



IDL 1500

REMOTE CONTROLLER

Version 3.0 Addendum

Operator's Manual

WARNING

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

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SUMMARY OF NEW FEATURES

The version of software for the DD1500 offers the following new features:

- Range of new, powerful trimming and crossfading functions.
- Instant response to JOG wheel during TRIM.
- Unlimited cross fade length between two cues on a single track.
- New fade options in EDIT CUE: START TO NOW and NOW TO END
- New DD-PLUS disk format supersedes Normal and Extended formats.
- Direct playback and record to Macintosh disks of Digidesign Protools Session files with SD-II or AIFF audio files.
- Direct playback of Timeline MMR-8 and Waveframe disks.
- File exchange compatibility with Fairlight MFX3plus/FAME/DaD.
- File compatibility with BWF files and SD-II files created on Zaxcom Deva.
- File conversion between supported formats

SUMMARY OF NEW SYSTEM REQUIREMENTS

Depending on your application and how much DISK buffer RAM you already have fitted, you may need to fit more. Fully loaded, the DD1500 system now allow 16 tracks with long cross-fades.

Please refer to the rest of this document for further information and for details of other changes.

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NEW SYSTEM REQUIREMENTS

The long crossfades offered by the TRIM page in this software version have been achieved through a restructuring of the DD1500's voice architecture.

Previously, the DD1500 offered 16 playback streams which meant that it was not possible to crossfade cues on the same track for more than 80msecs. Version 3.00 provides 32 playback streams in DD1500 which allows the ability to overlap two cues on any and all tracks simultaneously.

DISK BUFFER RAM

An integral part of this new configuration is the use of extra DISK buffer RAM. The DD1500 is supplied with a minimum of 8 megabytes, sufficient for up to 16 audio playback streams. Because the channels are dynamically assigned, this means that at any given moment in a project you could have, say, 16 tracks playing back with no crossfades, 8 tracks all with crossfades or perhaps 13 tracks, 3 of which have crossfades. As long as the total is 16 or under, all is well.

Another reason to add extra DISK buffer RAM is to avoid track stealing when arming tracks for recording. When a track is armed it 'steals' a channel for monitoring and, if your system is already running at capacity, you may lose playback on a track. The more RAM you have the less likely this is to happen. With 32 streams now available, in most cases inputs can be monitored without stealing playback from another track (unless all 16 are simultaneously crossfading which is unlikely)

So, depending on your application and how much DISK buffer RAM you already have fitted, you may need to fit more. Unlike other RAM in the DD1500, the DISK buffer RAM is not standard SIMMS. It requires special EXM1508 boards, available only through your Akai dealer.

The following tables shows the various memory configurations depending on the number of EXM-1508 boards fitted:

Memory Total	Configuration Streams	Number of	Examples
4MW	Factory fit	16 *	16 cues play, or 15 cues play + 2 inputs monitor, or 14 cues play + 4 inputs monitor, or
8MW	+ 1 EXM-1508	16 *	Same as 4MW, but more tolerant of slow disk drives
12MW	+ 2 EXM-1508	32	32 cues play, or 26 cues play + 12 inputs monitor
16MW	+ 3 EXM-1508	32 *	32 cues play, or 31 cues play + 2 inputs monitor, or 28 cues play + 8 inputs monitor, or 26 cues play + 12 inputs monitor
24MW	+ 5 EXM-1508	44	32 cues play + 12 inputs monitor

* denotes DD1500 configurations which use a scheme in which a single stream can be used to buffer two inputs.

NOTE 1: The recommended memory configuration for most applications is 16MW (using 3 EXM-1508 option cards).

NOTE 2: The above table shows the maximum number of cues that it is possible to play with each memory configuration. Depending on drive speed etc., the actual number of simultaneous playback cues achievable may be slightly less.

DL1500 CPU RAM

This is standard 30-pin 1 megabyte SIMMS. Installing the maximum of 6 megabytes here will preclude problems with wave form drawing and general EDL screen management.

DD1500 CPU RAM

This is also standard 30-pin 1 megabyte SIMMS. Fitting the maximum 6 megabytes enables you to copy large files to and from libraries and clipboards and between disks.

NEW DISK FORMAT - DD PLUS

To prevent compatibility problems with many of the new features introduced in DD1500 Version 3.0, this version of software no longer directly supports writing to NORMAL or EXTENDED format disks created on earlier versions of software. Although both these disk formats are still recognised and fully supported for playback compatibility, any attempt to write to these disks will give an error message saying "Disk Format Is Read-Only!". EXTENDED format disks can be easily updated to DD-PLUS format as described later in this section.

DD-PLUS is a new DISK format and is the only format fully compatible with software revisions later than Version 2.0 for the DD8 or Version 3.0 for the DD1500.

FORMATTING DISKS

To format disk in DD-PLUS format:

- Press the SYSTEM key
- Press the DISK key (F5)
- Press the UTILITIES key (F3/4):
- Press the FORMAT key (F5/6)

You will see the following screen:

```
FORMAT DISK Name : New Disk Disk:0
Format type : DD-PLUS
Format operation : FORMAT & CERTIFY
Formatting will totally wipe this disk!
[FORMAT DISK]
```

The FORMAT TYPE field is used to select the type of directory that will be created on the disk when it is formatted. The options now available are:

DD-PLUS This is the current Akai DD-series disk format which allows 4000 files to be saved to a single disk and will give the best performance for real-time recording and playback of audio.

MACINTOSH This allows the disk to be formatted in Macintosh HFS format. Note that this option will create a single volume, erasing all existing partitions on the disk. If you want to create multiple partitions, it will be necessary to use a third-party Macintosh disk formatting application.

