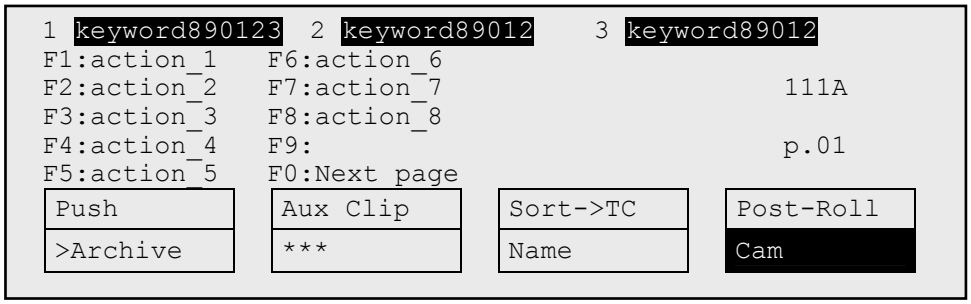
P

Press **MENU** to access the secondary menu. If no keyword file is selected in the setup, the LCD display will be:



In this mode of the secondary menu, clips can still be directly recalled using the F1-F10 keys of the Remote panel.

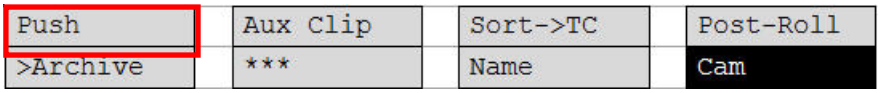
If a keyword file is selected in the setup, the LCD display will be:



In this mode of the secondary menu, the **F1-F10** keys are used for keyword assignment, and thus can no longer be used to recall clips. For a description of the keyword-related functions, please refer to the “Keyword Management” Section of this manual.

The ID of the current clip appears on the end of line 3 of the LCD display.

PUSH



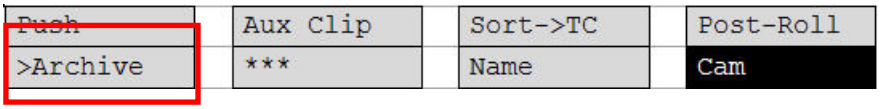
The Push function allows the operator to easily send a copy of a clip to another machine on the network:

- If a default Push machine is defined in the setup, the clip will be automatically sent to that machine.
- If no default PUSH machine is defined, the list of machines available on the network will appear. As soon as the operator selects one of them, the clip is pushed.

In both cases, a message appears for a few seconds on the LCD to confirm that the clip is being pushed and indicating the clip location where it will be stored on the receiving machine.

If the Receive Page(s) defined on the destination machine is (are) full, the operator who tries pushing the clip is notified. While this message is being displayed, the operator can press the **MENU** key at any time to return to the normal menu. Depending on the CAM/CLIP mode selected by the **D** key, only the camera angles loaded on the controlled channels are pushed (CAM mode), or all camera angles of the clip are pushed at once (CLIP mode).

>ARCHIVE



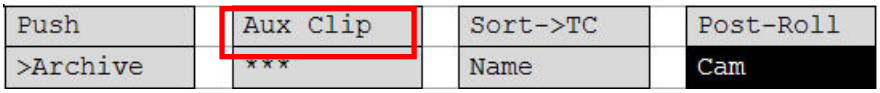
The Archive function allows the operator to flag a clip to place it in the archive queue of the XFile[1] defined in the Setup menu (p.3.3 F1).

This function is blinking when the clip is flagged for archiving, but has not yet been archived. It is permanently highlighted when the archiving of the clip is completed.

Depending on the mode selected with the **D** key (CLIP/CAM), the >ARCHIVE flag is assigned only to the camera angles of the clip loaded on the controlled channels (CAM mode), or to all camera angles of the clip (CLIP mode).

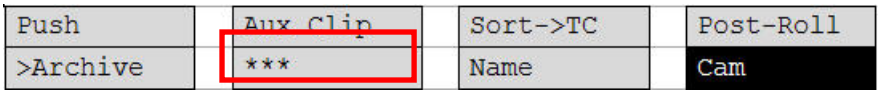
[1] The EVS Xfile is a 2U device with 2 removable hard drives, that can be connected to the XNet SDTI network. Clips can be archived to/restored from the removable medias.

AUX CLIP



This function allows assigning a clip as auxiliary audio clip to the current playlist. Press **CLEAR** + **Aux Clip** (**CLEAR** + **SHIFT** + **B**) to remove the current auxiliary clip. Refer to the Chapter 13 “Playlist Management”, on page 129 for more details.

RANKING (***)

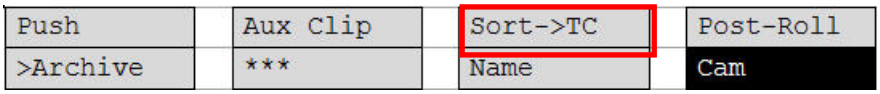


The Ranking function allows assigning a ranking to the current clip. Pressing several times this key will scroll through the different values: 0 (***, not highlighted), , , .

Depending on the mode selected with the **D** key (CLIP/CAM), this ranking is assigned only to the camera angles of the clip loaded on the controlled channels (CAM mode), or to all camera angles of the clip (CLIP mode).

If the **Keyword Info** parameter of the Setup menu is set to “Yes”, the ranking will appear on the OSD of the output monitors when cueing up the clip.

SORT->TC



The Sort->TC function allows the operator to search the database for all clips or trains containing a specific time code. Press **SHIFT+C** again in Set TC mode to call it.

When calling this function, the time code of the current picture is used as a default selection. The operator can immediately perform the search or he can edit that time code before starting the search.

Procedure

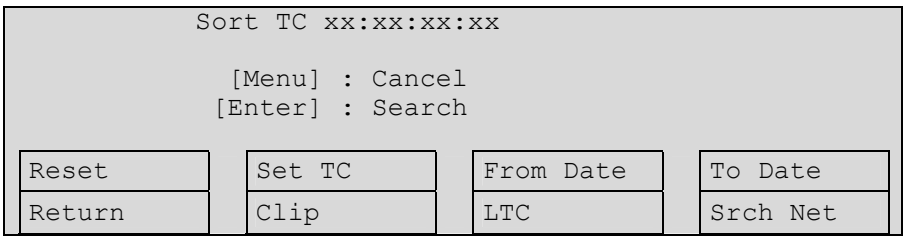
Note

The Reset function resets all default parameters, including the ones related to the material and the TC type to search on.

To search for clips or trains containing a specific TC, proceed as follows:

1. From the main Remote screen in Clip mode or Train mode, press **MENU** to access the secondary menu.
2. Press **SHIFT+C** to access the Sort TC function.

   The following screen is displayed:



3. If requested, press **SHIFT+C** to define a date from which the search should be applied:
   1. Type the date in dd/mm/yy format with the **F1** to **F10** keys.
   2. Press **ENTER** to confirm and exit the field.
4. If requested, press **SHIFT+D** to define a date to which the search should be applied:
   1. Type the date in dd/mm/yy format with the **F1** to **F10** keys.
   2. Press **ENTER** to confirm and exit the field.
5. Press the **B** key to specify whether to search for clips (Clip), train (Rec) or both (Clip+Rec).

   Press several times the **B** key to select the requested value.
6. Press the **C** key to specify whether to search for the LTC (LTC), the user-defined time code type (USER) or whatever TC type (LTC+USER).

   Press several times the **C** soft key to select the requested value.
7. Press the **D** key to specify whether to search only for local clips (Srch Loc) or on the entire XNet Network (Srch Net).

   Press several times the **D** key to select the requested value.
8. Press **ENTER** to launch the search.

Results

If matching clips are found, the Remote panel will automatically be in Browse mode (the **BROWSE** key is red), allowing the operator to quickly view the frame of each clip corresponding to the requested time code by rotating the jog dial.

To be able to jog inside a clip, disable the Browse mode by pressing on the **BROWSE** key and move the jog dial. To return to the Browse mode inside the search results, press the **BROWSE** key again.

Search results are reset when going by to LIVE mode, or when a new search is performed.

Examples

- You have loaded the picture of an interesting event, and you want to see all clips that contain that same event. Call the Sort ->TC function, select the network/local search option and launch the search. Move the jog dial and you will see the same event on the same time code from all available camera angles that have been clipped.

- You know the time code of a particular event and you want to see all clips containing that event. Call the Sort ->TC function, edit the time code to the desired value, select the network/local search option and press **ENTER**: you will obtain the same result as above if the time code belongs to the same type as the one previously mentioned.

11.2.11.1 SET TC

The Set TC function is only available in **SHIFT+B** on the Sort->TC menu. It allows the operator to restripe the time code of a clip. This function is explained in details in the Section 11.3.9.4 “How to Restripe the Time code of the Current Clip”, on page 102.

Depending on the mode selected with the **D** key (CLIP/CAM), the new time code value is assigned only to the camera angle of the clip loaded on the primary channel (CAM mode), or to all camera angles of the clip (CLIP mode).

11.2.11.2 NAME

The Name function is only available if a keyword file is selected in the Setup menu. It is used to name a clip based on available keywords. Refer to the Chapter 12 “Keyword Management”, on page 112 for more details. When the Name function is selected, pressing **SHIFT+C** again will call the Search function.

11.2.11.3 SEARCH

The Search function is “hidden” behind the Name function. Press **SHIFT+C** again in Name mode to call it. It allows the operator to search the database for clips based on keywords and ranking. Please refer to Chapter 12 “Keyword Management”, on page 112 for details.

11.2.11.4 POST-ROLL

This function enables/disables the Post-Roll mode. This mode is explained in details in the section PostRoll, on page 68.

11.2.11.5 CLIP/CAM

Pressing the **D** key will toggle between CAM and CLIP modes on the remote.

Please note that this mode on the remote and on the VGA screens is never synchronized. In CAM mode, the Push, Archive, Ranking assignment, Keyword assignment, and Name functions will apply only to the camera angles of the clip loaded on the controlled channels. In CLIP mode, these functions will apply on all camera angles of the clip.

11.2.12 HOW TO CLEAR ALL NON PROTECTED CLIPS

The **Clear All Clips** command will only delete the non protected clips. The Clips stored in protected pages as defined in the Setup will not be deleted by this operation.

To clear all non protected clips, proceed as follows:

1. Go to the Main menu (**SHIFT** + **MENU**)
2. Press the function key **F7** on the Remote.
3. Press **ENTER** or **CLEAR** on the Remote panel to confirm/cancel the operation.
4. If the system is connected to the XNet network, an additional confirmation is required.

A message on the video monitor will notify the operator when the operation is complete.

Important

The **Clear All Clips** command is different from the **Clear Video Disks** command available from Maintenance menu in EVS software.

- The **Clear All Clips** command only deletes non-protected clips.
- The **Clear Video Disks** command from EVS' Maintenance menu is more radical and definitely erases all video and audio data from disks. Clips stored in protected pages are also deleted.

11.2.13 HOW TO SAVE ALL CLIPS/PLAYLISTS

1. Go to the Main menu (**SHIFT** + **MENU**)
2. Press the function key **F0** on the remote to save clips and playlists.

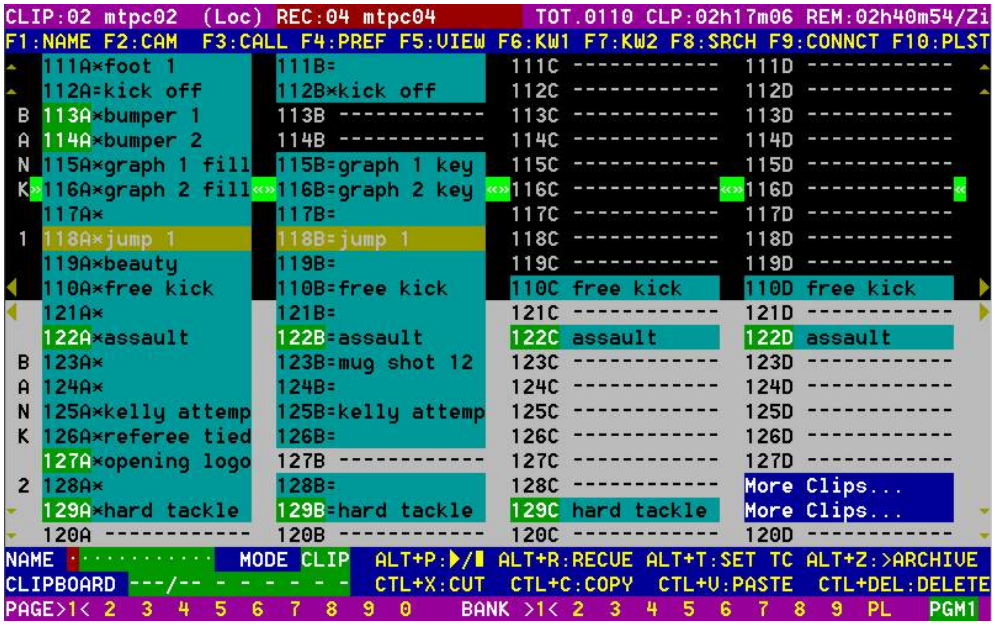
11.3 USING THE CLIP SCREEN

The VGA Clip screen is accessed by selecting the **F9** key on the keyboard. With this screen, clips can be recalled using the pen and tablet or directly from the keyboard.

Important

The action performed on a channel from the Clip screen is concurrent to any other controller that might be assigned to that channel: EVS Remote panel or external protocol. A command sent from the Clip screen to a channel will overwrite whatever the channel was doing at that time.

11.3.1 CLIP SCREEN – STANDARD VIEW



The navigation through the Clip screen, and the various functions available on this screen, can be performed using the tablet and stylus, or the keyboard shortcuts.

11.3.2 SELECTING A CLIP WITH TABLET AND STYLUS

To select a different page or bank using the stylus, click on the desired page/bank number on the bottom line of the screen. You can also move to the adjacent page/bank by clicking on the red arrows on the top, bottom and sides of the screen:

- left/right arrow: go to previous/next page
- up/down arrow: go to previous/next bank

If a clip is present in a certain location, it will be highlighted in BLUE. Once selected, it will be highlighted in ORANGE.

To cue up a clip on the primary channel controlled by the first remote, or on the VGA Call Channel defined in the setup, simply click[1] on it with the

[1] "Clicking with the stylus" means pressing lightly the tip of the stylus onto the tablet.

stylus. If the channel where the clip is supposed to be loaded is in **Plst Edit** mode with a PRV channel attached, the clip will automatically cue up on the PRV channel.

11.3.3 SELECTING A CLIP WITH THE KEYBOARD

The keyboard can also be used to operate within the clip screen. The green arrows surrounding a clip shows the current cursor position. The arrow keys (↑,↓,←,→) on the keyboard are used to move across the screen. Only 2 banks can be viewed at a time.

To view other banks, use **ALT** + ↑,↓ to scroll vertically between banks and use **ALT** + ←,→ or **PgDn, PgUp** to scroll horizontally between pages. To go to bank 1 of the current page, use the **HOME** key and to go to the Playlist bank of the current page, use the **END** key[1].

Once the cursor located on the desired clip, press **ENTER** to cue up the clip on the primary channel controlled by the first remote, or on the VGA Call Channel defined in the setup. If the channel where the clip is supposed to be loaded is in **Plst Edit** mode with a PRV channel attached, the clip will automatically cue up on the PRV channel.

If the Clip screen is connected to the clips and playlists of a remote machine, pressing **ALT+L** will return the screen immediately to the local clips and playlists.

11.3.4 THE TITLE BAR

The Title bar contains the status information:

- Number and name of the server currently selected for clips and for record trains (*). The name is blinking red if it is a network machine.
- Total number of clips (i.e. protects, 1 camera angle counting for 1 clip in this count)
- Total duration of all clips
- Remaining capacity on the server (all record trains together; valid for local server only)

Note

The abbreviated word "(Loc.)" appears next to the name if the local machine is currently selected for clips and/or for record trains. The clips displayed in the clip screen belong to this machine.

[1] Trying to access the playlist bank of page 10 will cause the Clip screen to jump to the playlist bank of page 9, since page 10 playlists are reserved for external protocols.

11.3.5 THE FUNCTION BAR

The second line displays the available functions. Each function can be called by the corresponding **F_** key of the keyboard, or by clicking with stylus & tablet on the corresponding area on this line.

F1: NAME

This function is used to name a clip.

How to Name a Clip

1. In the Clip screen, select the clip to name in one of the following ways:
   - Click on the clip with the stylus
   - Positioning the green arrows around the desired clip with the keyboard.
2. Type in the desired name with the keyboard. All characters available from the keyboard are accepted, including blanks.
3. Press **F1**:
   - In CAM mode, only the camera where the cursor is located is named.
   - In CLIP mode, all cameras of the clip where the cursor is located are named.

The entry in the **Name** field is not cleared by pressing **F1** and remains for future use. Press <**BACKSPACE**> to delete the last character in the Name field, or press **ESC** to clear the whole field.

Note

To be able to name/rename clips on a network machine, the **Clip Edit by Network** setting in the setup of the remote machine must be set to “Yes” (VGA Setup screen) or “Enabled” (Setup menu on the Remote panel). If you are unable to name a network clip, please check this setting on the remote machine.

F2: CLIP/CAM

This function toggles between CLIP mode and CAM mode.

- In CLIP mode, actions on a clip will use all available cameras for this clip.
- In CAM mode, actions on a clip will only use the selected camera for this clip.

Other functions such as Name, Delete, Copy, Set TC, >Archive depend on this mode’s selection.

F3: CALL

The operator can gain immediate access to a local or network clip by typing its ID number:

F4: PREF

This option changes the primary camera of a clip.

How to change the primary camera of a clip

1. Move the cursor to the desired camera.
2. Press **F4** on the keyboard or click with the stylus on the corresponding area in the Function bar.

   → This camera becomes the new primary camera.

   → If the selected camera is a secondary camera (indicated by "="), it becomes the primary camera and the previous primary camera becomes the secondary camera.

F5: VIEW

This option changes the standard display to the extended display and vice versa. Refer to the section 11.3.11 "Clip Screen – Extended View", on page 105.

F6: KW1

This option calls the On-Air Keyword screen. Refer to the Chapter 12 "Keyword Management", on page 112 for more details.

F7: KW2

This option calls the Off-Air Keyword Screen. Refer to the Chapter 12 "Keyword Management", on page 112 for more details.

SHIFT+F7:DELAY

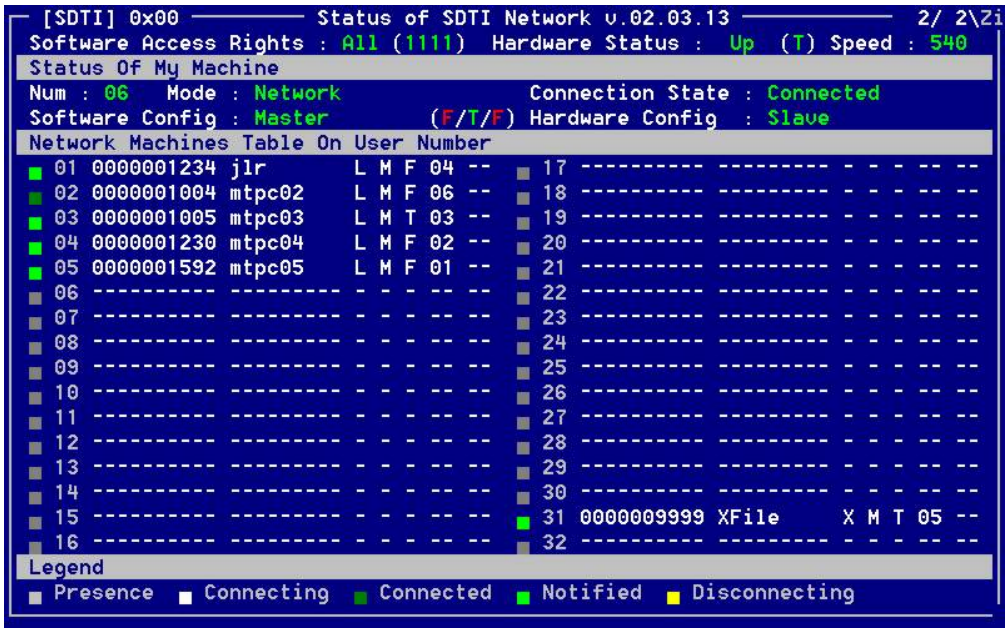
This function calls the Video Delay VGA screen. Refer to the Chapter 10 "Video Delay", on page 76.

F8: SEARCH

This option calls the VGA Search Screen. Refer to the Chapter 12 "Keyword Management", on page 112 for more details.

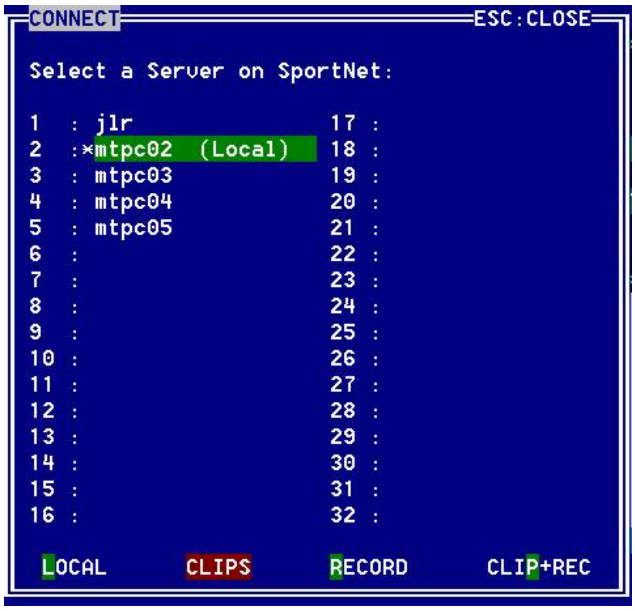
SHIFT+F8:NET

This option switches to the Network Status Screen and allows monitoring the status of the different machines connected on the network.



F9:CONNECT

This option calls the CONNECT window. This window allows the operator to connect to the clips and record trains of other machine on the network.



The following functions can be used in the CONNECT window:

ALT+L: return to LOCAL mode and close the CONNECT window

ALT+C: CLIPS mode - to connect to the clips of a remote machine

ALT+R: RECORD mode - to connect to the record trains of a remote machine

ALT+P: CLIP+REC mode - to connect to the clips and record trains of a remote machine.

After selecting CLIP, RECORD or CLIP+REC mode either with the keyboard or by clicking with the stylus, select the machine you want to connect to: click on it with the stylus, or move with the arrow keys and press ENTER on the keyboard.

Pressing **ALT+L** or clicking with the stylus on "LOCAL" will close the CONNECT window and return to local clips and record trains.

To close the CONNECT window without changing the connection mode or remote machine, press **ESC**.

The "*" next to one of the machine in the list indicates which machine is the active network server. Refer to the Chapter 14 "XNet SDTI Network", on page 162 for details.

F0:PLAYLIST

The Playlist screen can be accessed by selecting F10 on the keyboard.

11.3.6 HOW TO RECALL A CLIP

11.3.6.1 HOW TO CALL A CLIP BELONGING TO THE MACHINE YOU ARE CONNECTED TO

The machine to which you are connected is indicated on the left side of the Title Bar.

To call a clip belonging to the machine you are connected to, proceed as follows:

1. Type either the 3 or 4 digits of the ID. Ex: 111 or 111A. The entry appears in the Name field.
2. Press **F3**
   - If only 3 digits are entered, the primary camera is selected
   - If 4 digits are entered, the clip is selected according to the given camera angle.
   - If no clip matches the entry, no selection is done.

Note

ESC key can still be used at any time to clear the Name field.

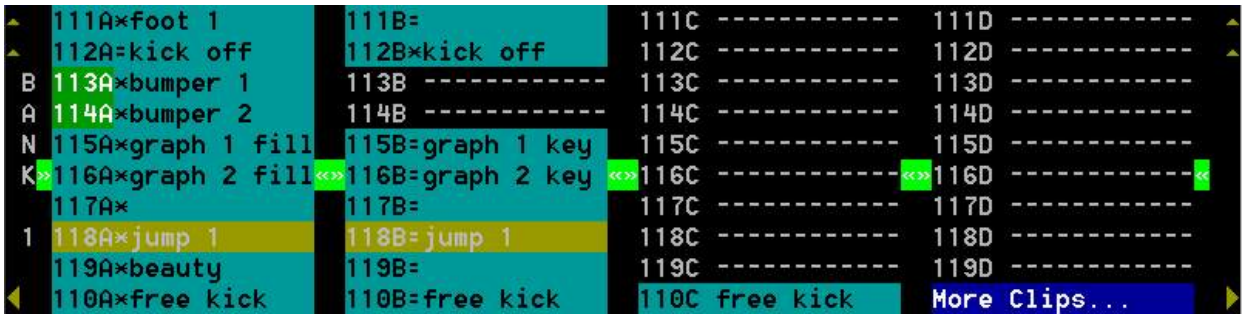
11.3.6.2 How to Call a Clip Belonging to Another Machine Than the One you Are Connected to

1. Type either the first 3 or 4 digits of the ID, followed by a "/" and the network number of the machine. Ex: 111/03 or 111A/03. To call a local clip, no matter what machine you are connected to, type 00 as network number. Ex: 111/00 or 111A/00.

2. Press **F3**.

11.3.7 The Clip Information Area

The next area is the Clip Information Area which displays the clips of the selected page and bank(s). Two clips' banks are displayed at a time.



