Revolution
operation manual

The first part of this manual contains an introduction to the user interface, a brief description of the overall operating method and how to set up a user file, which will enable new users to start familiarising themselves with the system. That is followed in turn by a detailed description of the Evolution panels and a guide to each of the Revolution colour corrector levels, and their windows as displayed on the vdu; then a detailed guide to the Vault and User Setups. Lastly there is a description of editing functions, list management and any other functions not already covered. This manual is designed to be read in the order it is written, and while the reader has access to a working system; some functions cannot possibly be understood otherwise. It is not, and cannot be, a substitute for personal training.

New users especially should read the introduction to the system first, as there is a considerable degree of interaction between various parts of it, and a basic understanding of the relationship between them will make operating the Pogle much easier. This chapter contains some information that refers to specific descriptions of functions, so it is recommended that all users read it, regardless of their existing knowledge of the Pogle.

The source deck or transport can be either a telecine, vtr or disc; 'code' can be either timecode or filmcode. Where 'vtr' is used it can mean any non-film source. Where 'grading' is used, it covers all the possible parameters that are controlled, not just colour ones. Italicised text contains essential points that should be remembered (some printers do not properly print italics, so printed down-loads may not display them correctly). Evolution panel keys are always in colons (" "); semicolons (' ') usually mean an operating mode.

Various abbreviations and technical terms are used in this manual; it assumes the user has some knowledge of telecines, colour correctors and related equipment, and a (slight) degree of computer skill. For clarities sake, some of the descriptions and terms used might not be the same as those used in other descriptions of the equipment.

This manual is based on the software and firmware release versions at the time of writing; updates to either may result in operational difference. These should be explained in the release notes that open automatically after any relevant updates.

Any suspected bugs should be reported to: service@pandora-int.com.

Any perceived errors in the text can be reported to the Pandora at the same e-mail address.

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EVOLUTION PANELS

There are three separate panels, which can be arranged in any order to suit operator preference, but they are not designed to be lifted from their mounting more than is necessary. If different operators prefer different layouts, Pandora supply a kit that allows each panel to be cased separately, and then moved as required. The panels communicate via USB, so hot-plugging should not be a problem.

The panels are the SCC panel, on the left in *Fig 1*, which has most of the colour corrector controls; the Roller-ball panel, in the centre, and the Transport panel, on the right, which. As well as the transport controls, this has the editing functions, plus preset and operator assignable knobs. To differentiate between them, the control at the bottom centre of the SCC panel will always be called the track-ball, although it is identical to those on the roller-ball panel. On-screen windows are sometimes called panels, but in this manual 'panel' always means the actual hardware panels, except in the section on views, where the wrong usage could lead to further confusion. This will be made clear in the text.

TRANSPORT CONTROLS

The transport controls are the large wheel and 5 keys arranged around it. Up to five machines of various sorts can be connected at any time; if a telecine is one of them, it has its own dedicated transport selection key (the leftmost of the five above the transport control keys themselves). The icon for the

Fig 2

telecine is always at the right of the System area. Vtrs and discs will have slightly different icons, depending on their internal configuration and current mode. On the vdu, they are displayed in order from left to right, with VTR1 at the left. The transport controls work with the machine that is currently selected on the keys above them. The key will be illuminated,

Fig 1

with its colour dependent on its edit mode; only one machine can be selected at once.

Stop is the top centre key. 'Play' is one press of the "Play" (>>) key, on the right. If the transport is already in play, another press of the "Play" key will put the machine into shuttle speed, or a double press from still will shuttle the deck. Pressing "Play" once when the transport is in shuttle will return it to play speed. The same applies to the "Play reverse" (<<) key, to the left of the Stop key. Above the play keys are the inch keys (> and <); each press will move the transport either one frame (or one field) in the direction indicated; if pressed several times, the transport will move that number of frames.

Pressing the small white button above and to the left of the other keys will make the wheel a jog control, while the right-hand one will make it a shuttle control. Some machines work well in one mode and not the other; telecines may not jog at all, and discs tend to dislike the shuttle command, but jog well.

CURSOR CONTROL

The Linux operating system used by the Platinum only requires a single tap or click to activate a selected option; a double tap may perform the operation twice. There is no keystroke equivalent of pressing 'Return' or 'Enter' on a PC type keyboard; a pen tap (or mouse click) must be used where specified.

To operate the Pogle system the pen and tablet act as a mouse, although a conventional mouse can be used if desired (this manual generally assumes the pen will be used). For mouse users, a left mouse-button click is the same as tapping with the pen, and a left mouse-button click and hold is the same as a pen press and hold; the pen side switch is the same as a centre mouse button. To move a window, position the cursor over the bar at the top and hold the pen down, then move the pen to drag the window. When the pen is released, the window will stay in the new position. If there are any options available, positioning the cursor over an icon or button and pressing and holding with the pen will reveal a drop down menu; move the cursor over the preferred one and release the pen to select it.

Some controls have a fixed set of values, normally on the scale of 0 (no control) to 9 (very sensitive). However, others need a finer control, and tapping on any of these will then allocate it to one of the knobs on the orange sub-panel (part of the Transport panel). This also allows for groups of controls to be made and saved, as described later in the manual. Some controls come in groups, and tapping on any button or box for one of them will assign all the controls in that group, with one of each of the froup on a separate knob. Where controls are available with either a existing panel knob or button, or by selecting functions on the vdu by tapping, this manual assumes the panels will be used.

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STARTING THE PLATINUM

If the host computer is running correctly, the vdu will display several icons and their labels; click on the one at the extreme top left corner, *Fig 3*. Click on the icon itself (not the words), which should then highlight, with the pen side switch (or mouse middle button) to run the Platinum. Alternatively, click and hold anywhere on the desktop to open a drop-down menu (*Fig 4*) and select the top item, 'Pogle Platinum'. When the Platinum is running the Vault and System area will appear (*Fig 5*); click on a user in the Vault to continue.

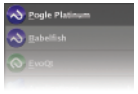


Fig 3

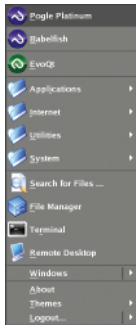


Fig 4

PLATINUM WINDOWS

If there are small markers on the outer corners of a window, positioning the cursor over that corner and holding down the pen will change the cursor shape, which allows active resizing of the window by dragging the cursor (the new size and position will not automatically be saved; how to do this is described in the section on Views). Some windows do not allow resizing, so this option is not always available. If the cursor is positioned over the edge of a window and holding down the pen changes its shape to an arrow pointing to a flat surface, dragging the cursor will expand the window in that direction.

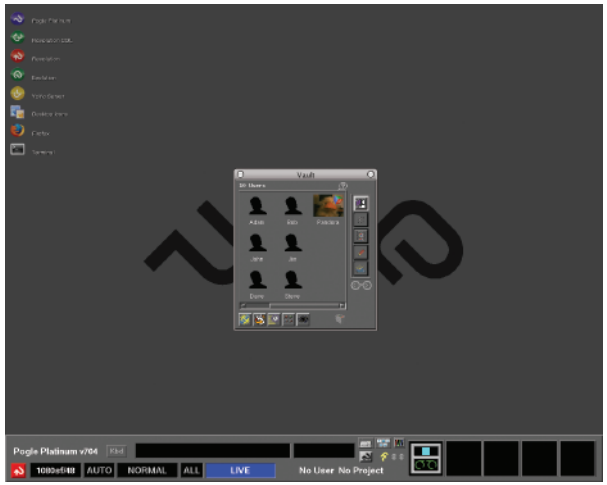
There are various small buttons in the bar at the top of the window, which illuminate when that window is active (the outline of some windows also change when they are active). The one on the left-hand side, illuminated blue, will close the window, and the one on the right, which is green, will expand it to full screen; if it is clicked on again it will toggle back to its original size and position.