When the MACINTOSH format option is used, the disk may later be read on any Macintosh subject to the following limitations in various versions of the Mac OS:

- System 7.1 can only support volumes up to a maximum size of 2 gigabytes
- System 7.5 can recognise volumes up to a maximum size of 4 gigabytes (which is currently the maximum size supported by Protools and many other products)
- System 7.5.3 and above can recognise volumes up to a maximum size of 2 Terrabytes

NOTE 1: While the DD1500 can properly format a Macintosh hard disk or MO, it does not install any type of Macintosh driver software on the disk. Therefore, disks formatted on the DD1500 will require third-party mounting software in order to appear on the Macintosh desktop.

COMPATIBILITY NOTE: Disks made on any version of DD8, DD1500, or DR8/DR16 can be used on the DD1500 with Version 3.00. However, please be aware that DD-PLUS formatted disks cannot be used on previous versions or on other products that do not support this format.

UPDATING A DISK TO THE DD PLUS FORMAT

Projects created on NORMAL or EXTENDED format disks can be read by the new system, but cannot be written or recorded to. Any attempt to write to these disks will give an error message saying "Disk Format Is Read-Only!". Extended format disks can be converted to Plus using the UPDATE function in the Disk Utilities page. However, once converted they can no longer be used in machines running older software. This is to prevent cross-fade editing being removed and lost, which could happen if a Project with overlaps was loaded by a DD1500 running earlier software. To update a disk:

- Press the SYSTEM key
- Press the DISK key (F5)
- Press the UTILITIES key (F3/4):
- Press the UPDATE DISK key (F3/4)

You will see the following message

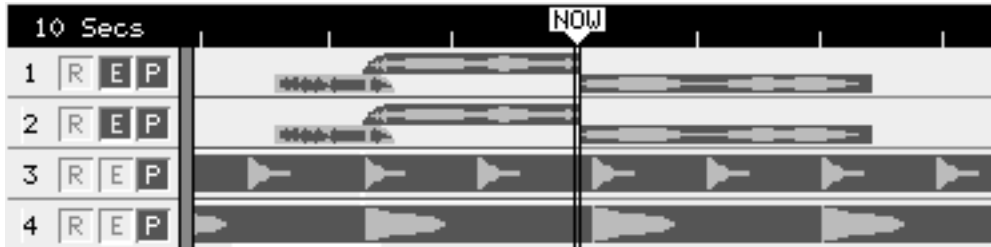
```
FORMAT UPDATE Name: Disk:1
Update disk to DD-PLUS format.
Files on disk will not be altered!
UPDATE DISK
```

Press the EXECUTE button while holding down the SHIFT key to confirm the operation. The cues in the project are initially unaffected by the conversion; no edits or data are lost.

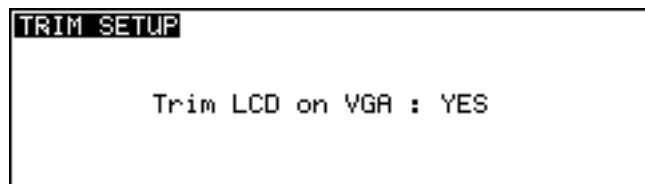
NOTE: UPDATE DISK is only available if the existing disk is EXTENDED FORMAT. If the existing disk is NORMAL format, then the disk must be re-formatted to create a DD-PLUS format disk.

GENERAL POINTS ABOUT THE TRIM PAGE

While in the TRIM page the width of the tracks is halved on the display in order to clearly show overlaps of cues sharing the same track:



Pressing SHIFT/TRIM gives you this screen:



This determines whether or not the LCD is automatically shown on the VGA monitor when entering the TRIM page.

The TRIM page can be seen as being laid out on three levels offering progressively detailed control. Though packed with powerful new features, the basic TRIM IN, OUT and SYNC functions familiar to existing DD1500 users are still to be found, usually using the same sequence of key presses.

All the TRIM operations can be applied to a single track or across multiple tracks limited, in the case of cross fades, by the amount of Buffer RAM you have fitted (see section above on Buffer RAM). Where appropriate, therefore, the term 'cue' can also be read as 'cues'.

The algorithm that selects the IN, OUT and SYNC points when the TRIM key is pressed is different from previous versions. Whereas it used to only look at a single cue, it now always looks at two adjacent cues. So now when the TRIM key is pressed, the IN point and OUT point of the two cues nearest to the NOW time are automatically selected. Pressing the IN, OUT or SYNC key will now select one or the other or both for Trimming.

Without leaving the TRIM page you can now use the GOTO key in conjunction with the +/- DATA ENTRY/NUDGE keys, to jump between cues. Notice that new IN and OUT points are automatically selected.

When a pair of cues is being selected in TRIM, the one being acted upon turns yellow (or for some functions, red), while the passive cue remains green.

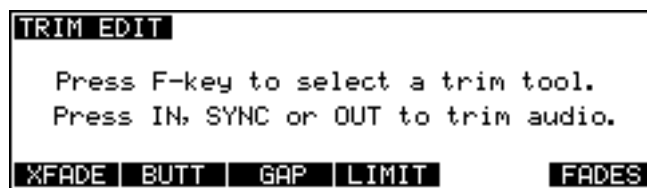
When a cross fade or overlap is being created between two cues using the JOG wheel it is clearly more useful to monitor either one cue or the other (rather than both). One indication as to which audio is being heard is that its wave form is black, whilst the wave form of the muted cue is grey.

Once you go beyond Level One of the TRIM page (ie Quick Tools) UNDO has the function of exiting from the TRIM page and losing all TRIMS made during that visit. REDO has the function of redoing the same. Current implementation does not allow UNDO/REDO of individual TRIMS, or UNDO/REDO of editing done in Quick Tools. However, once out of the TRIM page from any level, one press of the UNDO button will negate all edits made during your most recent visit, irrespective of how many cues or edits you effected, and REDO will reinstate them.