For each clip and camera angle, the following information is available:

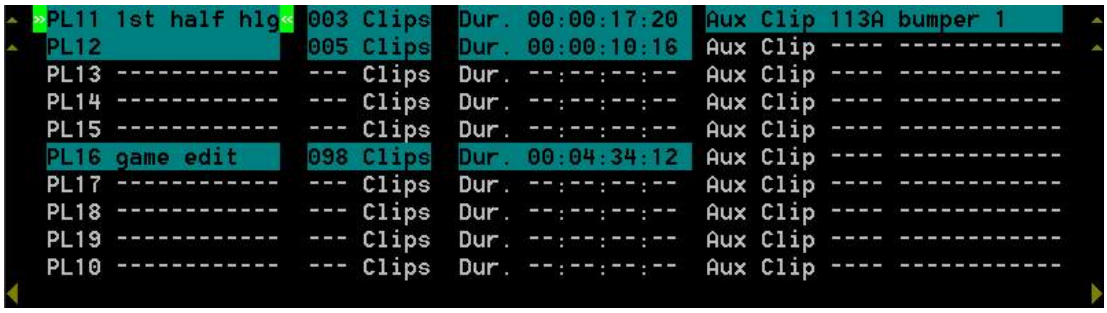
Field	Description
Clip ID	Unique identifier of the clip on the server. Ex: 111A The clip ID is followed by the "Creating" message when the clip is in the process of being created, copied or moved to this location. For more information on "Record in progress" clips, refer to the section 11.2.5 "Recall and Playback of "Record in Progress" Clips", on page 82.
Clip "rank"	Clip rank depending on the channel on which it has been created : • Primary ("*" next to the clip ID) • Secondary ("=" next to the clip ID) The clip rank information is highlighted in blue if the clip is protected.
Clip name	Name of the clip, either automatically assigned or defined by the user.
Archive Status	• if the clip ID is blinking green, the clip is flagged for archiving, but not yet archived • if the clip ID is permanently highlighted in green, the archiving of the clip has been completed.

Note

In the standard view (cameras A to D), if camera E and/or F exist for a particular clip, the D-column for this clip is replaced by the mention "**More Clips**" on blue background.

11.3.8 THE PLAYLIST INFORMATION AREA

Inside the Clip screen, scroll down to the last bank by pressing once the END key to display the Playlist information area:



For each playlist the following information is displayed:

Field	Description
Playlist ID	Unique identifier of the playlist on the server. Ex: PL16
Playlist Name	Name of the playlist. It cannot exceed 12 characters. Ex: "game edit"
X clips	Number of available clips in the playlist (unavailable network clips are not taken into account). Ex: 98 clips
Dur: --:--:--:--	Total playback duration with available clips. Ex: 00:04:34:12
Aux Clip	Aux Clip ID and name of the audio auxiliary clip.

11.3.9 THE CLIP MANAGEMENT AREA

11.3.9.1 NAME CAPTURE FIELD

this is the only capture area of the screen. It is used to enter the name to assign to a clip/playlist, or to enter the ID of a clip to recall.

11.3.9.2 MODE FIELD

indicates if the clip screen is currently in CLIP or CAM mode. In CLIP mode, actions on a clip will use all available cameras for this clip. In CAM mode, actions on a clip will only use the selected camera for this clip. Default value is CAM mode.

11.3.9.3 CLIP CONTROL AREA

It is dedicated to play-out control.

Command	Description
ALT+P:►/■	Plays at 100% speed except for super motion clips which are played back at 33% speed; and pause playback on the current picture.
ALT+R:RECUE	Jumps to the Short IN point.
ALT+T: SET TC	Restripes the time code of the current clip.
ALT+Z:>ARCHIVE	Allows the operator to flag a clip to place it in the archive queue of the XFile[1] defined in the Setup menu (p.3.3 F1) or in the Setup screen. When a clip is flagged for archiving, but has not yet been archived, its ID will be blinking green in the Clip screen. It is permanently highlighted green when the archiving of the clip is completed. Depending on the mode selected with the **F2** key (CLIP/CAM), the **>ARCHIVE** flag is assigned only to the camera angle of the clip selected with the green cursor (CAM mode), or to all camera angles of the clip (CLIP mode).
PGM X	Located in the bottom right corner of the clip screen, this field is only visible if the **Call Channel VGA** function has been enabled in the Setup Menu (p. 3.1 – F5) or in the Setup Screen, and is only effective in CAM mode, not in CLIP mode. It allows the operator to select on which channel clips called using the keyboard/tablet and VGA should be loaded. Press **ALT + F1** on the keyboard to select PGM1, **ALT + F2** for PGM2/PRV, **ALT + F3** for PGM3, etc. This function is useful to load clips on channels that can not be controlled by an EVS Remote panel, or to allow an AP to browse clips on a play channel not used by the main operator. Note that if that channel is in PLST EDIT mode with a PRV, the clip will automatically cue up on the PRV.

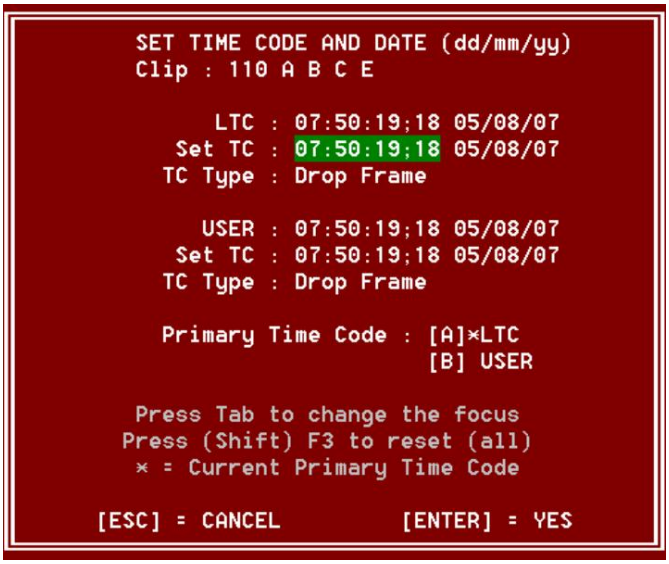
[1] The EVS Xfile is a 2U device with 2 removable hard drives, that can be connected to the XNet SDTI network. Clips can be archived to/restored from the removable medias.

11.3.9.4 How to Restripe the Time code of the Current Clip

To restripe the time code of the current clip, proceed as follows:

1. Recall the clip by moving the cursor on the desired clip and pressing **ENTER**, or by clicking on it with the stylus.
2. Press **ALT-T** on the keyboard to call the SET TC function.

   The Set Time Code screen is displayed (without TC Type field with PAL – refer to note below):



3. If you want to modify the LTC time code and date, type in the new time code for the Short IN point and date of the clip in the **Set TC** field below the LTC field.
4. If you want to modify the user-defined time code and date, type in the new time code for the Short IN point and date of the clip in the **Set TC** field below the **USER** field.
5. If you want to modify the primary TC for this clip, press the **A** or **B** key which corresponds to the requested primary TC.
6. Press **F2** to select CAM or CLIP mode
   - In CAM mode, only the time code of the camera angle loaded on the primary channel will be changed.
   - In CLIP mode, the time code of all camera angles of the clip will be changed.
7. Press **ENTER** to confirm or **ESC** to cancel.

The entire clip is updated according to the new time code value so that the time code remains continuous inside the whole clip.

Note

In 59.94Hz modes (NTSC), you can also select between DROP FRAME and NON DROP FRAME modes by pressing the space bar.

11.3.10 MOVING AND COPYING CLIPS AND PLAYLISTS

Copying and moving clips and playlists in the VGA are performed using the CUT, COPY and PASTE functions.

11.3.10.1 GENERAL PRINCIPLES

CLIPS

- If the clip board was filled using the **Cut** function, the original clip(s) is/are deleted after being pasted to the new location.
- In CAM mode, only the selected camera of the clip is **Cut/Copied/Pasted**. In CLIP mode, all camera angles of the clip are **Cut/Copied**.
- For the **Paste** function in CLIP mode, only the available camera locations inside the destination clip will be pasted. If some camera angles already exist for the destination clip, these will not be overwritten by the corresponding camera in the clipboard.
- A "**Cut & Paste**" of a clip is equivalent to a "Move Clip", meaning that any reference to that clip inside playlists will be updated to the new location of that clip. This is not the case when doing a "**Copy & Paste**", then deleting manually the original clip.

PLAYLISTS

- Playlist can only be pasted to local playlist locations. It means that network playlists can only be copied by "pulling" them from the remote machine to the local machine.
- Copying a playlist using the **Cut/Copy/Paste** functions from the Clip screen will only copy the "EDL" (i.e. the list of clips) but the clips themselves will remain in their original location. If the operator wishes to create a local copy of all network clips contained in the playlist, the copy of the playlist must be performed from the EVS Remote panel. Refer to the Chapter 13 "Playlist Management", on page 129 for further details.

11.3.10.2 CLIPBOARD FIELD

This area displays the content of the clipboard: clip/playlist number, network number if the copied clip/playlist is a remote clip/playlist, and the selected camera(s) for a clip.

The rest of the line summarize the available functions (copy, cut, paste, delete) and their keyboard shortcuts. These functions can also be called by

clicking on the corresponding area on this line.

11.3.10.3 CTL+ X: CUT

1. Move the cursor to the clip/playlist to “cut” from the Clip screen
2. Press **CTRL** + **X** on the keyboard or click on the corresponding area on the screen.

11.3.10.4 CTL+C: COPY

1. Move the cursor to the clip/playlist to copy
2. Press **CTRL** + **C** on the keyboard or click on the corresponding area on the screen.

11.3.10.5 CTL+V: PASTE

1. Move the cursor to the clip/playlist location where the content of the clipboard should be copied.
2. Press **CTRL** + **V** or click to the corresponding area on the screen.

11.3.10.6 CTL+DEL:DELETE

1. Move the cursor to the clip/playlist to delete.
2. Press **CTRL** + **DEL** or click on the corresponding area on the clip screen.

   → In CAM mode, only the camera selected is deleted

   → In CLIP mode, all cameras of the clip are deleted.

Important

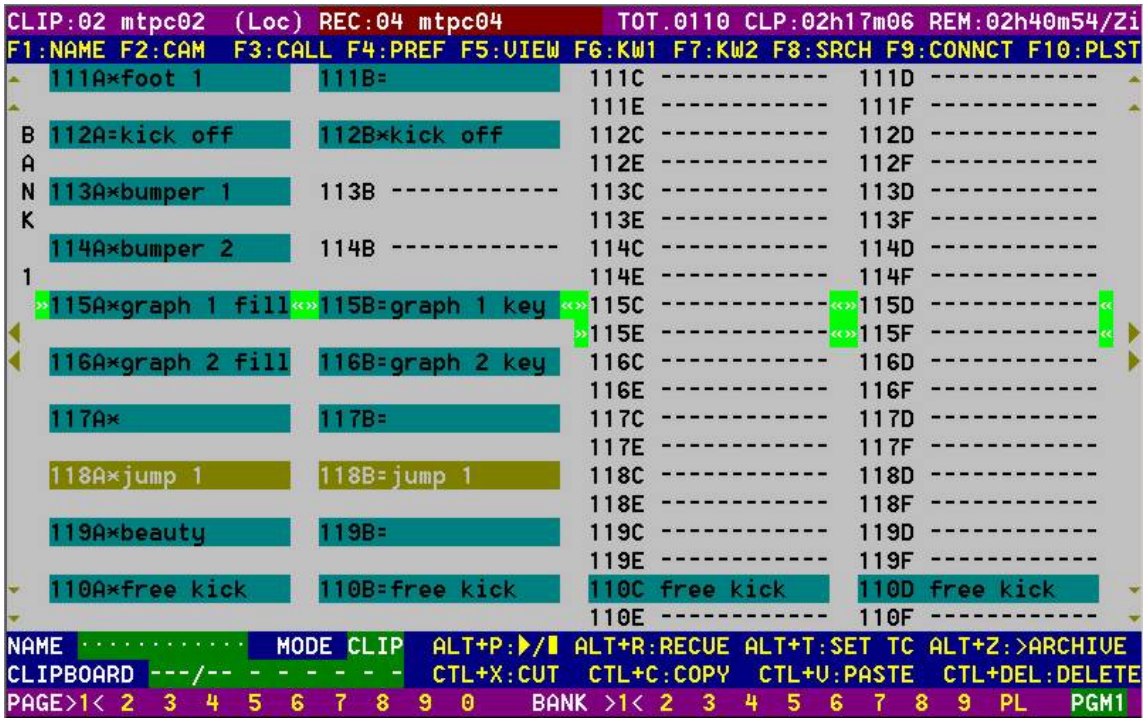
A clip/playlist cannot be deleted while it is on air.

Note

- When a clip is deleted, all playlists are scanned and that clip is removed from all of them.
- When a clip is protected, or when the “Confirm Delete Clip” is set to “Yes” in the setup menu (p.3.1 F2), a confirmation is required to delete the selected clip(s).

11.3.11 CLIP SCREEN – EXTENDED VIEW

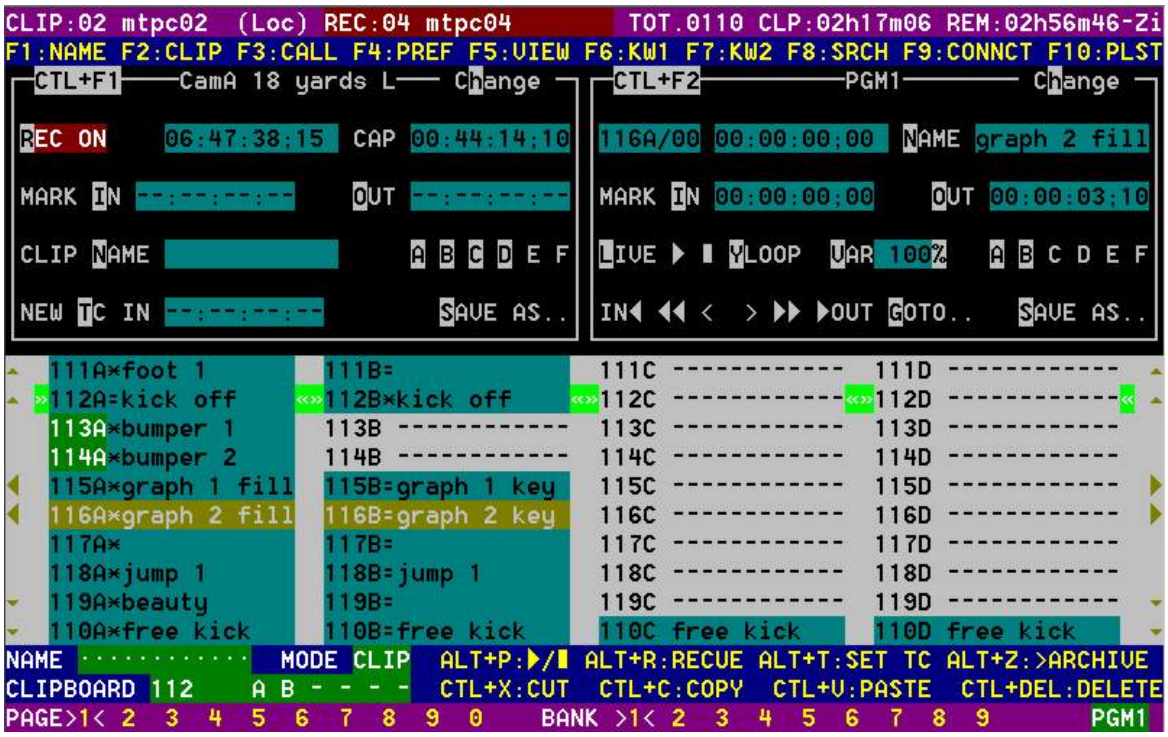
The extended view shows cameras A to F instead of A to D. Only 1 bank can be viewed at a time. The switch between standard and extended view is done by pressing **F5** on the keyboard or by clicking on the "F5:VIEW" area on the screen.



11.4 USING THE VDR PANEL

The VGA VDR Panel is accessed from any VGA screen by pressing **SHIFT+F9** on the keyboard. The lower section of the VDR Panel is similar to the clip screen, with the same functions. The upper section of the VDR Panel features 2 windows that can each take control of one channel of the server.

Pressing **SHIFT+F9** in the VDR Panel returns the VGA to the Clip screen mode.



11.4.1 VDR PANEL – LOWER SECTION

The browsing of clips, the viewing modes (normal or extended), the way clips are recalled, moved and copied, etc. in the VDR Panel is strictly the same as in the Clip screen. The CONNECT window is called with **F9**, and allows to connect to other servers on the network.

11.4.2 VDR PANEL – UPPER SECTION

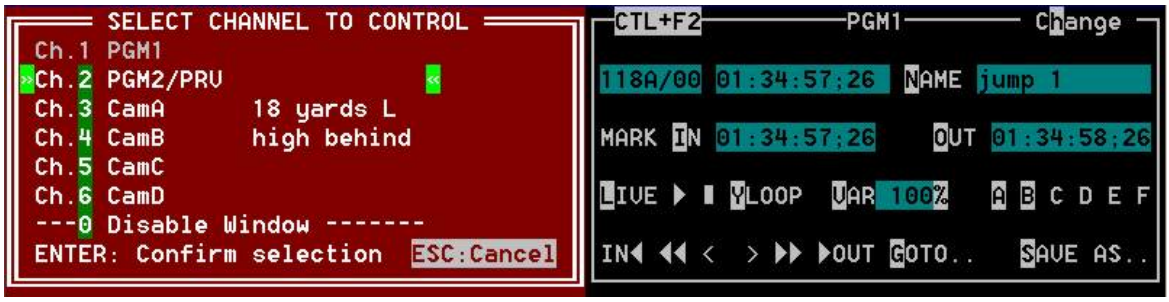
The two windows of the upper section can be assigned to a different channel of the server. When entering the VDR Panel for the first time after starting the application, the control of both windows is disabled.

Press **CTRL+F1** to gain control of the left window, or **CTRL+F2** to gain control on the right window. The frame around the corresponding window becomes green. Note that only one window can be active at a time. Inside the active window, letters/numbers highlighted in green indicate the keyboard shortcut to the corresponding function: press **ALT + the highlighted letter/number**. All functions are also available by clicking with the stylus.

Important

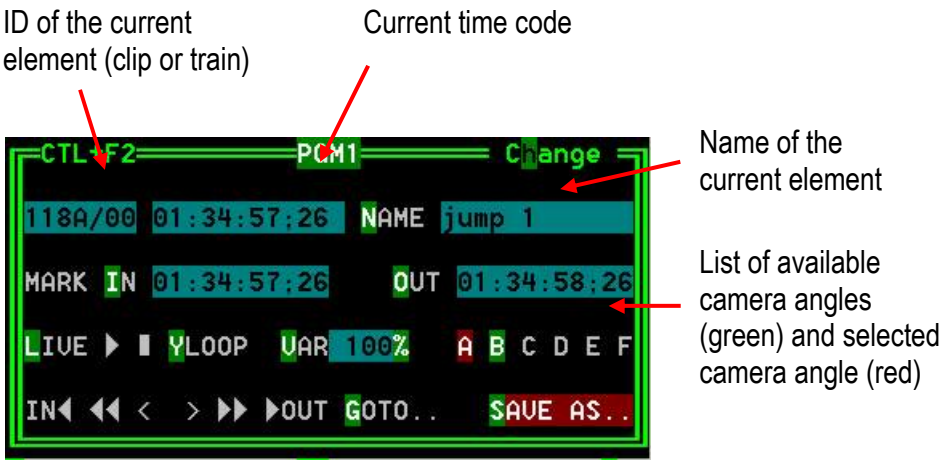
The control of a channel from the VDR Panel is concurrent to any other controller that might be assigned to that channel: EVS Remote panel or external protocol. A command sent from the VDR Panel to a channel will overwrite whatever the channel was doing at that time.

The name of the channel currently assigned to each window is displayed on the top of each of them. To assign a new channel to this window, press **ALT+H**. A new window appears on the other side to allow the selection of a new channel.



Use the ↑/↓ arrow keys to select the channel and press **ENTER**, or directly press ALT + the number of the channel as highlighted in green. The Play channels already assigned appear in grey and can not be selected. Select "0 – Disable Window" if you don't want to assign any channel to the window. Depending whether a Play or Record channel is assigned to the VDR Panel window, its content is automatically updated.

11.4.3 VDR PANEL – PLAYER WINDOW



11.4.3.1 HOW TO LOAD A RECORD TRAIN

Press **ALT+L** to go in LIVE mode (or click on the LIVE function), then press **ALT** + the letter of the desired record train (A/B/C/D/E/F), or click on it. The letters corresponding to the available record trains are highlighted in green, and the letter of the current record train in red.

11.4.3.2 How to Load a Clip

use the arrow keys to move the cursor inside the lower section of the VDR Panel to the desired clip and press **ENTER**, or click on the desired clip with the stylus, or type the desired clip ID and press **F3**. To select a different camera angle inside a clip, press **ALT** + the letter of the desired camera (A/B/C/D/E/F), or click on it. Available camera angles are highlighted in GREEN, the current camera angle in red.

11.4.3.3 Playing/Browsing the Current Element

Command	Description
ALT+P	Play from / Pause on the current picture
ALT+Y	Play the current clip in endless loop mode. The play will start from the current picture until the Short OUT point of the clip, then will automatically loop back to the Short IN point and keep playing, and so on...
ALT+V	PlayVar at the speed specified in the adjacent field. To edit the Var speed, press ALT + % (without **SHIFT** key), type the desired value and press **ENTER** to confirm.
< / > (without SHIFT key):	move 1 field backward / forward
SHIFT + < / >	Move 1 second backward / forward
CTRL + < / >	Fast Rewind + Fast Forward. The browsing will continue after the keys are released.
ALT + < / >	Goto IN / OUT
ALT + G	Goto time code

11.4.3.4 How to Create a Clip with the VDR Panel Player

1. Load a record train on the player

2. Browse the record train to reach the desired Short IN or Short OUT point and press **ALT+I / ALT+O** to mark the Short IN / Short OUT point on the current picture. The cursor is automatically placed in the adjacent field, so that the operator can manually enter the time code of the desired Short IN / OUT point if needed[1]. Press **ENTER** to confirm, or **ESC** to cancel.

3. Repeat this operation for the complementary Short IN / Short OUT point. This is not mandatory. If only a Short IN or a Short OUT point is marked, the **Default Clip Duration** defined in the Setup menu (p.2.2 F2) will be used to define the missing point.

[1] If the operator knows the time code of the IN / OUT point, he does not need to browse to that picture. He can press **ALT+I** on any picture, then enter the time code of the IN / OUT point and confirm with **ENTER**.

4. Press **ALT + S** to save the clip. The Save as window opens, giving the operator the opportunity to name / rename the clip if needed. Pressing **ENTER** will save the clip to the current cursor location in the lower section of the VDR Panel. When the Save as window is open, the operator still has the possibility to browse the database, select a different page and bank, and even connect to another machine on the network using the CONNECT window. Pressing **ALT+U** will save the clip to the first available clip location[1] in the current server.

11.4.3.5 EDITING A CLIP WITH THE VDR PANEL PLAYER

After loading the desired clip, the following functions are available:

Command	Description
ALT+N	Renames the clip. Type the desired name and press **ENTER** to confirm or **ESC** to cancel.
ALT+I / ALT+O	Marks a new Short IN / Short OUT point on the current picture. The cursor is automatically placed in the adjacent field, so that the operator can manually enter the time code of the desired Short IN / Short OUT point if needed. Press **ENTER** to confirm, or **ESC** to cancel.

11.4.3.6 HOW TO MAKE A COPY OF A CLIP WITH THE VDR PANEL PLAYER

1. Load the original clip

2. Press **ALT+S** to save the current clip to another location. This will create a copy of the clip.

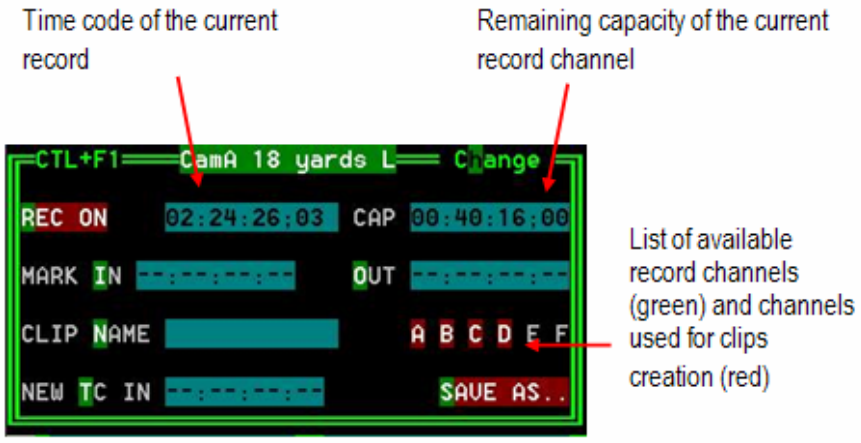
   The operator has the opportunity to rename the clip during this operation. He can then save the clip to the current cursor location by pressing **ENTER**, or to the first available clip location on the current server by pressing **ALT+U**.

Note

The Cut / Copy / Paste functions are available at any time to move and copy clips in the lower section of the VDR Panel, even when one of the upper windows is active.

