

XFile

User's Manual

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IMPORTANT NOTE:

Date and Time settings on the XTs and the XFile

Many filters and selections are based on the Date and Time parameters in both applications. 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 XTs and XFile(s) on the same SDTI network.

XTs:

Make sure that all XTs are on the same date and time. This information can be checked from the setup screen ('Shift+F2') and changed via DOS. From the DOS prompt, type 'date' and enter the current date. Type 'time' and enter the current time.

XFile:

- If the XFile application is started, close it.
- Make sure that the XFile's date and time are similar to the XT's.

Select 'Control Panel' from 'Start Menu', then select 'Date and Time' to modify the properties.

In the 'Date and Time properties' window: select the 'Date and Time' tab to access to the calendar and the clock. Set the parameters to your current date and time. Then select the 'Time Zone' tab to access to the map zone selection, set the parameter to your current Time Zone.

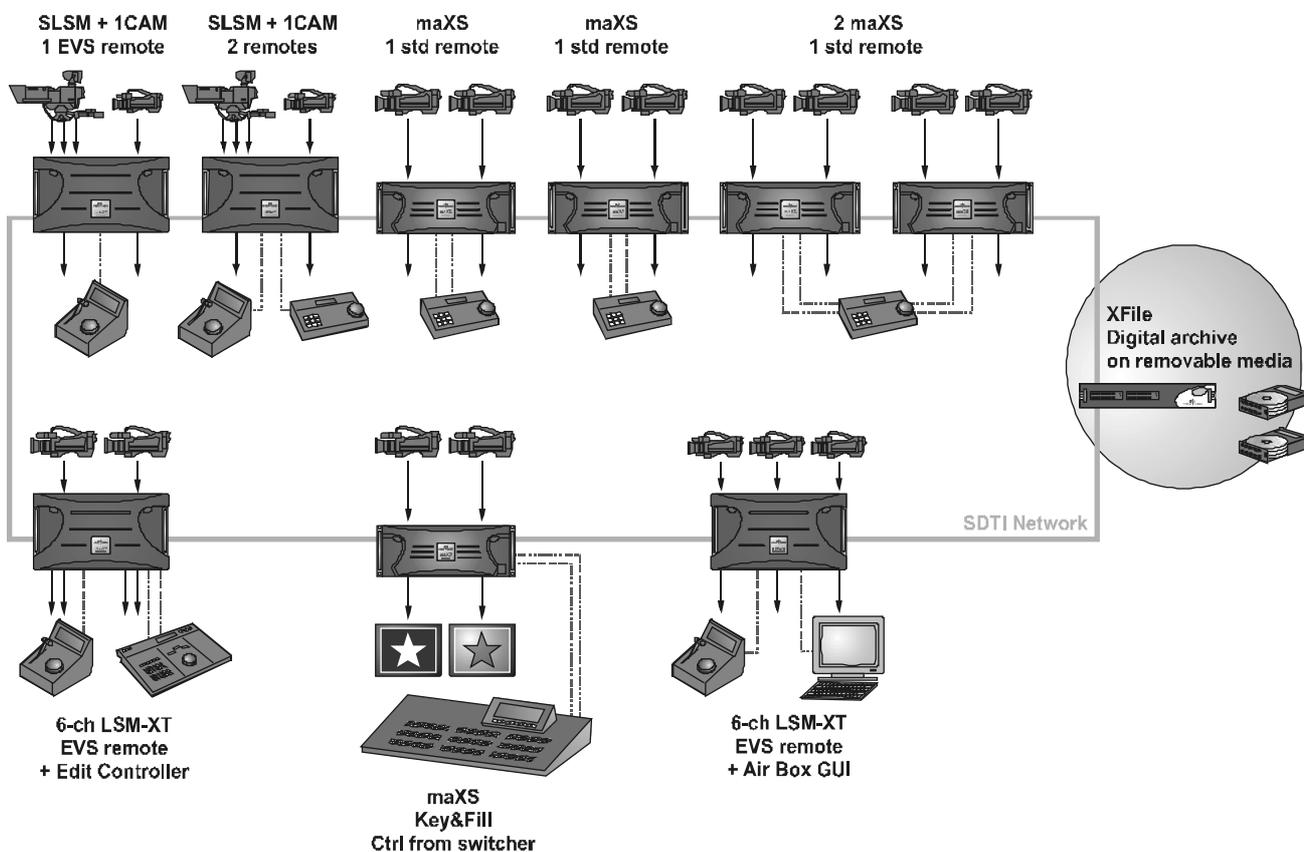
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Introduction

DIGITAL ARCHIVING ON REMOVABLE MEDIA

The XFile has access to all footage recorded on LSM-XT, maXS, AirBox and Spotbox servers through the SDTI network. When a clip is created on one of the servers, a copy is automatically transferred to X-File.



This copy is a background process, and as a lower priority on the network compared to real-time transfers between servers for remote playback, in order not to disturb the live production in any way. If the network is not very busy, the transfer to the removable media can be performed several times faster than real-time. As soon as real-time transfers are required on the network, the backup process is slowed down to make enough bandwidth available to guarantee these new requests.

Each clip is saved as a separate file on the removable media, including not only video, audio and time code information, but also all metadata

associated with that clip: name, descriptors, creation date, original location (server s/n, register), etc. The transfer between a maXS or LSM to the X-File is a data transfer, i.e. no decoding/encoding process takes place at any point, preserving the original quality of the footage, including super-motion character if applicable.

The X-File is equipped with 2 removable media, working as mirrored drives: each clip is automatically saved as 2 separate files on these drives. This provides a security copy in case of drive failure, and also gives the possibility to send these 2 drives to 2 different locations/studios after the show. Each removable media has a capacity of 250GB or 16 hours of footage at standard bitrate. More X-File stations can be inserted on the network if more archive copies are required.

The X-File can also be used as a security backup of the network: should one server lose its footage for any reason (accidental delete for instance), clips can be restored from the X-File to any other server (LSM-XT, maXS or Airbox) on the network.

All Super-motion clips, created on any networked LSM-XT, are stored by XFile amongst the normal files. The 75 fps nature of such material is maintained during archiving and is restored in a single pass without alteration. Therefore, restored Super-motion clips can be re-used as Super-motion footage (playback at 33%) or as a standard material (variable speed) just as if they were captured from the super-motion camera just now.

The combination of maXS, LSM-XT, Airbox and X-File, all interconnected on SportNet, forms the basic architecture required to move from a mostly tape-based production to a disk-based environment.

Configuration

Hardware

The Xfile software is installed in a workstation operating under Windows XP. The minimum system requirement is P4 2.4Ghz Processor, P4SAA Motherboard with DRAM 512MB and a EVS PCX board. The hardware components are housed in a 2U rack cabinet equipped with 2 x ATA 133 250GB Mobile Cartridges.



The XFILE platform is included in the Sportnet in which LSM-XT, maXS Spotbox and Airbox servers interact via SDTI network.

INSTALLING A NEW HARD DISK

The aim of the following procedure is to describe how to place and format a new storage hard disk into an Xfile.

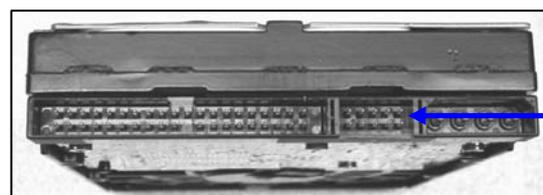
1. Configure the hard disk in master mode (see Picture 2). Connect the IDE cable and place the hard disk into the disk tray then fix it with the four screws. Place the disk tray cover then insert it into the Xfile (see Picture1).



Picture1

2. Create a partition on the storage disk.
 1. From the desktop, right click on 'My Computer'. Select Manage then Disk management.
 2. Right click on the disk with the red icon, then select initialize.
 3. Right click on the same disk then select new partition.
 4. Create a full size primary partition, select the G letter (for the left disk) or the H letter (for the right disk). Format it with the following parameters: NTFS / Default / Data / Quick format.
3. Disable the Disk indexing.
 1. Open Windows explorer.
 2. In the left window, right click on the new G or H disk then select Properties.
 3. Into the general page, deselect the Allow indexing service option then click on Apply.
 4. Select Apply to subfolders and files, click on OK then on OK again.

Picture 2: Storage IDE hard disk set in master mode.



No jumper

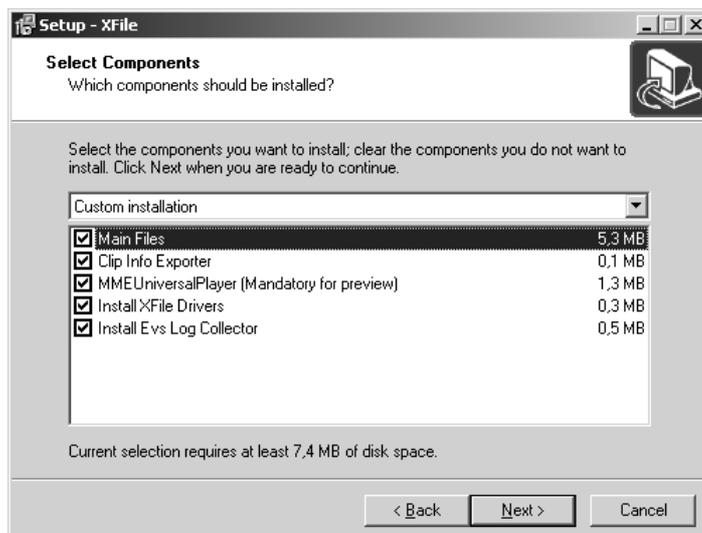
Western Digital WD2500

Software installation

From Disk 1, run XFILE INSTALLER and then follow the steps of the Setup Wizard:



1. Accept the software licence agreement;
2. Do not modify the S/N of the system. This S/N is hard-coded in factory.
3. Select the destination directory to install the new software;
4. Select the items to install:



- Main files
- Clip Info Exporter
- MMEUniversalPlayer (for VGA preview).



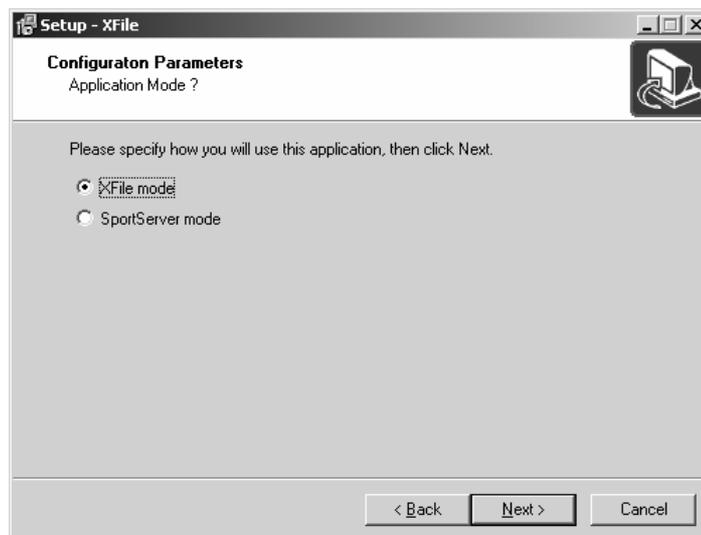
Note: MMEPlayer and Clip Info Exporter are stand-alone software and can be installed on a PC-laptop for MXF files preview

- Drivers of PCX board.
- EVS Log collector.

5. Select the start menu folder to place the application's shortcuts;

6. Then select the application mode:

Xfile mode is the default application containing all the features. SportServer mode creates the link with SportServer Database. (see Sportserver documentation for details)



7. Then press INSTALL to start the installation of the Main Files and the MMEUniversalPlayer. A progress bar shows the activity of files transfer.

8. Insert DISK 2 when required.



Note: A Microsoft message appears to notice a missing logolice, press CONTINUE ANYWAY to continue.

9. The Setup Wizard will continue with the PCX Drivers installation. Press INSTALL to load the drivers.
10. The last step of the process is the LOG_INSPECTOR installation. Press INSTALL to begin.
11. Then press QUIT for ending the installation process.

The Xfile installation is successfully completed and a XFILE shortcut is saved to your desktop.

Creating and re-installing a ghost of your system

The aim of this procedure is to describe how to create a ghost image of your system and how to restore your system with an existing image.



Note: All delivering systems have a J:GHOST partition on the system disk. This allows the customer to have a image file of the C: partition, and easily restore the complete XP operating system and XFile software as it was from the factory at any time.

How to create a ghost image of your system.

1. Reboot the system on the Boot 98 floppy.
2. When into the A prompt, type d: then press ENTER. Then type ghost and press ENTER.
3. Into the ghost startup window, press ENTER.
4. Into the next window, select Local / Partition / To image then ENTER.
5. Into the next window, select the Source drive drive #1 then ENTER.
6. Into the next window, select the Source partition #1 then ENTER. Press the TAB key to select the OK button then ENTER.
7. Into the next window, press the TAB key to select the Look in area and open it by pressing the down arrow key. Select the destination drive: D fat drive then ENTER.
8. Press the TAB key to select the File name area then type the file name: XFyymmdd (yymmdd is the current date).
9. Press the TAB key to select Save then ENTER.
10. Select Compress high then ENTER.
11. At the message 'Proceed with partition image creation' select yes then ENTER.
12. When the process is complete press ENTER. Select Quit then ENTER, then Yes and ENTER.
13. Remove the floppy and reboot the system.

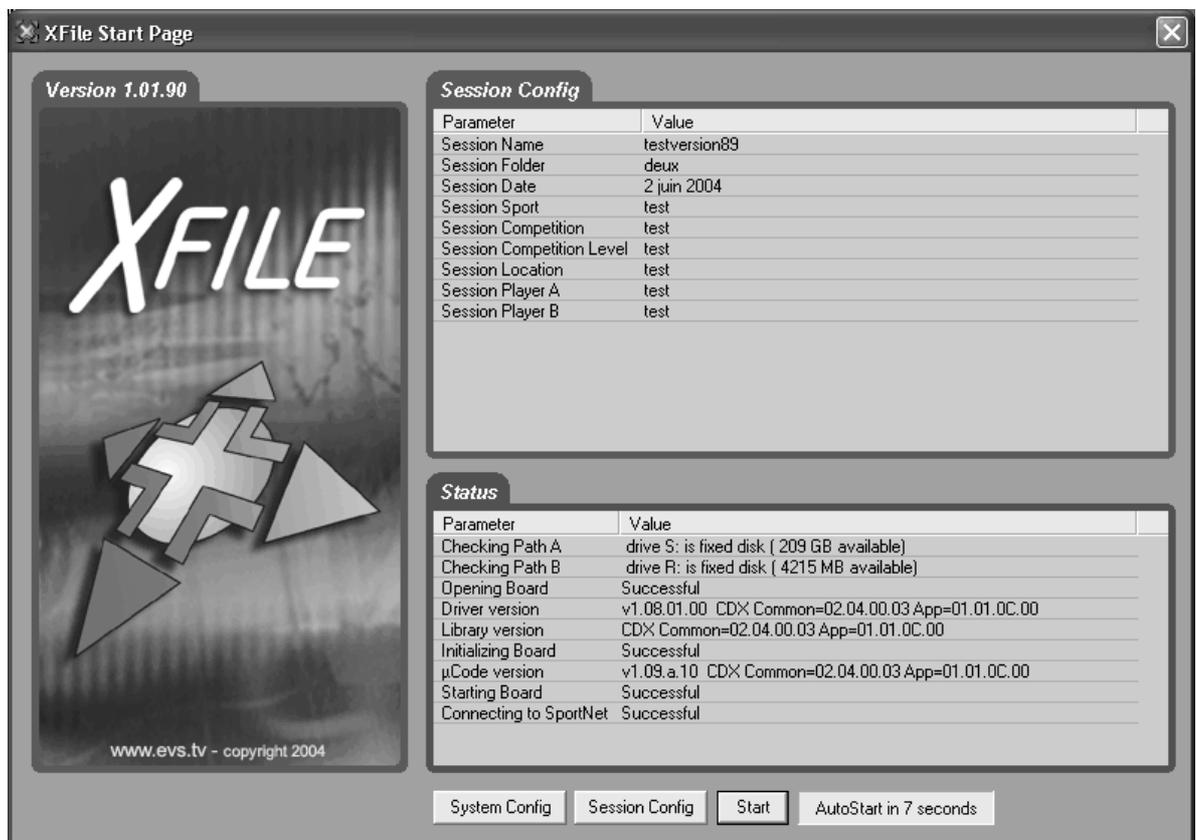
How to re-install your system with an existing image.