The standard transport controls are now disabled within the TRIM page. The audio from one cue or the other is heard while trimming with the JOG/SPOOL wheel, but to play over and edit you must use the OVER key.

ACCESSING TRIM PAGE LEVELS ONE & TWO

Pressing the TRIM key gives you this screen:



Pressing Soft Keys F1, 2, 3 or 4 takes you to the new Quick Tools, which can be considered as Level One of the new TRIM page.

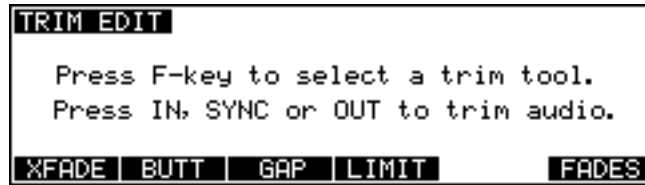
Alternatively pressing IN, OUT or SYNC (as in previous TRIM Software versions) takes you to Level Two, which will be familiar to V1.00 users. Though similar, a number of new features have been added, the most important of which is the facility to overlap IN and OUT points.

Pressing F6 (FADES) from Level Two allows individual adjustment of the PRE and POST fade characteristics. See section at the end of this addendum for more information.

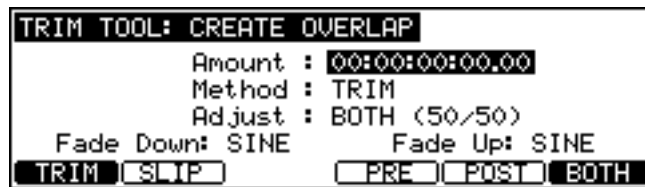
TRIM FUNCTIONS

TRIM PAGE - QUICK TOOLS

Pressing the TRIM key takes you to Level One of the TRIM page. Here you have access to the four Quick Tools which allow basic editing jobs to be accomplished quickly and without use of the jog wheel. The four options XFADE, BUTT, GAP and LIMIT are offered as below:



Pressing XFADE (F1) on Level One gives you this screen:



The parameters are:

- AMOUNT** The amount by which the two cues are to overlap.
- METHOD** The method by which the overlap is to be achieved (TRIM or SLIP) and may be selected either using the DATA ENTRY +/- keys or more directly using F1 and F2.

When TRIM is selected, one or both of the cues will be extended; this assumes that the cue in question has a handle available for extension. Note that the targeted cue turns yellow, while the passive cue stays green.

With SLIP selected, either the PRE or the POST cue (not BOTH) is actually moved along the timeline. SLIP IN can also be selected from within the TRIM page by pressing the IN key while pressing SHIFT. Similarly, OUT + SHIFT selects SLIP OUT.

SLIP mode is clearly dangerous if working to picture, hence the cues in question turn red in warning. Note that, when SLIP is selected F3 becomes active as SLIP? and toggles between slipping just the cue or the entire track:



TRIM FUNCTIONS

ADJUST Selects which point(s) is to be adjusted:

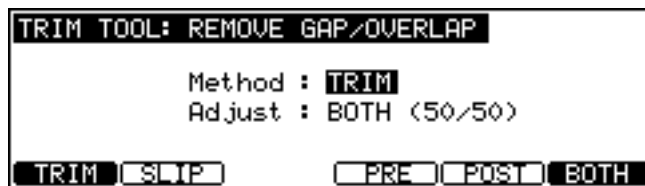
PRE (F4) selects the PRE point for adjustment.

POST (F5) selects the POST point for adjustment.

BOTH (F6) selects both PRE and POST points for adjustment.

Having set the required parameters, press the EXECUTE key to proceed.

Pressing BUTT (F2) on Level One gives you this screen:



METHOD Selects the method by which the BUTT is to be achieved .

With TRIM selected, one or both of the cues will be extended; this assumes that the cue in question has a handle available for extension. Note that the targeted cue turns yellow, while the passive cue stays green.

SLIP (F2) selects SLIP as the method, which means that either the PRE or the POST cue (not BOTH) is actually moved along the timeline. SLIP IN can also be selected from within the TRIM page by pressing the IN key while pressing SHIFT. Similarly, OUT + SHIFT selects SLIP OUT. SLIP mode is clearly dangerous if working to picture, hence the cues in question turn red in warning. Note that, when SLIP is selected F3 becomes active as SLIP? and toggles between slipping just the cue or the entire track.

ADJUST Selects which point(s) is to be adjusted:

PRE (F4) selects the PRE point for adjustment.

POST (F5) selects the POST point for adjustment.

BOTH (F6) selects both PRE and POST points for adjustment.

Having set the required parameters, press the EXECUTE key to proceed.

TRIM FUNCTIONS

Pressing GAP (F3) on Level One gives you this screen:

```
TRIM TOOL: CREATE GAP
Amount : 00:00:00:00.00
Method : TRIM
Adjust : BOTH (50/50)
TRIM  SLIP  PRE  POST  BOTH 
```

AMOUNT Selects the length of the Gap to be created.

METHOD Selects the method by which the Gap is to be achieved.

With TRIM selected, one or both of the cues will be extended or shrunk; this assumes that the cue in question has a handle available for extension. Note that the targeted cue turns yellow, while the passive cue stays green. This is clearly dangerous if working to picture, hence the cues in question turns red in warning.

With SLIP selected, either the PRE or the POST cue (not BOTH) is actually moved along the timeline. SLIP IN can also be selected from within the TRIM page by pressing the IN key while pressing SHIFT. Similarly, OUT + SHIFT selects SLIP OUT. SLIP mode is clearly dangerous if working to picture, hence the cues in question turn red in warning. Note that, when SLIP is selected F3 becomes active as SLIP? and toggles between slipping just the cue or the entire track.