Some windows have another, orange icon just to the left of the green one; this will iconise the window to the left-hand top corners of the VDU. It can then be reopened by clicking on the icon.

Most operational (rather than set-up) windows have a small, circular icon at the top right-hand corner (actually inside the window, not in the top bar); tapping on it will reset all the controls inside that window back to their default values. For some control combinations it also resets the entire level or layer – these will be described in the detailed descriptions of them.

If a window is partially covered, clicking the visible area will not necessarily bring it to the front; the top title bar, or one of the extreme window edges, must be tapped on. Although some windows can be resized, fonts, typefaces, icon size and so forth cannot be changed. There are various colour options for the desktop available from the host computers own menu; these will be applied to all users, so a clear, neutral one should be chosen to suit everyone who will use the system. It is possible to make new windows and edit existing ones; this is covered in the section on views. If a window has a 'Close' symbol, tapping on it will store the values currently in the window and dismiss it from the screen completely.

Fig 5



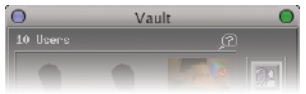


Fig 6

Fig 7

Fig 8

Some windows have buttons that, when clicked on, open another window; if this new window has a button labelled 'Back', clicking that will store the settings applied from it, close it and re-open the original window.

ICONS AND BUTTONS

Where the word icon is used, it normally means that tapping on it will open a new window or carry out a command; a button is like an icon but usually contains options, switches or level controls. These are accessed either by tapping to step through them, or a press and hold to open a drop down menu, which will reveal all the options available (either method is available with most buttons).

Hold down the pen to keep the drop-down menu open, place the cursor over the required option (keeping the pen in contact with the tablet while doing this), then release the pen to select it. The Evolution panels also have buttons, but the distinction between the two types should always be clear from the context in which the word is used. Where no other terminology is suitable, the word 'icon' may also refer to another type symbol on the screen which doesn't carry out a command, but that should also be clear from its context.

KEYS

All the larger switches on the Evolution panels are called keys, of which there are several types. The black keys have fixed functions and are labelled appropriately, while some of the white illuminated keys have different uses, dependent on the selected colour corrector level and so forth. If any of these keys are not internally illuminated, it means that, for the currently selected level combination, its labelled function is not available or, for unlabelled keys, there is no function assigned to it. Available functions are shown by the key being illuminated green; if the function accessed through that key is active, i.e. its controls are not at their default setting, it will be illuminated blue.

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ENDSTOP WARNING

All of the control knobs, and the roller-balls, are of the type that have no physical end position; they will continue to turn in the same direction, even when the control they affect has reached its maximum value. It is normally obvious from the controls display on the VDU when this maximum value has been reached, but it should be born in mind that, for the roller-balls, the maximum value indicator is outside the circle that represents them on the vdu.

The Pogle does produce warning sounds that the endstops have been reached, but the host computers have no built-in speakers to play them. If required, external speakers can be connected; the sounds then have to be enabled by the 'Use Sounds' button in the User Setup window (as well as the hosts computers own setups).

THE PEN SIDE SWITCH

Some functions (mainly reducing control values) can be achieved by holding the pen above the required control and pressing the side button on the pen (while not allowing the pen to tap on the tablet). This may take some practise, so it may be easier to press and hold on the controls button, and select the value from the drop down menu instead.

THE VAULT IN GENERAL

Fig 9

Any icon in the vault which has a Pandora logo superimposed on it is a system file, used for engineering and test purposes, and should not be removed or edited.

The Vault is the starting point for all functions; it is very important to understand the relationship between and order of the items in it. If it is hidden from view, pressing the "Vault" key (on the Transport panel) will always bring it to the front from behind other windows or if it is closed; running the cursor off the bottom of the screen will also re-open it.

Fig 10

It has two sets of icons, one on the right and the other across the bottom. Those on the right change as different Vault pages are selected; those at the bottom (called action icons in this manual) stay the same. When the system boots up, the Vault opens at its first page; it shows, at the top right, the icon for users (highlighted in *Fig 10*).

This will be the only option available, as the lower items belong to the users, and will not open until the system knows which users files to display. Tapping on any of the named users icons will change the Vault to show their projects. Tapping on a project will open it, and the Vault view will change again to show the lists that exist inside that project; there is an additional icons for notes, which are also stored inside the project. There is one other icon, for shapes; these are not implemented in the Revolution.

The user icons are actually folders, inside which are further folders (projects), which then contain several other folders, i.e. lists, notes and LUTs (Look Up Tables); all the icons on the right of the Vault, from the top down.

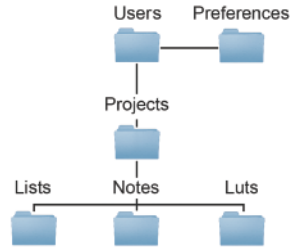

Fig 11

Fig 11 represents the link from one selected user; when that user is selected the folder 'Preferences' is automatically opened and its contents, which are the screen layout and the sensitivity of the panel controls, are applied. The Vault view will also change to show the existing projects.

In the Vault itself, the icon below users is for projects; below that are lists, then notes and LUTs. There are other items stored by project, but these are not shown for clarities sake. The bottom icon is an arrow symbol, which will scroll to other Vault pages; the Vault display with the users is the top page.

Across the bottom of the Vault window are the action icons; in the bottom left-hand corner is the 'New' symbol. Tapping on this will generate a new item of whatever is currently selected (shown by its outer box being highlighted) from the other set of icons at the top right-hand side; thus, if 'Users' is selected, tapping on 'New' will make a new user.

Next on the bottom right is a search function; after that a icon to switch the Vault display from showing items either alphabetically or by date and time generated or modified; then one to turn extra information about items in the Vault on and off. Next on the right is access to the built-in browser, the Black Hole. The use of these functions is described in detail later.

Further to the right is the rubbish/trash icon; items can be dragged into it to delete them. This icon is always on the right; its position will depend on the size and shape of the Vault window. Icons marked 'System' should not be deleted. Lastly, at the top right of the Vault window, is a black question mark which is used to open online notes.

If there are more items in a Vault window than can fit into its current size, at the bottom there will be arrowheads for left/right movement and draggable scroll bars. Press and hold on the scroll bar to grab it, and then move it with the pen; or tap on the arrowheads to move one row of icons at a time.

If there are several pages worth of hidden icons, tapping to either side of the scroll bar will jump to the next page. Items are selected in the Vault when their outer box is highlighted (this may sometimes not be clear, depending on the colours of the background and selected icon itself).

Apart from those options controlled by the User Setup window, if a function is not accessed directly from the Vault, it will not be stored by user or project. So if, for example, one user changes a value in the Edit Setup window (described later), it will be changed for all users. Like any other computer system, the Pogle can only react to the commands it is given, and a clear and consistent set of rules for its use will always result in more efficient use of time and personnel, and less frustration for the operators. For this reason, all users should have their own setups, and when any use is to be made of the system, the user should always log in.