1. Reboot the system on the Boot 98 floppy.
2. When into the A prompt, type d: then press ENTER. Then type ghost and press ENTER.
3. Into the ghost startup window, press ENTER.

4. Into the next window, select Local / Partition / From image then ENTER.
5. Into the next window, press the TAB key to select the Look in area and open it by pressing the down arrow key. Select the source drive: D fat drive then ENTER.
6. Select the image file you want to restore then ENTER.
7. Into the next window, select the Source partition # 1 then ENTER.
8. Into the next window, select the Destination drive # 1 then ENTER. Press the TAB key to select the OK button then ENTER.
9. Into the next window, select the Destination partition #1 then ENTER. Press the TAB key to select the OK button then ENTER.
10. At the message 'Proceed with partition restore' select yes then ENTER.
11. When the process is complete press ENTER. Select Quit then ENTER, then Yes and ENTER.
12. Remove the floppy and reboot the system.

Software management

Start-up



At first start the upper part of the window displays:

SYSTEM CONFIGURATION AREA:

This field displays the current parameters of the system. Some relevant parameters are required to connect to the Sportnet.

If an error message is displayed facing one of the parameters, click on the 'System Config' button to enter the System configuration window.

System Config	
Parameter	Value
SportNet User Number	31
SportNet Serial Number	10010
SportNet Name	XFile
SportNet Speed	540 Mbits/s
SportNet Video Standard	PAL
SportNet DataBase Mode	16000 clips
XFile DSP file	C:\Program Files\EVS Broadcast Equipment\XFile\Codes\sdti6415.bi
XFile FPGA 540 file	C:\Program Files\EVS Broadcast Equipment\XFile\Codes\20k160_sc
XFile FPGA 270 file	C:\Program Files\EVS Broadcast Equipment\XFile\Codes\20k160_sc
XFile Disk Mode	Mirroring
XFile Path A	S:
XFile Path B	R:

If the values are coherent, press 'START': the 'System Config' field is replaced by the 'Session Config' field.

SESSION CONFIG AREA

This field displays the current parameters and values saved to the descriptive metadata of the MXF header and added to each clip. This data can be modified for each session in the session configuration window.

Session Config	
Parameter	Value
Session Name	test MLO
Session Folder	SESSION_F
Session Date	12 April 2004
Session Sport	session_sport
Session Competition	session_competition
Session Competition Level	session_competition_level
Session Location	session_location
Session Player A	session_player_A
Session Player B	session_player_B

STATUS AREA:

The aim of this area is to check the hardware validity, the remaining capacity of disks and to verify the compatibility between the software, the drivers and the data recorded.

The system automatically starts the test processing. One after the other, the different stages of the boot sequence are displayed in the Status window.

If an error occurs during one stage, write the message down and contact EVS staff for support.

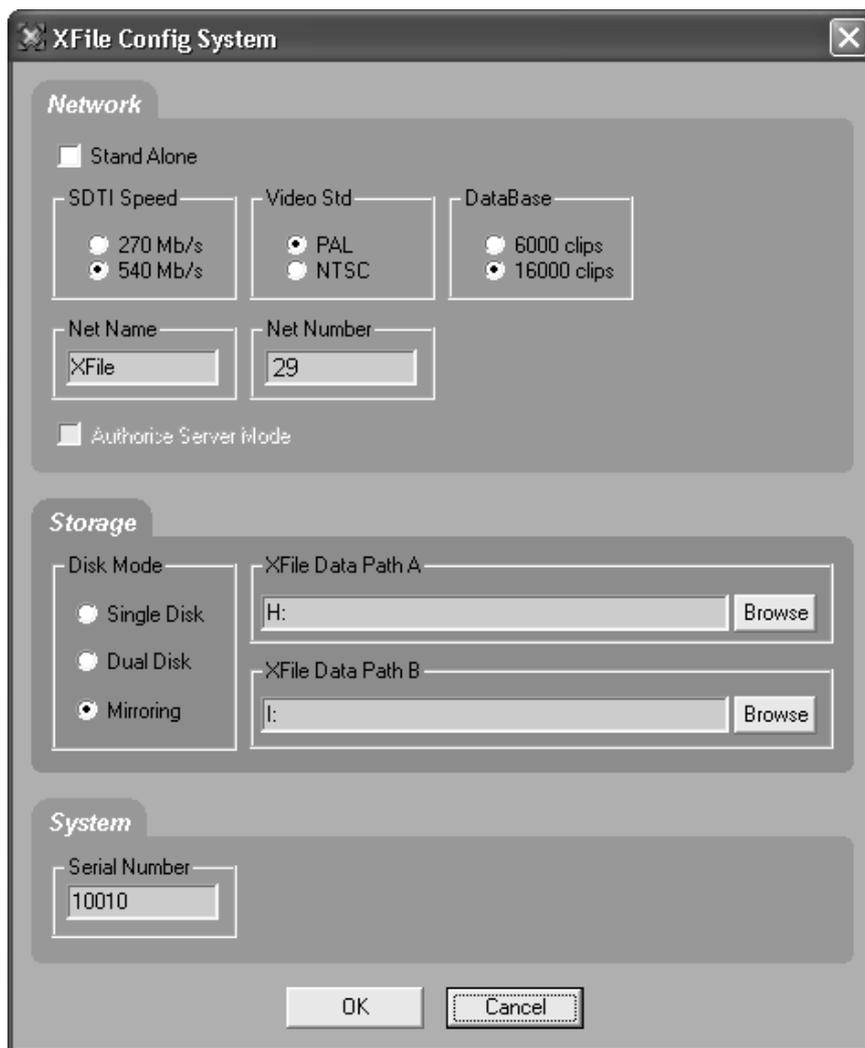
Status	
Parameter	Value
Checking Path A	drive S: is fixed disk (209 GB available)
Checking Path B	drive R: is fixed disk (4215 MB available)
Opening Board	Successful
Driver version	v1.08.01.00 CDX Common=02.04.00.03 App=01.01.0C.00
Library version	CDX Common=02.04.00.03 App=01.01.0C.00
Initializing Board	Successful
µCode version	v1.09.a.10 CDX Common=02.04.00.03 App=01.01.0C.00
Starting Board	Successful
Connecting to SportNet	Successful

The last test is the connection to the Sportnet. If this stage is successful, the Xfile is ready to operate. Press 'START' again to enter the application.

System configuration

The system configuration window is only available for modifications from the start page before start-up: system parameters are required to complete the boot sequence and to connect to the Sportnet.

During operations, this window will be displayed in read-only mode for information.



NETWORK AREA

Standalone mode:

Select this option allows the operator to start the Xfile without being connected to the Sportnet. In this mode only the maintenance mode is active.



Note : The bandwidth, the video standard and the Database Size must be identical on all machines connected to the Sportnet. If one system is configured with a different bandwidth, video standard or database size, it will block the entire network.

SDTI : (270Mbps / 540Mbps)

Selects the bandwidth of the network.

Video Standard: (PAL/NTSC)

Selects the video standard. NTSC format is also applicable for HD formats

Database Size: (6000/16000clips)

Select the maximum number of clips saved to the LSM database.

Net Name :

The Net name defines the machine name on the network. This name is user-defined and can exceed 8 characters, but only 8 will be visible from the Sportnet views.. Entering a Network Name is not mandatory because a network number is automatically given to the system, but it is recommended to easily identify all systems connected to Sportnet.

Net Number:

Range: [1 ... 29]

The Net number defines the machine number on the network. This number is user-defined.

Optional SERVER mode for Xfile

Xfile system can turn to SERVER mode and host the LSM database. This option is useful when no LSM-XT is present on the network. i.e.: sportnet composed by maXS systems.



Note: This option has been temporary disabled to avoid disconnection problems during operation.

STORAGE AREA

Disk mode: (Single Disk / Dual Disk / Mirroring)

Single Disk: only one disk is used.

Dual Disk: When the first disk is full, the system automatically switches to the second disk.

Mirroring: Same clips are saved to both disks at the same time.

Path A / B:

Selects the destination to save the MXF files. Depending on the Disk mode selection, one or two paths is/are active for modifications.



Important Note: At start-up, only the clips saved into the Path(s) are scanned. This means only those clips, data included, will be accessible and display in the Xfile list.

To avoid long scanning process at start-up, we advise the clips to be distributed over different paths.

SYSTEM AREA

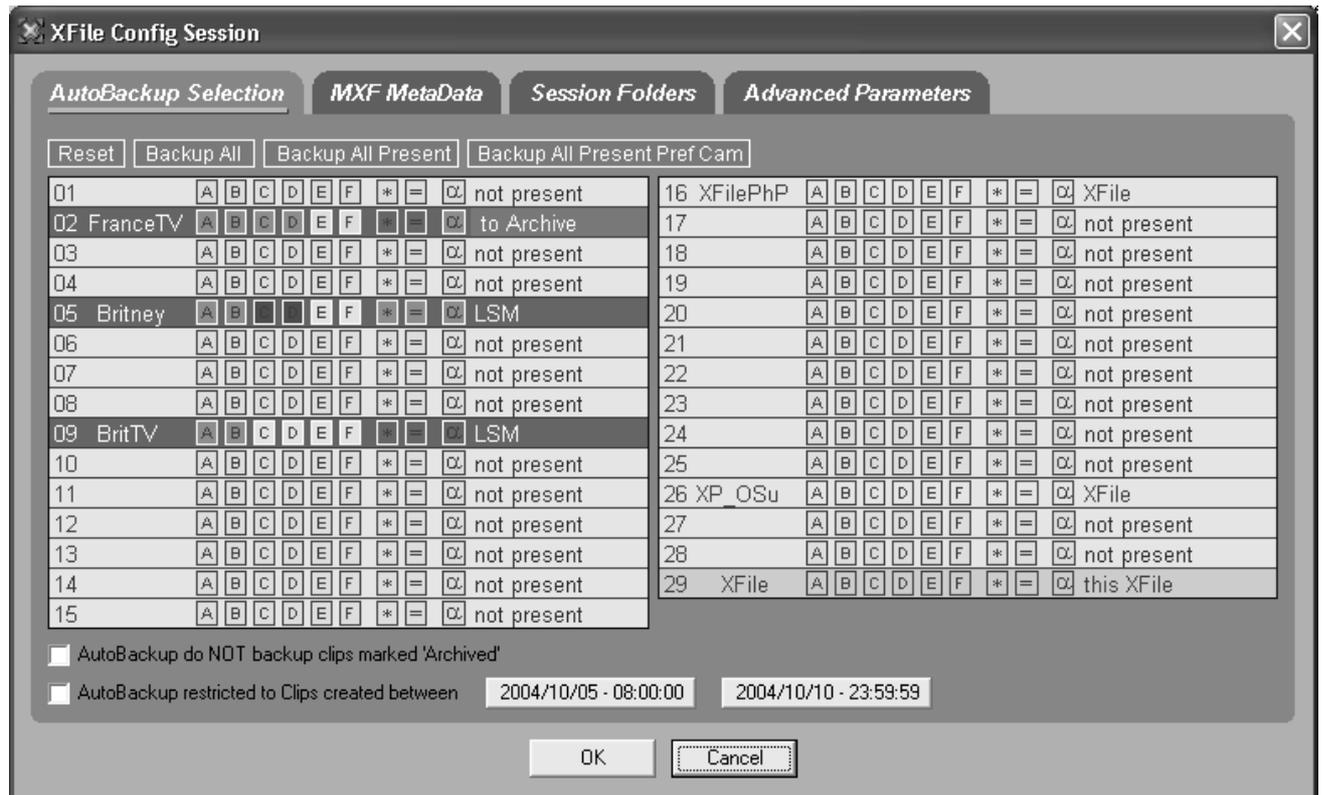
Serial Number:

The serial number of the system is defined during the first installshield process and cannot be modified afterwards. The S/N is also written on the back plate of the mainframe.

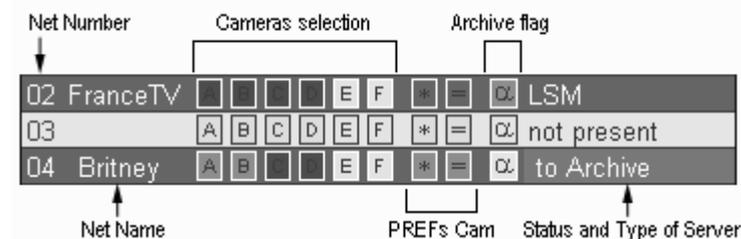
Session configuration

The session configuration window is divided into 4 tabs:

1. AUTOBACKUP SELECTION



This selection list is only active while Autobackup mode is disabled. All systems connected to the Sportnet are listed by net numbers.



1. Select the camera angles desired to be part of the autobackup process. Selected cameras appear in a green square, and unselected cameras in a red square



Note: For the Airbox and Spotbox servers, all cameras must be selected.

2. Press OK to confirm the selection and to close the window.
3. Press the Autobackup button

Different shortcuts are available to select cameras or systems with ease:

Reset **Backup All** **Backup All Present** **Backup All Present Pref Cam**

Reset: clears all selections

Backup all: selects all cameras of all systems. New systems being connected will be also backed up.

Backup all present: selects all cameras of all systems currently connected to the network.

Backup all Present PREFER cam: selects all preferential cameras of all systems currently connected to the network.

ADDITIONAL CRITERIA:

ARCHIVE STATUS

The basic working of the Xfile is to compare the content of its disks with the clips present on the Sportnet. According to the result, the missing clips on disk will be automatically backed up.

If several disks are required to backup a complete session, the Archive status must be kept to avoid a second backup of same clips while changing the disks.

Three conditions are required to validate the Archive status:

1. Before the Autobackup session, place a checkmark in the following box:

AutoBackup do NOT backup clips marked 'Archived'

2. Then set the 'DEFAULT XFILE' parameter in the Setup menu of your LSM-XT server. (see Multicam documentation for complete information).

The **to Archive** label appears on the line of the LSM-XT server if the 'DEFAULT XFILE' has been correctly defined.

3. and then activate the AUTOBACKUP by pressing the **AutoBackup** button.



Note : The 'DEFAULT XFILE' setting allows the operator to initiate the backup of a clip from the LSM-XT server via the >ARCHIVE command (see Multicam documentation for details.)

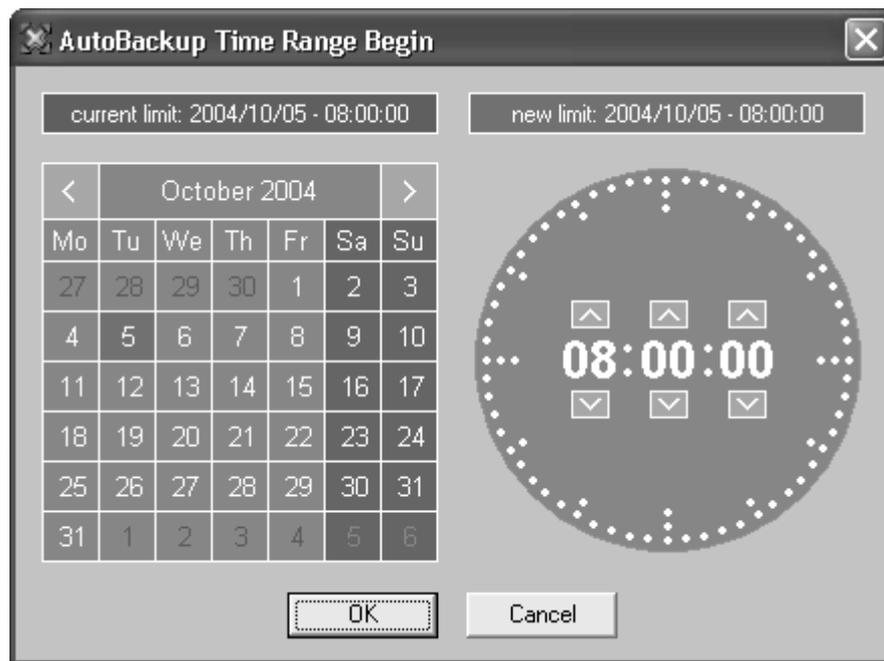
The 'Archive Flag' **DL** also initiates the backup of a clip as requested by the >ARCHIVE command even if the 'DEFAULT XFILE' is not set. But the Archive status on the Multicam server is not updated.

TIME RANGE

The autobackup session can be defined for a specific duration.