[1] The first available clip location is the first one where no camera angle is already present.

11.4.4 VDR PANEL – RECORDER WINDOW



The VDR Panel Recorder can be used to start/stop the record, and to create clips from the local record trains. For example, it allows the creation of clips on a server that has no Play channel.

11.4.4.1 HOW TO START/STOP THE RECORD

Press **ALT+R** to start or stop the record on the record channel assigned to the window. No confirmation is required.

Important

In LSM mode, all recorders will be stopped at once to keep the synchronization between all record channels.

11.4.4.2 CREATING CLIPS WITH THE VDR PANEL RECORDER

1. Press **ALT+I** / **ALT+O** to mark a Short IN / Short OUT point on the last recorded picture. The time code appears in the adjacent field, and the cursor is automatically placed on that field to allow the operator to edit the time code of the Short IN / Short OUT point if desired. Press **ENTER** to confirm or **ESC** to cancel.

2. Repeat this operation for the complementary Short IN / OUT point. This is not mandatory. If only a Short IN or a Short OUT point is marked, the **Default Clip Duration** defined in the Setup (p.2.2 F2) will be used to define the missing point.

3. Select from which record train(s) the clip(s) must be created: press **ALT** + the letter (A/B/C/D/E/F) of a record train to select / de-select it. Letters highlighted in RED means that a clip will be created from the corresponding record train ; letters highlighted in green means that the corresponding record train is available but will not be used to create a clip.

4. To define the name of the clip before saving it, press **ALT+N**, type the desired name and validate with **ENTER**.

5. The operator can also restripe the time code of the IN point of the clip to a new value. Press **ALT+T**, type the desired value and confirm with enter. When creating the clip, this time code will replace the original time code of the Short IN point.

6. Press **ALT+S** to save the clip(s). The operator still has the opportunity to rename the clip during this operation. He can then save the clip to the current cursor location by pressing **ENTER**, or to the first available clip location on the current server by pressing **ALT+U**.

12. Keyword Management

Each clip of the server can be assigned 3 keywords and a ranking. Values for ranking are: –, *, **, ***. The keywords are selected from a user defined keywords file that can contain up to 200 keywords of 12 characters.

This information (keywords, ranking) can then be combined with other criteria (time code, dates) to search the server's database for matching clips.

The keyword and ranking assignment, and the search functions, can be performed using the EVS Remote panel or the VGA screen and PC keyboard. This functions are only available if license codes 124 (database search functions) and 125 (keyword assignment functions) are installed on the server.

12.1 CREATING AND SELECTING THE KEYWORD FILE

The keyword file is a simple text file with a name of 8 characters and a .KWD extension. All keyword files must be located in the Multicam\KWD directory of the server. A sample keyword file (SAMPLE.KWD) is provided by EVS when installing Multicam 6.01.43. The content of a keyword file is similar to the following:

```
1 = action_1
2 = action_2
3 = action_3
4 = action_4
5 = action_5
6 = action_6
7 = action_7
8 = action_8
9 = action_9
10 = action_10
11 = action_11
12 = action_12
13 = action_13
14 = action_14
15 = action_15
16 = action_16
17 = action_17
18 = action_18
19 = action_19
20 = action_20

21 = player_A1
22 = player_A2
23 = player_A3
24 = player_A4
25 = player_A5
```

```
26 = player_A6
27 = player_A7
28 = player_A8
29 = player_A9
30 = player_A10
31 = player_A11
32 = player_A12
33 = player_A13
34 = player_A14
35 = player_A15
36 = player_A16
37 = player_A17
38 = player_A18
39 = player_A19
40 = player_A20

41 = player_B1
42 = player_B2
43 = player_B3
44 = player_B4
45 = player_B5
46 = player_B6
47 = player_B7
48 = player_B8
49 = player_B9
50 = player_B10
51 = player_B11
52 = player_B12
53 = player_B13
54 = player_B14
55 = player_B15
56 = player_B16
57 = player_B17
58 = player_B18
59 = player_B19
60 = player_B20
…etc… until 200 = last
keyword
```

Each keyword can have up to 12 characters, including blanks. Avoid accentuated and special characters since most of them will not be recognized by the Multicam application. If a keyword is longer than 12 characters, only the first 12 characters will be used and the end of the keyword will automatically be truncated.

12.1.1 CREATING THE KEYWORD FILE FROM A PC

Creating a keyword file can be done on any PC with a simple text editor. Make sure the file name does not exceed 8 characters, that all characters in the file name are legal, and that it has a .KWD extension. The file can then be imported from a floppy disk onto the server, either manually from the DOS, or by using the **Import/Export Keywords Files** from the EVS Maintenance menu (refer to the "XT Technical Reference" for more details about this option).

12.1.2 SELECTING THE CURRENT KEYWORD FILE

In the Multicam application, the keyword file can be selected either from the VGA Setup screen, or from the Setup menu of the EVS Remote panel (p.3.2 F1).

The operator can select any file from all the .KWD files present in the `Multicam\DIRECTORY`. If the machine is connected to other systems on the EVS SDTI network, the network server will automatically distributes its current keyword file to all other users on the network.

For each system on the network, the operator can choose to work with the file coming from the network server (set the **Keywords File** parameter to "SERVER"), or with a local file.

Note

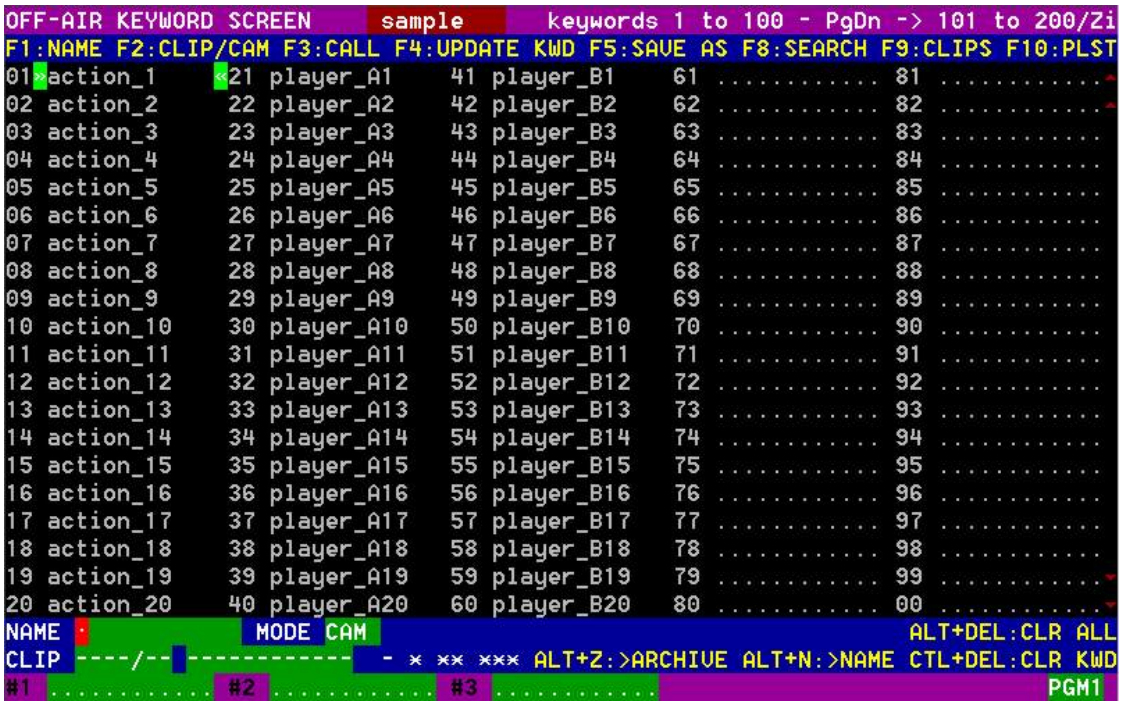
In a normal situation, the network server is the machine that has been defined as such in the EVS Configuration menu.

However, if for any reason the network has been interrupted or the machine designated as the network server is not available, another machine on the network (the Master machine with the highest serial number) will automatically take over this job, including the distribution of the keywords file. Even if the original network server reconnects, he will not necessarily become the actual network server again.

The machine that actually assumes the role of network server can easily be identified from the Connect window on the VGA or from the Network menu on the EVS Remote panel, thanks to the "*" displayed next to its name. That machine only has the ability to distribute its current keyword file to the others on the SDTI network.

12.1.3 EDITING THE KEYWORD FILE FROM THE MULTICAM APPLICATION

The keyword file can also be edited directly in the Multicam application using the Off-Air Keyword screen (**F7**). This screen is also used to assign keywords to a clip, but the keyword assignment functions will be described further in this chapter.



Select a local keywords file from the Setup. If you select “SERVER” as keywords file in the setup, i.e. the file distributed by the network server, you will not be allowed to edit it.

Go to the Off-Air Keyword Screen by pressing **F7** on the keyboard. If you want to create a backup copy of the current file, press **F5:SAVE AS** in that screen (or click on the function with the stylus) and enter the name of the file you want to create. This can also be used to create a local copy of the keywords file distributed by the Network Server.

Note

If a .KWD file with the same name already exists in the KWD directory, it will automatically be overwritten by the new file.

To edit a keyword in the current file, move the cursor to the desired keyword location, using either the arrow keys or the stylus, then type the new keyword. This one will appear in the **Name** field at the bottom of the screen. Press ESC to clear the whole field or **<BACKSPACE>** to delete the last character. To apply the value entered in the name field to the selected keyword, press **F4:UPDATE KWD**, or click on that function with the stylus.

Repeat this operation for all keywords to update.

Press **PgU/PgDn** to toggle between Page 1 (keywords 1 to 100) and Page 2 (keywords 101 to 200), or click on the Up/Down red arrows on the right side of the screen.

If your machine is the actual Network server, the updated file is automatically sent to all other users on the network every time a keyword is updated.

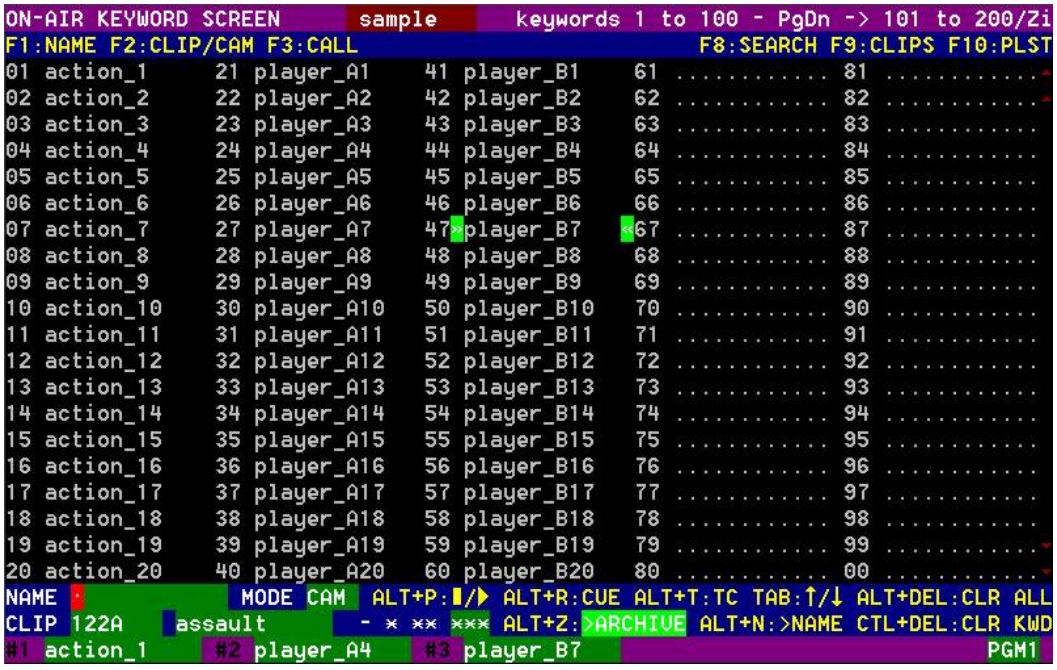
12.2 ASSIGNING KEYWORDS USING THE VGA SCREEN

Keywords can be assigned to clips using the On-Air Keyword screen (**F6:KW1**), or the Off-Air Keyword screen (**F7:KW2**).

The On-Air Keyword screen is used to assign keywords to the clip loaded on the primary channel of the 1st user, meaning that a play channel is used during this operation.

The Off-Air Keyword screen is used to assign keywords to the clip selected with the green arrows in the Clip screen or in the VDR Panel, even if this clip is not loaded on any play channel. This can be useful to allow someone to assist the main operator for logging operations, without taking any play channel from the system

The operation of both On-Air and Off-Air Keyword screens is entirely similar.



The name of the current keyword file is displayed in the centre of the Title Bar, against a red background.

Many functions for clip management are similar to the Clip screen: **F1**:NAME ; **F2**:CLIP/CAM ; **F3**:CALL[1], **ALT+P**:PLAY/PAUSE, **ALT+R**:RECUE, **ALT+T**:SET TC; **ALT+Z**:>ARCHIVE, **ALT+Fx**:select the Call Channel from VGA is enabled. Refer to the description of the Clip screen for details about these functions.

[1] When calling a clip with the F3 function in the Off-Air Keyword Screen, the system will automatically switch to the On-Air Keyword screen, since the clip to assign keywords to has been loaded on a play channel.

The ID and name of the clip that keyword are going to be assigned to is displayed at the bottom on the screen, along with the keywords, ranking and archive status already assigned to that clip.

How to Assign a Keyword to a Clip

Move the cursor to the desired keyword and press **ENTER**, or click on the keyword with the stylus. The keyword will be assigned to the first available keyword location on the last line of the screen. Repeat this to assign more keywords (up to 3) to the current clip.

Depending on the CLIP/CAM mode, the keywords will be assigned to the current camera angle only (CAM mode), or to all camera angles of the current clip (CLIP mode).

If 3 keywords are already assigned to the clip, the operator has to clear some of them to be able to assign new keywords.

How to Clear a Keyword with the Keyboard

Press **<TAB>** to move the arrow cursor to the lower area of the screen. Red arrows will appear around one of the keywords or ranking values. Use the ←/→ arrows to select the keyword to remove, and press **CTRL+DEL**. Press the **<TAB>** key again to move the arrow cursor back to the keywords list.

How to Clear a Keyword with the Stylus

Click on the keyword to remove on the last line, the click on the **CTRL+DEL:CLR KWD** area on the screen, or press **CTRL+DEL**.

How to Edit the Ranking of the Current Clip With the Keyboard

Press the **<TAB>** key to move the cursor to the lower area of the screen Use the ←/→ arrows to select the desired ranking, and press **ENTER**. The selected ranking is highlighted in green.

How to Edit the Ranking of the Current Clip With the Stylus

Click on the desired ranking, it becomes highlighted in green.

HOW TO CLEAR ALL KEYWORDS AND THE RANKING OF A CLIP

Press **ALT+DEL** or click on **ALT+DEL:CLR ALL**: all keywords assigned to the clip will be removed, and the ranking will be reset to the lowest level ("–").

HOW TO NAME A CLIP USING THE KEYWORDS:

Move the cursor to the desired keyword and press **ALT+N**. The keyword is added at the end of the current name if there is enough space left.

Note

To clear the name of a clip, press **ESC** to empty the **Name** field, then press **F1** to assign this "empty name" to the clip.

12.3 SEARCHING THE DATABASE USING THE VGA SCREEN

Press **F8** to access the Search Screen. The VGA Search screen is made up of several areas that will be named as follows, from the top to the bottom:

1.	**Title bar**	Bar containing the following elements from left to right: • Screen name • Name of the current keywords file displayed against a red background in the centre of the Title Bar • Keyword page displayed.
2.	**Function bar**	Bar displaying information on the various function keys available and their purpose.
3.	**Keyword list**	Area displaying the list of keyword list on the page specified in the title bar.
4.	**Operation tab**	Bar displaying the key combinations available and the associated actions.
5.	**Search Criteria area**	Area displaying the search criteria available

Note

Use the **<TAB>** key to shift from the Keyword list to the Search Criteria area and vice versa.

12.3.1 SEARCH CRITERIA AND SEARCH OPTIONS

12.3.1.1 SEARCH CRITERIA

Different criteria can be combined to search the database. They can be defined in the Search Criteria area available at the bottom of the screen.

When you access the Search screen, the criteria that were last defined are still available on the screen.

Note

If the red cursor is located on another field in the Search Criteria area, use the ←/→ arrow keys to move from one field to the previous or next one, until the red cursor is positioned on the requested field.

Criteria	Description
Time code	This restricts the search to the clips containing the time code specified in this field. The time code search is not applied on “Record in progress” clips. To define a time code, type the desired value when the red text cursor is visible in that field. The <**BACKSPACE**> key can be used to clear the last digit entered.
Date from / to	This restricts the search to clips created between these 2 dates specified in these fields. If only **Date to** field is defined, all clips created before that date will be considered. If only **Date from** field is defined, all clips created after that

Criteria	Description
	date will be considered. The <**BACKSPACE**> key can be used to clear the last digit entered. Press the <**TAB**> key again to move the cursor back to the keywords list.
Level / Ranking	This restricts the search to the clips with a ranking equal or higher to the ranking defined in that screen. Press the ←/→ arrow keys until reaching the desired ranking, and press **ENTER**. The selected ranking is highlighted in green. Press the <**TAB**> key again to move the cursor back to the keywords list.
Keywords	This restricts the search to the clips containing all keywords defined in this screen. To assign a keyword, move the cursor to the desired keyword and press **ENTER**, or click on the keyword using the stylus. A maximum of 3 keywords can be used as search criteria. If all 3 keyword locations are already occupied, the operator needs to clear some of them to select new keywords.
Archive status	This restricts the search to the clips having the archive status selected.

Parameter	On the VGA
None (default)	-
clips not archived	X
clips to be archived	>A
clips archived	A

12.3.1.2 SEARCH OPTIONS

In addition to the search criteria available at the bottom of the screen, two search options are accessible from the Function keys **F2** and **F4**:

Consider Record trains and / or clips in the Search

This option allows the inclusion of record trains in the results in searches with time code criteria. Press **F2** to toggle between CLIP / CLIP+REC / REC.

Consider time codes from the LTC and/or USER TC tables in the Search

This option makes it possible to take into account the time codes from the LTC and/or the USER TC tables in searches with time code criteria. Press **F4** to toggle between LTC / USER / LTC+USER.

12.3.1.3 How to Clear a Keyword with the Keyboard

Press <**TAB**> to move the arrow cursor to the lower area of the screen. Use the ←/→ arrows to move the cursor to the keyword to remove, and press **CTRL+DEL**. Press the <**TAB**> key again to move the arrow cursor back to the keywords list.

12.3.1.4 How to Clear a Keyword with the Stylus

Click on the keyword to remove on the last line, the click on the **CTRL+DEL:CLR KWD** area on the screen, or press **CTRL+DEL**.

12.3.1.5 How to Clear all Criteria at Once

Press **ALT+DEL** or click on **ALT+DEL:CLR ALL**: all keywords, time code, **Date from** and **Date to** fields assigned as search criteria will be removed, and the ranking will be reset to the lowest level ("–").

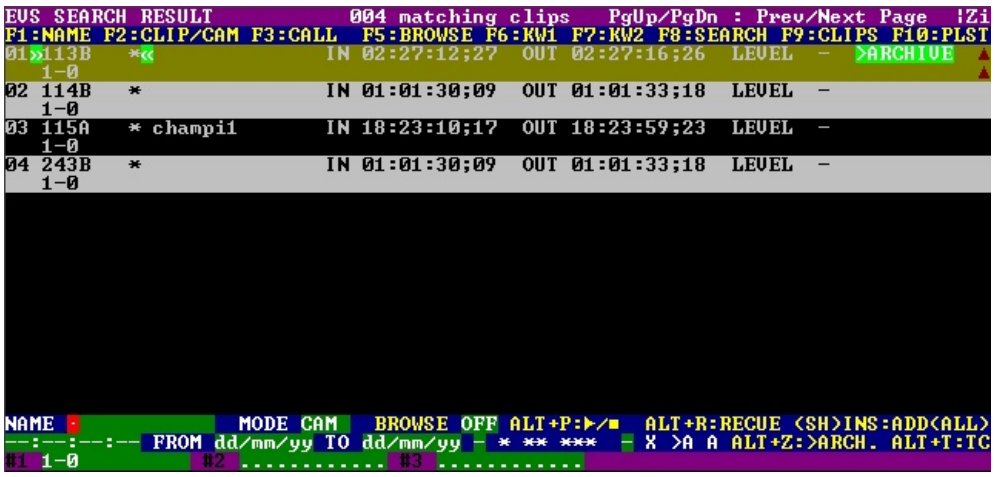
When performing the search, only the clips matching all criteria defined by the operator will be included in the search results. Press **CTRL+S** (or click on the corresponding area) to search the local database, or press **ALT+S** (or click on the corresponding area) to search the entire network database.

12.3.2 Search Results

The results of the database search are displayed in the Search Results screen. If new clips are created after the search, which match the search criteria, they will be automatically added to the list.

The Search Results screen includes the following areas:

- At the bottom of the screen, the search criteria are displayed for information.
- In the centre of the screen, a list of all matching clips is displayed.



12.3.2.1 CLIP INFORMATION

For each clip, the following information is displayed:

- position in the list
- clip ID
- clip name
- time code of Short IN and Short OUT points

  Time codes from the LTC table are displayed in grey/black.

  Time codes from the USER TC table are displayed in yellow.
- ranking
- archive status
- current keywords.

12.3.2.2 BROWSING THROUGH RESULTS AND LOADING A CLIP

The operator can browse this list with the ↑/↓ **arrow keys, PgUp, PgDn, Home** and **End** keys.

If the Browse mode of that screen is ON (**F5:BROWSE**), the clip will be loaded on the primary play channel as soon as it is selected.

If the Browse mode is OFF, the operator must press **ENTER** after selecting the clip to load it.

Note

When a clip is displayed in the search results with a time code from the VITC table (when this search option has been selected), the clip is loaded with this time code even if the primary TC is the LTC.

12.3.2.3 POSSIBLE ACTIONS

Many functions from the Clip screen are also available from the Search Results screen:

F1:NAME	**F2:**CLIP/CAM	**F3:**CALL	
ALT+P:PLAY/ PAUSE	**ALT+R:**RECUE	**ALT+T:**SET TC	**ALT+Z:**>ARCHIVE

To return to the Search screen to perform a new search, press **ALT+S** or **F8**. The previous search criteria are kept until the operator selects new criteria.

How to Add a Clip to the Current Playlist from the Remote panel

To add a clip from that list to the current playlist, call up the clip, then press **INSERT** or **ENTER** on the Remote panel.

How to Add the Search Results to the Current Playlist from the VGA

It is possible to directly add one or all search results (clips only) to the current playlist:

- Press **INSERT** on the selected clip to insert only the highlighted one.
- Press **SHIFT+INSERT** to insert all clips to the end of the current playlist.

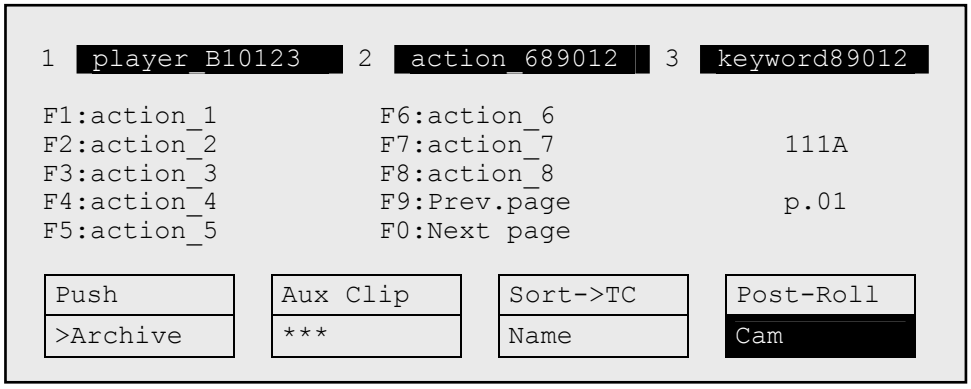
12.4 ASSIGNING KEYWORDS USING THE EVS REMOTE PANEL

A keywords file must be selected in the Setup to enable the keyword assignment functions on the EVS Remote panel.

- In the Setup menu of the remote, the operator can choose between 2 different keyword modes: “List” (default) or “Numeric”.
- In LIST mode, the list of keywords will appear on the LCD display by group of 8 keywords, and the operator can select the keyword by pressing the corresponding **F_** key. The advantage is that the keywords are visible to the operator, but this mode can be slow if he has to browse through a long list of keywords.
- In NUMERIC mode, the list of keywords is not visible on the LCD display, and the operator selects a keyword by entering its position in the list with the **F_** keys. He can know the position either from a hardcopy of the keywords list, or by looking at one of the VGA Keywords screens, or still from his memory… This mode is faster to operate, but in most cases the operator will need to have the complete list of keywords available next to him.

12.4.1 ASSIGNING KEYWORDS IN LIST MODE

To assign keywords to a clip in list mode, recall the clip, then press **MENU** to access the secondary clip menu on the Remote panel.



The LCD display a page containing 8 keywords. Press **F9/F10** to access the previous/next keywords page. To assign a keyword to the current clip, press the **F_** key corresponding to the desired keyword on the LCD display.