ADJUST Selects which point(s) is to be adjusted:

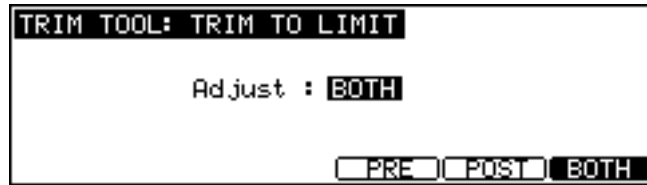
PRE (F4) selects the PRE point for adjustment.

POST (F5) selects the POST point for adjustment.

BOTH (F6) selects both PRE and POST points for adjustment.

Having set the required parameters, press the EXECUTE key to proceed.

Pressing LIMIT (F4) on Level One gives you this screen:



The LIMIT function instantly winds out the available handle of a cue. It stops either at the end of the available audio or when it encounters another cue on the same track, in which case it forms a butt edit with it. In practice this may change the way in which atmospheres are stored in your library. It may now be more useful to store a short section of a long atmos track which can be pasted into any relevant gap and instantly unwound in both directions to fill the space as required. The parameters in the LIMIT screen are:

- ADJUST Selects which point(s) is to be adjusted:
- PRE (F4) selects the PRE point for adjustment.
 - POST (F5) selects the POST point for adjustment.
 - BOTH (F6) selects both PRE and POST points for adjustment.

Having set the required parameters, press the EXECUTE key to proceed.

The FADES function on F6 of Level One takes you to the Fades page in which you have individual adjustment of the PRE and POST fade characteristics. This is described later in this section.

TRIM FUNCTIONS

TRIM PAGE - LEVEL TWO

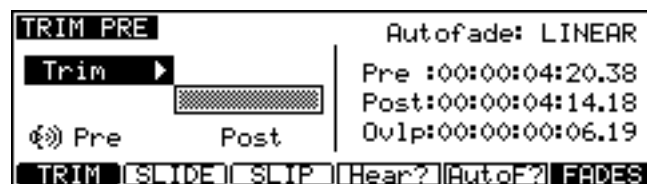
LEVEL TWO is entered by pressing the TRIM key (which gets you into LEVEL ONE) followed by the IN, OUT or SYNC keys.

The presentation of this page is similar to that in version one, although many new features have been added, including the ability to overlap cues on the same track.

The Function keys labelled in upper case select a function type, eg TRIM, SLIDE or SLIP, whereas a mixed case label denotes a parameter within one of these.

NOTE: In all levels other than LEVEL ONE, UNDO exits from the TRIM page and loses all edits made there. Having thus exited, REDO acts to reinstate the TRIMS that you have just lost (should you change your mind). Current implementation does not allow UNDO/REDO of individual TRIMS, or UNDO/REDO of editing done in the TRIM Quick Tools level (Level One). However, once out of the TRIM page from any level, one press of the UNDO button will undo all edits made during your most recent visit to the TRIM page, irrespective of how many cues or edits you effected.

Pressing the TRIM key (F1) gives you this screen:



One or both of the cues will be extended; this assumes that the cue in question has a handle available for extension. Note that the targeted cue turns yellow, while the passive cue stays green.

During TRIM the LCD shows which cue, PRE or POST, is active. It also shows which cue is being scrubbed when you use the JOG wheel - note it doesn't have to be the active cue. Which cue you hear can be toggled by pressing the Hear? key (F4).

Pressing SLIDE (F2) shows this screen:



Slide maintains the 'window' of the cue as it is, while sliding the available audio behind it. Generally used for atmos tracks, this allows you to choose the section of the available audio you wish to hear without altering the other parameters of the cue.

With SLIP selected (F3), you see the following screen:



Either the PRE or the POST cue (not BOTH) is actually moved along the timeline. SLIP IN can also be selected from within the TRIM page by pressing the IN key while pressing SHIFT. Similarly, OUT + SHIFT selects SLIP OUT. SLIP mode is clearly dangerous if working to picture, hence the cues in question turns red in warning.

When SLIP is selected, then F4 offers a toggle between SLIP CUE, and *SLIP TRACK*. SLIP CUE means that either the PRE or the POST cue (not BOTH) is actually moved along the timeline. SLIP IN can also be selected from within the TRIM page by pressing the IN key while pressing SHIFT. Similarly, OUT + SHIFT selects SLIP OUT. This is clearly dangerous if working to picture, hence the cues in question turns red in warning.

SLIP TRACK means that the entire track after (POST) or before (PRE) the cue in question will be slipped along the timeline. Again, a potentially dangerous move if working to picture, and so the effected cues turn red in warning.

AutoF? (F5) toggles the Autofade function on or off and sequences through the three possible fade characteristics, LINEAR, LOG and SINE. Autofade automatically imposes fades on the IN and OUT points of the cue being crossfaded. The fades are set to equal the length of the overlap. Note that the SINE characteristic maintains an equal loudness curve through the cross fade.

NOTE: Shift + Autofade turns Autofade on/off without toggling through the different fade curves. The last fade curve shape selected will be used.

TRIM FUNCTIONS

TRIM SPLICE

When selecting SYNC as your Trim point you are effectively moving the splice point between two selected cues, even though they may overlap or there may be a gap between them.

As when editing the IN or OUT point of a cue, it is possible to effect the change by either Trimming (winding the cue in or out) or by Slipping (moving the whole cue up or down the time line). In the TRIM SYNC page, when the LOCK key (F1) is selected, any Trimming is automatically performed simultaneously on both the IN and OUT points of the selected cues, and the cues are Locked in position on the time line.