Select the square to activate the time range filter and press one of the Time range selection button to access this window:

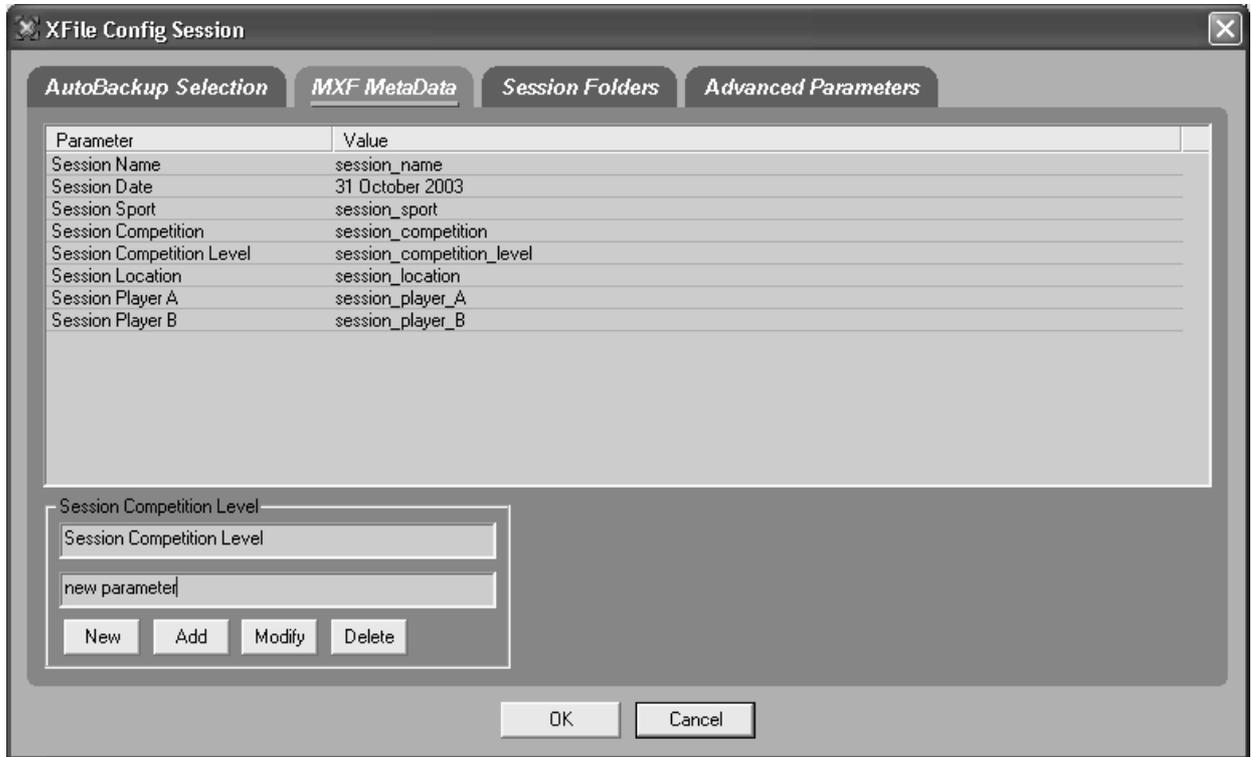


The 'Time Range' filter requires a date-time for the beginning and a date-time for the end to be valid.

1. In the calendar field select the month, then select the day of the month.
2. In the time field select the hour, use the arrows to change the value displayed or directly type the value when the field lights green.
3. Press enter to confirm your selection.
4. Enter the second selection window to enter the values for the end limit.

The Autobackup criterion is now active and only the clips created into the time range will be back up.

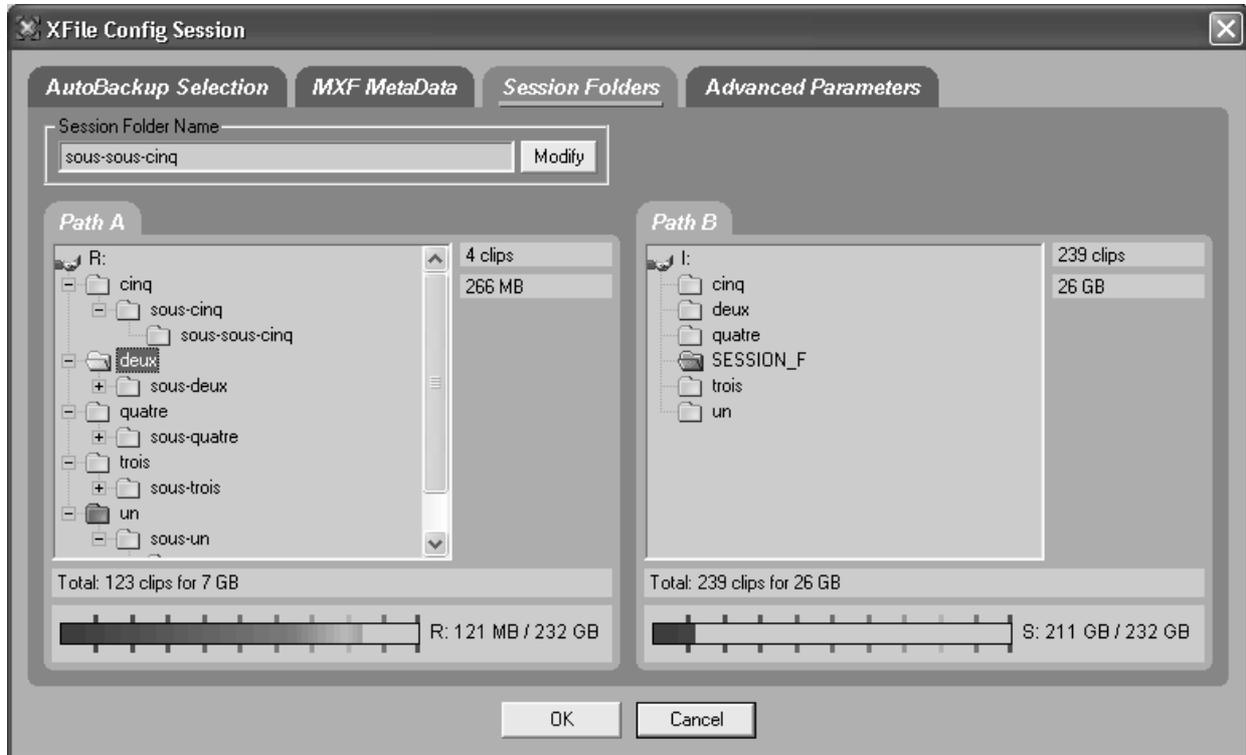
2. MXF METADATA AREA



This area displays the current parameters and values saved to the descriptive metadata of the MXF file.

This data is modifiable by clicking on the value to modify. The value appears in the text field edition. After the modification, press ENTER to confirm the command.

3. XFILE SESSION AREA



Session Folder:

Selects the folder destination to save the MXF files.



Important note 1 : The system checks the clips present into the session folder and its sub-folders. If a clip is not present and according to the criteria defined in the Autobackup selection tab, this clip is automatically backed up.

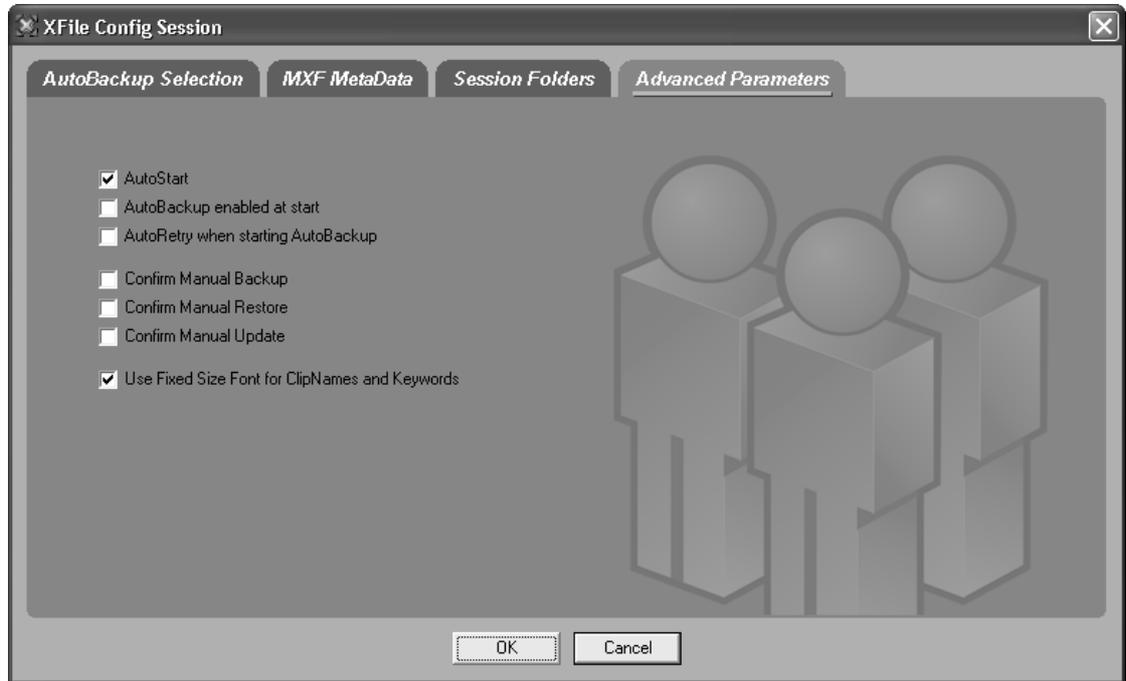
Note 2 : In dual disk mode, When the first disk is full, the system automatically switches to the second disk in the same folder.

The session folder field is only active before start-up in order to ensure the operations.

Clicking on a folder displays the number of clips and the capacity of this folder. The total number of clips, the capacity and the remaining capacity are displayed in the lower part of the window for each path.

The current Session Folder is always represented by a green icon.

4. ADVANCED PARAMETERS



Autostart:

This option auto-starts the XFILE software

Autobackup at start-up:

This option automatically starts the autobackup mode at start-up.

AutoRetry when starting Autobackup:

Enables an automatic Retry command:

- for all clips failed when starting the Autobackup;
- or for all clips that had been aborted when the user stopped the Autobackup mode to make a change in the session configuration.

Confirm Manual backup:

Enables or disables the confirmation message while initiating a Backup command.

Confirm Manual restore:

Enables or disables the confirmation message while initiating a Restore command.

Confirm Manual update:

Enables or disables the confirmation message while updating a clip previously backed up. This command is only available in Manual backup mode.

Use fixed size font for Clipnames and keywords:

Enabling this option will display the content of clipnames and keywords columns with fixed size font in all modes.

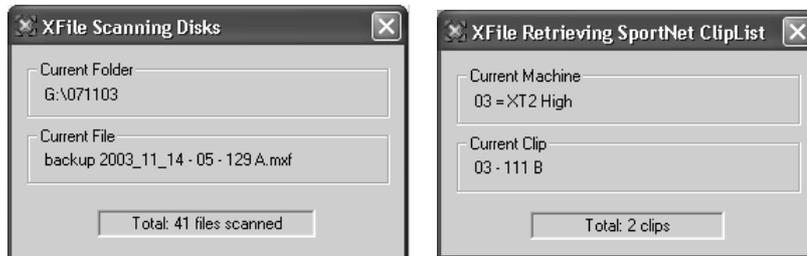
Autobackup mode

Press **AutoBackup** to activate the Autobackup Mode. In this mode, the system acts automatically and backs up all clips according to the criteria defined in the Autobackup selection window. Besides, this mode is important to take account of the different updates made during operations.

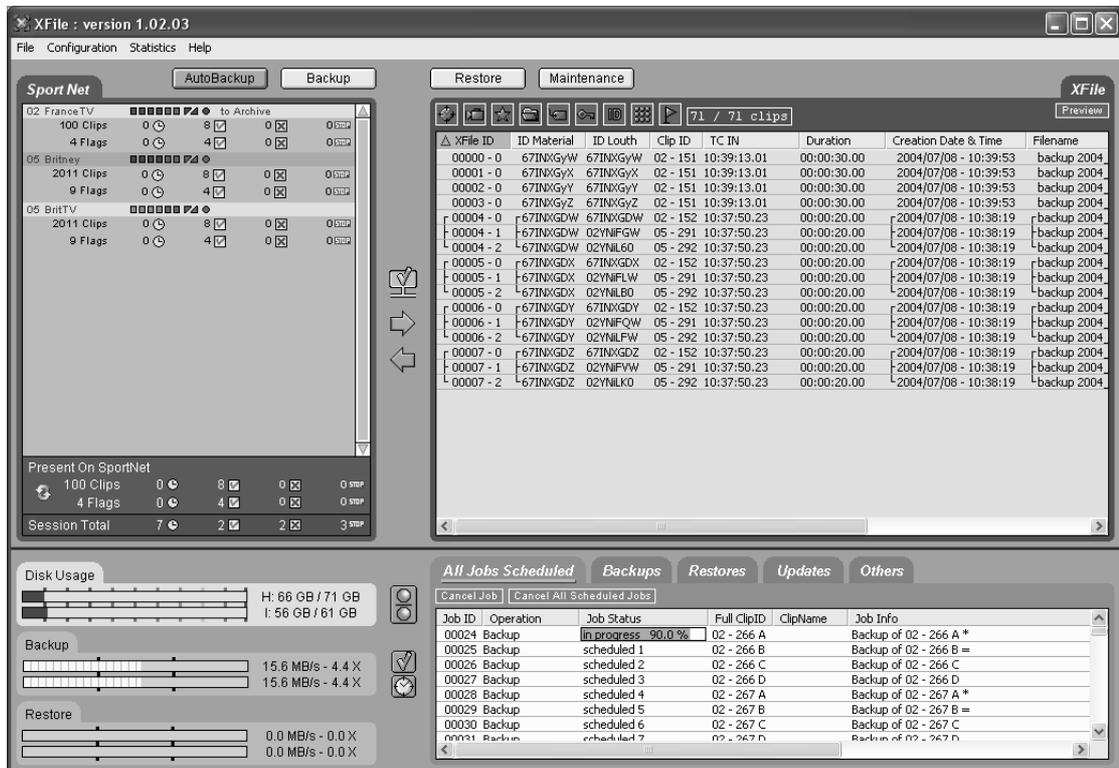


Note: This mode MUST be enabled for the user's >ARCHIVE commands from the Multicam systems to be taken into account.

After the start-up, the system automatically starts two operations: the scanning disk process and the Scanning Network process.



Those operations might last a few seconds depending on the number of clips present on disk and the number of clips present on the Sportnet.





Note: Other modes (backup, restore and maintenance) are also available during autobackup: several modes can operate simultaneously.

Thanks to the selection list, the autobackup process is an automatic and self-operating system. When a clip is created on one of the selected servers, a copy is automatically transferred to X-File. The Xfile operates with the lower priority on the network, this means that the normal operations of others servers are not affected by the Xfile activity.

If the cameras/systems selection needs to be modified, the autobackup mode must be disabled before entering the Session Configuration window.

SPORTNET LIST AND XFILE LIST

The main screen is divided into two areas: the Sportnet list which monitors the sportnet activity and the Xfile list which displays the contents of the Xfile paths.

The screenshot shows a 'Sport Net' window with a table of system configurations. Annotations point to specific elements:

- Net number and Net name:** Points to the first column (e.g., '02 FranceTV').
- Autobackup Configuration of this system:** Points to the status icons (power, clock, etc.) next to the net name.
- The 'Default Xfile' parameter has been defined for this system:** Points to the 'to Archive' text.
- This system is temporary disconnected:** Points to a warning triangle icon.
- This line concerns the clips:** Points to the '100 Clips' row.
- This line concerns the Archive commands:** Points to the '4 Flags' row.
- Number of backups stopped upon user-request:** Points to the '8' value in the 'Clips' row.
- Number of backups failed:** Points to the '4' value in the 'Flags' row.
- Number of backups done:** Points to the '0' value in the 'Clips' row.
- Number of backups scheduled:** Points to the '0' value in the 'Flags' row.
- Total number of clips (and archive commands) currently present on the SportNet:** Points to the 'Present On SportNet' summary row.
- Total number of clips backed up during the current session:** Points to the 'Session Total' row.