Depending on the CLIP/CAM mode defined by the **D** key, the selected keyword will be assigned only to the camera angles loaded on the channels fully controlled by the operator at that time (CAM mode), or to all camera angles of the clip (CLIP mode). The keyword will be assigned to the first available keyword location on the 1st line of the LCD display. If the **Keyword Info** parameter of the Setup is set to "Yes", it will also appear on the OSD of the corresponding output monitors if the current picture is the Short IN point of the clip.

If all 3 keywords location are occupied, the operator has to clear some of them to be able to assign a new keyword to that clip.

To clear one of the keywords already assigned, press **CLEAR** + **F1** / **F2** / **F3** in the secondary clip menu.

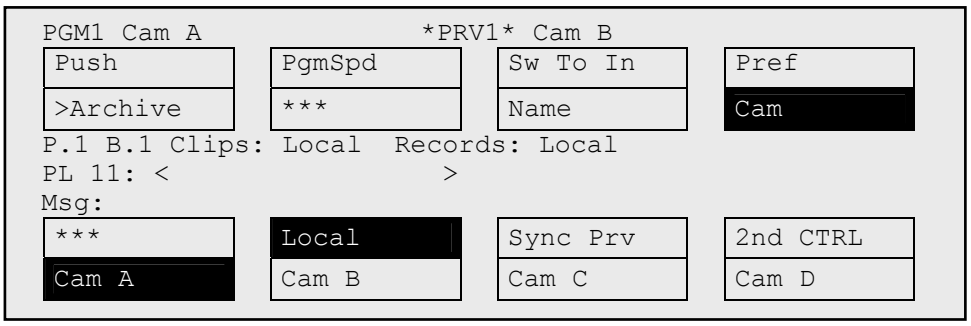
The clip can also be named based on the keywords. Press the Name function (C key) in the secondary menu, then select keywords. The keywords will be added to the name of the clip, up to 12 characters. In this mode, the name of the clip is visible on the OSD. It can also be edited with the following keys:

- **CLEAR**: erase the last character
- **SHIFT+CLEAR**: insert a blank
- **SHIFT+F1-F10**: insert a number (1, 2, 3, ..., 8, 9, 0)

Once the name is complete, press ENTER to validate or MENU to cancel.

While the operator is in the secondary menu, he has full control of the current clip with the lever, PLAY key and jog dial, so he can browse the clip and start a replay at any time.

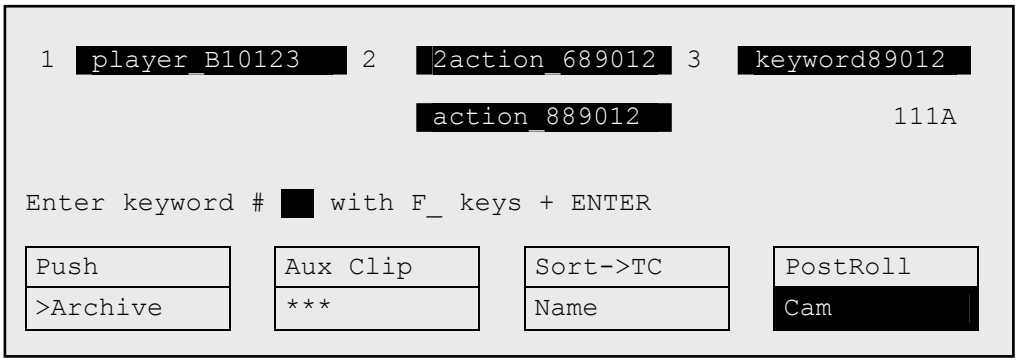
It is also possible to assign keywords and ranking to a clip before it is created. Indeed, when a record train is loaded, as soon as the operator marks an IN or OUT point, the main and secondary menu changes to make the keyword functions available.



The **SHIFT+A** function of the main menu, normally used by the Reset CAM function, can be used to define the ranking, without entering the secondary menu. For additional functions like selecting keywords, flagging the future clip for archiving, marking it to be pushed to another machine, defining its name from the keywords, they can be performed from the secondary menu, exactly the same way as for a clip already stored. All these settings are memorized and will be applied to the clip when it is created.

12.4.2 ASSIGNING KEYWORDS IN NUMERIC MODE

To assign keywords to a clip in numeric mode, recall the clip, then press MENU to access the secondary clip menu on the Remote panel.



Enter the keyword position in the list using the **F_** keys. Every time a new digit is entered, the corresponding keyword is displayed in the highlighted area in the centre of the LCD screen, to allow the operator to validate the entry before confirming it. If a wrong digit is entered, press the **CLEAR** key to delete it. Once the right keyword is found, press **ENTER** to confirm or **MENU** to cancel.

The rules for keyword assignment and deleting keywords are identical between LIST and NUMERIC modes.

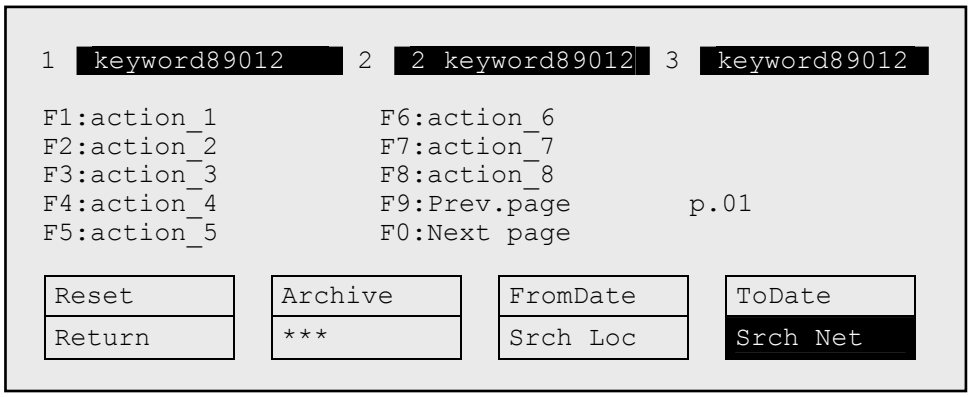
12.5 SEARCHING THE DATABASE USING THE EVS REMOTE PANEL

Keywords and ranking assigned to clips can be used to search the clips database.

When the current element on the primary channel is a record train, the Search function is directly available from the C position in the secondary menu. To call it, press **MENU** to enter the secondary train menu, then press once the **C** key.

When the current element on the primary channel is a clip, the Search function is still available from the same location, but it is "hidden" behind the Name function. To call it in this case, press **MENU** to enter the secondary clip menu, then press twice the **C** key.

In both cases, the LCD display becomes (in LIST mode):



KEYWORDS

They can be selected for use as search criteria the same way they were selected to be assigned to a clip, in LIST or NUMERIC mode. Up to 3 keywords can be selected as search criteria. If all 3 keywords locations are used, some of them must be cleared before selecting a new keyword. Press **CLEAR + F1 / F2 / F3** to clear to corresponding keyword location.

RANKING

A ranking can also be used as the only search criteria, or can be combined to the keywords as an additional criterion. Press the B key several times to select the desired ranking.

The **RESET** key (**SHIFT+A**) can be used at any time to clear all 3 keyword locations and reset the ranking to the lowest level.

ARCHIVE

This field allows selecting archive status for search criteria.

Parameter	On the Remote
None (default)	Archive
Clips not archived	>Archive
Clips to be archived	>Archive (blinking)
Clips archived	

It is possible to **include trains** in the search. The B key allows to toggle between CLIPS/CLIPS+REC/REC.

FROM DATE / TO DATE

Selecting a **From Date** and **To Date** can be done using the SHIFT+C and SHIFT+D keys. Pressing on any of those keys changes the display on the key to dd/mm/yy to indicate the date format. The F keys are used to enter the date, the Clear key being the <**BACKSPACE**>.

To search only for a specific date, use the same date twice in the **From Date** and **To Date** fields.

Once a date is entered, pressing Clear **SHIFT+C** or Clear **SHIFT+D** reset the FromDate or ToDate to the default parameter (dd/mm/yy).

RESET

The **RESET** key: resets the default values of the search criteria (no from/to date) and set the default TC to the TC of loaded on the PGM.

RETURN

The **RETURN** key (A) is used to exit the Search function without performing any search.

SEARCH LOC / SEARCH NET

Once the search criteria are defined, press **SRCH LOC** (**C**) to search the local clips database, or **SRCH NET** (**D**) to search the entire network database.

The matching clips are the ones that contain all keywords used as search criteria, and that have at least the requested ranking.

If matching clips are found, the remote will automatically be in Browse mode (the BROWSE key is red), allowing the operator to quickly view the Short IN of each clip corresponding to the search criteria by rotating the jog dial. To be able to jog inside a clip, disable the Browse mode by pressing on the

BROWSE key and move the jog dial. To return to the Browse mode inside the search results, press the **BROWSE** key again.

Search results are reset when going by to LIVE mode, or when a new search is performed.

If no matching clips are found, a message notifies the operator.

ADDING THE SEARCH RESULTS TO THE CURRENT PLAYLIST

It is possible to directly add all search results (clips only) to the current playlist.

Press **ENTER** on the selected clip to insert only that one. Press **SHIFT+ENTER** to insert all clips to the end of the current playlist.

13. Playlist Management

13.1 STANDARD MODE

13.1.1 HOW TO MAKE A PLAYLIST

You will see that a playlist can be made very quickly. The experienced operator can include a clip at the end of the playlist containing an action that happened seconds before the playlist is played on air.

1. Choose the first clip for your playlist.
2. Then press **ENTER** on the Remote.
3. Repeat as necessary until last clip is entered.

When Multicam is first switched on, the active playlist will automatically be playlist 11.

13.1.2 INSERTING "RECORD IN PROGRESS" CLIPS INTO PLAYLISTS

"Record in progress" clips can be inserted in playlists.

DISPLAY

They will be displayed with the "Creating" message in the playlist on the VGA.

The "Record in progress" clips ID will be blinking on the mini playlist display and on the playlist screen on the Remote panel, as well as on the OSD.

REMAINING TIME

The remaining time in playlists containing "Record in progress" clips with only an IN point is as follows:

The remaining time displays --:--:-- on all the screens (OSD, VGA, Remote panel screen) where this information is displayed.

13.1.3 HOW TO SELECT A PLAYLIST

To activate another playlist, proceed as follows:

1. Go to playlist bank by pressing **SHIFT + F10**.
2. Select the playlist as required (press **F1 - F10)**

   PAGE 1 contains Playlists 10 to 19, PAGE 2 contains 20 to 29, PAGE 3 contains 30 to 39,..., and so on.

Playlists from page 10 are not available from the EVS Remote panel. These playlists are reserved for external protocols (Odetics, Louth VDCP, EVS AVSP).

The access to playlists from other machines on the SDTI network is similar: select the machine from the Network menu on the Remote, then access the playlist bank of that machine, and select a playlist.

On the VGA clip screen, pressing enter on a selected playlist in the playlist bank makes it the current playlist.

Important when accessing network playlists

- Playlists information is not permanently refreshed on the network. The playlist information for a remote playlist bank is only transferred when entering that bank. If you are already connected to a remote playlist bank, press **SHIFT+F10** again to refresh the playlist information for this bank.
- Remote playlists are available as “Read Only”, and can not be edited. If you want to modify a network playlist, you have to create a local copy on your machine first. This operation is done instantly if the clips remain in their original location. Refer to the next paragraph for details about copying playlists.

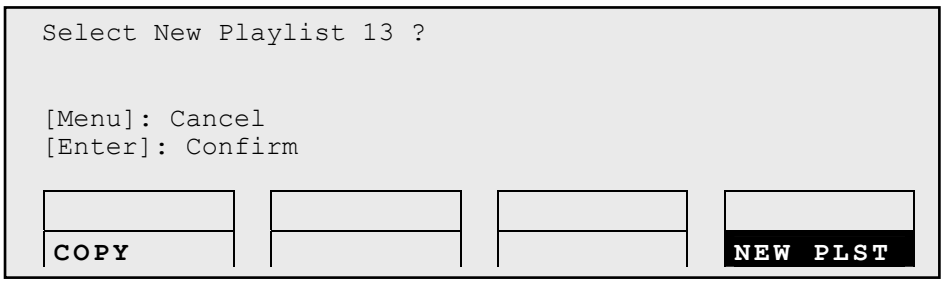
13.1.4 HOW TO COPY A PLAYLIST

13.1.4.1 HOW TO COPY A PLAYLIST FROM THE REMOTE PANEL

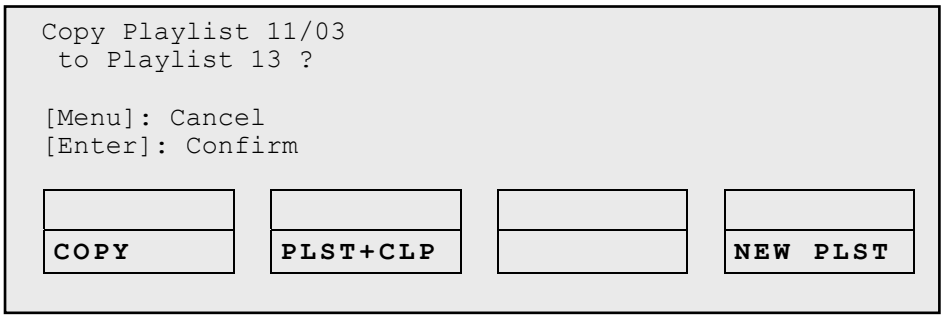
To copy a playlist, proceed as follows:

1. Go to playlist bank (local or from another machine on the network).
2. Select the original playlist to copy by pressing the corresponding **F_** key on the Remote.
3. Select an empty playlist location on your local machine.

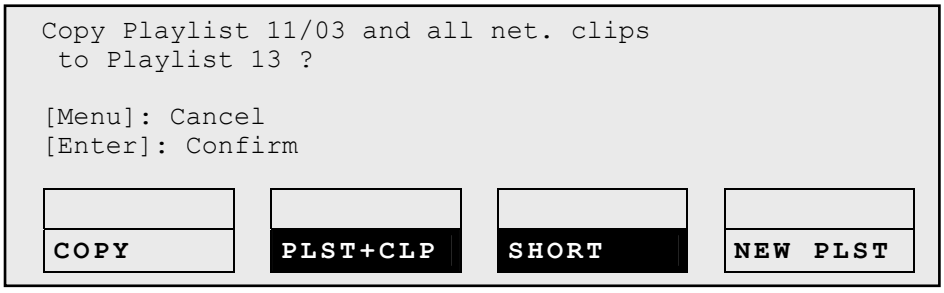
   A new menu appears on the LCD display of the Remote panel, with the corresponding message on the OSD of the output monitors, asking whether you want to copy the original playlist to the new location or whether you simply want to select a new, empty playlist (default choice):



4. Press COPY (A key) to select the copy option. The menu becomes:



5. To specify whether to copy the EDL with or without the clips, do one of the following:
   - If you want to copy only the EDL without copying the clips contained in the original playlist, press **ENTER**. The copy is done instantly since there is no material to transfer.
   - If you want to copy the EDL and the clips themselves to your local machine, press **PLST+CLP** (**B** key). The display becomes:



6. To specify whether to perform a Short or Long copy, select the desired value (SHORT or LONG) with the **C** key.
   - **SHORT mode (default):** only the section of the clips between the Short IN and Short OUT as defined in the playlist will be copied, increased by the duration of the guardbands, as defined on the destination system.
   - **LONG mode**: the entire original clips, including their guardbands, will be copied on the destination system.
7. Once the various options have been decided, press **ENTER** to confirm the copy, or **MENU** to cancel.

The **F_** key of the destination playlist will flash until all clips have been copied. This playlist can be recalled during that process for browsing, editing or playback. If some clips have not yet been copied, the original network clip is used instead.

13.1.4.2 COPYING PLAYLISTS FROM THE VGA

The same command is available from the VGA clip screen in the playlist bank.

From the VGA it is also possible to do a copy short: although **Ctrl+V** is by default a Copy Long, **Ctrl+SHIFT+V** executes a Copy Short.

13.1.4.3 COPYING DISTANT PLAYLISTS

When copying a distant playlist to a local machine, a message pops-up:

```
Copy Playlist xx/xx to yy.
Select Copy Playlist Mode (Space Bar)

Playlist Only
Playlist with Clips: Short Mode
Playlist with Clips: Long Mode

Esc: Cancel - Enter: Confirm
```

Note

It is not possible at this time to perform a playlist copy from the local machine to a distant one. All playlist copies must be pasted to a local machine

13.1.4.4 COPYING PLAYLISTS WITH ON-AIR CLIPS

During a COPY PLST+CLIPS process (LONG mode), if the destination playlist is recalled and the on-air clip has not yet been transferred to the local machine, the copy of all clips will be completed properly. However, the reference of the on-air clip in the playlist can not be moved from the network clip to its local copy while it is on air. That reference will be updated as soon as the clip is no longer on-air.

Important

In a SHORT copy of a play-list, on-air clips will not be copied to the local machine. Read carefully the following section for more information.

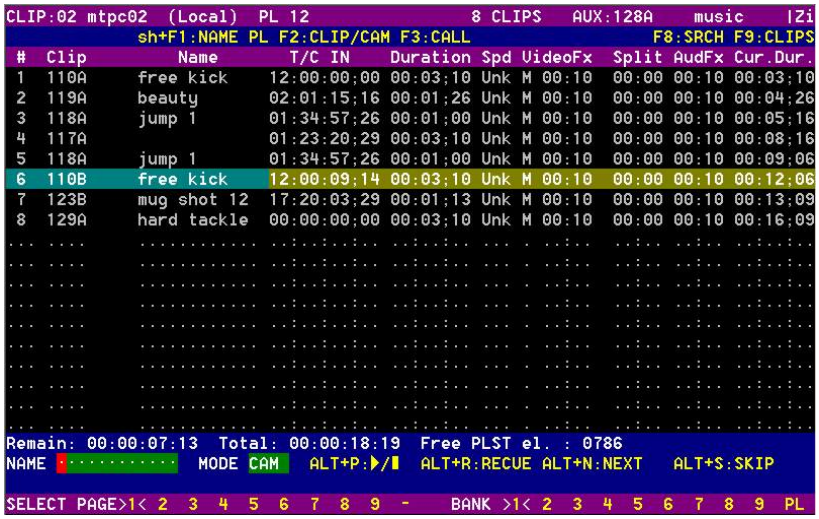
During a COPY PLST+CLIPS process (SHORT mode) in running, if the destination playlist is recalled and the on-air clip has not yet been transferred to the local machine, the copy of the on-air clip will be skipped when the copy process reaches this clip in the playlist. The copy process will continue with the following clips, but it will not be able to come back to the previous clip that could not be transferred. If you notice that some network clips are still present in the new playlist after the copy process is complete, select the new playlist that has just been created by the copy process, and copy it to another local playlist location. Only the remaining network clip(s) will need to be copied.

COPY PLST+CLIPS processes can not be queued. If the operator tries starting a new COPY PLST+CLIPS process while the previous one is still

running, a message will ask him whether he wants to stop the previous process to start the new want, or cancel his new request.

13.1.5 VIEWING THE VGA PLAYLIST SCREEN

Pressing **F10** on the keyboard calls the VGA Playlist screen. The Playlist screen displays information on the clips included in the playlist. Several transport functions are available from this screen.



13.1.5.1 HOW TO NAME A PLAYLIST ON THE VGA PLAYLIST SCREEN

To name a playlist, proceed as follows:

1. Type the desired name on the keyboard.

   It appears in the **Name** field at the bottom of the screen. Use **<BACKSPACE>** to delete the last character, or **ESC** to clear the entire field.

2. Press **SHIFT + F1** to assign the new name to the current playlist.

   The playlist name will appear in the title bar next to the playlist number.

13.1.5.2 HOW TO NAME THE CURRENT CLIP IN THE PLAYLIST

Note

Naming the current clip of the playlist will affect the original clip.

This function is only available when the Playlist Edit mode (PLST EDIT) or Playlist Diffusion mode (PLST DIFF) is active on the EVS Remote panel.

Type the desired name for the current clip in the Name field, and press **F1** to name the current clip in the playlist.

13.1.5.3 OTHER OPERATIONS

To use the following commands, you must be in Playlist Edit or Playlist Diffusion mode:

- To enter the Playlist Edit mode, press the **PLST** key on the EVS Remote. The LCD screen of the Remote displays the information about the previous, current and next 3 clips of the playlist.
- To enter the Playlist Diffusion mode, press the **PLST** key again.

The following operations can be performed from the VGA playlist screen:

Criteria	Description
Naming a playlist	For more information, refer to the above section.
Naming the current clip	For more information, refer to the above section.
PLAY/PAUSE	Press **ALT + P** to start the playback / pause of the playlist from the current position.
RECUE	Press **ALT + R** to recue to the beginning of the playlist and pause.
NEXT	Press **ALT + N** while the playlist is playing to force immediately the transition to the next clip in the playlist.
SKIP	Press **ALT + S** while the playlist is playing to skip the next clip. The current clip will play until the defined OUT point, than the playlist will skip the next one and play the one after instead.

13.1.6 HOW TO RECALL A PLAYLIST

To recall a play-list, proceed as follows:

1. Access the desired playlist bank by pressing **F10** from the requested page.
2. Select the playlist to recall with the **F1-F10** keys.

   The selected playlist becomes active and is displayed on the LCD display.
3. Press **PLST** key on the Remote to recall the active playlist.

13.1.7 ACCESSING THE PLAYLIST EDIT MODE AND PLAYLIST DIFFUSION MODE

Two modes are available on the Remote panel to access and manipulate the playlists: The Playlist Edit mode and the Playlist Diffusion mode:

- The Playlist Edit mode is used to modify the playlist.
- The Playlist Diffusion mode is used to roll the playlist on air.

Editing the Playlist in Playlist Diffusion mode is not possible.

13.1.7.1 PLAYLIST EDIT MODE

When you recall a playlist pressing the **PLST** key on the Remote, you directly enter the **Playlist Edit mode**. You will see the first frame of the highlighted clip within the playlist appear on the PGM and PRV outputs. At the start, full control will be of the PGM side; scrolling through the playlist can be done here.

From the Playlist Diffusion mode, you need to press the **EDIT** function (**D** button) or move the jog dial to return to the Playlist Edition mode from where you can edit the playlist.

The menu available from the Playlist Edit mode on the Remote LCD is the following:

		Effect	Edit All
Insert	Speed	FX Dur	Delete

For more details on the Playlist Edit mode, refer to the section 13.1.13 “Functions Available on the Remote in Playlist Edit Mode”, on page 138.

13.1.7.2 PLAYLIST DIFFUSION MODE

When you recall a playlist pressing the **PLST** key on the Remote, you need to press **PLST** a second time to enter the Playlist diffusion mode. The first frame of the clip following the one on the PGM will be displayed on the PRV side. This allows the operator to play only parts of the playlist, starting from current position.

The menu available from the Playlist Diffusion mode on the Remote LCD is the following:

			2nd CTRL
FilmFX	NEXT	SKIP	EDIT

Note

A third selection of the **PLST** button cues the playlist to the beginning, displaying the first clip on the PGM side and the following clip on the PRV.

For more details on the Playlist Edit mode, refer to the section 13.1.11 “Functions Available on the Remote in Playlist Diffusion Mode”, on page 137.

13.1.7.3 RECALLING A PLAYLIST MODE

When in Playlist Edit or Playlist Diffusion mode, you can recall a new playlist by selecting the playlist bank (**SHIFT + F10** on the remote), and pressing the desired **F_** key.

If the new playlist is empty, the system will ask you whether you want to copy the current playlist at this new location. If the new playlist is not empty, it is automatically loaded and becomes the current playlist.

13.1.8 BROWSING QUICKLY THROUGH A PLAYLIST

When the operator is neither in playlist nor in clip mode, pressing the **BROWSE** key on the Remote panel automatically enters the current playlist in Browse mode.

In this mode, the operator can quickly jump to the first field of each clip inside the playlist by moving the jog dial. To return to the normal Playlist Edit mode, press the **BROWSE** key again.

The operator can of course also activate the Browse mode directly from the Playlist Edit mode.

13.1.9 HOW TO NAME A PLAYLIST

Each of the 90 playlists can be named. On the Playlist screen, you will notice that **SHIFT + F1** shows «NAME PL».

1. Type the name on the keyboard.

   The name will appear in the lower left corner of the VGA screen, next to the **Name** label.

2. To validate the name, press **SHIFT + F1**.

   The name of the playlist is shown in the centre of the title bar of the VGA screen.

13.1.10 ROLLING A PLAYLIST

After recalling a playlist, you will roll the playlist using the pre-defined speed of each clip, use the **PLAY** key to start it.

As soon as the lever is used to start the playback or during playback, the pre-set speed for the current clip is cancelled and set by the lever position only. The playlist will return to pre-set speed mode as soon as another clip with a pre-set speed is found.