It is also possible to Slip one cue while Trimming the other. The PRE (F2) and POST (F3) keys select which cue is to Slip.

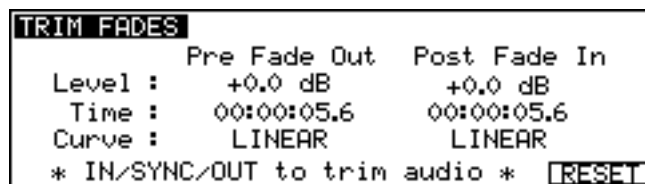
Pressing the TRIM key followed by the SYNC key gives you the following screen:



The function keys change their role as follows:

- | | |
|------------|---|
| LOCK (F1) | Locks both cues in position on the timeline allowing the IN and OUT points of the cues to be Trimmed interactively. |
| PRE (F2) | When this key is pressed, the PRE cue Slips up or down the time line while the POST cue is Trimmed. |
| POST (F3) | When this key is pressed, the POST cue Slips up or down the time line while the PRE cue is Trimmed. |
| Hear? (F4) | This key toggles which cue you are hearing (PRE or POST). |

Pressing the FADES key (F6) gives you this screen:



The parameters on this page are:

- | | |
|-------|---|
| LEVEL | Adjusts the overall level of the selected cue |
| TIME | Determines the length of the fade. |
| CURVE | Sets the curve characteristic. |

In the FADES page, the IN/SYNC/OUT keys function as follows:

IN KEY	Selects the IN point of the incoming cue
OUT KEY	Selects the OUT point of the outgoing cue
SYNC KEY	Allows you to move the splice point between the two cues.

NOTE: The JOG wheel and general Trim functions remain active while in the TRIM FADES page. For certain applications (eg dialogue editing), you may spend most of your time in this page.

EXITING THE TRIM PAGE

Once you have completed your work in the TRIM page you can press the EXECUTE key twice to confirm the changes and leave the TRIM page.

Alternatively, pressing the EXIT key generates the prompt:



You should select as appropriate:

CANCEL (F3)	Cancels your request to leave the TRIM page and leaves you where you were before pressing the EXIT key.
NO (F4)	Exits the TRIM page and discards all edits made there during that visit.
YES (5/6)	Confirms your edits and exits the TRIM page.

It is also possible to exit the TRIM page quickly without the above prompts by pressing either:

SHIFT + EXIT	Exits the TRIM page and discards all edits made there during that visit.
SHIFT + EXECUTE	Confirms your edits and exits the TRIM page.

NEW FEATURES NOW FOUND IN THE EDIT CUE PAGE

- ADDITIONAL WHOLE CUES/WHOLE REGION OPTIONS
- The option to select either WHOLE REGION or WHOLE CUES (already available in the COPY and ERASE pages) is now also to be found in the following pages:
- SLIP IN/SYNC/OUT TO NOW
- MOVE TO TRACK
- MOVE BY AMOUNT
- NUDGE AUDIO (partial implementation)

NEW OPTIONS IN EDIT CUE

The EDIT CUE key now gives you this screen:

```
EDIT CUE  Cues : 2/Len : 00:00:06:4
Name : Dial 27
Level : -15.6dB
Fade Up : 00:00:06.10  Curve : LINEAR
Fade Dn : 00:00:02:00  Curve : LINEAR
INFO TRIM FADE RESET
```

The soft key functions are:

INFO Pressing INFO (F1) from the EDIT CUE screen gives the following information about the selected cue(s):

```
CUE INFORMATION
Original Time : 10:15:12:10:12
Length : 00:00:27:43:32
Number of Cues : 2
```

TRIM Pressing the TRIM key (F2) from the EDIT CUE screen gives you this screen:

```
TRIM CUE
◀ Slide ▶
⌂ Sync
In : 00:00:04:20.38
Out: 00:00:04:14.18
Len: 00:00:00:06.19
LIMIT EDIT
```

This page gives you a limited set of TRIM functions: Slide and LIMIT.

Slide maintains the 'window' of the cue as it is, while sliding the available audio behind it. Generally used for atmos tracks, this allows you to choose the section of the available audio you wish to hear without altering the other parameters of the cue.

LIMIT (F5) instantly winds out the available handle of a cue. It stops either at the end of the available audio or when it encounters another cue on the same track, in which case it forms a butt edit with it. In practice this may change the way in which atmospheres are stored in your library. It may now be more useful to store a short section of a long atmos track which can be pasted into any relevant gap and instantly unwound in both directions to fill the space as required.

EDIT (F6) returns you to the EDIT CUE page.

Pressing FADE (F5) from the EDIT CUE screen gives you this screen:

```
EDIT CUE  Cues : 2/Len : 00:00:06:4
  Name : Dial 27
  Level : -15.6dB
  Fade Up : 00:00:06.10  Curve : LINEAR
  Fade Dn : 00:00:02:00  Curve : LINEAR
Set fade :  START TO NOW  NOW TO END
```

START TO NOW (F3/4) executes a fade up from the beginning of the cue to the NOW time.

NOW TO END (F5/6) executes a fade down to the end of the cue, starting at the NOW time.

Pressing RESET (F6) from the EDIT CUE screen gives you this screen gives you the option of reset the EDIT CUE parameters to zero.