Vault items can have additional options that are reached by clicking and holding on them, which opens a drop-down menu. The options revealed can then be selected by positioning the cursor over them and releasing the pen. This action does not normally highlight the selected option; to do so, keep the pen in contact with the tablet (while holding down the side switch) and move it out and back inside the drop-down menu. This will then highlight the options as they are selected.

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THE SYSTEM AREA

Fig 12

If the Platinum is running the System area, showing information about existing functions and the current operating mode, will appear across the bottom of the screen. At the extreme bottom left-hand side is an icon to open the Engineering menu, which contains a further list of options; these will be described later. To the right, across the bottom of the screen, are the current line and field rate, then small windows to show various other functions; the current user and project name appears directly on the background to the right of these. Above these windows, at the left, is shown the current software release version, and to its right, is a small button 'KBD', which alters the behaviour of the host computers own keyboard; it should normally be highlighted (and in capital letters). Then there are two black windows.

The larger one, on the left, is the text area, where text entered from the qwerty keyboard will appear. Numbers entered from the top row of the qwerty panel will appear in this area, and will be used only in the naming of files etc.; where numeric values are needed for any other operation, they must be entered from the numeric keypad on the Transport panel.

These numbers appear in the smaller window to the right. If a number is entered in this area and a command that uses numbers is issued, the number in this box will be used; this function will be explained in more detail in relevant sections. When any command which uses numbers are issued, the Pogle will always use any number in the system numeric area first.

If the number is invalid for any reason (e.g. the last two digits represent a frame count higher than the number of frames in the current tv standard), there will be no reaction from the Pogle until the number is corrected or cleared. If a window is covering the numeric area, this can lead to some confusion about why nothing is happening. There are no separators (:) in the numeric area; they are added when the number is transferred to whichever command it will be used with.

To the right of the numeric area are icons which open the qwerty and transport virtual windows, the Revolution Status windows, and to access FastTrack and to show its current operating status.

In the space at the far right of the System area are icons for each transport (telecine, vtr or disc) currently connected to the Pogle. The telecine icon always appears at the far right hand side.

RESTARTING OR QUITTING THE PLATINUM

Either click on the Pandora icon at the top left of the vdu or middle click anywhere on the computers own desktop and select 'Pogle Platinum' from the drop-down menu that opens. *Fig 13* will appear:

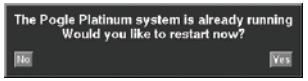

Fig 13

Click on 'Yes' to restart.

To quit the Platinum but not restart, open the Engineering menu by clicking on the icon at the left of the System area (*Fig 14*) and then click on the bottom left icon in the window (*Fig 15*).

Fig 14

Fig 15

This will open *Fig 16:*

Fig 16

Then click on 'Yes'.

Ideally the system should not be turned on and off more than is strictly necessary. However, if it must be powered down completely it is important that the host computer is shut down properly. First, quit the Platinum as described above. Then, click and hold anywhere on a blank part of the computer desktop, which will open a drop-down menu; select the bottom item, 'Log Out'. The display will change; click on the word 'Shutdown' at the bottom of the screen, which will open yet another window asking for confirmation; click on the 'Shutdown' icon in it. It will then take a few seconds for the host computer to power itself down.

Turning the system on is less complicated, although the host computer may take some time to load the Linux operating system. The various modules must be powered up in the correct sequence, and is partly dependent on the exact system configuration. Check with Pandora service for details.

NAMING ITEMS IN THE VAULT

If any text is entered in the window at the bottom of the screen when 'New' is selected, the item generated will take as its name whatever that text is. If there is no text, the new item will be called 'New', 'Untitled' and so forth, depending on exactly what type of item it is. To change the name of an existing item in the Vault, enter the new name in the text area and then place the cursor in the text box. Press and hold, then drag the cursor over the item to be renamed in the Vault; the text will be dragged with it. Releasing the pen will then change the name of the Vault item to that of the text.

The cursor itself must be positioned over the item in the Vault, not the text. Items can be renamed as desired; the Pogle does not use the names as seen in the Vault to locate files. Like most computer operating systems, Linux believe 10 to be a lower number than 2, 20 to be lower than 3 and so forth. If a renamed item apparently vanishes, it has probably been sorted to outside the currently displayed area. There can be many icons with the same name in any Vault area; they are differentiated by date and time stamps.

If text or numbers are entered in the System area they will stay in their respective boxes until they are used by a function or command that checks the System area for them; Vault items sometimes appear to have inappropriate names because text has not been emptied from its box before they were generated. Unused text or numbers can be removed with the "Clear" keys (on the Transport panel).

Before going any further, new users should be sure that they understand the way the Vault works, especially its structure regarding users, projects and so forth. The next section describes how to set up a new user, which requires access to different windows, and navigating to different set-up procedures. User set-ups can be easily modified, but, since possibly valuable data in the form of grading lists and so forth will be kept by users, they should be clear about where and how to recover lists easily and quickly.

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MAKING A NEW USER AND STARTING A PROJECT


Fig 17

To make a new user file, select 'Users' in the Vault (the top right option in the Vault window), and tap on 'New' (bottom left of the Vault window). If a name is entered in the System area at the bottom of the screen, any newly generated item (regardless of what it is) will take that as its name.

Generating a new item does not necessarily make it current; for new users, the icon for that user will appear in the Vault, and tapping on it will now make that user the current one (opening a user file is generally referred to as logging on). If the new users file does not appear in the Vault, it is possible it has been sorted to outside the currently displayed area; use the scroll bar to move around the Vault display to locate the file, then tap on it to log in.

The new users vdu screen will be empty, but they will have copied control sensitivities and so forth from the previous user. The latest software release notes will automatically appear when a new user logs in (or if the software has been changed since an existing user last logged in). After checking for any relevant changes, tap on the 'Close' icon at the bottom to dismiss the window. The notes in this window are usually quite brief; check Pandora's web site (www.pandora-int.com) or contact your Pandora service agent for more details about any changes or new features. Software updates often contain only minor bug fixes or updates for specific functions which may not be relevant to a particular system or user; most users will not notice significant changes with these updates.


Fig 18

When a user logs in, the Vault display will change to show their projects; these are usually job names, although they can be clients names or any other form of identification. To open an existing project, tap on its icon, or, to start a new project, tap on 'New' (in the bottom left-hand corner of the Vault)

The Vault view will change again, to show lists. A new project will have no existing lists, and, if there is not a list already open, the Pogle will generate one. There are some functions that will not work correctly if there is not a current project, so always log in as a user and select a project when using the Pogle. If there is no project selected, pressing any panel key that will save data will cause *Fig 19* to appear:

Fig 19

A project can contain many lists; as with other items, the limit is set by the amount of disc space and memory of the host computer.

When either the "Enter" or "Add" keys are pressed a thumbnail will appear in the list window to show that the system is working properly.

VIEWS IN BRIEF


Fig 20

Users can have multiple vdu layouts for different operating conditions (they are called Views to distinguish them from the host computers own desktop). For instance, if working from a vtr or server as a video source, there will be no need to have any telecine controls. To see the existing views for the current user, use the page arrows on the right hand side of the Vault and go to the second page. The third icon down is a small pair of dark glasses (*Fig 20*); this is the Views. Tap on it and the Vault will change to show the existing ones.

This will only show the views available to the current user (those of other users will not appear); a new user will always have one view in the Vault. Otherwise, there will be preset system views for different types of telecine and other sources. To make a new view, tap on 'New'. Once a new view has been made, tap on it to make it active. When a user logs in, the last view used by them will be loaded.