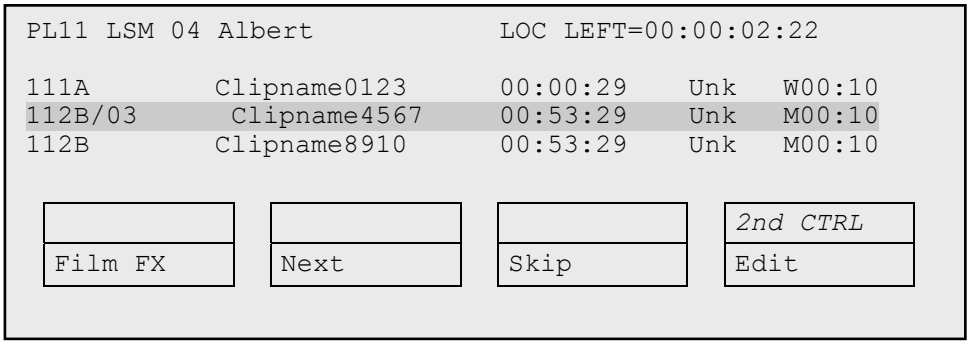
Note

When using the **PLAY** key to start the playlist, it is recommended to set the lever at the top position (100%). If the lever is in low position and the operator touches it by mistake while the playlist is rolling, the playlist could freeze on-air.

If the speed for a Super Motion clip is set to "UNK", pressing the PLAY key on that clip will start the playback of the playlist at 33%.

13.1.11 FUNCTIONS AVAILABLE ON THE REMOTE IN PLAYLIST DIFFUSION MODE

Once the playlist is cued and ready to roll, the menu below is displayed on the Remote LCD. This menu gives the operator the ability to manipulate the playlist while it is playing. The duration displayed in the top right corner of the LCD screen in Playlist Diffusion mode is the remaining duration until the end of the playlist.



13.1.11.1 FILM FX

Selecting this function will create a film style effect during the playout of the playlist by repeating one field every two fields. Please note that the audio is also affected by this effect, making it unusable and therefore, muted. This mode is deactivated when exiting a playlist.

13.1.11.2 NEXT

While the playlist is rolling on air, selecting the **Next** function will start the transition of the next clip with the transition effect listed on the playlist. This can be used if a clip is running too long and it is necessary to shorten up the playing time.

13.1.11.3 SKIP

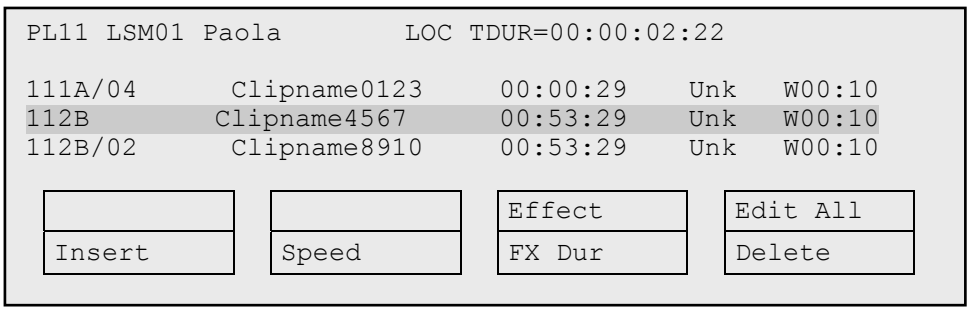
While the playlist is rolling, the next clip in the sequence is always displayed on the PRV screen. The **Skip** function allows the operator to discard clips before they go on-air. The clip that will be «skipped» is the one displayed on the PRV screen. This function does not remove the clip from the playlist, but it simply allows it to be skipped during playback.

13.1.11.4 EDIT

Selecting the **Edit** function gets the user back to the Playlist Edit mode.

13.1.12 BROWSING WITHIN A PLAYLIST

Once the playlist is activated, selecting the **BROWSE** key on the Remote panel allows the operator to use the jog dial to scroll up and down the playlist entries.



13.1.13 FUNCTIONS AVAILABLE ON THE REMOTE IN PLAYLIST EDIT MODE

In the Playlist Edit mode, as each clip is highlighted, the first frame can be seen on the display monitor. To change any of the options, simply highlight the desired clip, then select a function from the above menu and use the control lever to adjust to the desired value.

In Playlist Edit mode, the duration displayed in the top right corner of the LCD screen is the playlist total duration, from the beginning to the end.

13.1.13.1 INSERT

The **Insert** function allows the operator to insert a clip into the playlist. The same operation can be achieved using the **TAKE** key.

13.1.13.2 SPEED

The **Speed** function allows defining the speed at which one or all clips of playlist will be played. Select the playback speed of the clip with the lever, then press **ENTER** to validate. Values are 'Unknown' and from 0 to 100%.

Operators have access to the secondary lever control like when clips are replayed. While editing the speed of a clip, pressing **SHIFT+Lever** on the Remote allows to access the secondary lever speed defined in the menu.

13.1.13.3 FX DUR

The **FX Dur** function sets the duration of the transition effect. The default value that initially appears is determined by the value set in the Setup menu. The effect duration will affect the transition at the beginning of the selected clip. Use the lever to adjust the value, then press **ENTER** to confirm.

13.1.13.4 EFFECT

The **Effect** function is used to select the type of transition effect (Mix/Wipe/Cut). Move the lever to set the type of effect, when **Effect** is highlighted. Press **ENTER** to validate.

13.1.13.5 EDIT ALL

Selecting this, followed by one of the playlist parameter option (speed, effect, effect duration) will allow the operator to edit all clips in the list at one time.

13.1.13.6 DELETE

The **Delete** function allows the operator to quickly edit a playlist by removing the selected clip. The clip that has been «cut» can then be inserted into another location. This clip is displayed on the second PRV output. To insert it at another position in the playlist, simply go to that position using the jog dial and press the INSERT key (or TAKE).

13.1.13.7 UNDO/REDO

This function is available from the secondary menu of the playlist, that is accessed by pressing **MENU** in the Playlist Edit mode.

The last modifications of a playlist can be undone/redone for as long as the operator does not exit the playlist mode (e.g.: returning to live).

Pressing the **Undo** command (**D** key) will undo the last modification. Up to 9 modifications can be undone. Once a modification has been undone, it is possible to redo it by pressing the **Redo** key (**C** key).

13.1.13.8 MAKE LOCAL

This function is available from the secondary menu of the playlist, that is accessed by pressing **MENU** in the Playlist Edit mode.

This function offers the possibility to copy locally remote clips in a playlist. In the playlist secondary menu, select on the **B** position **MakeLoc**.

When the function is called, the remote clips are replaced by short copies of the local ones as soon as they are available.

13.1.14 HOW TO DELETE CLIPS FROM A PLAYLIST

To delete a clip in a playlist, proceed as follows:

1. While in Playlist Edit mode, scroll within the playlist to the clip that needs to be deleted.

   If the Browse mode is active, the first frame will appear on the display as each clip is scrolled through.

2. When you have selected the clip to be removed, select **Delete** from the Playlist Edit menu.

The selected clip will be removed from the playlist. A confirmation message will appear if that option has been enabled in the Setup menu.

13.1.15 HOW TO INSERT CLIPS INTO A PLAYLIST

Note

Depending on what is selected in the Setup menu, the clip will be inserted **before or after** this selected position.

To insert a clip into a playlist, proceed as follows:

1. Using the Playlist Edit mode or the Browse mode, as above, scroll to the location where the clip must be inserted.

2. Call the selected clip. It appears on the PRV output.

3. Press **INSERT** (**A** button) or **TAKE** to insert it in the playlist at the position shown on PGM output.

A confirmation message will appear if that option has been enabled in the Setup menu.

If no PRV output is available, the clip will appear on the PGM output. Use the **Insert** option (**SHIFT**+**BROWSE**) to insert the clip into the playlist then press **PLST** to return to the playlist at the current position.

Important

In Playlist Edit mode with a PRV channel, when PRV CTL is enabled, the operator has full control of the PRV channel while the playlist remains loaded on the PGM channel. On the PRV channel, he can perform all clip-related functions, including database search using time code, keywords and ranking, from the VGA Search Screen as well as from the secondary clip menu of the Remote panel. Once the desired clip(s) are found, they can easily be inserted in the playlist that is still loaded on the PGM output. By switching PRV CTRL ON or OFF, the operator can very easily combine playlist editing and database search functions.

13.1.16 HOW TO MERGE PLAYLISTS

From the VGA, it is possible to merge two playlists by copying a playlist and pasting it to an existing playlist. The copied playlist will be added at the end of the destination playlist.

13.1.17 HOW TO TRIM CLIPS INTO A PLAYLIST

Every clip inside a playlist can be trimmed independently of all other instances of the same clip number.

1. Browse to the desired clip in the playlist.

2. Re-mark a new Short IN or Short OUT, or if the clip duration is too short, clear the IN or OUT point by selecting **CLEAR** and then the desired IN or OUT point.

Note

Clearing restores the existing IN or OUT point to the end of the guardbands of the clip.

13.1.18 THE AUXILIARY AUDIO CLIP

This option allows adding a new stereo audio track (e.g. sport comments, music, jingles, ambient sound) to the original video clips. This stereo audio track is available on the PVW output and on analogue outputs 7/8 or on digital outputs 15/16. The selection of the track output is done via the Setup menu – Page 5.1 - F5. The original audio tracks are still available on outputs 1/2 (3/4). The auxiliary audio clip selected is always played back with normal speed (100%), whatever the selected playback speed for the video.

When the playback of the playlist is not started from the beginning, the system calculates the offset between the current position and the beginning of the playlist, and applies the same offset to the Aux. Clip, so that it can remain synchronized with the playlist. If the duration of the Aux Clip is longer than the playlist duration, the auxiliary audio clip keeps playing even after the video has stopped. Otherwise, the audio clip ends itself before the end of the playlist, when the audio clip reaches its OUT point.

13.1.18.1 HOW TO ADD/REMOVE AN AUXILIARY AUDIO CLIP TO A PLAYLIST

1. Make the **Aux. Clip** button active by selecting a clip from the clip bank. This can be done outside of the PLST EDIT mode, or in PLST EDIT mode with PRV CTRL ON. You will see the **Aux Clip** option appearing in the secondary menu on the LCD of the Remote panel.

2. Then press **MENU** to call the secondary menu, then **Aux Clip** button (**SHIFT+B**): the ID of the Aux Clip appears in the title bar of the Playlist screen (**F10**)

3. To remove the current aux. clip, load the aux clip, call the secondary menu by pressing **MENU**, then press **CLEAR** + **SHIFT** + (**B**) (Aux. Clip) on the Remote.

13.1.19 HOW EXIT THE PLAYLIST MODE

Press the **RECORD** key to exit the playlist mode and return to E2E mode.

13.2 SPLIT AUDIO MODE

13.2.1 HOW TO ENABLE SPLIT AUDIO EDITING

Enter the Setup menu as described in Chapter 4 and enable the **Split Audio mode** on Page 4.2, Function key F1. This option requires a specific license code. If that code is not installed on the server, this option can not be turned on.

AUDIO EFFECT DURATION

The value of the **Audio Effect Duration** parameter of the Setup menu (p. 4.1, **F2** key) is only taken into account when the Split Audio mode is enabled. Otherwise, the audio effect duration is always locked to the video effect duration, whatever the value of these parameters.

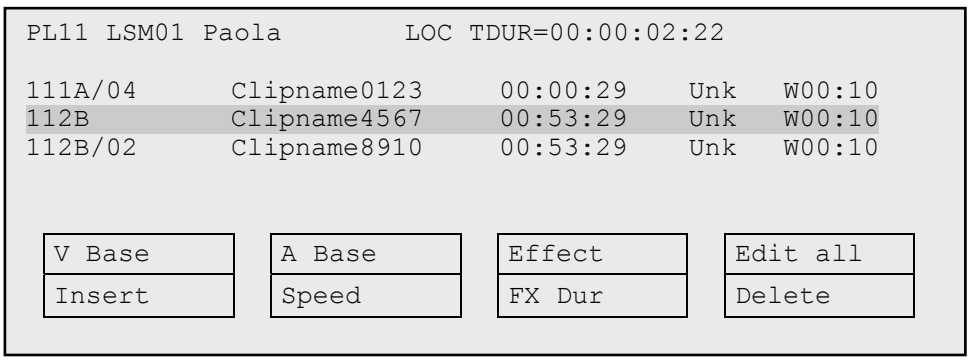
PLAY SPEED

When you play a playlist containing a split audio, the speed can not be adjusted while playing. Changing the speed has to be set in the playlist itself.

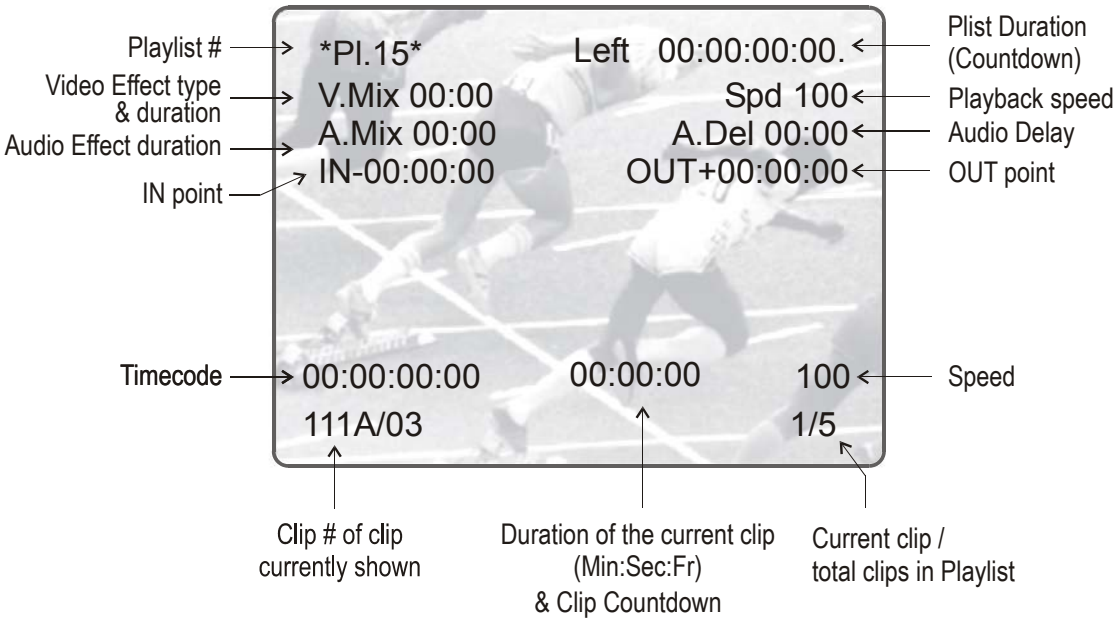
"RECORD IN PROGRESS" CLIPS

As long as a "Record in progress" clip is present in a playlist, the split audio is not allowed.

In Playlist Edit mode the LCD screen will now display additional functions:



Additional information will be display on the output monitor as well:



13.2.2 HOW TO SET DEFAULT VIDEO AND AUDIO TRANSITIONS

The simplest type of Split Audio edit that can be performed on an LSM is to make the video and audio transitions at the beginning of the clip have different durations, such as a 12 Frame Video Mix with a 2 sec Audio crossfade.

A default value for each can be entered in the Setup Menu so that each time a clip is entered or inserted into a playlist the Default values are used.

Vid. Effect duration is on page 4.1, function key **F1** (range up to 20:00 secs)

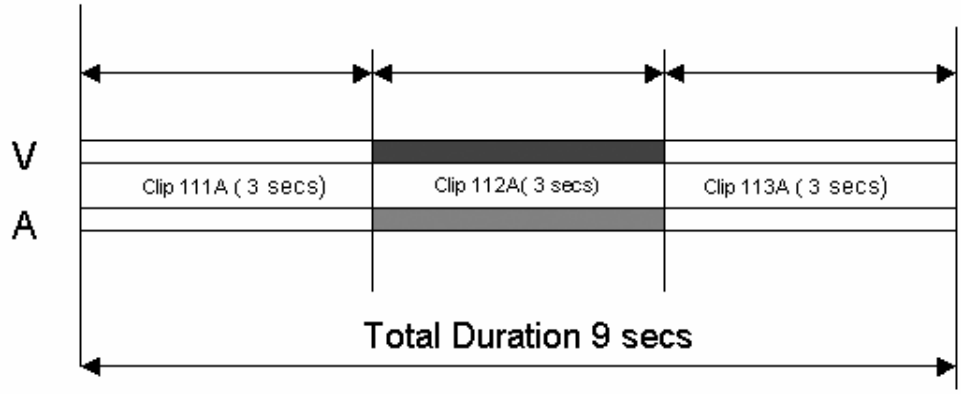
Aud. Effect duration is on page 4.1, function key **F2** (range "Lock to video", then up to 20:00secs)

Important

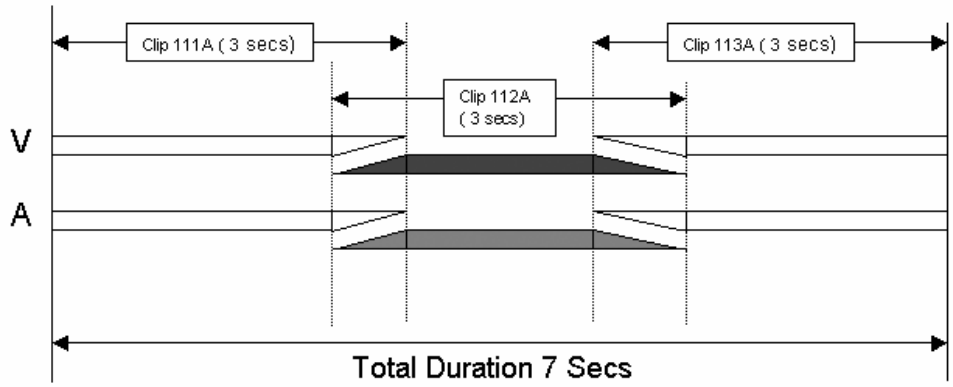
If the **Audio Effect Duration** parameter in the setup is set to "Lock to video", it will never be possible to adjust independently the duration of the audio and video transitions. If you want to adjust one of these transitions and the other one follows, please check the **Audio Effect Duration** in the setup, and make sure it is NOT set to "Lock to Video".

In an LSM playlist the video and audio effects end at the OUT point of a clip, so the duration of clips is shortened by the length of the effect.

13.2.2.1 NORMAL PLAYLIST WITH CUTS



13.2.2.2 PLAYLIST WITH 1:00 SEC EFFECT DURATION



13.2.3 HOW TO CHANGE VIDEO EFFECT DURATION

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press **SHIFT+ A BASE**.
4. Press to highlight **V Fx Dur (C).**
5. Move the T-bar to adjust the value.

13.2.4 HOW TO CHANGE AUDIO EFFECT DURATION

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.

3. Press **SHIFT** + **V Base** (**A**).

4. Press to highlight **A Fx Dur** (**C**).

5. When you move the T-bar to adjust the value.

13.2.5 How to Set the Default Mode for Extending a Transition

Whenever you make a Video or Audio Split, the transition originally set is changed. In the setup menu, page 4.2, key F2, the default mode for extending transition effects can be set:

Criteria	Description
Center (on) Cut	The transition is extended equally in both directions.
End (on) Cut	The transition is extended to the left, so that the end of the transition is not changed.
Start (on) Cut	The transition is extended to the right, so that the start of the transition is not changed
Ask	Asks the operator to choose one of the 3 options above every time he edits a transition

13.2.6 How To Perform A 'V Base' Edit

The audio can be advanced or delayed compared to the video IN/OUT points of a clip in a playlist.

13.2.6.1 Audio Delay

1. Enter the Playlist Edit mode.

2. Browse to the desired clip in the playlist.

3. Press to highlight **V Base** (**SHIFT+A**).

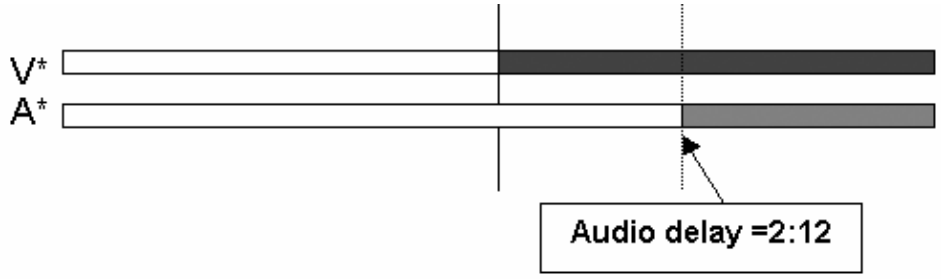
4. Press to highlight **A Delay** (**B**).

5. Enter a value with the **F_** keys including leading zeros

6. (0+2+1+2= 2:12), OR move the T-BAR and press **ENTER**.

The value entered will be present on the PRV SCREEN when the clip is next to play in a playlist.

13.2.6.2 EDIT POINT (V BASE)



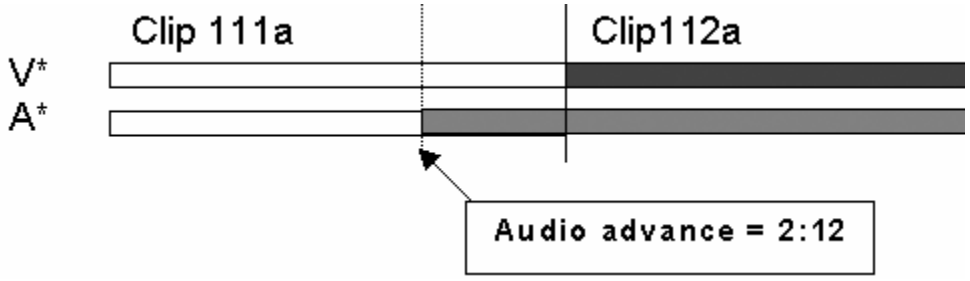
Audio is extended from the end of the previous clip and the audio on the clip being edited is shortened.

13.2.6.3 AUDIO ADVANCE

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press to highlight **V Base** (**SHIFT+A**).
4. Press to highlight **A Advance** (**A**).
5. Enter a value on the **F_** keys including leading zeros (0+2+1+2= 2:12), OR move the T-BAR and press **ENTER**.

The value entered will be present on the PRV SCREEN when the clip is next to play in a playlist.

13.2.6.4 EDIT POINT (V BASE)



Audio is shortened on the previous clip and the beginning of the clip being edited is extended.

Note

When editing using the video IN/OUT as the reference point (V BASE) the video will be the top line on the OSD display. When editing using the audio IN/OUT as the reference point (A BASE) the audio will be the top line on the OSD display.

13.2.6.5 AUDIO SPLIT

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press to highlight **V Base** (**SHIFT+A**).
4. Press to highlight **A Split** (**D**).
5. Jog to the point where you want to set your transition and mark an OUT point if you do an audio delay or mark an IN point if you do an audio advance. The value entered will be present on the PRV screen when the clip is next to play in a playlist.

13.2.7 HOW TO PERFORM AN 'A BASE' EDIT

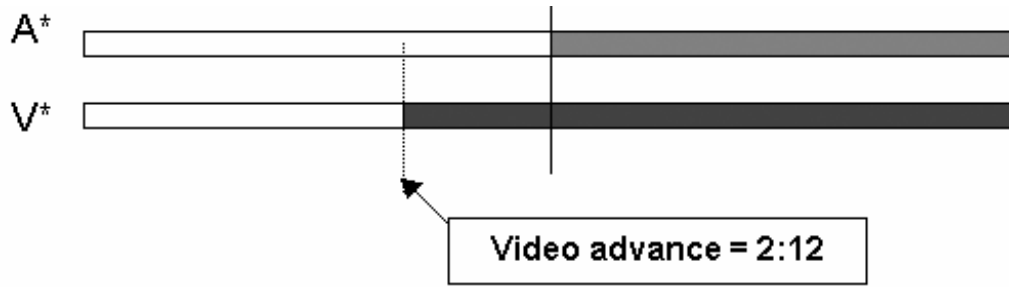
When in A Base mode the Browse function searches between audio IN/OUT points and NOT video

13.2.7.1 VIDEO ADVANCE

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press **SHIFT** + **A Base** (**B**).
4. Press to highlight **V Advance** (**SHIFT+A**)
5. At the on screen prompt, enter a value on the **F_** keys including leading zeros (0+2+1+2= 2:12), OR move the T-BAR and press **ENTER**.

The value entered will be present on the PRV SCREEN when the clip is next to play in a playlist.

13.2.7.2 EDIT POINT (A BASE)



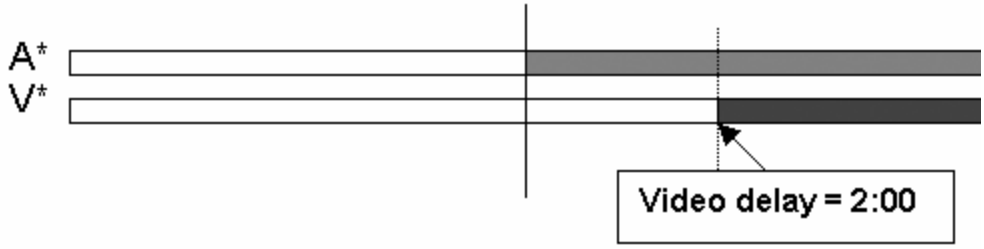
Video is shortened in the previous clip and the video from the clip being edited is extended.

13.2.7.3 VIDEO DELAY

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press **SHIFT** + **A Base** (**B**).
4. Press to highlight **V DELAY** (**SHIFT + B**)
5. At the on screen prompt, enter a value on the **F_** keys including leading zeros (0+2+1+2= 2:12), OR move the T-BAR and press **ENTER**.

The value entered will be present on the PRV SCREEN when the clip is next to play in a playlist.

13.2.7.4 EDIT POINT (A BASE)



Video from the previous clip is extended and video from the clip being edited is shortened.