DISK COMPATIBILITY - MACINTOSH

The DD1500 is now able to read and write certain files to Macintosh HFS format disks. When a Macintosh HFS format disk is accessed by pressing SHIFT + LOAD, you will see the following screen:

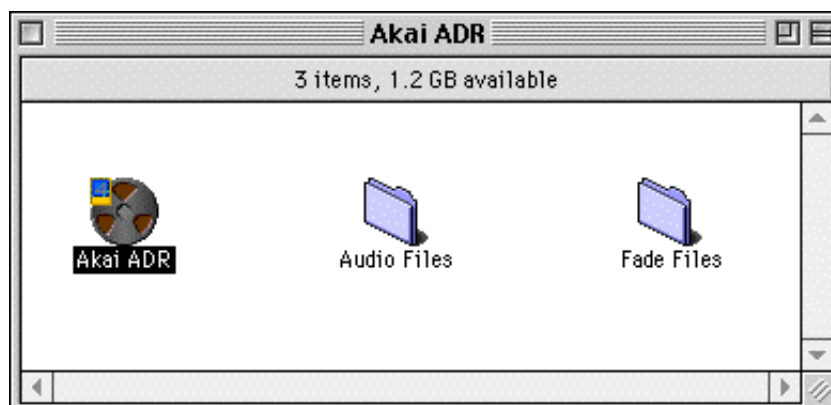


In the TYPE field where you can select the type of file you want to load. The current options are:

- | | |
|-----------|--|
| OMF | To load an OMF (Open Media Framework) file allowing playback of audio created with systems such as Avid AudioVision® or MediaComposer®. |
| PT 3.2 | To load a Session file created on a Digidesign "Protools 3.2" system. |
| PT 4 | To load a Session file created on a Digidesign "Protools 4" system. |
| ALL FILES | To view all files on the selected disk. This may be used to select any OMF files that are not recognised by the DD1500. This may occur if an OMF file was created on a non-Macintosh system. |

NOTE: Due to the limited screen size, the DL1500's LCD does not show the individual folders on the disk that would normally be shown on a Macintosh screen. Instead, the display shows a list of all files of the selected type on the disk. In practice, most disks will only contain a few 'project' files and a large amount of audio, so it should be relatively easy to find the required file.

Pressing NEW PROJECT (F5/6) will take you to the NEW PROJECT page where you can create new Protools 4 Session files on the Macintosh disk. When a new Session file is created, a folder with the new Session's name will be created at the root level of the selected disk. The new Session file is placed inside this folder together with folders for Audio Files and Fade Files. All SD-II or AIFF files recorded into this Session will be placed into the folder labeled 'Audio Files'.



PROTOOLS IMPORT

After moving the cursor to the required Session file, press the EXECUTE to import the selected file. The display will change to show the following screen and the progress bar at the bottom of the screen will indicate that the file is being imported.



As part of its normal operation, Protools renders all fade files as separate audio files on disk. When a Protools Session containing fades is loaded into the DD1500, you will be given the option to use the precomputed files or replace them by real-time fades for playback:



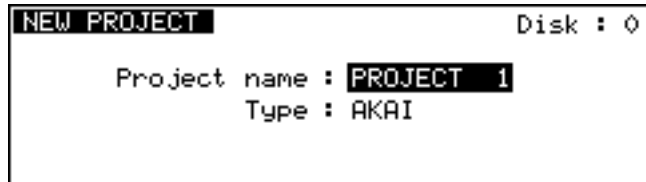
If you select YES, the DD1500 will load and playback all fade-regions from the rendered fade files on disk. If you have created any custom fades in Protools, you should choose this option to ensure the DD1500 plays back the file correctly.

If you select NO, the DD1500 will perform real-time fades in each fade region. This option will give the best performance from the DD1500 (as there will be less disk activity) and will also allow easier editing of the Session.

NOTE: Some systems that create Protools Session files (including Digidesign's "OMF Tool" and the DD1500 itself) do not actually render fade files. If Session files from these systems are loaded into the DD1500 with the 'use pre-computed fades' option, the fade regions will not contain any audio (and will be shown in yellow on the DL1500's VGA).

CREATING PROTOOLS SESSIONS

When a Macintosh format disk is connected to the DD1500, the NEW PROJECT page allows creation of a new Protools Session. This page is accessed by pressing SHIFT+LOAD followed by NEW PROJECT (F5/F6).



```
NEW PROJECT                               Disk : 0
Project name : PROJECT 1
Type : AKAI
```

A new field, TYPE, has been added to this page. The TYPE field is used to select the type of project that will be created. The options available will depend on the format of the selected disk.

The options available are:

- | | |
|------|--|
| AKAI | To create a new AKAI project on an Akai format disk |
| PT 4 | To create a new "Protools 4" Session on a Macintosh format disk. |

DISK COMPATIBILITY - WAVEFRAME

The DD1500 is now able to read project files created on Waveframe disks including those from the Timeline MMR-8. When a Waveframe format disk is selected by pressing SHIFT+LOAD, you will see the following screen:



The FILE TYPE field allows you to select the type of file you want to load. Normally, this should be left on PROJECT to view the available projects on the disk. ALL FILES can also be selected to view a list of all the files on the disk.

As with Macintosh disks, you can select which tracks you want to load from the PROJECT using the IMPORT TRACKS page accessed by pressing the TRACKS key (F3/4)

After selecting the project you wish to load, pressing EXECUTE will start the import process and the following screen will be shown:



DISK COMPATIBILITY - FAIRLIGHT MFX3PLUS

The Fairlight MFX3^{plus} supports two types of native disk format, RBF and FLFS. Currently, the DD1500 is only able to recognise RBF formatted disks. When a Fairlight RBF format disk is selected by pressing SHIFT+LOAD, you will see the following screen:



The FILE TYPE field allows you to select the type of file you want to load. The Fairlight MFX3-plus stores all the information necessary to play a complete project (including all audio and edit information) in a file with the suffix '.MT'. The Fairlight MFX3-plus also allows a separate MDL (Media Description Language) file to be created which contains all the information to play the audio in the current project. This is identified with a '.DL' suffix.