The next step is to open the different windows needed for the view. The Vault should still be on the second page; if not, use the arrows to find the same page as the Views appear on. To open the windows page, select the second icon down from the top (*Fig 21*).


Fig 21

Tap on the icon and the Vault will change to show all existing windows available to the current user. There will be a great many, most of which will not be needed.

To select a window to always open in the new view, tap on it to open it. For instance, tap on 'Edit' to always have available the window that shows all 5 transport control ports. Other windows will depend on the telecine type and other external devices; views can be edited later if required, or copied and then modified for different types of operation. The windows for the Revolution levels (or a telecine if connected) will open automatically as they are selected, so they do not need to be opened from the Vault.

After opening the selected windows, drag them around the screen to fix their position, remembering to leave space for an active grading list. Some windows, like the Vault, can be resized by a pen press and hold on a corner, and then dragging the cursor.

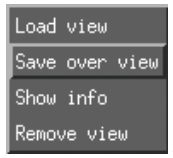

Fig 22

Once the screen is arranged, position the cursor over the views icon in the Vault and hold the pen down (do not tap on it). A new set of options will appear, *Fig 22*. Move the cursor to select "Save Over View' and release the pen. The existing view is now stored.

If there are windows which need to be accessed but not left open all the time, they can be placed in The Dock, but first that needs to be copied. Find the icon in the vault labelled 'Revo Dock' (*Fig 23*) and press and hold on it; from the drop-down menu, select 'Duplicate Panel' (*Fig 24*), then click on the resulting copy to open it.

Fig 23

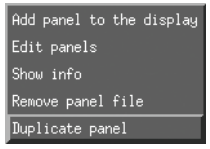

Fig 24

Next, press and hold on whatever the vault item is that needs to be iconised, and drag it to the Dock window; a new icon with the name of the item will be made, which can be opened by clicking on it. To position the Dock window, make sure the 'Kbd' icon in the System area is not highlighted; hold down the host computers keyboard "Alt" key, then press and hold inside the Dock area and drag it to its required position. The Dock can be dismissed with its 'Close' button, and re-opened by running the cursor off the bottom of the VDU. To edit the contents of the Dock, use the Panel Editor, which is described in detail later.

Having made the view, how the controls react for the user can be set. Click on the Engineering icon at the bottom left of the System area, which opens a new window.

Select the top one, 'User Setups', which opens another window; the values and options in it can be saved for the current user.

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These will be described in detail later, but, for now, the important ones are those controlling sensitivities of the roller-balls and knobs on the Evolution panels. The second option down on the left-hand side decides in which direction the roller-balls operate when changing the colour balance. Neither option is better than the other, but new users might be better off selecting 'Vector', especially if there is a vector waveform display available, as the direction of travel of the roller-balls will now be the same as that displayed on the vectorscope.

Fig 25

'Trim Auto' should be set to 'Do Nothing', otherwise all other controls should be left at their default settings. The grid below allows for changes in the sensitivity of the roller-balls and the knobs of the orange displays. Place the cursor over the value box and hold down the pen; then select the new value from the drop-down menu by moving the cursor over it and releasing the pen. Most of the values set in this window are stored when it is dismissed with the 'Close' button at the bottom; they are then applied to all views.

The grid allows different sets of sensitivities for telecine pos, I/P and negative film, and the overall setting for the roller-balls with the Revolution (this is the set of controls labelled 'Pixi'). There is one (labelled 'User') which sets the sensitivities of the knobs on both of the orange display panels.

MAKING LISTS


Fig 26

When a project is opened, the Vault display will change to show lists, the third item down on the right-and side.

To open an existing list, tap on its icon in the Vault; if there is not a list already open, this will become the active list. To make a new list, tap on 'New' and, if it is not already checked, tap on the small button next to the word 'Active' at the top of the list window (this will only be necessary if there is another list already open and active); a green mark, as shown in *Fig 27*, indicates the active list.

Fig 27

The Pogle can display up to 8 lists at once; see later in this manual for further information.

Lists contain the colour grading information, telecine scan size and positions, plus the settings of any external devices (e.g. noise reducers) connected to the Pogle. This information is stored when either of the "Add" keys, on the Transport panel, are pressed; each press of the "Add" key generates an event by adding the current code to the list (a list is a series of events). "Add' only generates an event; all the grading controls will stay at the same values as they were before "Add" was pressed. "Add" can be pressed to make an event at any time, either inside or outside the current event list. The two "Add" keys on the Transport Panel are identical, and function in exactly the same way.

When "Add" is pressed, a thumbnail image will be displayed of the frame it was pressed on; if the "Enter" key is pressed anywhere inside an event, the current thumbnail will be replaced with one of the frame that the key was pressed on. The point at which the thumbnail image was captured (either with the "Add" or "Enter" key) is called the Trim Frame. In a dynamic event (for a description of these, see later in the manual), if "Enter" is pressed inside the dynamic, the thumbnail at the end of the event will be changed, not the one of the dynamic event itself.

SETTING THE TELECINE COUNTER

With telecines, either when starting a new list or working with an existing one, the telecine counter can be set to be any number, as film has no fixed frame numbers, unlike timecode (although film does have KeyKode; this is not the same). To set the counter, park the film on an easily recognisable frame, enter the required number from the numeric keypad and then press the "Set Count" key (the fourth from the top left on the Transport panel), then "Enter". If no number is entered, the telecine counter will be set to 00:00:00:00; when the film is run back beyond that point, the Pogle will display a negative number.

For existing lists, the counter must be set to be exactly the same code number on the same frame as when the list was generated, or the grading changes will occur at the wrong points. For this reason, always set the counter on a known reference frame.

BASIC OPERATION

If working from a source other than a telecine (i.e. Tape mode), the Pogle must be told which port the source deck is connected to for the timecode to run. To select the source deck, open the Edit window and select the correct port from the icon in the lower left-hand corner, either by tapping until the right port is selected, or from the drop-down menu.

When working in 'Tape' mode, the numbers in the list will be taken from the source deck timecode, which cannot be changed on the Pogle. If the Edit window is not already available in the view, open it as described earlier.

When a new list is generated, the label at the bottom centre of the System area will say 'Live' on a blue background, *Fig 28*.

Fig 28

Fig 29

Fig 30

Fig 31

This label and the background colour will change in different modes. To make a list, move the transport by selecting control of it on the transport panel; the telecine control is at the left of the five above the transport keys. Press "Add" as the transport moves, and a list is generated, or stop and find the exact (last) frame of each shot.

When working with material such as uncut film rushes, the exact point that "Add" is pressed might not be critical, but, for finished or cut material, the "Add" point must be pressed on the LAST FRAME of each shot to be graded. Any new grading settings will be applied on the frame after the event code generated by pressing the "Add" key, and shown in the List window. Depending on the source, and some engineering setups, the Pogle may need the source deck to be run from a couple of seconds before the event point for there not to be a flash as the correction is changed.

Once event points have been entered, moving the transport back so the code has a lower value than that of the last event in the list will make the Pogle go into 'Program' mode, shown at the bottom of the vdu on a green background, *Fig 29*. In this mode, all the previously entered grading information will be applied to the image at the output of the colour corrector.