Note

When editing using the Video IN/OUT as the reference point (V BASE) the video will be the top line on the OSD display. When editing using the audio IN/OUT as the reference point (A BASE) the audio will be the top line on the OSD display.

13.2.7.5 VIDEO SPLIT

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press to highlight **A Base** (**SHIFT+B**)
4. Press to highlight **V SPLIT** (**D**)
5. Jog to the point where you want to set your transition and mark an OUT point if you do a video delay or mark an IN point if you do a video advance.

The value entered will be present on the PRV SCREEN when the clip is next to play in a playlist.

13.2.7.6 'IN' BUTTON COLOURS IN PLAYLIST MODE

When the Playlist is sitting on the Video and Audio IN point of a Clip the **IN** button will light RED.

When the Playlist is sitting on the Video IN point of a Clip the **IN** button will also light RED.

When the Playlist is sitting on the Audio IN point of a Clip the **IN** button will FLASH RED.

If the Playlist is a position where the Audio and Video are Synchronous the **IN/OUT** buttons will be GREEN.

If the Playlist is a position where the Audio and Video IN points have been Split the **IN** button will FLASH GREEN.

13.2.7.7 'OUT' BUTTON COLOURS IN PLAYLIST MODE

When the Playlist is sitting on the Video and Audio OUT point of a Clip the **OUT** button will light RED.

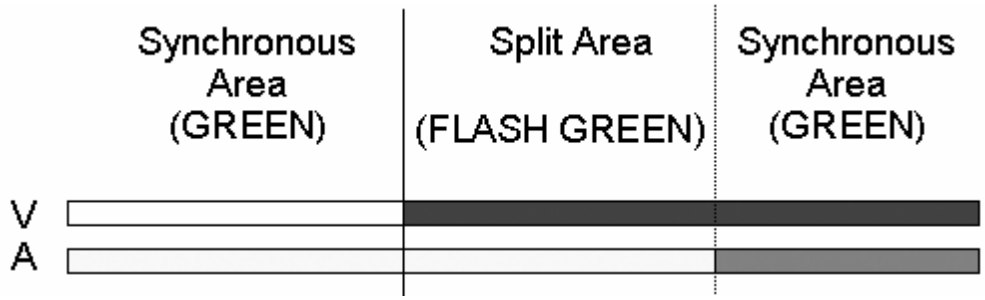
When the Playlist is sitting on the Video OUT point of a Clip the **OUT** button will light GREEN.

When the Playlist is sitting on the Audio OUT point of a Clip the **OUT** button will FLASH RED.

If the Playlist is a position where the Audio and Video are Synchronous the **IN/OUT** buttons will be GREEN.

If the Playlist is a position where the Audio and Video OUT points have been Split the **OUT** button will FLASH GREEN.

Example on Audio Delay Edit



13.2.8 HOW TO INSERT A CLIP INTO A PLAYLIST WITH SPLIT AUDIO

Note

Transitions are reset to Zero on INSERT and DELETE functions.

1. Enter the Playlist Edit mode.
2. Browse to the desired clip in the playlist.
3. Press to highlight **V Base** (**SHIFT+A**)
4. Press to highlight **A Split** (**D**)
5. Jog to the point where you want to set your transition and mark an OUT point if you do an audio delay or mark an IN point if you do an audio advance.

13.3 SWAP AUDIO TRACKS MODE

13.3.1 INTRODUCTION

The swap audio tracks mode allows swapping audio tracks between two points in a playlist.

In four tracks mode, the “auto” mode replaces audio tracks 1&2 by audio tracks 3&4 in four audio mode. It replaces audio track 1 by audio track 2 in stereo mode.

The manual mode lets you choose which tracks to replace.

Note

In eight tracks mode, you only have access to the manual mode.

13.3.2 HOW TO ENABLE THE AUDIO SWAP MODE

To enable the Audio Swap mode, proceed as follows:

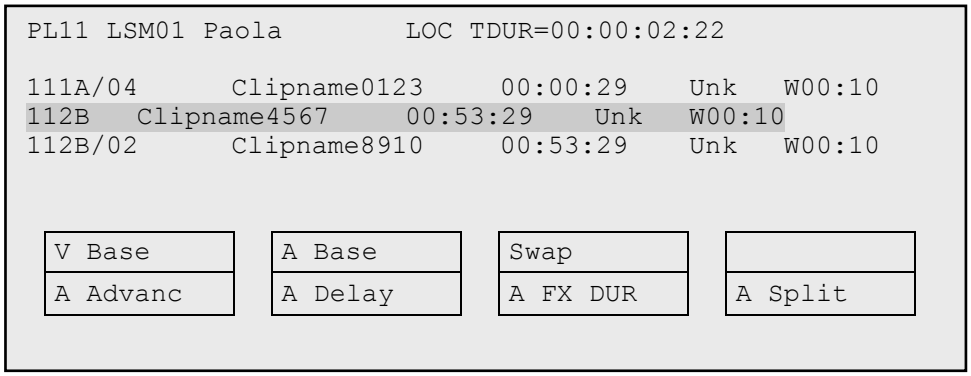
1. Enter the Setup menu.
2. Select the Swap Audio Tracks mode on page 4.2, **F3**.
3. Choose a value between “Auto” and “Manual”.

   Please note that the Split Audio Editing has to be enabled in the Setup

menu on Page 4.2, **F1**. This option requires a specific license code. If that code is not installed on the server, this option can not be turned on.

13.3.3 PERFORM A SWAP AUDIO TRACK IN AUTO MODE

1. In Playlist Edit mode, select the Video Base mode (V Base). The LCD screen will now display additional function:

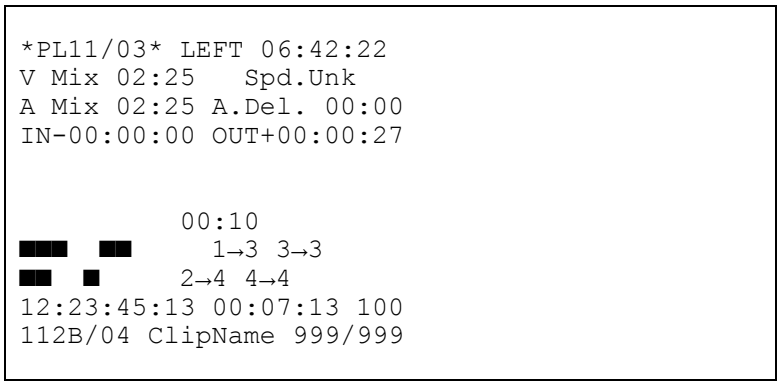


2. Press the **Swap** button.

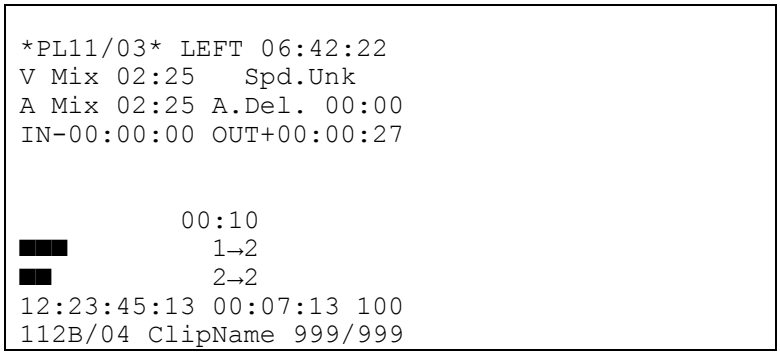
3. Jog your playlist until you reach the point where you want to change the audio tracks. Mark an IN point.

   The OSD screen indicates the following information:

   In dual stereo mode



   In stereo mode



4. Press the **Swap** button again.

5. Jog your playlist until you reach the point where you want to reset the original audio tracks. Mark an OUT point.

   The OSD screen indicates the following information:

   In eight tracks mode

```
*PL11/03* LEFT 06:42:22
V Mix 02:25   Spd.Unk
A Mix 02:25 A.Del. 00:00
IN-00:00:00 OUT+00:00:27


          00:10
     1→3 3→3 5→5 7→7
     2→4 4→4 6→6 8→8
12:23:45:13 00:07:13 100
112B/04 ClipName 999/999
```

   In dual stereo mode

```
*PL11/03* LEFT 06:42:22
V Mix 02:25   Spd.Unk
A Mix 02:25 A.Del. 00:00
IN-00:00:00 OUT+00:00:27


          00:10
■■■  ■■     3→1 3→3
■■  ■     4→2 4→4
12:23:45:13 00:07:13 100
112B/04 ClipName 999/999
```

   In stereo mode

```
*PL11/03* LEFT 06:42:22
V Mix 02:25   Spd.Unk
A Mix 02:25 A.Del. 00:00
IN-00:00:00 OUT+00:00:27


          00:10
■■■         2→1
■■          2→2
12:23:45:13 00:07:13 100
112B/04 ClipName 999/999
```

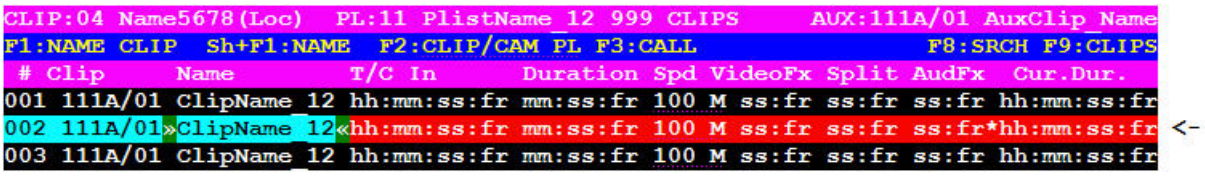
One can set as many swap points as needed.

If only an IN swap point is set for one clip, the audio tracks will be reset by default for the next clip in the playlist.

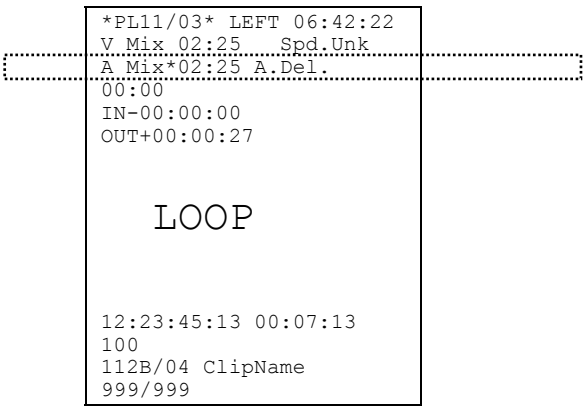
Please note that when a swap point is set, a cross-fade is played between the original audio track and the new track. The duration of the cross-fade is the default audio transition.

When a swap point is present in a playlist, the display on the VGA and on the OSD changes: a "*" is added next to the audio Fx information.

Display on the VGA



Display on the OSD



13.3.4 PERFORM A SWAP AUDIO TRACK IN MANUAL MODE

If the manual mode is selected in the Setup menu (page 4.2, **F3**), the swap functions in a similar way but asks the operator which track to swap when setting the swap points.

First the operator is being asked:

- In 2 Tracks mode: “Select original track: 1 2 or Menu to Cancel”.
- In 4 Tracks mode: “Select original track: 1 2 3 4 or Menu to Cancel”.
- In 8 Tracks mode: “Select original track: 1 2 3 4 5 6 7 8 or Menu to Cancel”.

The functions keys are used to select the track to change.

When the choice is made, the operator selects by which track the selected one has to be replaced:

- In 2 Tracks mode: “Select new track: 1 2 0”.
- In 4 Tracks mode: “Select new track: 1 2 3 4 0”
- In 8 Tracks mode: “Select new track: 1 2 3 4 5 6 7 8 0”

Note

Selecting **track 0 will mute the output** until the next swap point or the end of the clip.

Several swap points can be set on the same time code (e.g.: 1 -> 3, 2 -> 4).

13.3.5 DELETING SWAP POINTS

When the operator is on a swap point, pressing **CLEAR** + **IN/OUT** deletes the current swap point. All swap points for that time code are deleted.

When the operator is not on a swap point, pressing **CLEAR** + **IN/OUT** brings up a confirmation message to delete all swap points for the current clip.

13.3.6 NAVIGATING SWAP POINTS

When the operator is in Swap mode, the previous swap point can be reached by pressing the **Go to In** button on the Remote. The next swap point is reached by pressing the **Go to Out** button. The function works in loop mode.

13.4 REPLACE FUNCTION

13.4.1 INTRODUCTION

The purpose of the Replace function is to automate a routine used by operators to create effects in a playlist: the operator would loop a section or an entire playlist back to themselves and, during the playback, add some effects externally (graphic insertion for instance) or internally (changing the speed).

The operator would then edit the original playlist to insert the desired section into the original playlist. That section would need to be inserted in the playlist by matching the IN/OUT frames on the original playlist to the new clip created with the re-recorded material.

The Replace function automates this process.

Note

The Replace function is not allowed on playlists containing “record in progress” clips.

13.4.2 ENTERING THE REPLACE FUNCTION

Similar to the playlist, the replace function has two modes: the Replace Playback mode and the Replace Edit mode.

A secondary menu has been added to the Playlist Edit mode. Pressing **Menu** in Playlist Edit mode brings up the following menu:

			Clr Unav.
Replace	MakeLoc	Redo	Undo

Select **Replace** in this secondary menu to enter the Replace function.

13.4.3 REPLACE EDIT MODE

13.4.3.1 MARKING IN AND OUT POINTS

When the Replace function is selected, the system enters the Replace Edit mode. In this mode, the playlist is considered as one entity on which you can mark one IN point and one OUT point (pressing the in and OUT points does not retrim the current playlist clip).

Those in and OUT points will be used to determine what portion of the playlist will be replaced.

Marking the in and OUT points is done like on a record train, with the exception that in and out can not be marked on a transition (including split audio transitions and swap zones) or on a split zone (the key will flash red when it is the case).

When both in and out have been marked, the display switches to:

		Cam A	+2fields
Replace	Int.Loop	Ext.Loop	

The Int. Loop and Ext. Loop keys are blinking.

13.4.3.2 CHOOSING THE LOOP MODE

Before entering the Replace Playback mode, the operator has to choose between Internal Loop or External Loop.

The Internal Loop is the same loop as the existing loop process.

The External Loop allows you to select on which channel you will physically re-record the output of your PGM. The link is physical: it is necessary to make the video link manually with a router or vide/audio cables, it is not done inside the server.

Additional parameters are available for the external loop:

- With the **Cam A** function (**SHIFT+C**), you can select the camera the PGM will be recorded to for the external LOOP process. Press **SHIFT+C** until the desired camera is selected.

- With the **+2 fields** function (**SHIFT+D**), you can select by how much the video coming back to your record channel will be delayed. If you are using a DVE, it could introduce a delay. This system is based on the assumption that audio and video are in sync when they hit the record channel. The delay value can not be negative.

  Select **SHIFT+D** to highlight the delay value and the display allows you to add frames or fields of delay to the delay value. Pressing either **MENU** or **SHIFT+D** will leave this mode.

13.4.4 REPLACE PLAYBACK MODE

When the IN and OUT points have been marked, the **Int Loop** and the **Ext Loop** keys are blinking.

Pressing one of the two keys activates the Replace Playback Mode: the playlist is cued before the IN point (to create guardbands), ready to be initiated.

A message appears on Remote: "`Start Replace: lever or play button`".

The play can be activated by pressing the **PLAY** button or moving the lever.

The playlist is played at the speed defined in the playlist but the lever can also be used to vary the playback speed.

When the Protect OUT point of the clip is reached, a clip containing the IN and OUT point with the guardbands is created on the Receive page defined in the Setup menu. The loop is stopped and the user switches back to match frame edit mode.

A confirmation message pops-up:

```
Replace in/out by clip xxx ?
MENU: Cancel – ENTER: OK.
```

If the operator presses **ENTER**, the material between the IN and OUT points is replaced with the newly created clip. The playlist returns to Playlist Edit mode, positioned at the end of the inserted clip.

If the user cancels the operation, the playlist remains in Replace Edit mode.

13.5 TIMELINE EDITING

13.5.1 INTRODUCTION

The timeline editing feature allows for video and audio inserts in a linear way. The editing is based on an existing playlist converted into a timeline.

The timeline mode synchronizes one video track and two audio tracks. Each audio track is composed of one mono audio.

Two main functions are available from version 8.00.00:

- **Insert Overwrite:** Operators can insert video or audio independently on any of the tracks or on all tracks at the same time.
- **Extend Overwrite:** This extends the duration of any clip on any track across the entire duration of the timeline.

You can undo and redo up to nine actions.

All insert operations are done in a linear manner: each insert or extend operation will take out some existing material and replace it with a new one. Because the process is destructive, undo and redo are available during the edition of a timeline as long as the LIVE button (**REC**) is not used. When operators go live, the undo history is lost.

13.5.2 OPERATIONS

All timelines have to be created from an existing playlist. After the transformation, the duration of the timeline can not be changed.

Note

It is not allowed to insert “Record in progress” clips in a timeline.

13.5.2.1 HOW TO TRANSFORM A PLAYLIST INTO A TIMELINE

FROM THE REMOTE

1. Select the playlist you want to convert.
2. Press an empty playlist position.
3. Select the **CopyToTL** option (**B**) on the Remote to copy the playlist to a timeline on the selected empty position.

4. Press **ENTER** on the Remote to confirm the CopyToTL.

The playlist is converted into a timeline at the playlist position you selected.

FROM THE VGA

1. Select the playlist you want to convert.

2. Press **CTRL+C** on the keyboard to copy it.

3. Paste it into an empty playlist position using the **CTRL+T** keys (rather than CTRL+V).

The timeline appears on the Remote as "TL" for timeline, rather than "PL" for playlists. On the Clip screen, they appear with a blue background (similar to the protected clip identifier).

All audios tracks in the playlist are placed on the timeline as follows: each timeline has two audio edit tracks containing each single audio. Independently from the audio configuration, the first audio input is edited on the first audio track, the second input on the second audio track. In the future, the parameter on page 3.4 (**F2**) will be used to set how many audio mono tracks can be used for each edit track.

13.5.2.2 ENTERING THE TIMELINE EDIT MODE

When the current playlist is a timeline, pressing the **PLST** button enters the Timeline Edit mode.

The first user of the server gets its two first outputs assigned in this manner:

- Output 1: TL Recorder

  It always shows the edit.

- Output 2: TL Player

  It works the same way as when the server is on a train or on a clip with one PGM, including all mark IN - mark OUT functions, network access, etc...

JOGGING THE RECORDER

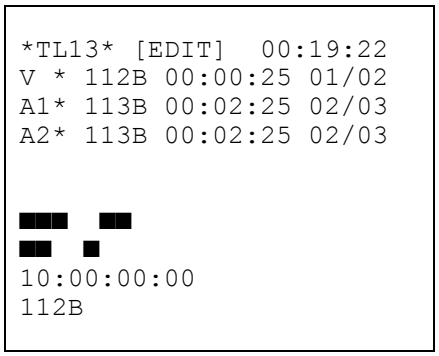
In the Timeline Edit mode, operators work by default on the recorder: the jog dial and the lever control the recorder. Operators listen to all the timeline audio tracks.

13.5.2.3 DISPLAYED INFORMATION

OSD INFORMATION

The following information is displayed on the OSD:

- Total timeline duration
- For each track: current clip ID, remaining time, relative position in the track
- Timeline control track time code (starting at 10:00:00:00)



LCD INFORMATION

The same information is displayed on the Remote panel with the current time code of the clip in addition.

The ABCD Soft keys on the Remote are as follows:

Video	Audio 1	Audio 2	

The highlighted keys show on which track the insert and extend actions will be carried out. In other words, if video only is selected when users do an insert, only the video will be inserted.

13.5.2.4 MARKING IN AND OUT POINTS ON THE RECORDER

The operators can mark IN and OUT points anywhere on the recorder as in the Replace mode: the timeline is equivalent to a record train.

EXTEND

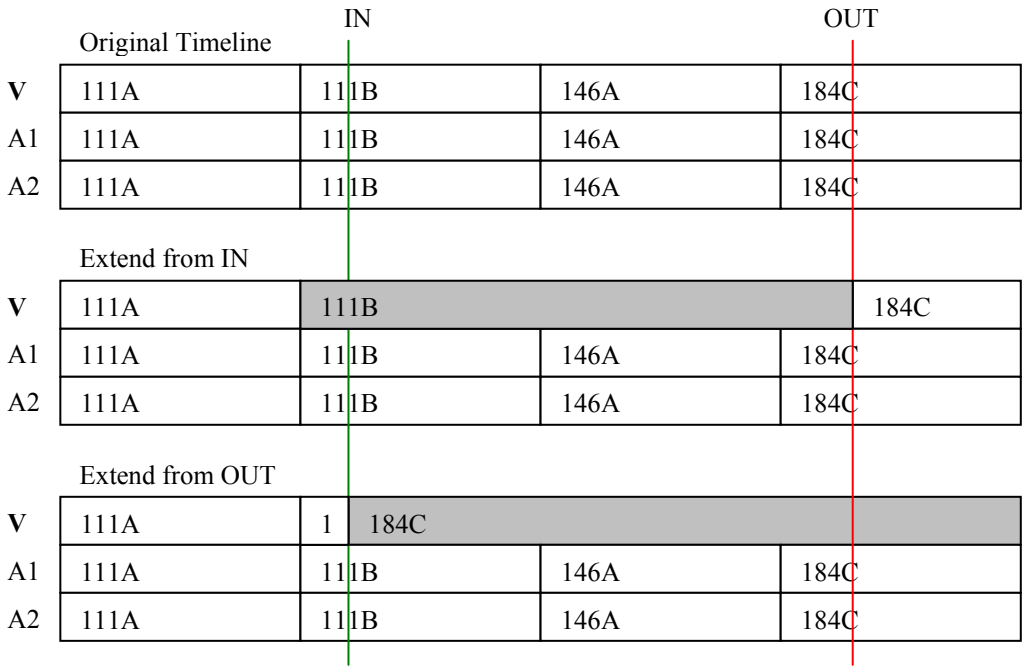
Once an IN and an OUT points have been marked on the recorder, the Extend function becomes available on the **D** key of the Remote panel.

Video	Audio 1	Audio 2	Extend

Clips can be extended from the IN point until the OUT point, or from the OUT point until the IN point.

Select which direction you want to use and apply.

Example of extend with the video track selected.



INSERT

The Insert is always done with three points, i.e.:

	IN	OUT
Recorder	X	X
Player	X	

	IN	OUT
Recorder	X	X
Player		X

	IN	OUT
Recorder		X
Player	X	X

	IN	OUT
Recorder	X	
Player	X	X

ACCESS THE PLAYER

To access the player to select the material to be inserted, press the **Preview Control** key (**PRV CTL**). From this channel, you can select material from the record trains or clips.

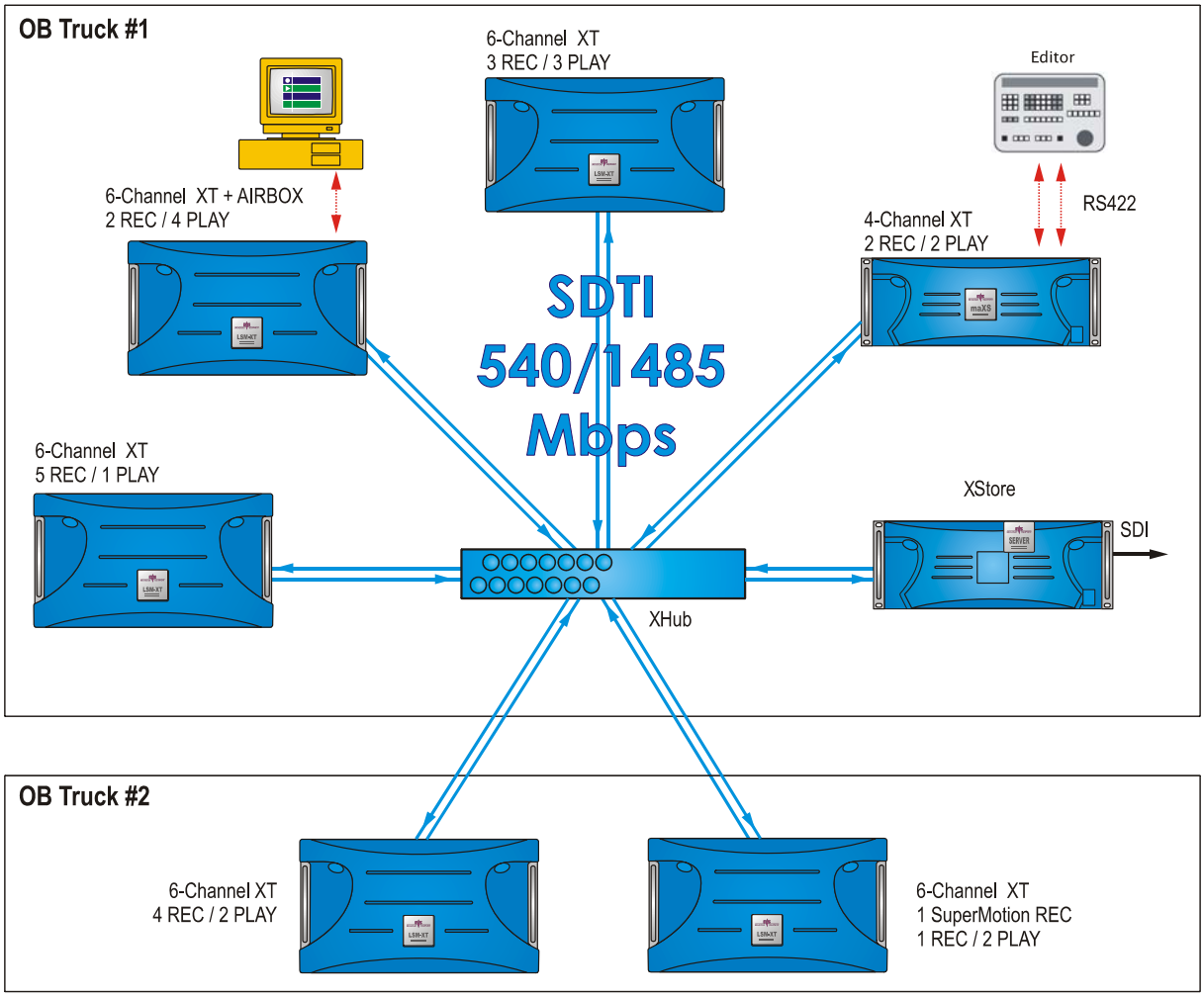
When IN and OUT points have been marked on the recorders and players, press the **INSERT** or **TAKE** buttons on the Remote to execute the insert edit.