The DD1500 reads the MDL file rather than the Fairlight native project file, so it is necessary to ensure that this file is always created before the disk is removed from the MFX3-plus system.

DISK COMPATIBILITY - MSDOS (FAT16)

DD1500 Version 3.00 supports playback of disks created on the Zaxcom DEVA hard disk recorder. This is a location recorder which records audio to an internal hard disk and can mirror recordings to an external SCSI device such as an Iomega Jaz drive. The DD1500 is able to read DEVA files which have been recorded as 16-bit Broadcast Wave or Sound Designer II files by the DEVA to a FAT16 format disk. The DD1500 can also play back 2-channel 'Polyphonic' files created by the DEVA (where 2 audio channels are interleaved). The DD1500 is not able to play back 4-channel polyphonic files.

When a FAT-16 format disk created by the Zaxcom DEVA is selected by pressing SHIFT+LOAD, you will see the following screen:



Unlike other disk formats supported by the DD1500, the Zaxcom DEVA does not store any 'project' file on the disk. Instead, each audio file contains its own timestamp information. Press EXECUTE to import the DEVA audio files for playback.

EXPORT PROJECT PAGE

The DD1500 can now convert projects created on one system into files playable on a different system. Currently, the DD1500 can export from any of the readable project types (Akai, OMF, Waveframe, Zaxcom Deva or Protools) to Akai or Protools files. As well as conversion of the project file itself, this process includes conversion of all audio files into a suitable format (e.g from Akai format referenced by an Akai Project to Sound Designer II files referenced by a Protools Session).

The EXPORT PROJECT page is accessed by pressing the SAVE key followed by COMPILE (F3/F4) and then EXPORT (F1/F2). This will take you to the following page:



The project to be exported will be the one that is currently loaded into memory.

The parameters on this page are:

TO DISK This field allows you to select the SCSI ID of the disk you want to export to.

NOTE: *The selected drive must have been previously formatted appropriately for the export you wish to perform (e.g An export to a Protools Session must be made to a Macintosh HFS format disk).*

EXPORT TYPE This field allows you to select the type of project you want to export to. The current options are:

- AKAI** To export to an Akai project on an Akai disk referencing Akai audio files.
- AKAI->FAIRLIGHT** To export to an Akai project on an Akai disk referencing Akai->Fairlight audio files.
- PT 4** To export to a "Protools 4" Session file on a Macintosh HFS disk referencing 16-bit Sound Designer II files.

HANDLE During the export process, portions of audio will be discarded so that only audio that is actually needed will be copied and converted. If you are familiar with the DL1500, you will notice the similarity to the COMPILE function. During this process, audio files will be minimised - unused top and tails will be discarded and additionally, unused audio in the middle of the source file will not be copied, thus creating multiple files:

The HANDLE field allows you to select how much extra audio will be copied before and after the audio that is actually referenced in the project. If the Handle is very large, it is likely that the source audio files will be copied intact without being minimised.

The following table shows the available export options:

SOURCE	DESTINATION	COMMENT
Akai	Akai->Fairlight	To export an Akai DD-PLUS disk with normal "Akai" audio files to a DD-PLUS disk with "Akai->Fairlight" audio files.
Akai->Fairlight	Akai	To export an Akai DD-PLUS disk with "Akai->Fairlight" audio files to a DD-PLUS disk with normal "Akai" audio files.
Protools	Akai <i>or</i> Akai->Fairlight	To convert an Protools Session with SD-II audio files to an Akai Project on an Akai disk with "Akai" or "Akai->Fairlight" audio files
Akai->Fairlight	Protools	To convert an Akai project with "Akai->Fairlight" audio files to a Protools 4 Session with SD-II audio files.
Akai	Protools	To convert an Akai project with Akai audio files to a Protools 4 Session with SD-II audio files.
OMF	Akai <i>or</i> Akai->Fairlight	To convert an OMF file from products such as Avid Media Composer to an Akai Project on an Akai disk with "Akai" or "Akai->Fairlight" audio files.
OMF	Protools	To convert an OMF file from products such as Avid Media Composer to a Protools 4 Session with SD-II audio files.
Waveframe	Protools	To convert a Waveframe or Tascam MMR8 project to a Protools 4 Session with SD-II audio files.
Fairlight (MDL)	Protools	To convert a Fairlight project imported from an MDL file into a Protools 4 Session with SD-II audio files.
Waveframe	Akai <i>or</i> Akai->Fairlight	To convert a Waveframe or Tascam MMR8 project to an Akai Project on an Akai disk with "Akai" or "Akai->Fairlight" audio files.
Fairlight (MDL)	Akai <i>or</i> Akai->Fairlight	To convert a Fairlight project imported from an MDL file into an Akai Project on an Akai disk with "Akai" or "Akai->Fairlight" audio files
Zaxcom DEVA	Protools	To convert a project imported from Zaxcom DEVA audio files into a Protools 4 Session with SD-II audio files.
Zaxcom DEVA	Akai <i>or</i> Akai->Fairlight	To convert a project imported from Zaxcom DEVA audio files to an Akai Project on an Akai disk with "Akai" or "Akai->Fairlight" audio files.

LEVEL-TRIGGERED (THRESHOLD) RECORDING

This mode can be used to automatically start and stop recording when the audio level passes a preset threshold.