Net	Clips	Flags	Stopped	Failed	Done	Scheduled	Status
02 FranceTV	100	4	8	4	0	0	STOP
03 Britney	100	9	8	4	0	0	STOP
04 BritTV	100	9	8	4	0	0	STOP
05 Mobil 1	100	4	8	4	0	0	STOP
06 Mobil 2	100	9	8	4	0	0	STOP
07 Loupe	100	9	8	4	0	0	STOP
Present On SportNet	100	4	8	4	0	0	STOP
Session Total	7	2	2	2	3	STOP	



Note 1: Working with copies of clips can affect the value of the different counters. Use the 'Refresh button' in the Sportnet field for refining the current values.

Note 2: The 'RETRY FAILED' button is active when errors occur.

NETWORK STATUS

The icon displayed in the center of the screen notices the current status of Sportnet:



Connection to Sportnet is successfully done



Xfile is connecting



Connection to Sportnet failed



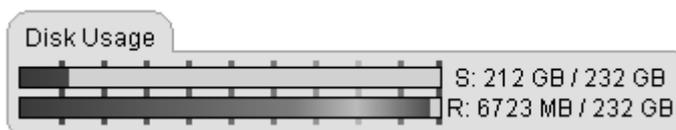
Local hardware failure has been detected



Stand-alone mode

DISK USAGE AND DISK MODE

The remaining capacity and the capacity of disks are displayed in the lower part of the window for each path.



The icon displayed in the lower part of the screen notices the current disk mode in use:



Single Disk



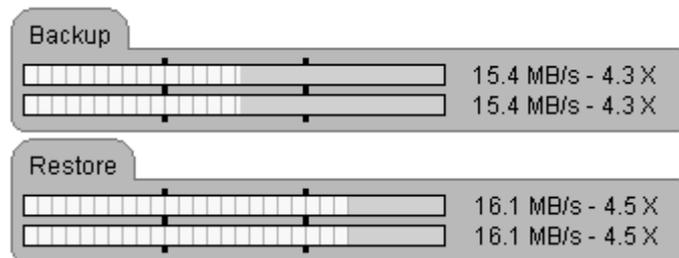
Dual Disk



Mirroring

STATUS AREA

The transfer rate of the Backup and Restore processes is permanently evaluated and the progress bars show the activities in progress.



Depending on the operations in progress, the operator has the choice between two status displays.

- Toggle to 'Jobs done' display
- Toggle to ' Scheduled jobs' display

The different operations are divided into different tabs.

Job ID	Completion Date & Time	Operation	Full ClipID	Operation status
00293	2004/04/30 - 14:38:57	Backup Clip	02 - 124 C	Backup successful at 2.2 X (2.2 sec backedup in 1.0 sec)
00294	2004/04/30 - 14:39:00	Backup Clip	02 - 124 D	Backup successful at 1.9 X (2.3 sec backedup in 1.2 sec)
00295	2004/04/30 - 14:39:03	Backup Clip	02 - 125 A	Backup successful at 2.3 X (2.3 sec backedup in 1.0 sec)
00296	2004/04/30 - 14:39:07	Backup Clip	02 - 125 B	Backup successful at 2.2 X (2.3 sec backedup in 1.0 sec)
00297	2004/04/30 - 14:39:10	Backup Clip	02 - 125 C	Backup successful at 2.3 X (2.2 sec backedup in 1.0 sec)
00298	2004/04/30 - 14:39:13	Backup Clip	02 - 125 D	Backup successful at 2.2 X (2.3 sec backedup in 1.0 sec)
00299	2004/04/30 - 14:39:16	Backup Clip	02 - 126 A	Backup successful at 2.2 X (2.3 sec backedup in 1.0 sec)

Use these filters to refine the selection:

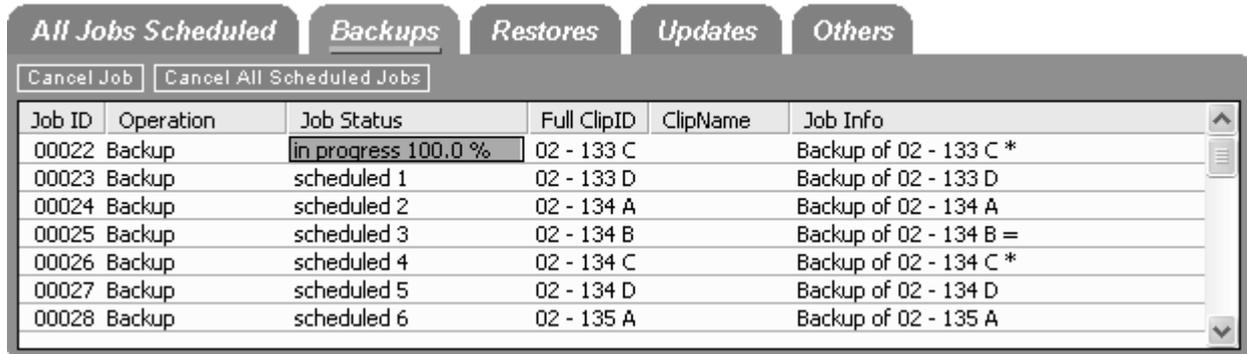


'View all' displays all status since the start-up of the system.

'View Last Hour' and ' View Last Day' are both quick shortcuts to display the operation status related to the last hour or to the last 24 hours.

The 'Hide Successful' button helps you to bring out clearly the various errors occurring during a complete session.

The 'Scheduled jobs' field allows the operator to cancel one or all the jobs in queue.



Job ID	Operation	Job Status	Full ClipID	ClipName	Job Info
00022	Backup	in progress 100.0 %	02 - 133 C		Backup of 02 - 133 C *
00023	Backup	scheduled 1	02 - 133 D		Backup of 02 - 133 D
00024	Backup	scheduled 2	02 - 134 A		Backup of 02 - 134 A
00025	Backup	scheduled 3	02 - 134 B		Backup of 02 - 134 B =
00026	Backup	scheduled 4	02 - 134 C		Backup of 02 - 134 C *
00027	Backup	scheduled 5	02 - 134 D		Backup of 02 - 134 D
00028	Backup	scheduled 6	02 - 135 A		Backup of 02 - 135 A

Select one/several items in the list and press 'Cancel job', or press 'Cancel All Scheduled Jobs' to delete all items in the list:

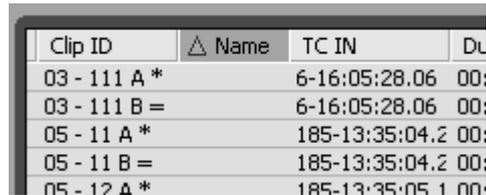
Cancel Job **Cancel All Scheduled Jobs**

The selected items are deleted from the list and the related operations in progress are stopped or the scheduled operations are cancelled.

REFINING THE SELECTION IN THE XFILE LIST:

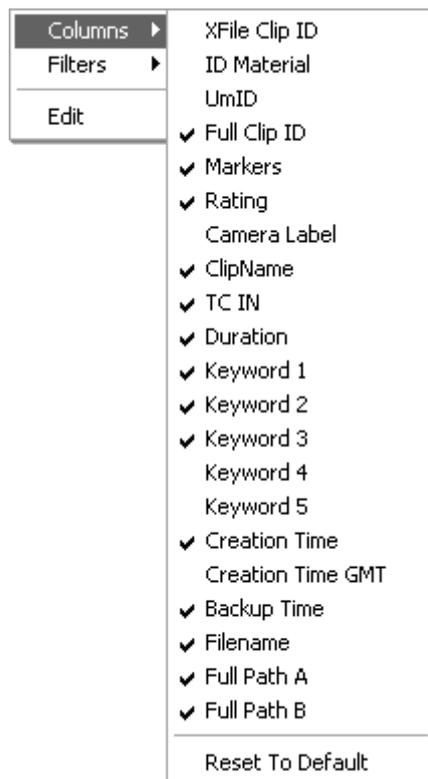
SORTING CLIPS

To sort a column in alphabetical or numerical order, click on the column label to display the arrow icon   and click again to invert the sorting.



Clip ID	 Name 	TC IN	Du
03 - 111 A *		6-16:05:28.06	00:
03 - 111 B =		6-16:05:28.06	00:
05 - 11 A *		185-13:35:04.2	00:
05 - 11 B =		185-13:35:04.2	00:
05 - 12 A *		185-13:35:05.1	00:

DEFINING COLUMNS



Use the right-click button of the mouse (into the list) to access this selection menu.

All columns available are listed here.

Select or unselect the item to be displayed or to be hidden.

The Reset to Default option allows you to restore the standard display

FILTERS

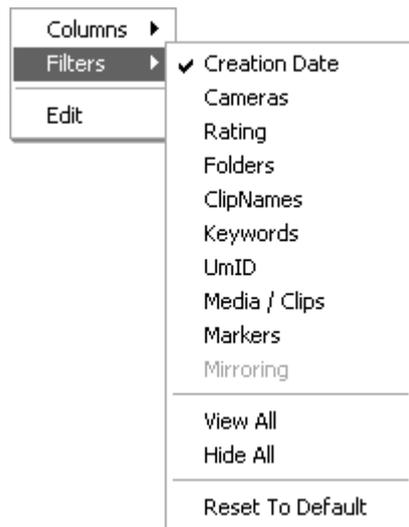


The upper part of the XFILE list displays a list of icons. These icons give access to the different filters to be applied to the XFILE list.

The filters are available in the four modes: Autobackup, Manual Backup, Restore and Maintenance modes.

	Filter inactive and hidden
	Filter is visible but inactive
	Filter is active

Click on the icon to display/hide the filter or use the right-click button of the mouse to access this selection menu.



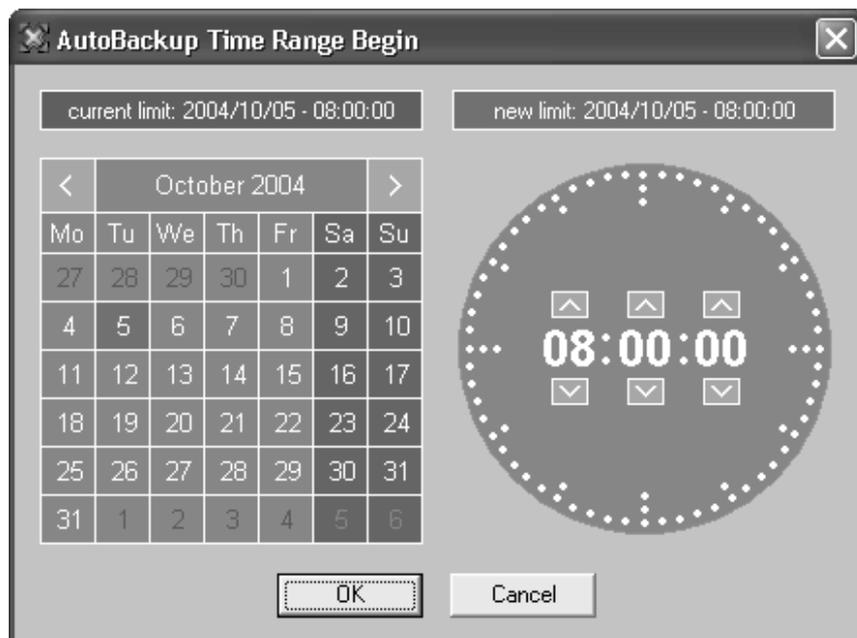
Creation date



Note: The Creation date and the backup time are different values. The creation date depends on the date and time defined on your LSM-XT, maXS, Airbox or Spotbox. Please check the date-time of your system before operating.

'Last Hour' and 'Last Day' are both quick shortcuts to display the clips created during the last hour or during the last 24 hours.

A range of date-time can be defined to sort the clips creating during that period. Click on the 'Range' button to open the following dialog box:



The 'Creation date' filter requires a date-time for the beginning and a date-time for the end to be valid.

1. In the calendar field select the month, then select the day of the month.
2. In the time field select the hour, use the arrows to change the value displayed or directly type the value when the field lights green.
3. Press enter to confirm your selection.
4. Enter the second selection window to validate the values for the end limit.

The filter is now active and the clips created in between the time range defined are displayed in the Xfile list.

Camera selection



Select the squares representing the cameras and/or the PREFS cameras of the clips to be displayed in the XFile list. Selected cameras appear in a green square.

Rating



Select the squares representing the four levels of Rating. Selected items appear in a green square and the XFile list is refreshed to display the new selection of clips.

Folders

The notion of Session Folder is important for adapting the folders organization and to understand what -in fine- is displayed in the Xfile list.

The Session folder is created for the autobackup process. All clips created on the Sportnet, and according to the autobackup criteria, are saved to this session folder.

In Autobackup mode, the Folders filter displays this selection:



'All' displays all the clips included in the current PATH defined in the system configuration at start-up.



Note: In Dual disk mode and Mirroring mode, the Path A and the Path B can be selected separately.

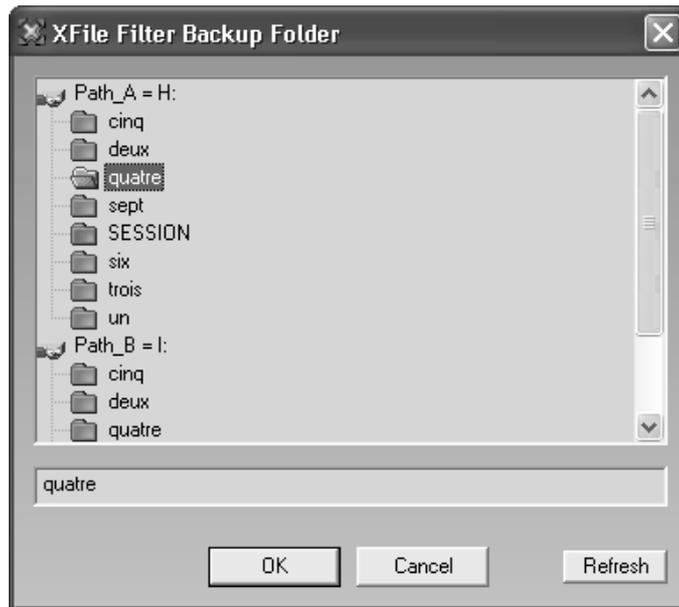
"Session Folder" displays all the clips included in the current Session Folder.

Independently, a backup folder can be defined for saving the clips manually backed up. In this case only one backup folder is selected and its current content is displayed in the Xfile list.

In backup mode, the Folders filter displays this selection:



Clicking on the icon on the right side opens the following dialog box:



Only one folder can be selected at a time. For your information, the current Session Folder always lights green in the list. If a new folder does not appear in the list, press the 'refresh' button to update the display.

The user must "double-click" to select the new folder for use in the filter. the resultant folder will appear in the name bar at the bottom of the window if correct.

A Backup folder is assigned temporary for a particular operation. As all operations are successive and therefore entered in a queue, the system will keep in memory the folder defined at the time of the Backup's request.

As per the Backup Folder in an independent way, multiple Restore folders can be defined for displaying the clips to be restore on the Sportnet

In Restore mode, the Folders filter displays this selection:

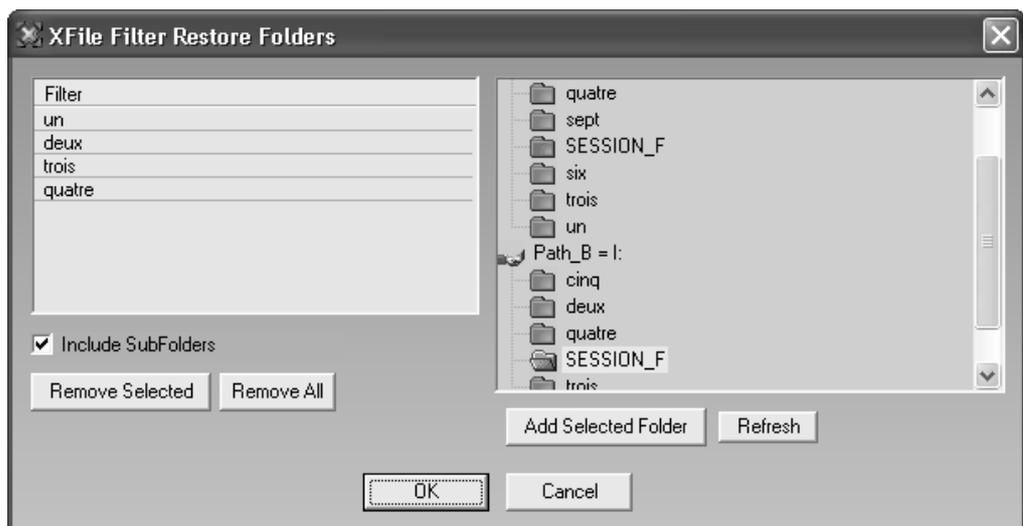


The difference between 'Restore Folder's and 'External Restore Folder' depends on the Folders and Sub-folders included in the PATH.