14. XNet SDTI Network

14.1 OVERVIEW

The XNet network is composed by several XT[2] servers all connected with a 75-Ohm coaxial cable (BNC). The exchange between systems is operated through the SDTI interface at 540 or 1485 Mbps.

The XNet network requires a network server dedicated to the management of the database shared among all XT[2] servers. This doesn't require an extra server, but it has to be assigned to 1 server on the network. If this system disconnects, another XT[2] server will automatically take over. These settings can be found in the Configuration option of the EVS Maintenance menu. For details about the setup of XNet network, please refer to the XT Disk Recorder Technical Reference.



14.2 MINIMAL HARDWARE & SOFTWARE CONFIGURATION

Only XT[2] servers with HCTX board with SDTI module and SDTI code can be connected to the XNet network.

The XNet compatibility between versions is detailed in the release notes.

14.3 EVS MENU CONFIGURATION

The configuration of the different XT[2] servers connected to the XNet network is done via the EVS Menu.

Press **F9** to open the **Maintenance** menu, then select **Configuration** and press **ENTER** to access to the Network area.

The following parameters can be set in the EVS Configuration:

SDTI

Possible values: [off / 540Mbps Relay / 540Mbps Non-Relay / 1485Mbps Non-Relay]

This parameter makes it possible to enable the SDTI option and select the bandwidth of the network.

On XT[2] servers, there are two pairs of SDTI connectors:

- XNet Relay connectors can be used at a maximum of 540 Mbps
- XNet[2] Non-Relay connectors can be used at either 540 or 1485 Mbps.

When connected on the SDTI network through Relay connectors, the SDTI loop is always maintained, even if the XT[2] is not powered on. If connected through Non-Relay connectors, the SDTI circuit is closed only when the Multicam software is started.

Important

The SDTI bandwidth must be identical on all XT[2] servers connected to the XNet.

If one system is configured with a different bandwidth, it will block the entire network.

The Disk Block Size parameter must be the same on all XT[2] servers.

NET NAME

The Net name defines the machine name on the network. This name is user-defined but cannot exceed 8 characters. Entering a Network Name is not mandatory because a network number is also assigned to the system, but it is recommended to easily identify all servers connected to the XNet.

NET NUMBER

The Net Number parameter defines the machine number on the network. This number is user-defined and must be unique for each system on the network. When entering a new number if this number is already assigned to another machine, an error message will warn the user.

TYPE

Possible values: [Client, Master, Server]

The type defines the privileges of the XT[2] server on the SDTI network. One XT[2] server on the network should be set to Server type. If no server is defined, XNet will not be activated. If more than one server is defined, only the first one to connect will be the actual server.

Other XT[2] servers on the network can be set either to Master type if they need to access clips from other servers, or to Client type if their clips must be available on the network but they don't need to access clips from other servers.

	Allowed to access the content of all XT[2] servers on the network	**Can be accessed by other XT[2] servers on the network**
SERVER	Yes	Yes
MASTER	Yes	Yes
CLIENT	No	Yes

14.4 CONNECTING TO XNET

XT[2]S

Make sure that all XT[2]s are on the same date and time. This information can be checked from the VGA Setup screen (**SHIFT**+**F2**) and changed via the operating system. From the OS prompt, type 'date' and enter the current date. Type 'time' and enter the current time.

The first time the server is started, a pop-up message will be displayed to confirm the server's date and time. This date and time information will be transmitted to any XT[2] connecting to the same SDTI network.

XFILE

To check that XFile's date and time correspond to the ones on the XT[2], proceed as follows:

1. If the XFile application is started, close it.
2. Select **Control Panel** from the Start menu
3. Select **Date and Time** to modify the properties.
4. In the Date and Time Properties window, select the Date and Time tab to access to the calendar and the clock.
5. Set the parameters to your current date and time.
6. Select the Time Zone tab to access to the map zone selection.
7. Set the parameter to your current Time Zone.

When entering the Multicam application, the system looks for the EVS XNet server. The message **>Net** appears on all output monitors and then disappears when the connection to the XNet is successfully done.

During operations, the SDTI network or one XT[2] server on the XNet might become unavailable. In this case the message **Source LSM disconnected** appears on the output monitors and the system automatically switches to the LOCAL mode for clips or/and record trains. If clips are inserted in a playlist, those clips will be temporarily considered as unavailable and will be skipped during playback.

Important Note on Date and Time settings on the XT[2]s and the XFile

Many filters and selections are based on the Date and Time parameters on XT[2] and XFile. The Creation Date and Time are included in the ID material.

This ID is given by the system defined as “Server” on the network while creating the clip. To ensure the validity of filters and selections, you have to define common Date and Time parameters before connecting XT[2](s) and XFile(s) on the same SDTI network.

14.5 DISCONNECTING FROM XNET

When exiting the Multicam application the system checks if other systems are still connected to your XT[2] server, then the following message appears:

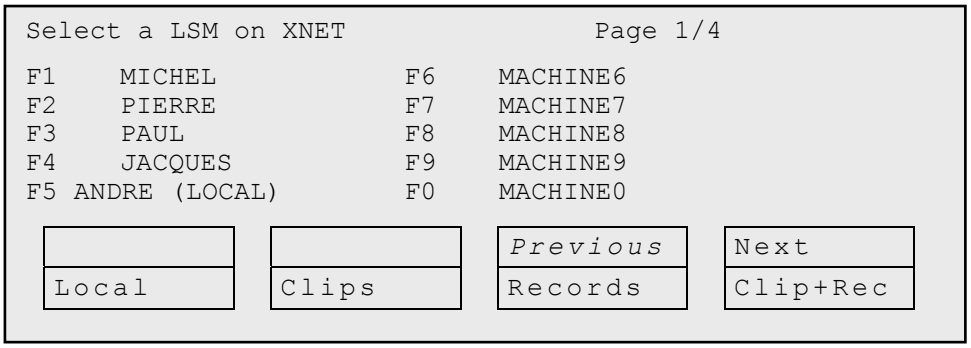
```
        Other users are connected to your LSM
      on XNet network. Are you really sure that
    you want to close the Multicam application ?
        [ESC] =CANCEL              [ENTER]=YES
```

Press **ESC** to cancel the command and return to the application.

Press **ENTER** to exit the Multicam application.

14.6 SELECTING A SERVER ON XNET

Selecting the **NETWORK** key (**SHIFT** + **PLAY** on the Remote) displays the Network menu:



The LCD screen of the Remote displays the complete list of available systems on the network. The list is organized by the order of connection to the network. Up to 4 pages are available to display up to 31 XT[2] servers.

The **PREVIOUS** and **NEXT** keys appear only when some machines are not visible on the current page.

LOCAL MODE

The local system is identified with the Local sign after the name of the system. The **Local** function (**A**) gives direct access to the Local mode and is highlighted when Local mode is activated.

CLIPS MODE

The **Clip** function (**B**) allows the operator to connect to the clip banks of another LSM connected to the network. In other words, the VGA clip screen and the **F_** keys of the Remote show the clips from the selected LSM. If the operator presses the **RECORD** key, he goes in LIVE mode on the local record trains.

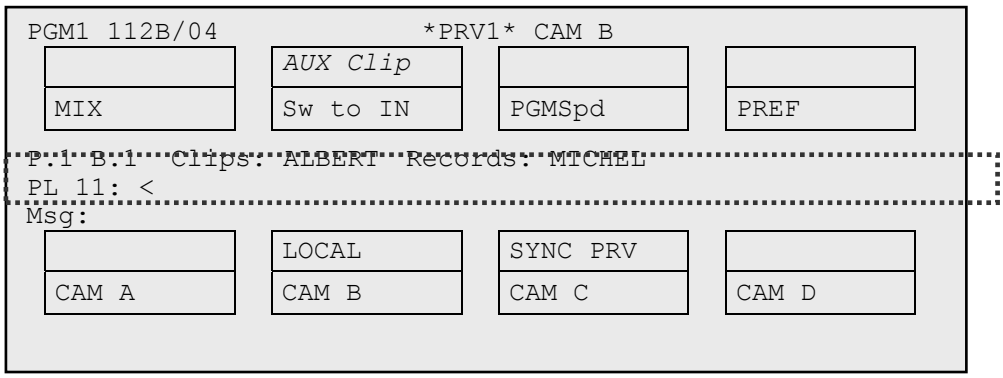
RECORDS MODE

When the operator selects one of the LSM in the network menu, he connects the record trains to this LSM. This means that the next time he presses the **Records** function (**C**) the active channels will go in LIVE mode (or near LIVE mode for remote trains[1]) on the record trains of the selected LSM. The clips remain connected to the LSM they were connected to.

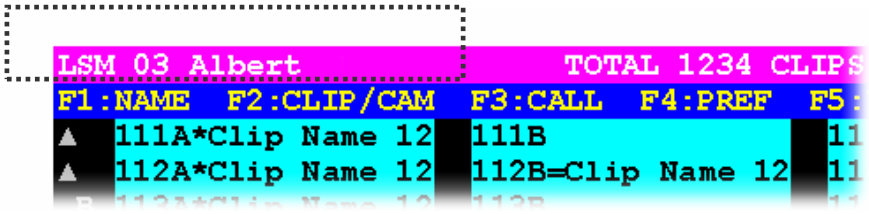
CLIPS+RECORDS MODE

The **Clip+Rec** function (**D**) allows the operator to both connect to the clips banks and to the record trains of a remote XT[2] server. The VGA clip screen and the **F_** keys of the Remote panel show the clips from the selected XT[2] server. The next time the operator presses the RECORD key, the active channels will go in LIVE mode (or near LIVE mode for remote trains) on the record trains of the selected LSM.

Select the function key corresponding to the remote system, then the LCD display returns to the normal mode:



The names of the remote systems are now displayed after the Page and Bank information and in the Title bar of the Clip screen.



Note

It is possible from the VGA to connect back to the last machine connected by pressing **ALT**+<**TAB**>.

14.7 OPERATING WITH XNET

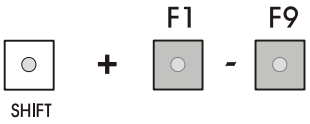
When the remote system is selected, the operation with remote clips or remote trains is similar to the operations on the local system.

14.7.1 HOW TO RECALL/PLAY BACK A REMOTE CLIP

1. Select the **Clip** mode in the Network menu.
2. Select the Remote LSM from the list:

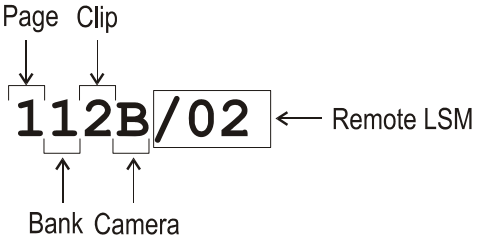
   The LCD display returns to the normal mode
3. Select the clip page 1, 2, 3, ... to 10 (PAGE key).

   When selecting a XT[2], it will automatically reconnect to the page and bank that was last used.
4. Select the bank in which the desired clip is located



5. Choose the clip required (**F1 - F10)**.
6. If all clips are present (from Camera A, B, C and D), they will appear in their respective locations (Channel A, B, C or D).

The label of a remote clip is different in order to identify it easily among other clips:



14.7.2 How to Name a Remote Clip

1. Select the **Clip** mode in the Network menu.
2. Select the Remote LSM in the list.
3. Go to the Clip screen on the VGA, all banks of remote system are now displayed.
4. Select the clip to name.
5. Type the desired name on the keyboard.
6. Press **F1** to name the remote clip.

   → In CAM mode, only the camera where the cursor is located is named

   → In CLIP mode, all cameras of the clip where the cursor is located are named.

Note

To be able to rename a clip on a remote server, the **Clip Edit by Network** parameter must be enabled in the Setup menu.

14.7.3 How to Modify IN/Out Points of a Remote Clip

1. Recall the desired clip.
2. Browse inside the clip until you reach the desired frame.
3. Press IN / OUT to mark a new Short IN / Short OUT points.

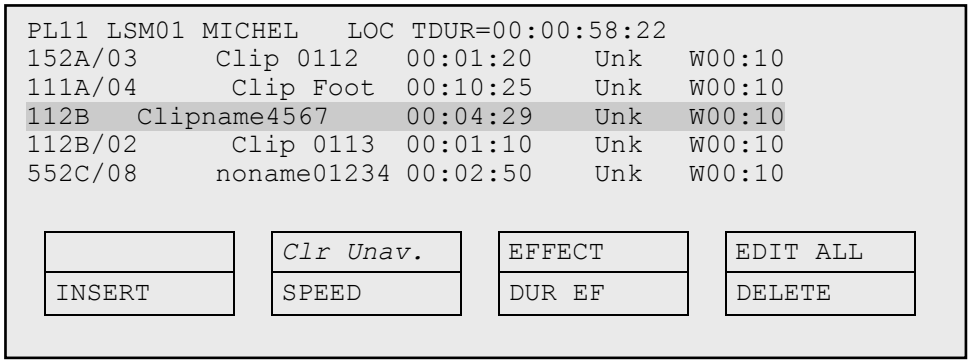
Note

To be able to trim a clip on a remote server, the **Clip Edit by Network** parameter must be enabled in the Setup menu of the remote machine.

14.7.4 How to Insert Remote Clips Into a Playlist

1. Select the Remote LSM via the Network menu.
2. Select a remote clip in the banks. The corresponding **F_** key lights red.
3. Press **ENTER** on the Remote.
4. Repeat the 3 first steps as necessary until last clip is entered.

In Playlist Edit mode, the remote display gives all needed information regarding this playlist and this information is updated each time a clip is stored in the playlist.



14.7.5 How to Roll a Playlist With Remote Clips

1. Once the playlist is cued and ready to roll, select the playlist from the playlist bank.
2. Press the **PLST** key on the Remote panel.
3. Move the lever to start the playback or press the **PLAY** key.

Clips Unavailable on the XNet Network

While the playlist is rolling on air, a remote clip might be unavailable due to a network problem or simply if the remote LSM has left the network. In this case, the clip is marked as 'NOT AVAILABLE' on the playlist screen and is skipped when the playlist is rolling. If a clip is made available again, it will re-appear automatically and be played at the right position in the playlist.

Unavailable clips are shown on the VGA monitor but not on the LCD of the remote.

The operator can decide to definitively remove the unavailable clips from the current playlist by using the **Clr Unav.** function (**SHIFT+B**) in Playlist Edit mode. Note that this function is only visible when unavailable clips are present and with Split Audio Editing turned off.

14.7.6 How to Create Local Clips With Remote Record Trains

1. Select the **Records** mode in the Network menu.
2. Select the Remote LSM in the list.

   The LCD display returns to the normal mode

3. Press the **RECORD** key to select the LIVE mode.

   A 2 to 3-second delay to LIVE has been defined to ensure safe operations.

4. Use the **JOG** key to go in search mode.

5. Change camera angles if necessary. The changing camera angles on network train will always switch in pause on the new camera.

   Refer to the note below about the remote camera name.

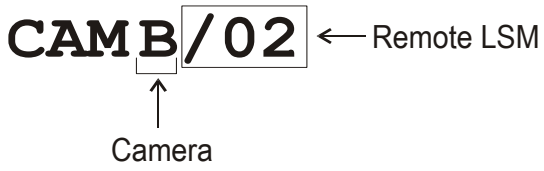
6. Press the **IN** key to mark your Short IN point of the clip.

7. Search the Short OUT point and press the **OUT** key to mark it.

8. Select the clip location to store and press the corresponding **F_** key.

Note

The label of the remote camera is different in order to identify it easily



Note

The key flashes during transfer. When the key lights green, the transfer is completed and the clip is available for playback from the local system.

14.8 MAPPING NETWORK CAMERAS

Note

Mapping network cameras is a software option

It is possible to map network cameras to unused camera position on the Remote up to the D camera. For instance, if the configuration is 2IN 2OUT, it is possible to map 2 network cameras.

The mapping allows a quick selection of network trains on the network. Those cameras are NOT recorded on the local server, they remain recorded on the destination server.

The Setup menu, on page 6.3, displays the following screen:

```
Mapping network cam          p.6.3
[F1]Authorize cam mapping: Yes
  Cam A                  : Local
  Cam B                  : Local
[F3]Cam C                : CamA/01
[F4]Cam D                : CamB/01

[Menu]Quit [Clr+F_]Dft [F9]PgUp [F0]PgDn
```

The **F1** key allows the user to enable or disable the option.

The other **F_** keys allow the user to perform the mapping:

- If the camera is local (cam A and B on the example), no **F_** key is assigned to it.

- If the position is free and can be used by a network camera, the **F_** key is available: The **F2** to **F4** keys can be assigned to respectively Cam B, C or D in this case depending on the configuration defined in the Setup.

To map a distant camera to a local camera position, select the cam position with the corresponding **F_** key and jog with the dial to reach the desired network camera to map.

The clipping on mapped cameras follows the same rule as for local cameras. Clips created will be copied as local clips in the corresponding positions.

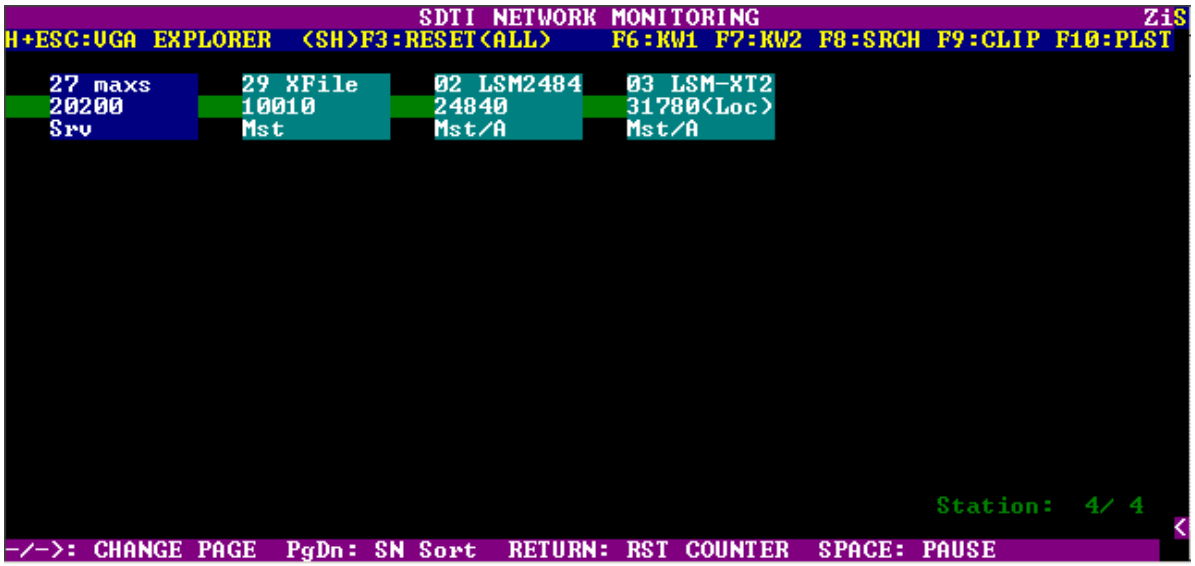
Two limitations must be noted in the mapped camera mode:

- All cameras are delayed so that in LIVE mode all cameras are on the same time code.

- Recalling local clips will not be instantly available: the network copy of the remote cameras will occur before the clip can be recalled.

14.9 NETWORK MONITORING SCREEN

The screen accessible via the **SHIFT+F4** keys allows a more accurate monitoring of the SDTI network status.



14.9.1 INFORMATION AVAILABLE ON THE SCREEN

14.9.1.1 DATA DISPLAYED

All the machines are displayed in the logical connection order,i.e. the way they are effectively connected on the network.

For each machine, the following information is displayed:

- net number + name
- serial number
- main network configuration setting (server, master client) as defined in the EVS application.

14.9.1.2 BACKGROUND COLOUR

The background colour of the data related to a given machine means:

- blue: effective server
- grey: not currently server

14.9.1.3 TEXT COLOUR

The colour of the text indicates the video network overload, based on how many SDTI network mailboxes are used:

- White: ok, less than 90% capacity
- Red (over 90%): risk of network overload.

14.9.1.4 LINK COLOUR

The colour of the link indicates the physical link status between two machines:

- green: OK
- red: errors

14.9.1.5 POSSIBLE ACTIONS

- Pressing the Space bar pauses or restarts the monitoring.
- Pressing **ENTER** resets the counters.
- Pressing **PgDn** displays a new screen with the information of the list of machines sorted by serial number with error counters information.

14.9.2 How to Disconnect a Machine from the Server

The operator has the possibility to disconnect a machine from the XNet Network. This can be useful when setting up an SDTI network or troubleshooting an SDTI network issue.

To disconnect a machine from the server, proceed as follows:

1. Press **SHIFT-F4** to access the SDTI Network Monitoring screen.
2. Press **CTRL-ALT-L** to disconnect the XHub branch from the network.

   The following warning is displayed:

   Warning

   The network branch you are connected on will be disconnected from the network.
   All network actions will be disabled.

   ESC: Cancel ENTER: Confirm

3. Press **ENTER** to confirm that you want to disconnect the XHub branch from the network.

On the SDTI Network Monitoring screen, the following message in red font informs that the machine is disconnected and how it can be connected again:

"XHub branch disconnected from the network. Press CTRL-ALT-L to reconnect."

15. Paint Mode

Note

The Paint mode is a software option.

The functionality of this software package can be operated using the tablet and the stylus, or a touch screen.

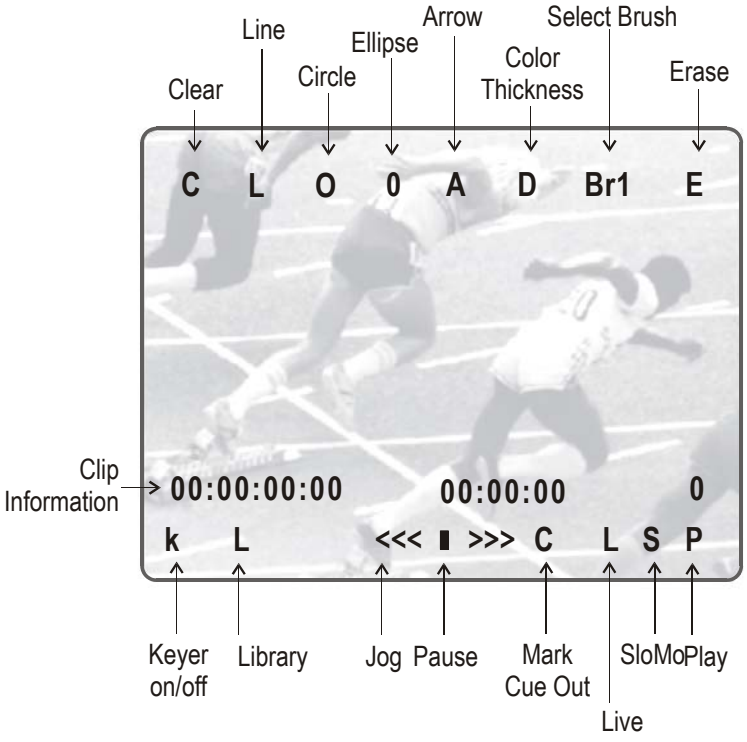
The normal pointing device is the tablet. It is selected in the Setup menu.

Selecting **F2** (on page 6.2 of the Setup menu) will toggle between tablet / touch screen (only when the touch screen is available). The touch screen must always be connected to the RS422 port #6 and defined on page 7.2 of the Setup menu (**F6**).

The use of the Loop function allows the operator to record the effect back into the 1st record channel of the server, and to create a clip with the paint feature. Rolling a clip while in the Loop mode, in Painting, and dissolving paint image on/off allow for a very powerful feature.

15.1 PAINT MODE MONITOR DISPLAY

This section presents the available functions on the Paint Mode monitor display. For more information, refer to the subsections below.



C (clear)	clears screen
L	enables line mode («one-shot»). See also Section 0.
C / c (circle)	selects large / small circle («one-shot»). See also Section 0.
A	automatic arrow at end of freehand drawing. See also Section 0.
D	selects brush colour and thickness. See also Section 0.
Br1 / Br2	toggles between Brush1 and Brush2.
E	erases unwanted portion of graphic. See also Section 0.
k / >k<	keyer off / on. See also Section 0.
L	calls the Library module where drawing, logos, ... can be saved.
C	marks CUE OUT point on current clip
S	plays back the clip at slow motion speed. The speed of slow motion is predefined in the PGM Speed item from the Setup Menu (Page2 – F3)
P	plays back the current clip at normal speed

The clip countdown displays the field time. This means that the countdown matches the slow motion speed.