To change the grading of an event, stop the transport somewhere inside the event and make the alterations; the Pogle will now show it is in 'Trim' mode, on a red background, *Fig 30*, and, in the vdu list window, the current event will be highlighted in red. 'Trim' means that the stored values will be altered by changes made with the Pogle controls.

If the existing settings are modified in any way, they can be directly compared with the stored version by pressing the "Trim" key on the Transport panel. This will toggle back and forth between the new and stored settings ('Trim' and 'Trim Off'). To store the new settings in the list, press the "Enter" key on the Transport panels. The new settings are saved and the Pogle will go back into the 'Program' mode; the new settings will not be saved if the Pogle is in 'Trim Off'. To prevent accidental changes, the Pogle will not usually go into 'Trim' if it is in 'Program' mode and the transport is playing; to trim while the transport is playing, press the "Trim" key.

If the Pogle is left in 'Trim' mode when passing an event boundary, that trim will be applied to the current event.

To see the correct balance between two adjacent events, the trim must be entered on the event to which it applies. If a trim is made to one event and the transport then moved to a point outside the code for that event, pressing "Enter" will store the existing displayed grading for the event the transport is currently stopped in. That is, if a trim is made to (say) event 3 but not stored by pressing "Enter", moving the transport to event 4 will then show event 4 with the trim made on event 3; pressing "Enter" will now enter into the list the trim that was made to event 3, but it will be applied to event 4. To discard a trim and leave the stored settings unchanged, press "Clear" on the Transport panel.

To apply the grading from another event in the list to the current event, use the "Up" and "Down" keys on the Transport panel. The Pogle will go into 'Copy' mode, shown on a cyan background, *Fig 31*, and the vdu list window will change to show which events information it is currently displaying; it will be highlighted in red. "Up" and "Down" refer to the direction on the screen, not to the event number.

Thus pressing "Up" twice while on event 5 will display the information for event 3. If a number is entered in the numeric window in the System area, pressing "Up" or "Down" will then display the information for that event (if an event for the entered number exists). Thus entering "7" from the numeric keypad on the transport panel and pressing "Up" or "Down" (it doesn't matter at this point where in the list the transport is) will display the information from event 7. Pressing "Up" or "Down" again will now step one event in that direction. If "23" (or any number higher than the last event) is entered in the numeric window but there are only 18 events in the lists, the grading for the event after the last code number, called the live event, will be displayed when "Up" or "Down" are pressed.

Tapping on the thumbnail of an event will also apply its information to the current event. As with 'Trim', 'Copy' will continue to be applied as the list is played through; it must be entered (or cleared) to see the correct balance between the events in a list.

It is possible to trim a copied setting directly, but the Pogle will stay in 'Copy' mode when this happens. Pressing the "Trim" key while in 'Copy' mode will toggle between the currently stored settings and the copied version. "Enter" will store the copied information into the current event; the "Clear" key will discard the copy. Nothing will happen if "Enter' is pressed when in 'Copy Off' mode; it must be in 'Copy' to enter the copied information, or cleared.

Once the timecode number is higher than that for the last event in the list, the Pogle will be in 'Live' mode. However, pressing the "Enter" key will store the current settings in the list; this is called the live event, and it does not require that the "Add" key is pressed. In most circumstances, the live event will behave exactly as events do in 'Program' mode. However, it is usually a good idea to mark the end of the last event with the "Add" key, as it will then provide a point which can be used to gauge the length of material; it can also be used with the editing functions.

Any controls altered from their default settings when there is no list will be returned to their default if a new list is created; pressing "Enter" before tapping on 'New' to make a list should prevent this happening.

SAVING LISTS

To store a list, either press the "Save" key on the Transport panel or tap on the 'Save' button at the top of the list window; if text is entered in the System area when a list is saved, it will take that as its name. Once a list has a name, each 'Save' will store the list as it is; it will not overwrite the existing, saved versions with the same name. Instead, it will store a new version with updated information about event numbers and the time that that version was saved. Tapping on 'Close' at the top of the list window will open a window like *Fig 32*:

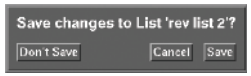

Fig 32

'Yes' will store the list as a new file (not overwriting any existing ones), and 'No' will close the list without saving; 'Cancel' will leave the list as is and not save it. Lists are stored in the current project, so it is possible to open a list in one project and save it in another; changing users and projects does not affect lists, which will stay open until deleted or closed. If the name of the list at the top of the list window has a * symbol by it, it has not been saved in its current state; the 'Save' icon will also be highlighted.

When a list is saved, the number of events shown for it in the Vault will be one higher than that shown in the list window. This is because the Pogle treats the information after the last entered event number as another event (the live event), and this is included in the number seen in the Vault (but not shown in the list window).

If there is no project open, the list cannot be stored; either trying to save the list, or making enough changes for the system to attempt to make a backup, will display the same window (Fig 19) as shown earlier.

If the project is changed and the list saved, it will be in the current project, not in the project that was open when it was generated.

LIST BUTTONS IN THE VAULT

When a list is saved, its icon will be a smaller version of a thumbnail image from the list window; it is possible to scroll to any event, and 'Save' will then take that thumbnail to make the list icon. The icons of lists made from imported edl's (described later in the manual) will be slightly different; if made from a record edl, there will be a small red dot in the top right corner; if from a source edl, a small green dot. EDL icons resemble vtr icons; one with a red dot contains record codes, and one with green arrows source codes.

BACKUP LISTS

The system automatically makes backup lists; there are two, overwritten in turn. By default, they are stored with every 5 changes to the existing list, made either by adding events or by entering trims etc. To open a backup, tap on it as normal. To continue using a backup as the current list, enter a name and save the list; if called 'Backup', it will be automatically overwritten in turn with the other backup list.

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MAKING AND READING NOTES

Fig 33

Notes are a snapshot of all the current settings, and are stored with projects; they are the fourth item from the top of the Vault, on its first page, *Fig 33*. To make a note, either press the "Note" key on the Transport panel, or tap on the note icon in the Vault and then tap on 'New'. A note will take any text entered in the System area as its name; if there is no text, it will be called 'Note'. Notes are used to store possible variations of an event; the number of notes that can be made is limited only by the memory and disc space of the host computer. Notes can be made at any time, regardless of what mode the Pogle is currently in.

To see the contents of a note, either tap on its icon in the Vault, or press the "Read" key (next to the "Note" key on the Transport panel); the Pogle will now be in 'Read' mode, shown on a cyan background, the same colour as 'Copy' mode, *Fig 34*.

Fig 34

Pressing "Read" will step through the existing notes, starting with the most recent and then progressing backwards in the order they were generated.

As with other modes, the Pogle will stay in 'Read' until it is entered or cleared. Notes can be trimmed directly from 'Read' mode, but the display will stay as 'Read'. Pressing the "Trim" key while in 'Read' mode will toggle between the currently stored settings and the note being read; the Pogle must be in 'Read', not 'Read Off', to enter the information into the list. The "Clear" key will return to the normal mode from 'Read'.

If there is text in the system area when "Read" is pressed, the Pogle will check to see if any notes match that text.

In this example, "ot" "Read" would immediately read from the first (i.e. most recent) note called 'Note', and pressing "Read" again would step through each of those with the same name; "e" "Read" would step through apple, lemon, pear and all those called 'Note', starting with the most recently generated, while "le" "Read" would step between lemon and apple, but "lem" "Read" would only read lemon. These searches are not case sensitive.