The selection of the 'Restore folders' does not require a scanning process because the clips have already been scanned at start-up.

The 'External Restore Folder' can be an external disk or a folder not included in the PATH, therefore the content of this external folder (or external disk) needs to be scanned for extracting the data and making them available from the Xfile list.

In the 'Restore Folders' field, clicking on the icon on the right side opens the following dialog box:



Several folders are selectable at a time.
Select a folder from the list and press 'Add' to fill out the filter list.

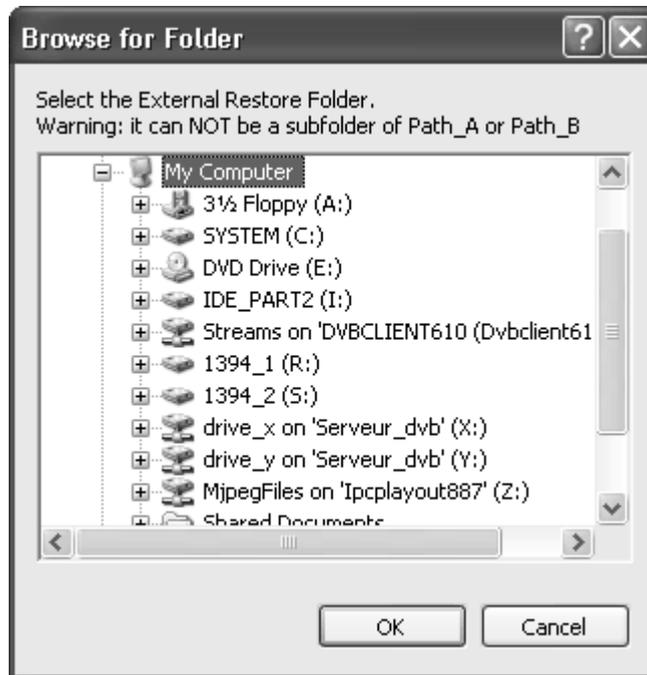
For your information, the current Session Folder always lights green in the list.

In the Filter list, select an item and press 'Remove selected' to cancel the selection of this folder.

The sub-folders of the selected folder are selectable as well.
Select the 'Include SubFolders' box to include them in the selection.

Press 'OK' to confirm your selection and to quit the dialog box. The folders appear in the filter field.

In the 'External Restore Folder' field, clicking on the icon on the right side opens the following dialog box:



Only one folder is available for selection. This folder cannot be included into the PATH A or the PATH B.

Click on one folder, press 'OK' to confirm your selection and to quit the dialog box. The label of selected folder appears in the filter field.

The new folder is scanned and its content appears in the Xfile list.

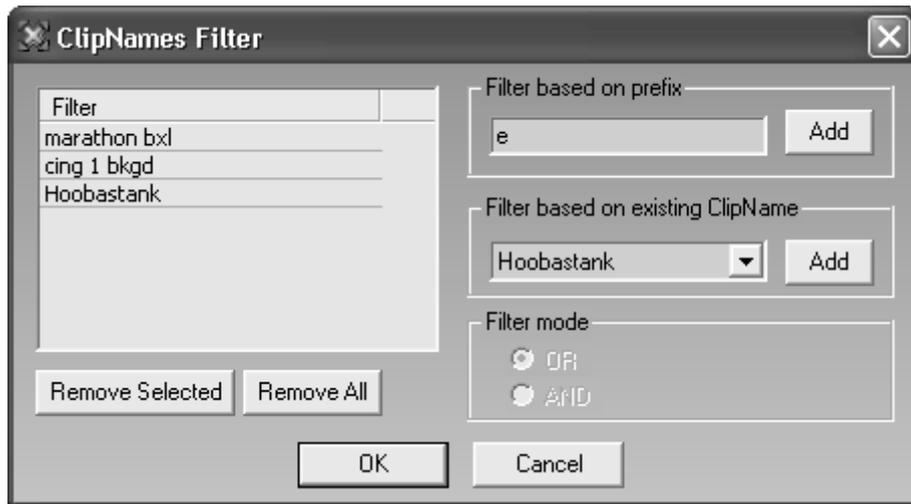


Note: if the user begins clips for the restore process from an external drive, and during the process the user tries to change the external drive to another drive, the scheduled clips will be aborted.

Clipnames



Clicking on the icon on the right side opens the following dialog box:



'Filter based on Prefix' allows defining a quick filter based on the first character or first-second-... character of a clipname. The system adds automatically a "*" sign while adding a prefix in order to mark the prefix out from the clipnames in the filter list.

At start-up all clipnames assigned to the clips are extracted from the MXF files and are listed in the 'Filter based on existing Clipname' field.

Select a clipname from the list and press 'Add' to fill out the filter list.

Note 1 : The number of clipnames/prefix in the list is restricted to 5 items.

Note2 : The filter mode is not selectable

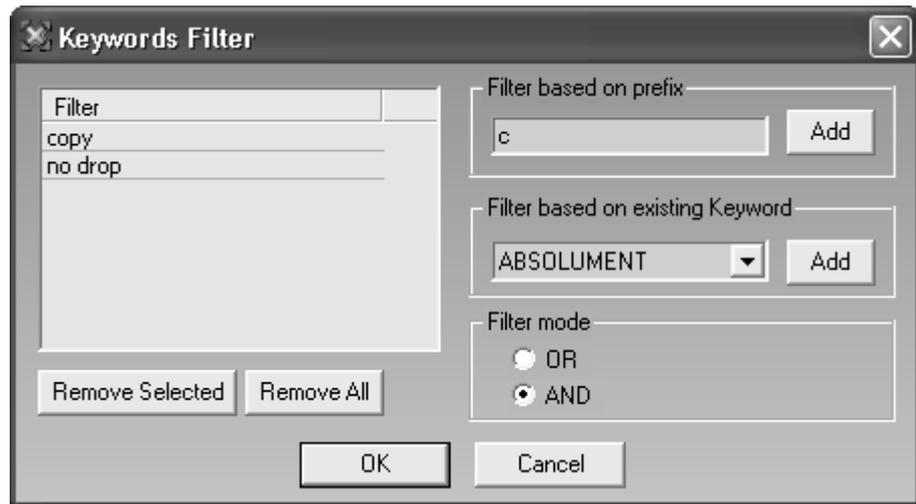
In the Filter list, select an item and press 'Remove selected' to cancel the selection of this clipname.

Press 'OK' to confirm your selection and to quit the dialog box. The new clipnames appear in the filter field.

Keywords



Clicking on the icon on the right side opens the following dialog box:



'Filter based on Prefix' allows to define a quick filter based on the first character or first-second-... character of a keyword. The system adds automatically a "*" sign while adding a prefix in order to mark the prefix out from the keywords in the filter list.

At start-up all keywords assigned to the clips are extracted from the MXF files and are listed in the 'Filter based on existing Keyword' field.

Select a keyword from the list and press 'Add' to fill out the filter list.

Note: The number of keywords/prefix in the list is restricted to 5 items.

In the filter mode field, select between the cross-selection mode (i.e. keyword 1 AND keyword2) and the global selection mode (i.e. Keyword 1 OR keyword 2)

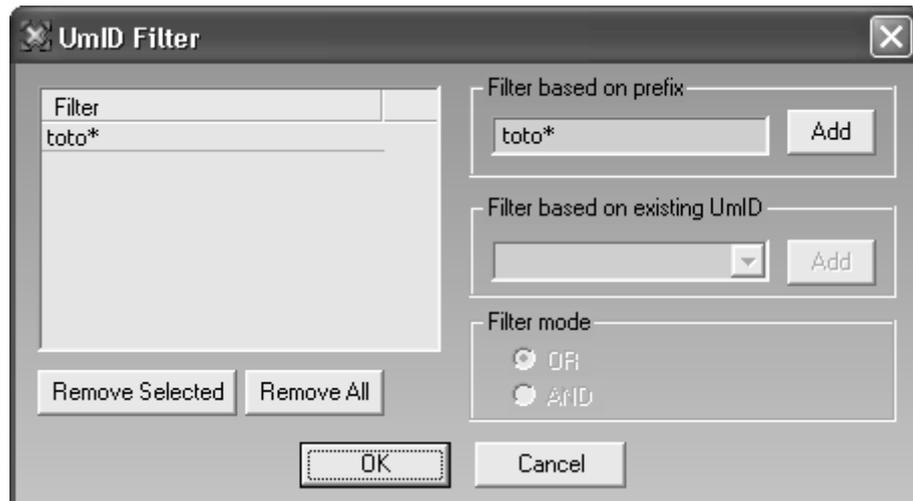
In the Filter list, select a keyword and press 'Remove selected' to cancel the selection of this keyword.

Press 'OK' to confirm your selection and to quit the dialog box. The new keywords appear in the filter field.

ID UmID



Clicking on the icon on the right side opens the following dialog box:



'Filter based on Prefix' defines a quick filter based on the first character or first-second-... character of the UmID. The system adds automatically a "*" sign while adding a prefix in order to mark the prefix out from the UmID in the filter list.

At start-up all keywords assigned to the clips are extracted from the MXF files and are listed in the 'Filter based on existing Keyword' field.

Note: The list of existing UmID and the filter mode are not selectable.

In the Filter list, select an UmID and press 'Remove selected' to cancel the selection of this UmID.

Press 'OK' to confirm your selection and to quit the dialog box. The new UmID appear in the filter field

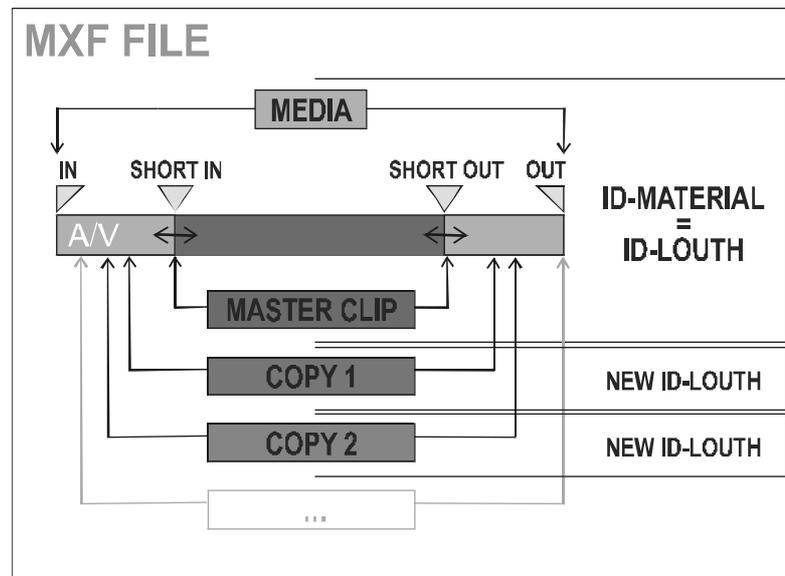
Media / clips

Media / Clips **All** **MasterClip** **Group**

The MXF file is the file containing all data related to a common audio/video data.

The first clip created with this A/V data is called the MasterClip and has the particularity to get the same code for the ID-material and for the ID-louth.

All clips ensued from this masterclip, either by copy, or by update, or by modifying the short IN short OUT point are linked to the MXF file and a different ID-louth is defined for each them.



Selecting 'ALL' in the MEDIA / CLIPS filter displays all the Clips.
 Selecting 'MasterClip' displays only the MasterClips



Note: This filter is helpful when restoring clips in the studio, because it will only transfer the Original clips, and skip the copies.

Selecting 'Group' displays both MasterClips and Clips linked by a "bracket" sign in the Xfile list.

└	02 - 121 C *	restore	14:00:07.22
	02 - 122 C *	rescpy 1 5h	1-05:00:00.00
	02 - 123 C *	rescpy 2 6h	1-06:00:00.00
	02 - 124 C *	rescpy 3 7h	1-07:00:00.00
	02 - 125 C *	rescpy 4 8h	1-08:00:00.00

Clip Markers



The clip markers allow to tag clips into a global selection and to keep this selection from one mode to another.

5 different markers are available and can be combined if necessary. Select a clip in the Xfile list and press  to tag the clip or press  to clear the marker.

In the Xfile list the clips marked are displayed as follows:

PP	02 - 411 A *	name_1
PPP	02 - 412 A *	name_2
PPPP	02 - 413 A *	name_3
PPPPP	02 - 414 A *	name_4



Note: The clip markers are not saved to the header of the MXF file and therefore are temporary. When you quit the Xfile software all markers are removed.

COUNTERS

A counter of clips is available in all modes in the upper side of the list.

378 / 10000 clips

The first value is the number of clips displayed in the list, the second value is the total amount of clips in memory (contents of path(s) + external folder + clips scheduled).

The number of items in the different lists can affect the performance of the system. So it is advised to reduce the number of clips displayed in the lists.

When the total amount of clips displayed in the list exceeds 2000 clips, the counter lights orange.

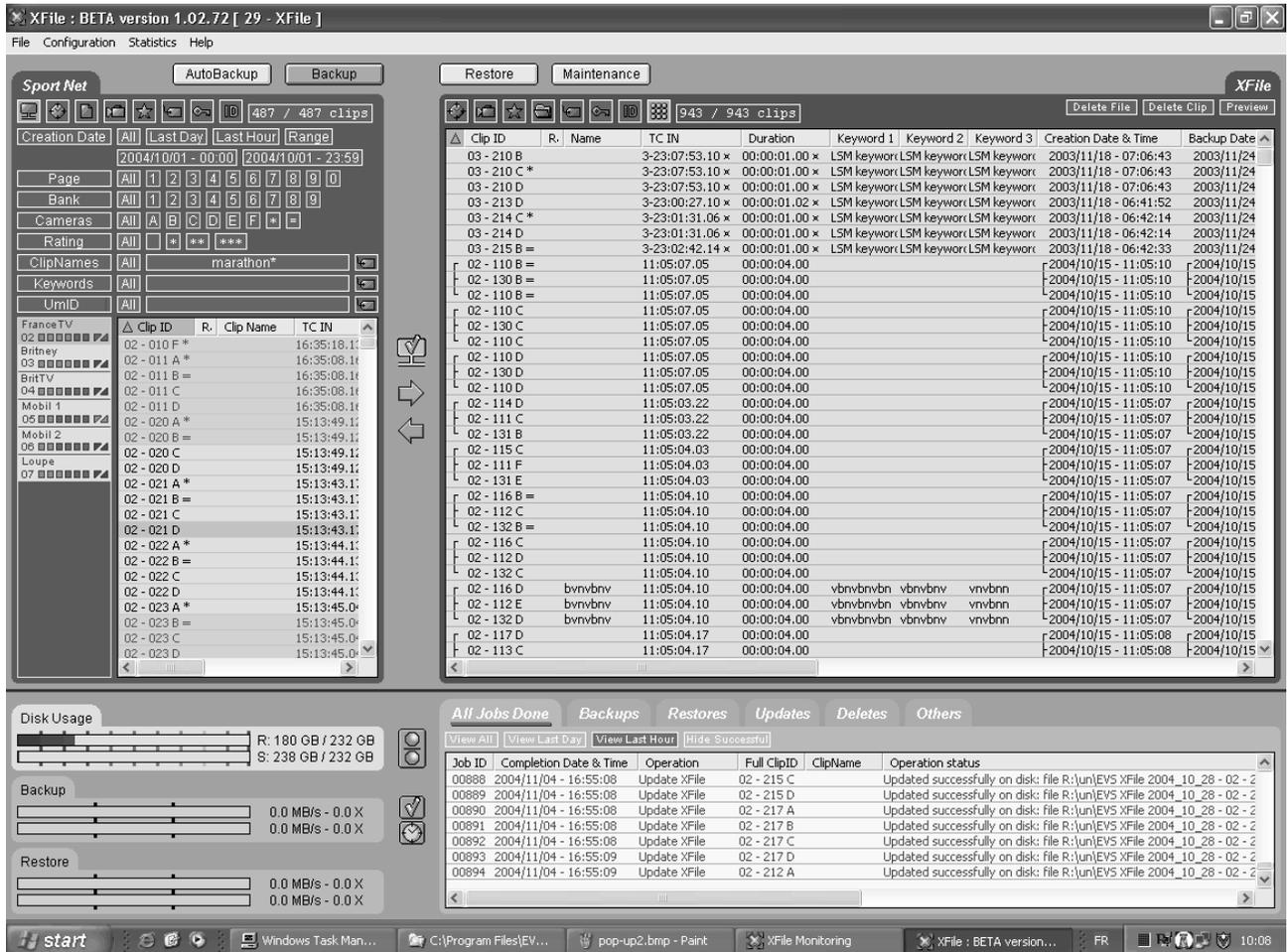
2000 / 10000 clips

4000 / 10000 clips

When the total number of clips displayed in the list exceeds 4000 clips, the counter lights red.