Note

Selecting **C** (clear) from the monitor enters the Clear menu and the DFC menu. DFC menu allows you to select the brush colour from a YUV colour palette

If working in network mode, painting can be performed on remote clips as well as on local clips.

STRAIGHT LINE / BROKEN LINE DRAWING (L)

Select **L** on the Paint Mode monitor display**.** You will then be prompted to enter the first point of the line.

Place the pen at the start point and press lightly. Then place the pen at the next point and press lightly again. A straight line appears to connect these 2 points. Repeat this as many times until the line is complete, then place the pen over the “ESC” area in the top right corner of the OSD and press lightly. The system automatically defaults back to freehand drawing mode.

CIRCLE DRAWING (O)

Select this menu to draw circles.

A menu allows you to choose between the following options:

- **Set centre (default):** A pointer appears on the screen to let you choose the centre of the circle. The radius will be the one last used or the default one if none has been defined before.

- **Define:** This option allows you to change the size of a circle.

  Click on the **Define** menu and follow the instructions:

  - Set the centre of the circle
  - Set the radius

You can then choose to save or not the new circle:

- **Esc:** no circle is drawn.

ELLIPSE DRAWING (0)

Select this menu to draw ellipses.

A menu allows you to choose between the following options:

- **Set centre (default):** a pointer appears on the screen to let you choose the centre of the ellipse. The shape will be the one last used or the default one if none has been defined before.

- **Define:** allows you to change the shape of an ellipse, click on the "define" menu and follow the instructions:

  - set the left corner
  - set the opposite corner

You can then choose to save or not the new ellipse.

- **Esc:** no ellipse is drawn.

ARROW (A)

Select **A**. When you draw on the tablet and remove the pen, a «neat» arrow appears at the end of the line. This facility remains «on». Select **A** again.

COLOUR & DENSITY (D)

Select **D** on the Paint Mode monitor display. Choose the desired colour from the display, then choose the desired thickness.

This will be stored as **Br1** or **Br2** depending on which one is currently selected when entering the 'D' option. Thus, two types can be stored.

ERASE (E)

Selecting **E** on the Paint Mode monitor display allows the pen to be used as

an eraser. This facility remains «on». When no longer required, select **E** again to disable it and return to the previous active drawing mode.

CLEAR (C)

Selecting **C** on the Paint Mode monitor display allows clearing of the entire drawing. Once selected, you can choose between 3 options: **Clr** to clear, **DfC** to define customized colours or you may escape (**ESC**) this function without clearing any drawing.

If you select **Define Colour** (**DfC**), a new screen will appear including a U-V selection area, and an Y level selection area. Select first the colour you want to edit on the top of the screen, then select the U-V and Y values by moving the pen on the right location of each selection area. When the adjustment is made, move the pen to an empty zone of the screen.

The **CLEAR** function is also available form the Remote panel (**SHIFT** + **B**) No confirmation is required.

KEYER (K)

Can be selected with the pen, click on **K** (arrows appear/disappear) on the Paint Mode monitor display, or press **SHIFT** + **A** on the Remote panel menu. This feature will cause the drawing to dissolve on and off using the dissolve duration defined in the Setup menu (Page 1, **F6**)

LIBRARY (L)

Selecting **L** allows entering into a library where the user can load or save entire drawings and logos.

16. Target Mode

Note

The Target Mode is a software option.

This software option enables the tracking of an object/action by use of a circle, arrow, ellipse or rectangle (*), focusing the attention on certain details. The user can choose the size, colour and thickness of the border as well as the darkness of the background for a highlight feature. The addition of the Loop function allows the operator to store this effect as a clip.

The facilities within this software package can be operated using the tablet and the stylus, or a touch screen. Selected in the Setup menu, the normal pointing device is the tablet, selecting **F2** in page 6.2 will toggle between tablet / touch screen (only when the touch screen is available). The touch screen must always be connected to the RS422 port #6 and defined on page 7.2 (**F6**) of the Setup menu.

(*) In this chapter, we use the words “tracking object” to refer to the type of shape selected by the operator (circle, arrow, ellipse or rectangle)

16.1 CREATING A TARGET TRACK

Begin by selecting all the appropriate types of tracking object, their size, colour, etc.

SELECTING THE TYPE OF TRACKING OBJECT

The character on the left of the “T” letter on the 1st line of the OSD shows the current object:

O (letter “o”)	Indicates a circle (default option)
0 (zero)	Indicates a ellipse
↓ / ↑ / → / ←	Indicates an arrow
▉	Indicates a rectangle
Z	Indicates the zoom mode is active (circle only available in this mode)

SELECTING OTHER PARAMETERS OF THE TRACKING OBJECT

T:	Select the background shade (Transparency level)
E:	Select the border thickness (Edge)
S:	Select the size of the tracking object (Size)
C:	Select the border colour (Colour)

Note

To select the size of the tracking object when it is a rectangle or an ellipse, click on **S** on the first line of the OSD. You must define the position of 2 opposite corners of the rectangle (in case of an ellipse, you must define the opposite corners of the rectangle the ellipse in enclosed in). When these 2 corners are defined, the system draws the resulting rectangle or ellipse. You can confirm by clicking on **OK** or clear the screen by clicking on **CLEAR** and redefine a new shape.

HOW TO HIGHLIGHT VIDEO MATERIAL

1. Select the material that you wish to highlight (this may be a clip, or simply a cued replay).

2. Position the material on the field corresponding to the target start point and place the pen on the tablet.

   At this point the tracking object will appear on the screen. If the tracking object is an arrow, it will appear slightly off the cursor position, so that the object remains visible.

3. When the circle is positioned correctly, mark a keyframe:
   - by pressing the button of the stylus,
   - by clicking on the **M** sign on the monitoring screen

   The **K** will now appear in the upper left corner indicating that a keyframe has been marked.

4. Re-position the material, and mark the next keyframe, and so on...

When the final keyframe has been marked, the replay can be re-cued.

When the replay is animated, the illustration will appear with a dissolve effect at the first keyframe and disappear, with a dissolve effect, at the last.

Run through the material in Loop mode and the effect can now be retrieved and stored as a new clip with the target tracking.

This can be repeated several times to include multiple circles. Refer to Loop explanation on page 60.

RULES WHEN USING KEYFRAMES

1. The first / last keyframes can be at the IN / OUT points of the clip.

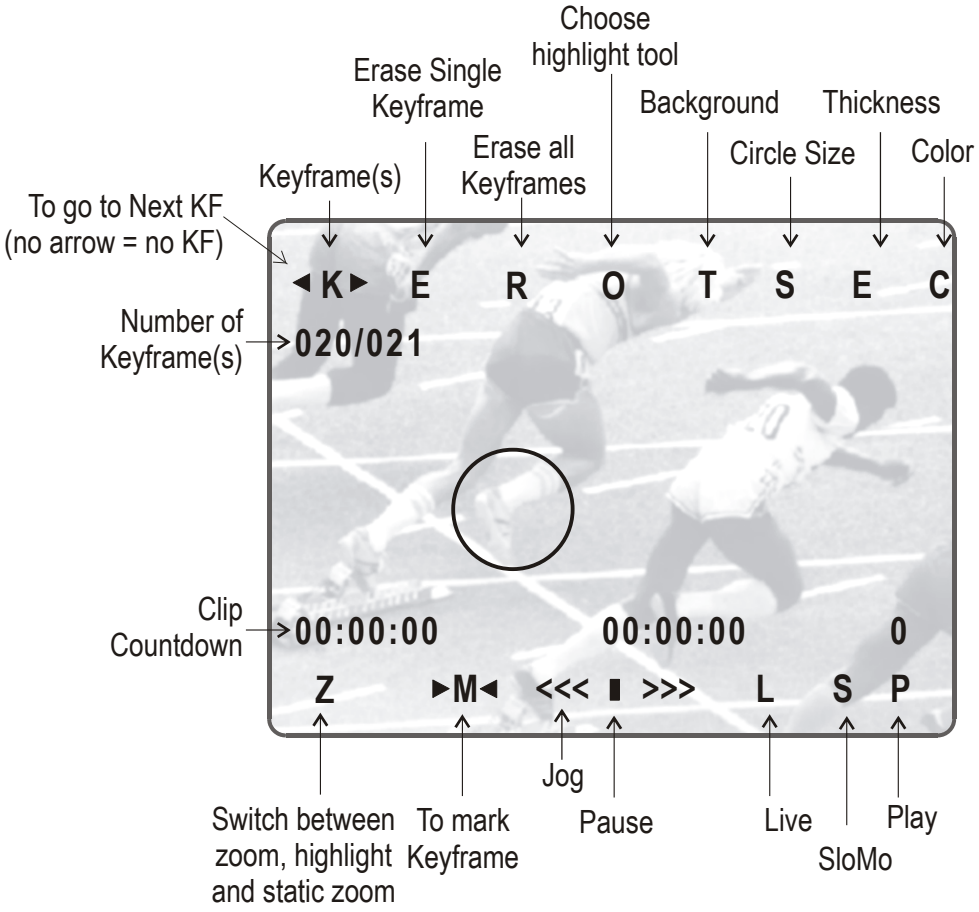
2. If, when a replay is viewed, the action is not accurately followed, stop the replay where the tracking object has drifted away from the target and use the pen to move the circle to the correct point, marking an additional keyframe. This can be done as many times as necessary.

3. When checking / modifying a track, the arrows that appear at the bottom left of the screen may be used to select the next/previous marked keyframe.

4. If one keyframe is to be erased, use the arrows to get to the appropriate keyframe and then select **ERASE** (**E**). Erasing ALL keyframes can be done using **RESET** (**R**).

5. If working in network mode, target tracking can be performed on remote clips as well as local clips.

16.2 TARGET MODE MONITOR DISPLAY



T	Select the darkness of the background (8 choices)
S	Select the size of the circle (8 choices)
E	Select the border thickness (8 choices)
C	Select the border colour (8 choices)
<K>	Indicates a keyframe has been marked on current field.
E	Erases currently displayed keyframe
R	Erases all keyframes in the current clip.
Z	Toggles between Zoom, Static Zoom and normal highlight.
M	Allows you to mark a keyframe directly from the touch screen or from the tablet. If this option is active, touching a point on the screen automatically creates the keyframe. This option becomes inactive after each keyframe creation.
C	Marks CUE OUT point on current field
S	Starts slow-motion (preset in Prg Spd)
P	Plays back the current clip
<<< >>>	Searches the material (clip or live recording). A single click with the stylus move one frame forward or one frame back

ZOOM OPTIONS

On the Remote panel display, selecting the **Zoom** option (soft key **A)** on the Remote will cause the tracking object to be changed to the Zoom function. Thee circle will magnify 4x the highlighted area of the image. This is a great feature for showing, for example, a close call like a foot on a line or a ball in/out of bounds.

Note

The dissolve effect is not available when using the Zoom effect. The **T**, **S**, **E** and **C** parameters are not available either in Zoom mode.

Selecting **Zoom** again will switch to Static Zoom mode. Keep in mind, when selecting the Zoom option, the software will take a few seconds to apply the change.

The Static Zoom allows the user to zoom an area of the picture via a picture in picture display.

In the Static Zoom mode, at the bottom left of the screen, a “P” appears on the OSD to define the position of the static zoom.

Just click on the P and move the cursor to indicate where the static zoom should be.

KEYFRAME INFORMATION DISPLAY

On the OSD, a second line is added to indicate the number of keyframes marked and the position of the current keyframe.

The information displayed can be interpreted as follows:

Display	Meaning
---/---	No keyframes are defined.
---/021	21 keyframes are defined but the user is not on a keyframe
012/021	21 keyframes are defined and the user is on keyframe 12 of 21.

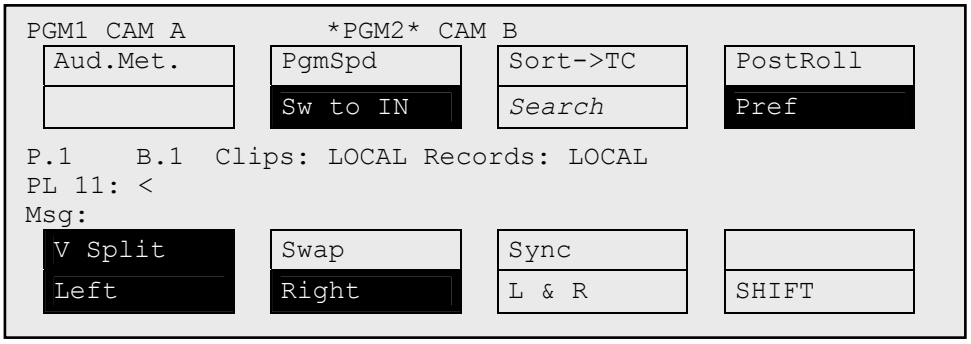
TRANSPARENCY OPTIONS

Select the last choice in the transparency options to set the background in black and white.

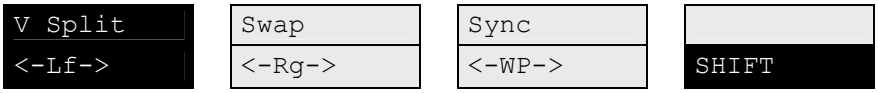
17. Split Screen mode

The Split Screen mode, which is a software option, allows a simple split screen effect on PGM 1. This mode operates very similar to the 2PGM mode, except that the two outputs are now left and right parts of the screen (vertical split screen) or top and bottom part of the screen (horizontal split screen) or mixed together on the entire screen (Split Mix mode). The Split mode also allows for DVE-like adjustment of the video within the split effect, for optimum positioning of the material.

17.1.1 VERTICAL SPLIT

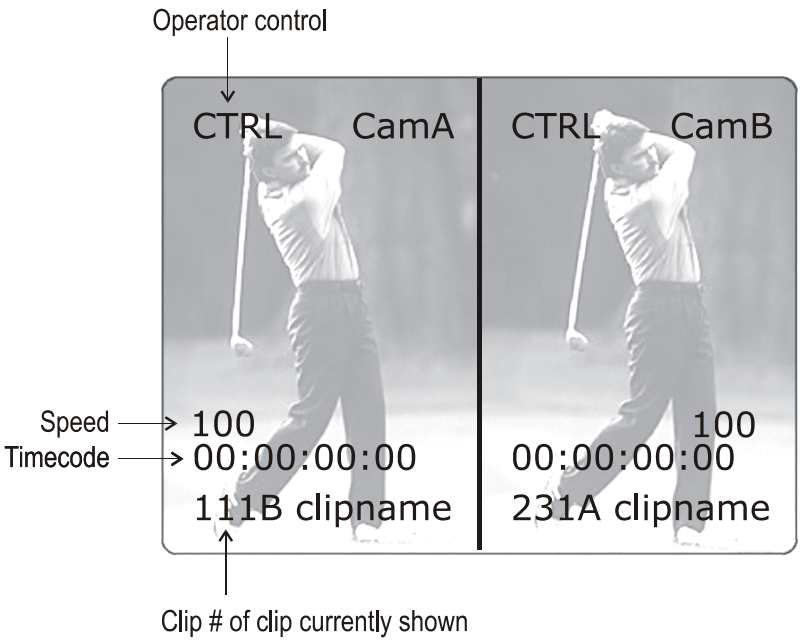


Press the **SHIFT** key (**D**) to switch between normal and special commands:



Command	Description
LEFT	To control the left part of the monitor
RIGHT	To control the right part of the monitor
L & R	To control both sides together
SHIFT	Access / Exit special commands
← LF →	To centre the left picture
← RG →	To centre the right picture
← WP →	To move the separation line
V SPLIT / H SPLIT	Toggles between horizontal and vertical Split screen menus
SWAP	To swap sources from both sides

Command	Description
SYNC	To synchronize the selected PGM with the other one. Press this button and select the PGM to use as a reference.



Press the **LEFT** key to take control of the left side of the screen, and recall the desired clip for this side. Use the command knob to search inside the clip until the desired picture is reached.

Press the **RIGHT** key to take control of the right side of the screen, and repeat the same operation with the clip you want to display on the right side.

You can also shift horizontally the clips on both sides, so that the action is in the centre of the picture.

Press the **SHIFT** key (D) to enter this mode. The menu will change, as shown above.

Press the ← **LF** → key, and move the command knob to centre the left side picture.

Press the ← **RG** → key and do the same operation for the right side picture.

To restore the default positions, press CLEAR + ← **LF** →, ← **RG** →.

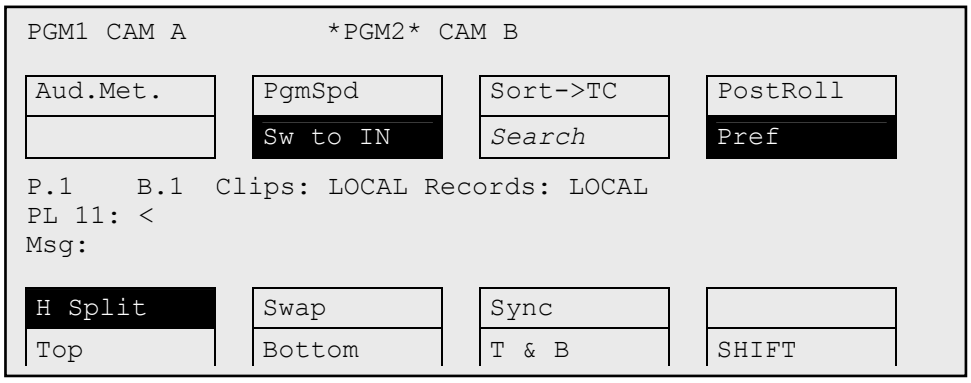
Press the ← **WP** → key allows moving the border. To restore the default position of the border, press CLEAR + ← **WP** →.

To exit the **SHIFT** mode, press the **SHIFT** key (**D**) again.

If working in network mode, split screen can be performed on remote clips

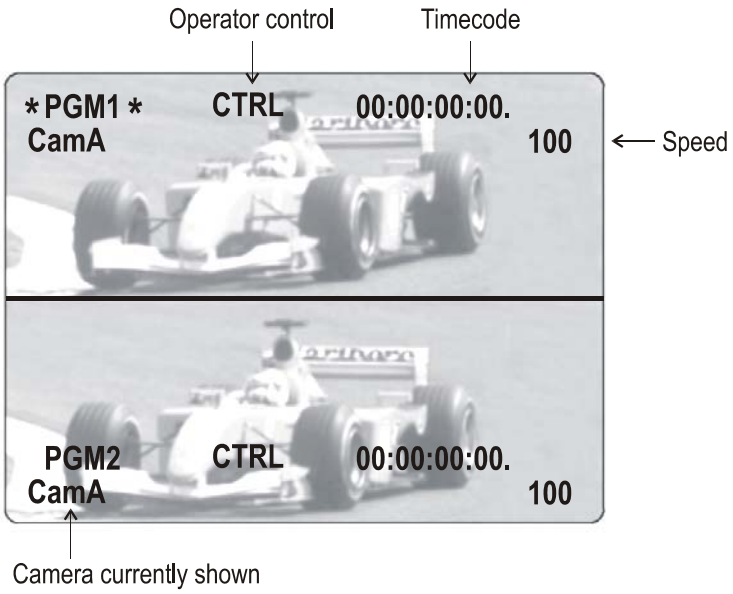
as well as on local clips.

17.1.2 HORIZONTAL SPLIT

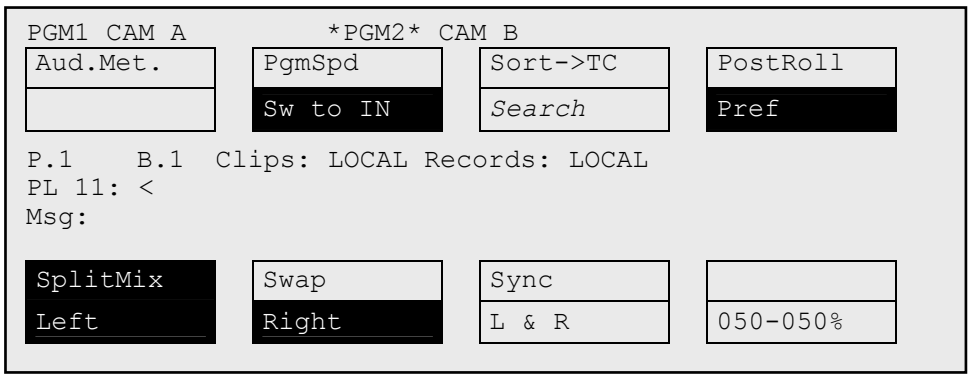


Press the **SHIFT** key (**D**) to switch between normal and special commands.

All commands are similar to the Horizontal Split Screen commands.



17.1.3 SPLIT MIX



This mode works similar to the H and V Split modes, except that there is no position adjustment since both pictures are shown full frame.

The **D** key allows the operator to adjust the mix percentage between the two sources. Press the **D** key to highlight the function, then move the lever to adjust the mix level between the two sources.

17.1.4 AUTO-TRACKING MODE

The Auto-tracking mode applies only to the Vertical Split mode, and allows to adjust the horizontal position of a sequence to make sure it is as close as possible to the centre of the left/right part of the screen.

To use the Auto-tracking, the first step is to track the object that must be kept in the centre of the frame. Using the Target Track mode the keyframes are marked to determine the path of the object. Refer to the Chapter 16 “Target Mode”, on page 180 for more details.

When the tracking is completed in the desired clips, enter the Split Screen mode and recall these clips on the left and right side of the screen. If keyframes have been marked inside selected clips, the word “TRACKED” will appear on the corresponding side of the output monitor. At playback, the picture will be shifted horizontally to keep the tracked object in the centre of its frame.

To disable temporarily the auto-tracking without leaving the Split Screen mode, press **CLEAR+LEFT** (disable Auto-tracking on left side) or **CLEAR+RIGHT** (disable Auto-tracking on right side).

18. Sony, XtenDD35, Odetics & VDCP Protocols

18.1 PROTOCOL OVERVIEW

These protocols allow the XT[2] server to be controlled by external devices.

SONY BVW75 PROTOCOL

This protocol allows the server to be seen as a VTR by the controlling device. On a playback channel, all usual transport commands (play, PlayVar, pause, goto time code, pause, stop, etc...) are supported. On a record channel, only Rec and Stop commands are supported.

This protocol is the simplest one but does not support clip management. It should be used when the controlling device does not support the XtenDD35, Odetics or Louth VDCP protocols (ex: edit controllers, NLE applications, some video switchers, VTR controllers, etc.)

XTENDD35 PROTOCOL

This protocol is based on the Sony BVW75 protocol for all standard transport commands. It has extended commands so that it supports clip management: using this protocol, the controlling device can create, name, recall and delete clips.

This protocol can be used with Thomson/GVG XtenDD range of switchers, and with DNF ST300-EVS and 4040CL-EVS controllers.

ODETICS PROTOCOL

This protocol is based on the Sony BVW75 protocol for all standard transport commands. It has extended commands so that it supports clip and playlist management: using this protocol, the controlling device can create, name, recall and delete clips, but it can also manage playlists.

This protocol can be used with many different control devices and automations software, including DNF ST300 and 4040CL controllers.

Non standard commands in Sony, XtenDD35 and Odetics protocols on the play channel of an EVS server:

REC: when a REC command is sent to a play channel, this channel will return in E2E mode on its default record train. If the default record channel associated to that player is currently stopped, it will jump to the last recorded picture and pause.

EJECT: if the play channel is not yet in E2E mode when the command is sent, it will return to E2E mode on its default record train (similar to receiving a REC command). If the play channel is already in E2E mode, it will switch to the next record channel available (A→B→C→...→A→...). This is for example useful with a BVE edit controller to allow the editor to select the record train he wants to work with.

LOUTH VDCP PROTOCOL

This protocol is a more complex protocol mainly used by automation systems but also by Sony switchers. It is not based on the Sony BVW75, and can handle clips as well as playlists.

IPDP PROTOCOL

For more information on how the IP Director application controls the XT[2] server, refer to the IP Director Technical Reference manual and User manual.

GLOSSARY

HANC LTC	Horizontal Ancillary time code LTC as defined in the XMPTE 259M and RP188 standards.
HANC VITC	Horizontal Ancillary time code VITC as defined in the XMPTE 259M and RP188 standards.
LTC	Linear or Longitudinal Time Code. This is the time code defined on or plugged into the XT[2] server.
LTC table	Time code jump table in which the jumps in LTC time codes are stored.
OSD	On-Screen Display. Information displayed on the output monitor.
Protect IN point	Position, i.e. time code, which represents the first image of the protected video material for a clip, i.e. the first image before the IN guardband.
Protect OUT point	Position, i.e. time code, which represents the last image of the protected video material for a clip, i.e. the last image after the OUT guardband.
Short IN point	Position, i.e. time code, which represents the first image of a clip. This is also called IN point in this user manual.
Short OUT point	Position, i.e. time code, which represents the last image of a clip. This is also called OUT point in this user manual.
VITC	Vertical Internal Time Code. This is the time code, associated with the video signal. It is inserted in the vertical blanking interval of the video signal.
VITC table	Time code jump table in which the user defined time code type is stored. This will usually be the VITC in SD and HANC VITC in HD but could be another time code type.

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