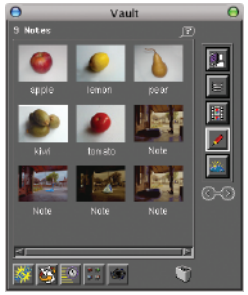

Fig 35

THE QWERTY KEYBOARD

The Evolution panels do not have a built-in keyboard, but the one connected to the host computer can be used instead. It directly enters text into the System area; there is a limit of 30 characters, which can be a combination of letters, numbers and symbols. List labels can only contain 24 characters, but Vault items can have names that use up to 30 characters (although 'Extra Information' need to be turned on to see more than the first nine).

Numbers entered into the text area will not carry out any command function; the built in numeric keypad, on the transport panel, must be used to enter values into the numeric window in the System area. There is a system window (called 'qwerty') which opens a virtual keyboard on the vdu, which can be used instead of the physical keyboard if preferred. This can be opened directly from its icon in the System area, highlighted in *Fig 36*.

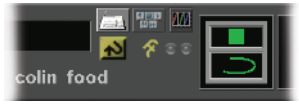

Fig 36

As the same qwerty keyboard is used with both the Pogle and the host computer, there is an button labelled 'KBD' in the System area, to the left of the text window, which switches the between the two, *Fig 37*.

Fig 37

To work with the Pogle it needs to be highlighted; the virtual keyboard will work normally, regardless of the setting of this button. (If 'Shift' is selected on the physical keyboard, the Virtual one does not highlight it).

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The knobs and roller-balls are velocity sensitive; the faster they are moved, the more effect they have. This may sometimes account for apparent differences in control sensitivities.

THE TRANSPORT PANEL

Fig 38

Several keys on this panel require a thorough understanding of how the Pogle works, especially with regard to its use of lists; for this reason, the "Last Trim", "Copy", "Shift" and "All" keys are covered in the section on lists. This also applies to the advanced options available with the "Auto" key, which are fully covered in the section on User Setups.

The small black buttons next to knobs and roller-balls are usually resets (if the function on the knob is variable); pressing it will return the value of that control to its default value. If it is not used as a reset with a particular function, its use will be described in the text, as they are sometimes used as switches. The round white buttons are Macro keys. Various keys of different types are un-named; these are for possible future use. The black keys will be described first, starting at the bottom.

TRIM

If the Pogle is in 'Program' or 'Live' mode, and any control that will change the stored data for the current event is altered, the Pogle will go into 'Trim' mode. This is shown by the word 'Trim' appearing on a red background in the bottom centre of the vdu. Pressing the "Trim" key will put the Pogle in 'Trim Off', and it will now show the existing, stored values for the current event; press "Trim" again to see the modified version. To store the modified version in the list, press "Enter".

The Pogle must be in 'Trim', not 'Trim Off', to enter the altered grading. To remove the trim and leave the stored event unchanged, press either of the "Clear" keys (see below). The "Trim" key will always toggle between the grading information stored for the current event and any selected alternatives, be they events from a list or notes. The message at the bottom of the screen will again change from either 'Copy' or 'Read' to 'Copy Off' or 'Read Off', and the settings from them cannot be entered into the list in this mode, as with 'Trim'. Copied or read information can be trimmed directly before being entered, but, in this case, the vdu will not change to 'Trim' when in 'Copy' or 'Read' mode. "Trim" works with the Group keys (described later in this chapter).

If the source transport that the grading list is derived from is in 'Play' mode and inside the list (i.e. the current source code is lower than the highest code number in the list), the "Trim" key must be pressed to go into 'Trim' mode. This is to prevent accidental changes being made. Some operators may prefer that 'Trim' mode always has to be selected by pressing the "Trim" key first; this option can be selected in the User Setup window.

ENTER

Stores the currently displayed data in the list. If the Pogle is in 'Trim', Copy' or 'Read' when an event boundary is crossed, the information as displayed will be carried forward. If "Enter" is then pressed, the data will be entered on the current event, not the one on which the displayed mode was selected. "Enter" is also used to confirm some other commands, as mentioned in relevant sections of the manual.

ADD

Will immediately generate an event at the current code, storing the currently displayed grading, regardless of what mode the Pogle is in. If a (valid) number is entered in the System numeric area, "Add" will put an event at that number instead of the current one. If the number in the numeric area is preceded by a + or - sign, an event will be entered at that distance from the current code. In 'Live', "Add" only enters points in the list; any existing grading information will be carried forward into the next event. If "Add" is pressed inside a list, the new event generated will take the currently displayed grading, and the next event will retain the grading previously stored for the event. The two "Add" keys have exactly the same function.

CLEAR

The two "Clear" keys near the bottom of the panel have the same function. They will discard any trims, or return to 'Program' or 'Live' mode from 'Copy' and 'Read' (if either of these are being trimmed, "Clear" will return immediately to either 'Program' or 'Live'). It will also empty the System text area, and remove any host computer generated warning messages. It carries out these various functions in a fixed order, so several presses of the key may be needed to set everything back to normal and remove all messages. It first clears any host computer warnings; then the numeric area (the numeric keypad has its own "Clear" key, which removes only one character at a time); next any text in the text area and lastly either 'Trim', 'Copy' or 'Read' modes.

Preview and Perform (plus In, Out, Duration, Restore, Recall and Transport) are editing functions. Their function is covered in that section of this manual.

LAST TRIM

SEE NOTE AT START OF CHAPTER.

AUTO

If fitted, will turn an external scene detector on and off; there is a box in the System area that will highlight when "Auto" is selected. To use inside an existing list, hold down the "Auto" key until the word 'Auto' in the System area appears in red. It also works with the "Trim" key to allow automatic entering (and other options) of trimmed gradings. These functions are covered in detail in the section on User Setups.

NOTE

Will make a snapshot of all the current programmable settings, and store them in the current project. If there is text in the System text area, the note will take that as a name. The number of notes that can be made is limited only by the host computers available storage.

READ
Reads notes from the current project, in reverse time order. So the first press reads the most recent note and the next press the second most recent, and so forth. If the notes have names, and there is text in the System text area, "Read" will look for that text among the named notes first, as already described. If there are no matches, no note will be read. It conforms to most similar search functions; the more characters in the search box, the fewer results will be returned. If the note has a name, reading it and then pressing "Enter" will put the name in the list (see the chapter on Lists for more details) along with the grading. "Read" works with the group keys (see below).

CUE
(there is another "Cue" key near the top of the panel; the two have the same function)

Sends the currently selected transport to an event number or timecode. If a valid code is entered into the numeric area and "Cue" is pressed, the transport will shuttle to that code and stop. Thus 01:09:10:20 "Cue" will cause the transport to go to that point. If a + or - sign is entered before a value in the numeric area, the transport will move by that amount. So if the transport is already cued to the above point, -10:00 "Cue" will then move the deck to 01:09:00:20.

If the source deck is selected, and "Up" or "Down" (see below) are used to choose an event from a list, "Cue" will send the transport to the point in that event that the "Enter" key was pressed on (the trim frame). "Up" "Up" "Up" "Cue" will send the transport back three events, but "3" "Up'' "Cue" will send it to event 3. Although the Pogle doesn't usually mind in which order keys are pressed, in this instance the correct sequence must be followed.