Backup mode

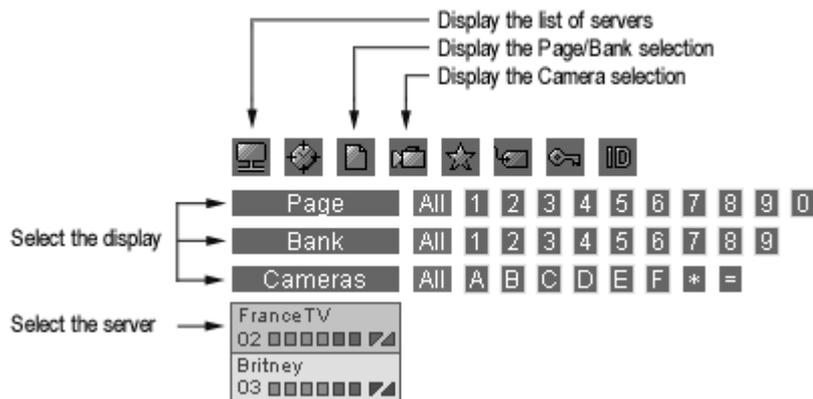
Press  to enter the Backup mode.



Press the Backup button to activate the mode.

1. First select the server from the Sportnet list. To display the list of servers present on the Sportnet, press .
2. then change the display of the list to find the clip to backup. Select the page, the bank and the camera of the clip. To display the page/bank list, press  and to display the list of cameras, press .

All other filters, previously described (see Autobackup section), are available to refine your selection.



3. select the clip from the list

4. press  to initiate the transfer.



Note: same command can be used to manually update the files already saved to Xfile disks.

In the Sportnet list the clips already saved to Xfile are displayed with blue characters:

02 - 020 B =	name_1	15:13:49.12
02 - 020 C	name_2	15:13:49.12

MULTI-SELECTION FOR MANUAL BACKUP

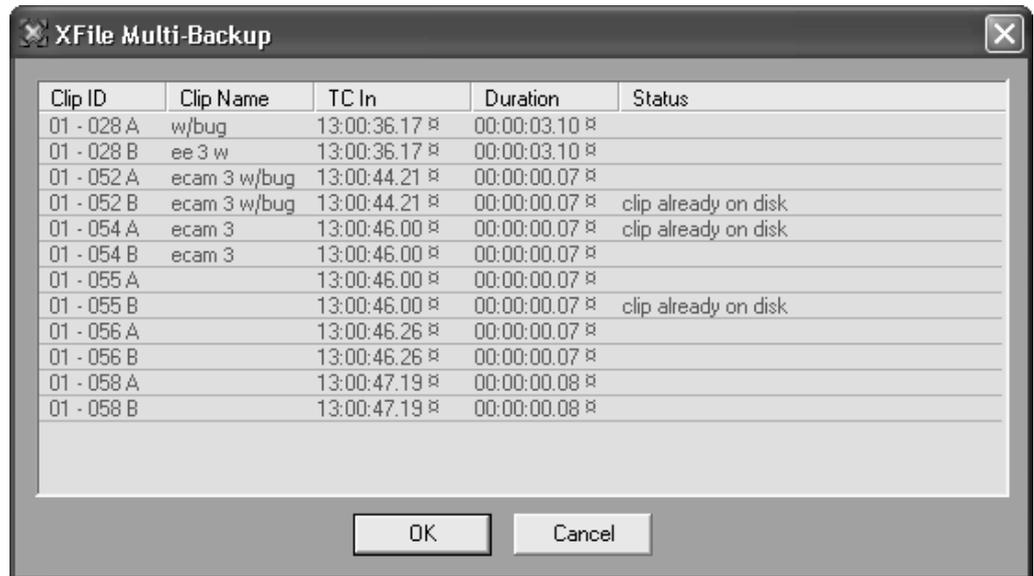
1. Press SHIFT or CTRL and select a batch of clips from the Xfile list or press CTRL + A to select all the clips displayed in the Xfile list.



Note: The SELECT ALL command is also available via the selection menu. Use the right-click button of the mouse to access this selection menu.



2. Press  to open the following window:



3. The clips selected are listed with the current status. If the 'clip already on disk' message is displayed facing one of the clip, the backup process for this clip is skipped.

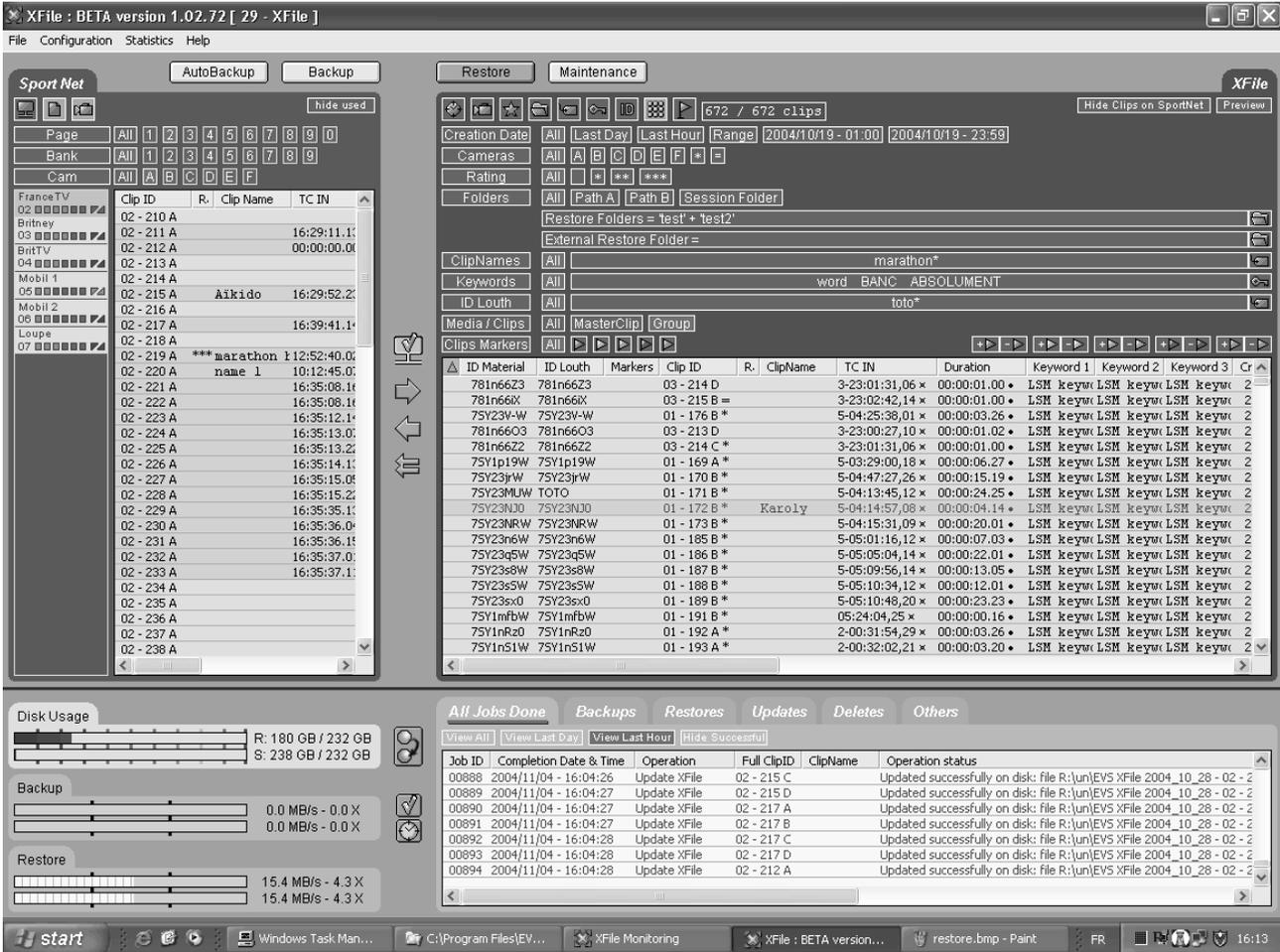
4. Press 'OK' to confirm and to initiate the transfer.



Note: All operations (Backup and Restore) are successive.

Restore mode

Press  to enter the Restore mode.



The screenshot shows the XFile software interface in Restore mode. The window title is "XFile : BETA version 1.02.72 [29 - XFile]". The interface is divided into several sections:

- Sport Net:** A list of clip IDs and names, including "02 - 210 A", "02 - 211 A", "02 - 212 A", "02 - 213 A", "02 - 214 A", "02 - 215 A Aikido", "02 - 216 A", "02 - 217 A", "02 - 218 A", "02 - 219 A ***marathon", "02 - 220 A name 1", "02 - 221 A", "02 - 222 A", "02 - 223 A", "02 - 224 A", "02 - 225 A", "02 - 226 A", "02 - 227 A", "02 - 228 A", "02 - 229 A", "02 - 230 A", "02 - 231 A", "02 - 232 A", "02 - 233 A", "02 - 234 A", "02 - 235 A", "02 - 236 A", "02 - 237 A", "02 - 238 A".
- Restore Panel:** A central panel with various filters and a table of clips. The table has columns: ID, Material, ID Louth, Markers, Clip ID, R, ClipName, TC IN, Duration, Keyword 1, Keyword 2, Keyword 3, and Cr. The table contains 20 rows of clip data.
- Disk Usage:** A section showing disk usage for R (180 GB / 232 GB) and S (238 GB / 232 GB). It also shows backup and restore progress bars.
- All Jobs Done:** A table showing the status of various jobs, including completion date, operation, full clip ID, clip name, and operation status.

The X-File can also be used as a security backup. Clips can be restored from the X-File to any other server (LSM-XT, maXS, Spotbox or Airbox) on the network.

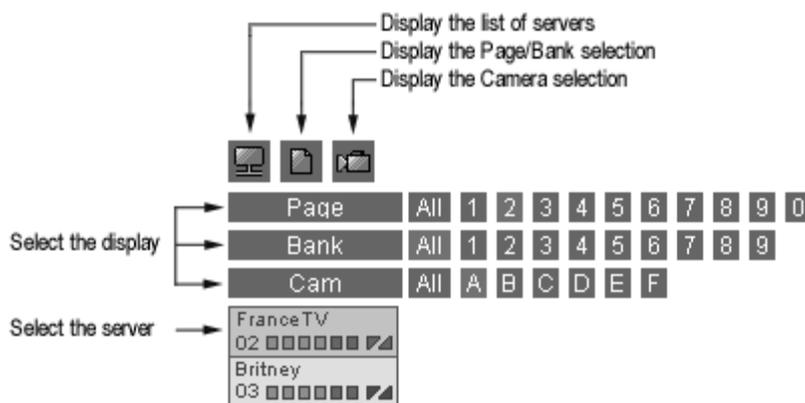
Press the Restore button to activate the mode.

1. Select the clip from the Xfile list

2. Select the server from the Sportnet list. To display the list of servers present on the Sportnet, press .

3. then change the display of the list to find one location. Select the location to restore the clip in the page, the bank and the camera selection.

To display the page/bank list, press  and to display the list of cameras, press .

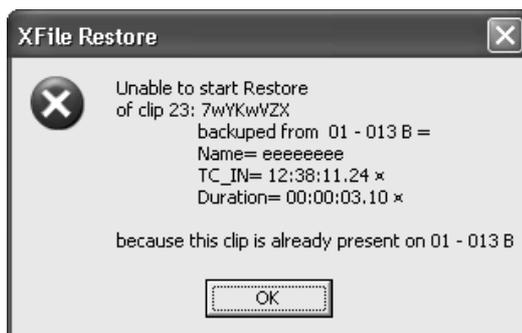


4a. press  (MOVEclip) to initiate the transfer of the selected clip. The UmID (ID-material/ID-louth) is preserved.

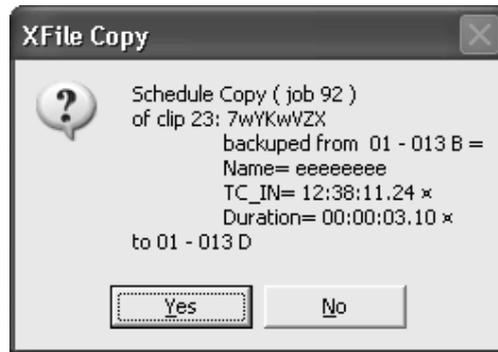
4b. or press  (COPYclip) to initiate the transfer and to create a COPY of the selected clip. In this case a new ID-louth is defined.

To ensure the validity of data during operations, only one UmID can be present on the same network. Then if the operator has to use identical clips on several machines, the COPYclip command is advised to restore several versions of the same clip.

The following error message notices the operator if the selected clip is already present on the network:



Then, the operator has to use the COPYclip command to initiate the transfer and create a copy of the clip.



In the Xfile list the clips already present on the Sportnet are displayed with blue characters

02 - 131 B = ***	Zidane	14:17:52.16	00:00:02.00	Corner	123456	Zidane
02 - 131 C * **	Goal	14:17:52.16	00:00:02.00	Pat	123456	Goal



Note: While moving/copying a clip : ID-material is preserved.

If the user COPIES a clip to a new location (making a new ID Louth) then the XFile will backup its new data.

If the user MOVES a clip (ID Louth is maintained) and the XFile will update the original clip.

MULTI-SELECTION FOR RESTORE

1. Press SHIFT or CTRL and select a batch of clips from the Xfile list or press CTRL + A to select all the clips displayed in the Xfile list.

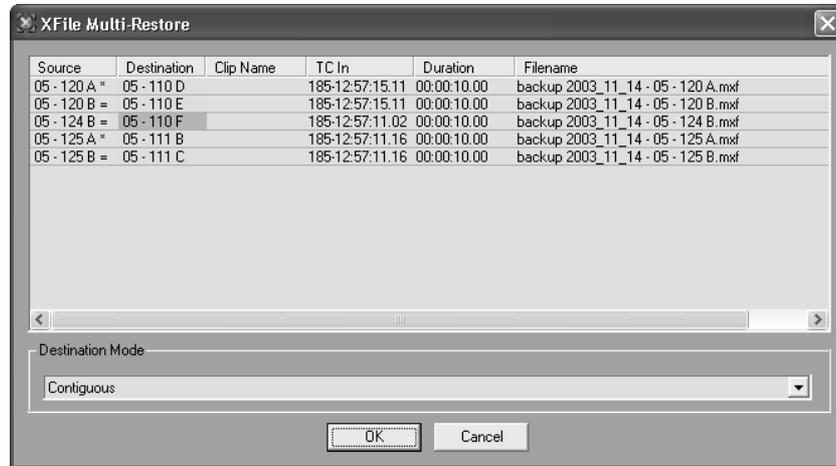


Note: The SELECT ALL command is also available via the selection menu. Use the right-click button of the mouse to access this selection menu.



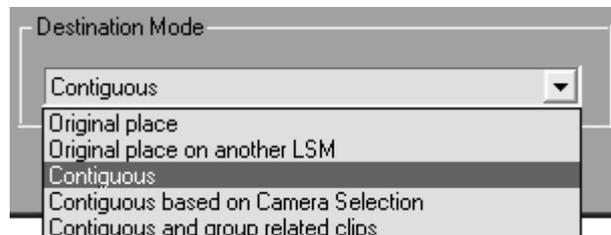
2. Select the server from the Sportnet list
3. Change the display of the list to find one location and select the first location to restore the clips

4. Press  or  to open the following window:



If the selected location is free, the clip destination lights green. If the selected location is already filled, the clip destination lights red; in this case the restore of this clip will be aborted. A second operation is useful to restore the clip to another location on the Sportnet.

The list box in the lower part of the window allows the user to choose multiple methods for restoring.



Original Place :

The clip returns to its previous location on the Sportnet.

Original place on another LSM :

The clip returns to its previous location (page, bank, ...) on the Sportnet but is restored to another system.