SETUP

To setup the DD1500 for level-triggered recording, first select the main RECORD page by pressing the REC/# key. You will see the following screen:

```
RECORD                               Record Disk : 4
Recording name : CLIP
Record mode : PROJECT ONLY
Library name : RECORD 1
Free on disk : 04:22:56:05.02
SETUP | AUTO CONFORM | RUSHES | LEVEL TRIG
```

Press LEVEL TRIG (F5 or F6) to select the LEVEL-TRIGGERED record mode. This will take you to the following page.

```
LEVEL-TRIGGERED RECORDING
Trigger : ALL
Start Threshold : -16 dB
Stop Threshold : -19 dB
Stop Window : 2 secs
Use transport keys to start recording.
```

The parameters on this page are used to configure the thresholds to trigger the start and end of recordings:

TRIGGER	This parameter is used to select which record inputs will be used as triggers. The options are:
ALL	Recording will start/stop when the selected threshold is reached on any of the tracks enabled for recording.
1..8	Recording will start/stop when the selected threshold is reached on the single track selected.
1+2/3+4	Recording will start/stop when the selected threshold is reached on the stereo pair of tracks selected.

NOTE: Only tracks enabled for record are able to trigger recording.

START THRESHOLD This parameter is used to set the threshold for starting record. When the audio input on the trigger track(s) exceeds this level, recording will automatically begin. The threshold level is displayed in dB below peak (clip) level.

STOP THRESHOLD
STOP WINDOW These parameter is used to set the threshold for ending record. When the audio input on the trigger track(s) remains below the STOP THRESHOLD level for the time specified by the STOP WINDOW parameter, recording will automatically end. The threshold level is displayed in dB below peak (clip) level. The window time is displayed in seconds.

OPERATION

After setting the appropriate record threshold levels as described above and selecting your record tracks, press PLAY+REC together to prime the transport for record. The REC key will flash and the display will change to show:

```
LEVEL-TRIGGERED RECORDING
      Trigger : ALL
    Start Threshold : -16 dB
      Stop Threshold : -19 dB
      Stop Window : 2 secs
    Waiting for record threshold..
```

When the selected record threshold level is reached, the transport will automatically begin recording. The REC key and track keys will be steadily lit and the display will show:

```
LEVEL-TRIGGERED RECORDING
      Trigger : ALL
    Start Threshold : -16 dB
      Stop Threshold : -19 dB
      Stop Window : 2 secs
Recording..... (SHIFT+REC to abort)
```

NOTE: To avoid 'clipped' audio at the start of recordings, the DD1500 will add a small piece of audio (approximately 8000 samples) to the start of each recording made in level-triggered mode. In effect, this means that recording actually starts just before the trigger point ensuring that no audio is lost.

Pressing SHIFT+REC aborts the recording process.

To end the threshold recording mode, press STOP or PLAY.

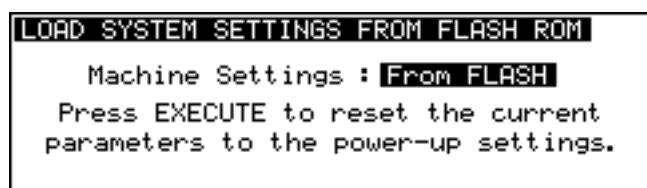
OTHER CHANGES

MACHINE SETTINGS

In previous versions of software, the DD1500 used a single SETTINGS file stored either on disk or in the machine's flash ROM to store all parameter settings (such as sample rate, timecode source, GPIO configuration etc..). This sometimes led to confusion when a disk created in one studio was loaded into a machine in a different studio. If the SETTINGS file was loaded from disk, then machine specific parameters relevant to the machine's installation were changed (e.g timecode source, GPIO configuration). Alternatively, if all SETTINGS were loaded from the machine's flash ROM, project specific parameters could be changed (e.g sample rate).

The DD1500 now include a new option to allow MACHINE specific parameters to be loaded either as part of a PROJECT or from the machine's flash ROM.

This option is set on the LOAD SYSTEM SETTINGS page:

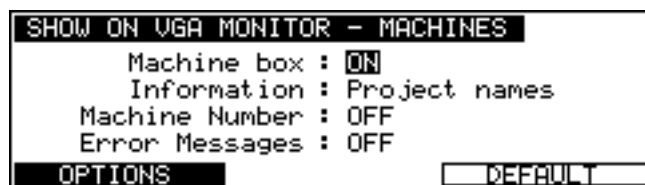


The options for the MACHINE SETTINGS field are:

- | | |
|--------------|--|
| FROM PROJECT | All settings parameters are loaded as part of a project. This is the same as the operation in previous software versions. |
| FROM FLASH | When this option is selected and a new project is loaded, project specific parameters (such as sample rate, timecode rate etc..) will be loaded with the project while machine specific parameters (such as timecode source, GPIO settings etc..) will revert to the default parameters stored in the machine's flash ROM. |

DL1500 VGA OPTIONS

The DL1500 now includes some new display options to make it easier to work with multi-machine systems. These options are selected from the SHOW ON VGA MONITOR - MACHINES page accessed by pressing the DL1500's SHIFT+SYSTEM to go to the SHOW ON VGA page followed by the OPTIONS key (F1/F2) and then the MACHINES key (F3/F4):



MACHINE NUMBER

You can choose to display a large number instead on the MIX meters in the lower right-hand corner of the VGA to show which machine is currently selected.

ERROR MESSAGES

You can choose to display system error messages in a large pop-up window on the DL1500 VGA. In multi-machine systems, as well as showing the system error message, this window will indicate the machine number on which the error occurred.

DL1500 USER KEYS

New USER KEY options have been added for the following functions:

GOTO IN, GOTO SYNC and GOTO OUT
GOTO LOCATE MEMORY AND PLAY
SELECT TRACK GROUP AND PLAY

OMF FILES

Changes to correctly handle sub-tracks in OMF files which occur when stereo audio files are created by some Avid products. Previous versions resulted in mono audio from the first track only.

Fix bug which prevented correct playback of some OMF files containing embedded AIFF audio with invalid data that were created on Avid Media Composer V6.5.