If there is a number in the System numeric area, that is always used by any subsequent commands. "5" "Up" "Cue" will send the transport to event 5, but "5" "Cue" "Up" will try to send it to code 00:00:00:05, as "5" "Cue" is a command; the "Up" will be ignored. "47" "Cue" will have no effect, regardless of what keys are pressed next, as 47 is not a valid frame number. If the "Alt" button (the bottom white button to the left of the transport keys) is held down as "Cue" is pressed, it will park on the last frame of the selected event, rather than the trim frame.

So "3" "Up" "Alt"(held down) "Cue" will stop the transport on the last frame of event 3. If an event is selected (say "3" "Up") and then a number with a + or - sign (say +400) followed by "Cue", the transport will then cue to that distance from the event; in this case 4 seconds after event 3's trim frame. "Cue" "Cue" will send the transport to its last cue point; this is shown in the transports own vdu window. "Cue" also works with "All" and some editing functions; these functions are described in detail in the appropriate sections of this manual.

UP, DOWN and COPY
To scroll through and display gradings from the existing list in the list window direction; thus lower numbered events are reached with the "Up" key. Using either key will put the Pogle into 'Copy' mode. If a valid event number is entered in the System numeric area, "Up" or "Down" will jump straight to that event, regardless or whether it is a higher or lower event number than the current one.

They are also used with editing functions, and their application in that instance is covered on the chapter on editing. "Copy" (on the right of the panel), is similar to "Up" and "Down", but is used to select the current event. Its use for that function is described in detail in the sections on editing and lists. Throughout this manual, where 'Copy' is mentioned, it includes any selection with the "Up" and "Down" keys, unless specifically mentioned otherwise.

START MIX

Fig 39

A mix event or dynamic will change the output from one set of values to another over its duration. The "End Mix" key currently has no special function; it works exactly like the "Add" key.

Dynamics consist of 3 events, although it might be easier to think of the actual dynamic existing inside another event. In the example shown here (Fig 39)0, the long line represents the entire length of the shot, and the short one the dynamic itself. The first event of this (01:00:13:13) is the Start Mix point; this should be entered on the frame before that that the output needs to start changing on (although often in dynamics the exact start and end frames are not important).

If the Pogle is in 'Live', pressing "Start Mix" will immediately enter a dynamic into the list, which is shown by a yellow cross in the list window. If a dynamic is be made inside an already existing list, the "Add" key must be pressed after the "Start Mix" key. The transport should then be moved to the point where the output should finish changing, and "Add" pressed again.

Both the Start Mix and the next Add point are usually best entered before any alterations are made to the grading. Lastly, there needs to be an another event at the end of the shot to which the dynamic has been applied; this is the normal event point, at which the grading will change to that for the next shot. Once entered, the Pogle will work out the changes that need to be made over the duration of the dynamic for the grading to be correct at each end.

The Pogle can program overlapping dynamics of different lengths in different channels (e.g. Scans and Primaries); it will sometimes carry out this function automatically, depending on other factors (for a fuller description, see the chapter on Lists). It is for this reason that it may be easier to always program the beginning and end point of dynamics, in either 'Program' or 'Live', before making any changes to either end.

In the example shown, whatever grading is applied to event 6 or 8, the Pogle will nearly always change gradually between the two. The only exception is when a switch control is different at one end of the dynamic event to the other, although this is unusual; where this might occur for particular controls, it will be mentioned in the relevant section of this manual. If the transport is parked inside the event (as shown in the picture), any changes made will be applied as a trim to the end of the dynamic (in this case, event 8).

If event 8 (the one following the end dynamic point) did not exist, the grading of what is currently event 9 would then become that at the end of the dynamic, which is why the whole shot with the dynamic in needs to have its beginning and end points marked as normal.

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ALL
Used to change more than one event at a time; its use is described in detail in the sections on editing and lists. It has its own box in the System area.

SAVE
Will save the list as it is in the current project. If there is text in the System text area, the list will be saved with that text as the name, and the name will appear at the top of the list window. Subsequent presses of the "Save" key will save the list with the same name; existing versions of the list with the same name will not be overwritten.

There is also a 'Save' button at the top of the list window on the vdu; tapping on that will have the same effect. If the button is greyed out, it means the current version of the list is already saved; whereas a * symbol next to the name means it hasn't been saved in the current version.

VAULT
If the Vault window is hidden from view, pressing "Vault" will automatically make it visible by bringing it to the front of all other windows. It is also used as a search function; see the full description of the Vault later in this manual.

DELETE
If selected when inside a list, "Delete" and "Enter" will delete the current event. In this instance, the current event will take the grading from the next event; this is because it is the existing event that is being deleted. "Up" "Delete" "Enter" will delete the previous event, in which case it would then take the grading of the current one.

This will only work with one press of the "Up" key; it is not possible to scroll up more than 1 event and delete that. "Delete" "All" "Enter" will delete the entire contents of the current list, but will not close it or give a warning that this action will remove the contents of the list without saving it; all controls are set to their default values if a lists contents are deleted this way. "All" "Delete" "Enter" will delete from the current event to the end of the list, but leave the events before the current one. "Delete" will not work with "Down" at all. 'Delete' will appear in a box in the System area when selected.

SHIFT
Used to move the position of events. To move the next event in the list to the current position, press "Shift" then "Enter". To move the previous event to the current position, press "Up", "Shift", "Enter". It is not possible to move one event past another one with "Shift"; "Up" "Up" "Shift" "Enter" will have no effect. "Shift" also works with "All", and with values entered on the numeric keypad. Its use is described in more detail in the section on lists.

THE NUMERIC PANEL


Fig 40

Numbers entered from this panel will only appear in the System numeric area; they are used when commands involving numeric values need to be sent to the Pogle. To include a number in a file name, use those on the qwerty keyboard.

When numbers are entered (a maximum of 8) they appear without any separators; if needed, + or - signs can be entered before or after the number. The 00 symbol is the same as entering two 0s one after the other; the "Clear" key at top right clears one number at a time, starting with the last one entered. (Unlike other keys with the same name, the two types of "Clear" keys on the Transport panel behave differently in this respect). To clear all the numbers in one go, use either of the "Clear" keys at the bottom of the panel. If an invalid number is entered, any subsequent command will be ignored. Thus "+1234" "Cue" will have no effect, because 34 is not a valid frame number.

The "·" is used to convert a number to feet and frames, rather than code. If pressed before a number it becomes frames, if after, feet and frames. Whereas "+ 300" "Cue" will cue the transport forward 3 seconds, "+3·00" "·" (which will be displayed as +3+00) "Cue" will move it forward 3 feet. If the "·" key is pressed before the number is entered, the number becomes a frame count (frames are normally represented by a + sign). Thus "-·257" (which will appear on the vdu as -+257) "Cue" will send the transport back 257 frames.

The * symbol represents fields, and is used when moving their position in a list; it is used both when editing, and manipulating lists. See the relevant sections of this manual.

Restore, Recall, Review and Trans Lock are all editing functions, and are covered in that chapter.

BYPASS
Will bypass all existing settings of the Pogle, and will display one stored setup. The data from "Bypass" can be entered into the current event by selecting "Bypass" then "Enter"; it will also work with the Group Keys, described later. If the Pogle is in 'Live' mode and 'Bypass' is selected, any changes made will be stored as the 'Bypass' setting if "Enter" is pressed. These new settings can then be recalled at any time by selecting "Bypass".

SET COUNT
To set the telecine counter number, enter the required counter value, press "Set Count" and "Enter". As with many other such commands, "Set Count" can be selected before or after the number has been entered in the numeric area. To offset the current value of the counter, enter "+" or "-" followed by the desired offset value in the numeric area, then press "Set Count" and "Enter". If an event in a list is selected with "Copy", "Up" or "Down", "Set Count" "Enter" will take the code from the event selected as the counter value.