Contiguous :

The group of clips is restored to all locations from A to F

Contiguous based on camera selection :

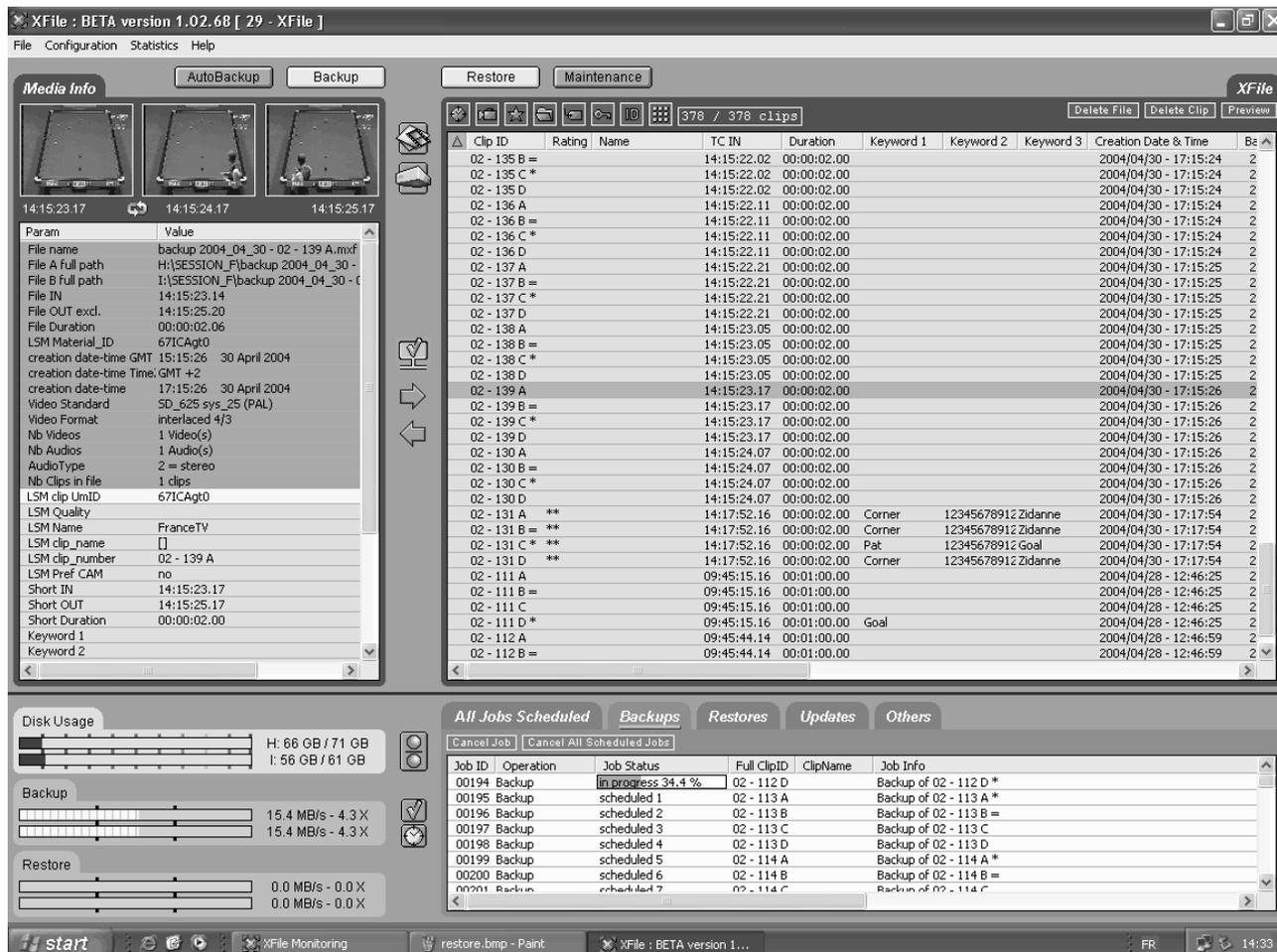
The group of clips is restored to location selected by the operator.

Contiguous and group related clips:

The system will recompose the group of related clips. For example: Clip 111A returns to location A, clip 111B returns to location B,...

Maintenance mode

Press **Maintenance** to enter the maintenance mode.



CLIP INFO

Click on the Clip icon  to enter this mode.

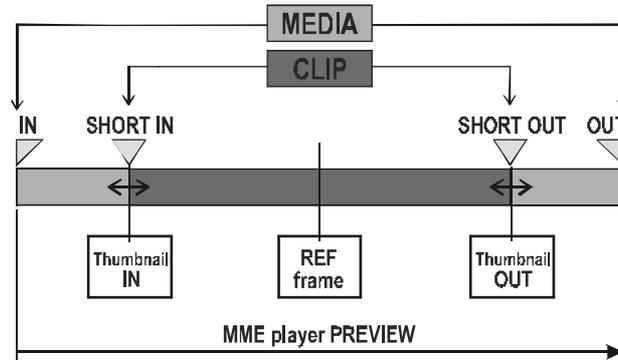
CLIP INFO AREA :

This area displays the current parameters and values saved to the descriptive metadata of the MXF file.

The thumbnails:

The thumbnails defined for each file are extracted from the MJPEG files. The first thumbnail shows the SHORT IN frame and the last is the SHORT

OUT frame. The REF frame is automatically defined at the middle duration of the clip.



The XFILE versions previous to the version 1.01.05 do not include the thumbnails creation process. Use the  button to create new thumbnails or to update the current thumbnails. The thumbnail format respects the aspect ratio of the different video signals.

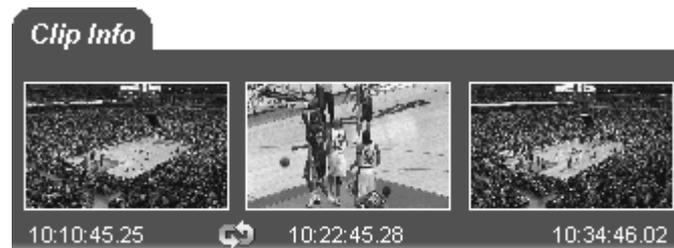
SD clips are displayed with 4:3 aspect ratio.



16:9 SD clips are displayed with the usual black strips.



HD clips are displayed with 16:9 aspect ratio.



The Data:

The MXF file is the file containing all data related to a common audio/video data. Different clips are therefore linked to the same MXF file.

The first parameters (dark blue) display the common parameters, the A/V parameters given by the Sportnet: clip duration, TC IN and OUT excl., **ID-material**, creation date-time, the video standard and format, number of video signals (SLSM = 3), number of audio tracks, audio type and the number of clips included in this MXF file.

The following parameters (light-blue) are divided by clip section. These parameters can be different from one clip to the other: the unique **UmID**, rating, clipname, LSM clip number, Short In and out points, duration and the different keywords.

The last parameters (dark blue) display the current values saved to the Session configuration window. These parameters are common for each clip.

Param	Value
File IN	14:00:06.12
File OUT excl.	14:00:18.09
File Duration	00:00:11.22
LSM Material_ID	67I6Pst0
creation date-time GMT	15:00:14 26 March 2004
creation date-time Time	GMT +1
creation date-time	16:00:14 26 March 2004
Video Standard	SD_625_sys_25 (PAL)
Video Format	interlaced 4/3
Nb Videos	1 Video(s)
Nb Audios	1 Audio(s)
AudioType	0 = unknown
Nb Clips in file	2 clips
LSM clip UmID	67I6Pst0
LSM Quality	
LSM Name	FranceTV
LSM clip_name	[restore]
LSM clip_number	02 - 121 C *
LSM Pref CAM	1
Short IN	14:00:07.22
Short OUT	14:00:17.22
Short Duration	00:00:10.00
Keyword 0	
Keyword 1	
Keyword 2	
LSM clip UmID	67I6Pz8W
LSM Quality	
LSM Name	FranceTV
LSM clip_name	[rescopy 1 5h]
LSM clip_number	02 - 122 C *
LSM Pref CAM	1
Short IN	1-05:00:00.00
Short OUT	1-05:00:10.00
Short Duration	00:00:10.00
Keyword 0	
Keyword 1	
Keyword 2	
session date	11:41:32 06 April 2004
session date	06 April 2004
session name	session_name
session sport	session sport
session competition	session_competition
session competition leve	session_competition_level
session location	session_location
session player A	session_player_A
session player B	session_player_B



Note: Following the timecode and video systems, the timecode in the column is displayed with different characters:

TC IN	Duration	
10:00:00,00 ×	00:00:07.27 •	← NTSC drop frame
10:00:00.00 •	00:00:07.02 •	← NTSC non drop frame
10:00:00.00	00:00:07.02	← PAL

The duration for NTSC clips is always calculated on non-drop-frame basis.

DELETE CLIP / DELETE FILE:

As several clips are linked to a file the delete command has been split in 2 buttons: Delete File and Delete Clip:



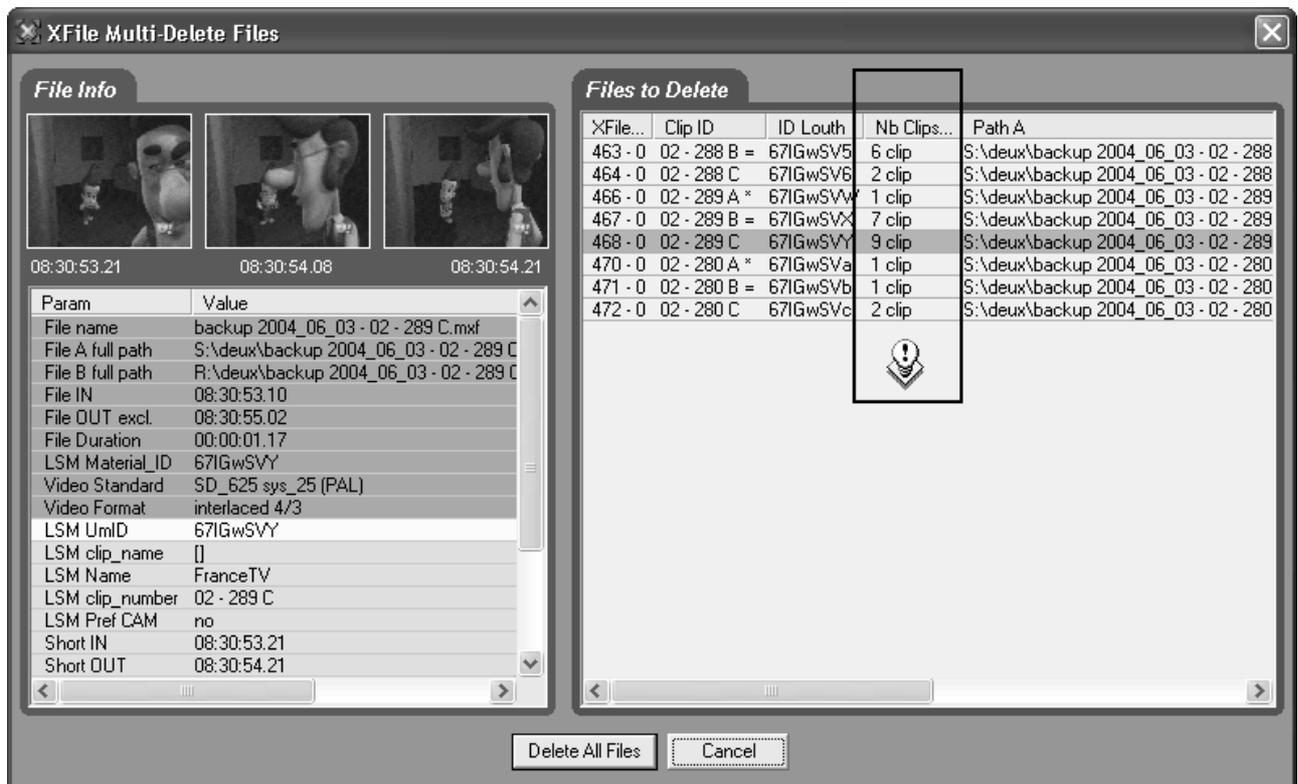
To mark the clips and the files out, it is advised to change the display to 'Group' in the 'Media / Clips' filter.



The group of clips is represented with brackets in the Xfile list.

MULTI-SELECTION FOR DELETE FILE:

1. Press SHIFT or CTRL and select a batch of files from the Xfile list
2. Press **Delete File** to open the following window:

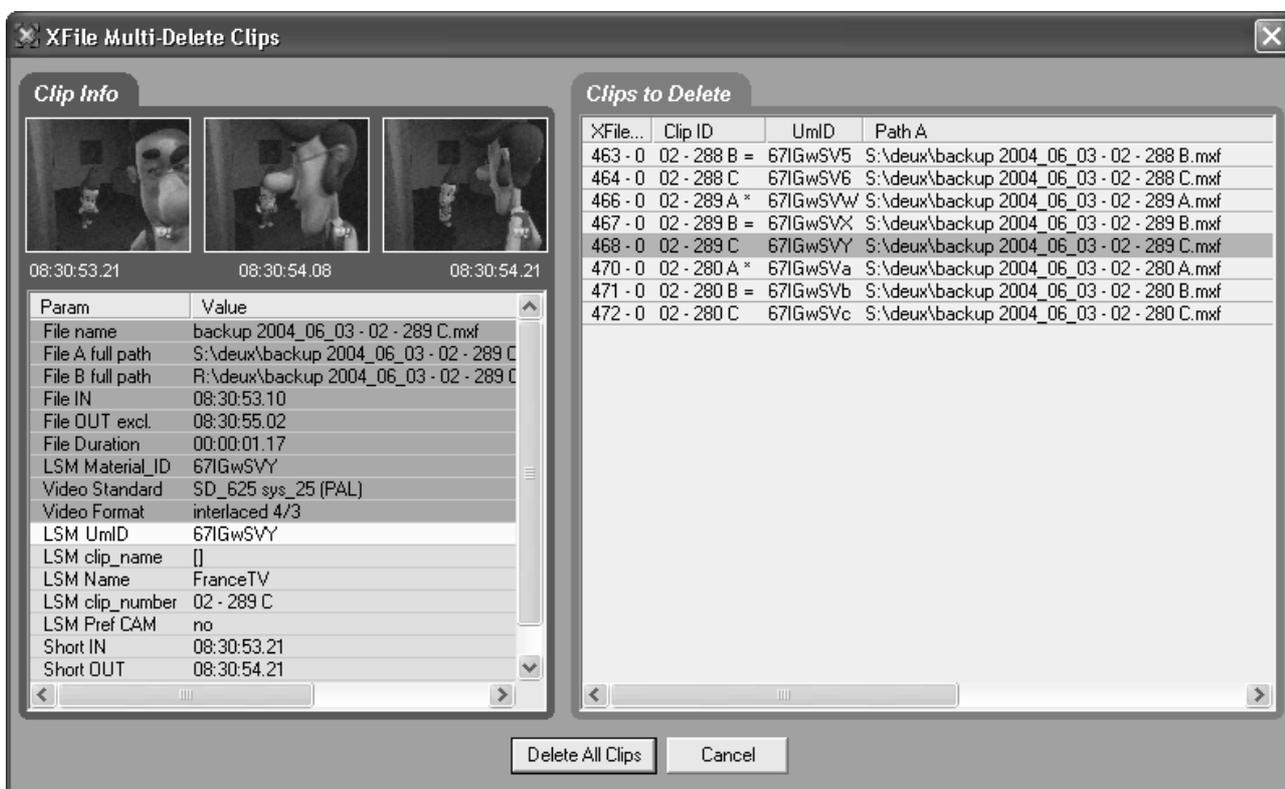


3. This window allows the operator to review the files before deletion. Pay attention to the number of clips included in each file. Deleting the file will obviously delete all the clips included into this file.

4. Press 'Delete All files' to confirm the command or 'Cancel' to abort the operation.

MULTI-SELECTION FOR DELETE CLIP:

1. Press SHIFT or CTRL and select a batch of clips from the Xfile list
2. Press **Delete Clip** to open the following window. This window allows the operator to review the clips before deletion:



3. Press 'Delete All Clips' to confirm the command or 'Cancel' to abort the operation.

4. If one/several clips are the last clip into the MXF file, the following message notices the operator:



5. Press 'OK' to close the message box and to switch to the 'Multi-Delete Files' window (shown on a red background)

6. Press 'Delete All files' to confirm the command or 'Cancel' to abort the operation.

PREVIEW CLIP:

Double-click on a clip in the list or press the **Preview** button. The MMEUniversal player module is loaded with the selected clip.

Use the command buttons to play back the clip, to search material, to review the clip frame by frame, etc.



Note: The MME player plays back the clip from the IN point to the OUT point.

EDITING A CLIP:

When selecting a file/clip in the Xfile list, use the right-button of the mouse to access the selection menu and select EDIT:



The 'Xfile Edit clip' window appears. The first tab shows all current data of selected file.



The list box in the right area displays all clips saved in a common MXF file. Use the **Copy Clip** **Delete Clip** buttons to make a copy of a selected clip or to delete a clip into the MXF file.



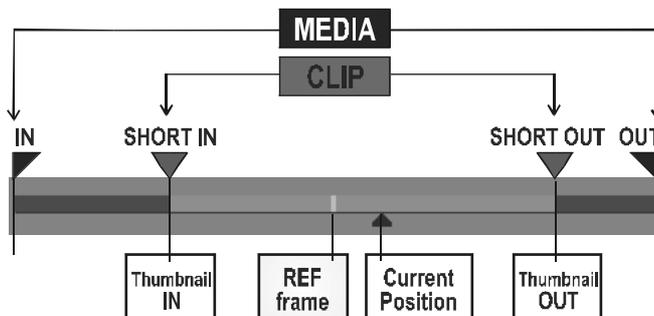
Important Note: The MXF doctor software is integrated to the Edit clip module. When editing a clip with a corrupted file index, the

system automatically detects the error, notifies the user and starts the repair process. A progress bar appears in the file info tab while repairing the file.

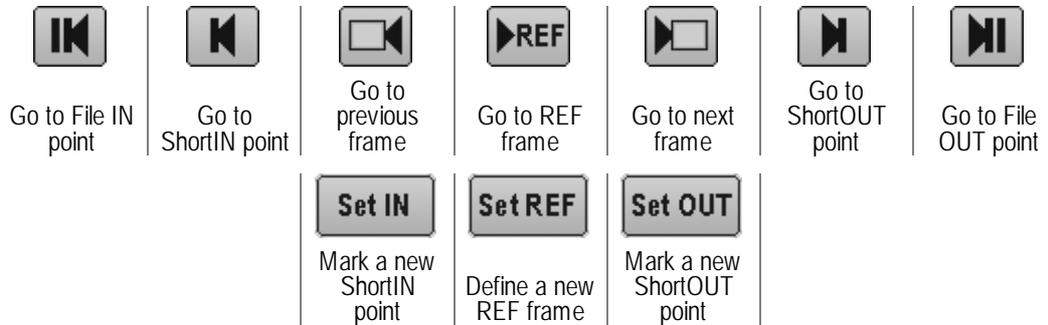
To modify shortIN and shortOUT points, to define a REF frame or to modify the aspect ratio, select the IN-OUT tab:



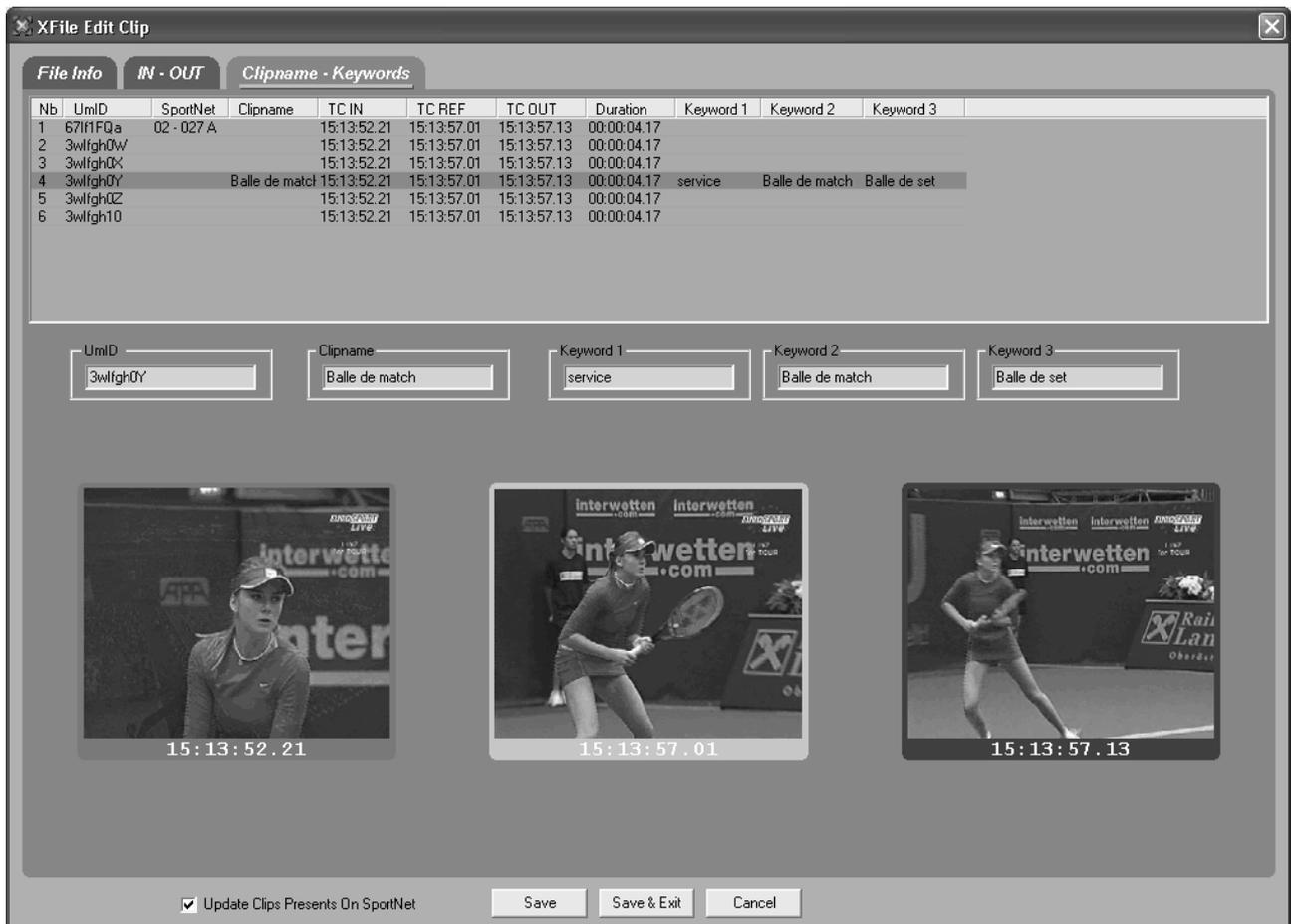
The timeline in the bottom of the window allows you to search the clip in jog mode:



The first line of buttons gathers the SEARCH functions and the second line of buttons gathers the commands which modify the clip:



To modify the ID louth, to modify or to add a ClipName or keywords, select the Clipname-keywords tab:



Select a clip in the list and then enter the new clipname or new keywords in the related field. The new clipname/keywords is updated in the upper list.



Important note: All clips edited in the 'Xfile Edit Clip' module are updated on the Xfile disks but a few of them can be also present on the Sportnet. If those clips need to be updated at the same time, place a checkmark in the following box:

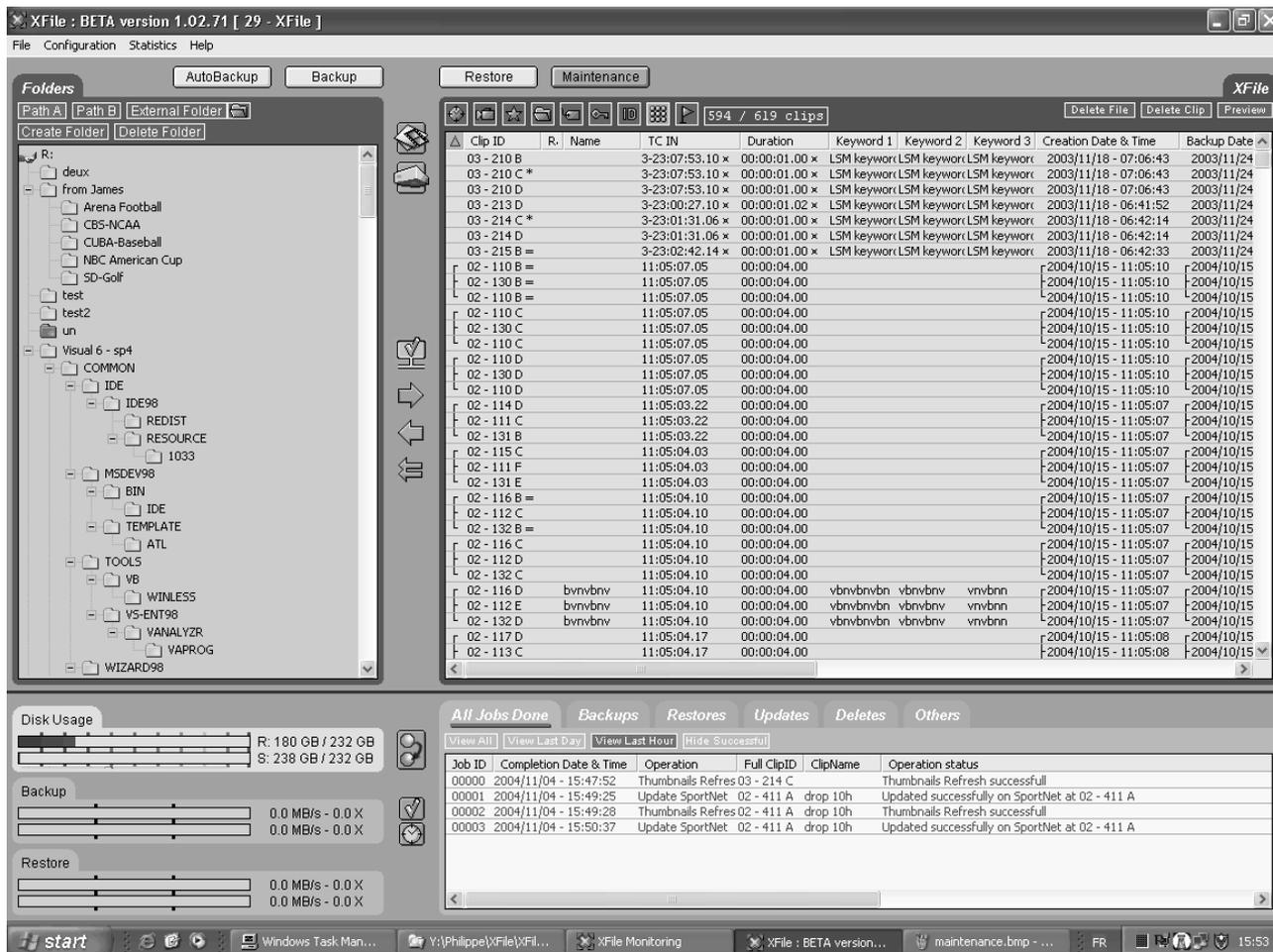
Update Clips Presents On SportNet

The machine and position of the clip on the Sportnet are displayed in the Sportnet column:

SportNet
02 - 027 A

Disk/Folders Maintenance

Click on the Disk icon  to enter this mode.



The main screen changes to display the folders organization on the left part of the screen and the content of the Xfile on the right part of the screen.

1. In the folder list, select the **Path A** or **Path B** or **External Folder**  to display the folders.
2. Select one folder of destination, the selected folder lights dark blue.
3. Select a batch of files in the Xfile list.



Note: Clips are linked to a MXF file. In this mode, the MOVE and COPY commands affect the MXF file even if only a clip is selected.

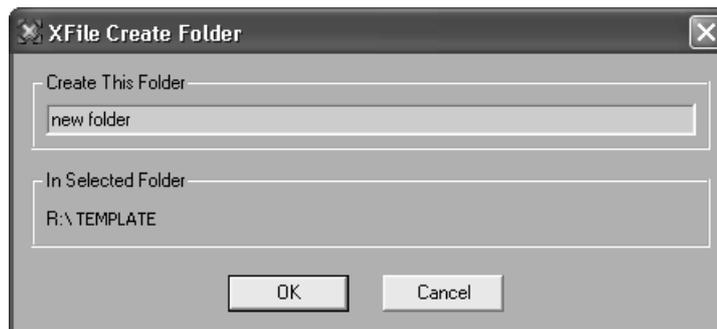
4. Then press  to initiate the MOVEfile or press  to initiate the COPYfile.



Note: The MOVE command is only accessible if the transfer of files operates between PATHs. The COPY command is accessible for all transfers from/to external folders.

In the folder list two additional functions has been added to ease the use of the folders list: **Create Folder** **Delete Folder**

Select a position in the folders tree to create a new folder then click on the 'Create Folder' button to open the following dialog box:



Type the name of the new folder and press OK to validate.

In the folder list, select a folder to delete and click on the 'Delete Folder' button. A message box requires a confirmation:



Disk Maintenance



Click on the Disk icon to enter this mode.



Note: Disk maintenance mode is only available when Mirroring Disk mode is activated.

The main screen changes to display the content of Path A on the left part of the screen and the content of path B on the right part of the screen.

The following filter allows the operator to refine the display of both lists by isolating the differences or the common clips:



Press  to gain access to the filters selection.

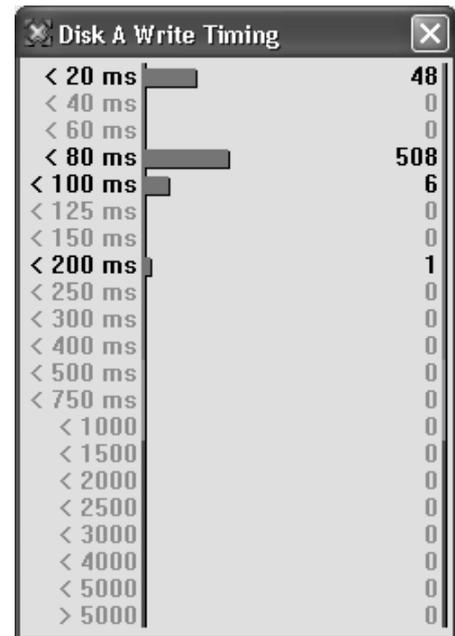
Clicking on the  arrows initiates a clip copy from one path to the other, and clicking on the  arrow synchronizes both contents in a single operation.

Statistics

Charts of statistics for restore and backup processes and for disk performances are available from the Statistics menu in the Menu bar.

Other information will be added to the statistics charts in a next version.

Item	Value	Item	Value
01	0	17	0
-----	0	-----	0
02	0	18	0
-----	0	-----	0
03	29	19	0
XT2 High	4	-----	0
04	0	20	0
-----	0	-----	0
05	29	21	0
XT1	4	-----	0
06	0	22	0
-----	0	XFileSS	0
07	0	23	0
-----	0	-----	0
08	0	24	0
-----	0	-----	0
09	0	25	0
-----	0	-----	0
10	0	26	0
-----	0	-----	0
11	0	27	0
-----	0	-----	0
12	0	28	0
-----	0	-----	0
13	0	29	0
-----	0	-----	0
14	0	30	0
-----	0	-----	0
15	0	31	0
-----	0	XFile	0
16	0		
-----	0		



Export Data

An external module is available for exporting DATA to TXT file. This option can be useful for printing purposes.

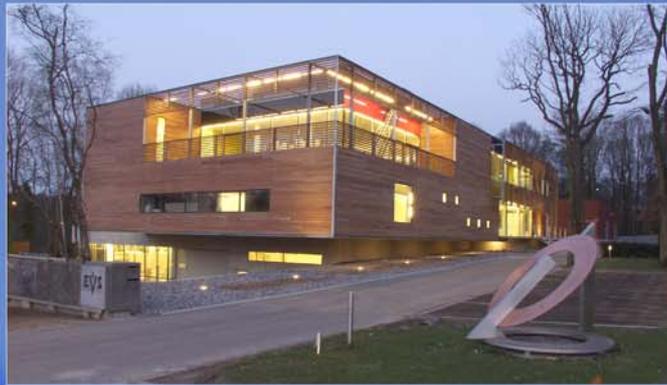


Double-clicking on the **XFile Clip Info Exporter** icon on the desktop opens the following dialog box:



1. Select the folder where the MXF files are saved.
2. and select a name for the TXT file
3. then press the START button to proceed with the TXT export.
4. This new file is a standard TXT file which can be easily exported to any other software.

Notes



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