So if, for example, a punch frame or any other easily recognisable frame is used to set the counter on, making an event on that frame will allow quick setting of the counter afterwards.

If no number is entered in the numeric area, pressing "Set Count" and "Enter" will set the counter to 00:00:00:00; the Pogle can count backwards from this point, and can enter events into the negative code. This key can only set the counter for telecines, not machines that have existing timecode (vtrs etc). The word 'Preset' will appear in a box in the System area when "Set Count" is selected. The Pogle cannot remember the counter information if the film is removed from the telecine, or lifted out of the gate. If this happens, the counter needs to be checked before continuing, or events may not occur at the correct point.

VIEW
Pressing it will step through each of the users views in the vault in turn, but not the system views; these must be selected directly from the Vault.

CUE:
The same as other the other "Cue" key near the bottom of the panel.

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SHUTTLE WHEEL
In the bottom centre of the panel is the shuttle wheel. If the white button above and to the right is pressed, the wheel becomes a shuttle control, while the one to the left makes it a jog control. How well any particular transport works with the wheel is dependent on that transports own characteristics; discs normally jog well, but shuttle badly, and telecine control from the wheel is sometimes erratic.

MACROS
There are macro keys (the round white buttons) on each panel. These are used to store sequences of key presses; some of them are pre-programmed. Their use is covered in the chapter User Setups. Several of those on the Transport panel have dedicated functions assigned to them, and should not be reprogrammed; their use is described here.

ALT BUTTON
The white button nearest to the bottom left of the shuttle wheel. When it is held down and either the play or reverse transport key is pressed, the currently selected transport will then move at about 20% of its play speed in that direction; if it is held down and the key pressed twice, the transport will now shuttle in that direction at about 5 times its play speed.

This is useful for tape decks with very high shuttle speeds. The "Alt" key is also used to switch transports between their various editing modes. Holding it down and pressing a transport selector key will step through the different modes available. Telecines can be either wild (ignored by any editing commands) or players; tape machines and discs can be either wild, players or recorders. To make a machine a recorder, hold down the "Alt" key and do a quick double press of the transport key for the that deck (this only works in the machine is currently in 'Wild' mode).

If a transport that normally moves a field at a time is selected, holding down "Alt" and pressing an inch key will move it one frame in the selected direction. The "Alt" key works with several other functions, so its position should be remembered.

CONTROL BUTTON
The white button nearest the bottom right of the wheel. This works in conjunction with the orange sub-panel (see below) and the transport controls; holding it down and selecting a transport selection key will switch that transport from EE to Playback (this depends on the local machine settings). It also has other functions which will be mentioned in the relevant sections of this manual.

PREVIOUS AND NEXT BUTTONS
There are two small display panels with white buttons on each side of them. The ones on the left are Previous and Next keys, and will send the transport to the last frame of the previous (left-hand button) or next (right-hand button) event. If there are FastTrack events, these buttons act like the Previous and Next buttons in the FastTrack window, and will cue the machine to the keyframes on the FastTrack timeline instead. Using these buttons does not put the system in 'Copy' mode, but sends the source deck directly to the selected event. The displays, and buttons on the right of the panel are not currently used.

RACKING BUTTON
(Telecine framing and Focus)

The two white buttons near the top of the panel, between the two sets of four larger white keys, are the telecine racking (or framing).

The left is rack down and the right is rack up. The Pogle does not store the values set from these keys. Generally, they are not needed with 35mm film; with Spirit and Shadow telecines, they should not be used at all (use the scan controls to alter the framing if needed).

They are also used as focus controls with some telecines; holding down the "Shift" key (on the qwerty keyboard) and a racking key will drive the mechanical focus of Spirit and Shadow telecines. The extremely slow response of the machine to these controls may make it difficult to use this way. As above, the value of this function is not stored by the Pogle.

THE GROUP KEYS
These keys are used to select channels for copying; keys with the same name on the SCC Panel are used to select control of the Revolution levels.

Across the middle of the panel are three groups of small white keys, which can be illuminated. The outer two sets of 6 are the Group Keys, which represent the various Revolution levels or other channels being controlled by the Pogle. They can be used to select or deselect groups of controls; they work with "Trim", "Copy", "Read" and "Bypass". For instance, imagine two events, say 5 and 7, which have different grading and scan information.

If the list is on event 7, selecting "Up" "Up" (or "5" "Up") will display all the information from event 5, including the scans; all the group keys will be illuminated.

By pressing the "Scan" key, it is now selected, so the scan information only from event 5 is displayed; alternatively, pressing the "Scan" key again and then the "SCC" keys will now show the current grading of event 5 (assuming that the telecines own controls were not used for grading) with the scan information of event 7. To store this combination as the new setting for event 7, press "Enter"; or press "Clear" to return to the current stored parameters.
The groups are (from the left):

PRIMARY: the telecines own colour balance settings (excluding neg matching);
SCANS: the scan (size and position) information of the telecine (and some servers that have their own scan controls).
UTILITY: varies slightly with the telecine type, but normally contains tk speed and aperture corrector values.
NOISE: the settings for an external noise reducer, if fitted.
ALL: to deselect or reselect all the groups.

The six keys on the right allow selection or deselection of each of the Revolutions levels. They work the same way as the groups described above; individual channels can also be selected from each level by using the Status panels, as described later.

TRANSPORT CONTROL SELECTOR KEYS
The five keys across the middle select which machine will be controlled by the transport controls. If illuminated green, it means a machine is attached to that port, and is either a player or wild. If red, it means the machine is a recorder; see the chapter on editing for a full description of these functions. The currently selected machine will be more brightly illuminated than the others.

The code type as displayed in the vdu list window can be changed (if the source is a telecine) by holding down the telecine transport key for a couple of seconds. It will toggle to each type of display in turn. If the User Setup window is open when this is done, the 'List Display' button will change to show the selected code display type, and closing the window will store that as the default display type.

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THE ORANGE SUB-PANEL

Fig 41

The 8 large white keys, and the eight black knobs and reset buttons to their right, will be referred to as the orange sub-panel (as the display for the knob functions is orange). There are similar (but positionally reversed) knobs on the SCC Panel, but references to either should always be obvious from the context they are used in.

The 8 white keys are for selecting which functions will be controlled by the knobs; the top 4 have preset controls assigned to them. They are: Scans (for telecines, and also some disc or server systems); when this is illuminated, the scan controls will appear on the display (the actual controls available will vary with the source type and options). The values displayed in a telecine source window will also vary with telecine type; the default setting may not be 50%.

The same is true of the other 3 keys; the exact type of control assigned will vary with system configuration. "Noise" is for any external noise reducer (the Thomson Scream is not supported as a Noise Reducer); "Utility" is for various telecine functions not included in other control groups, and "Neg" will be different for tube and line array types of telecine.

If the button for any fully variable control is tapped on the vdu, it will then be assigned to one of the knobs by the raised display, and its abbreviated name will appear by the knob. Some functions are part of a group of controls, and tapping one will assign all the controls in that group to knobs. The small black buttons next to each knob will always reset whichever control is assigned to that knob to its default value. If a control has its own dedicated knob, it can still be assigned to the orange sub-panel, and its own, normal control knob will continue to function. This is useful if building a group of controls, which can then be stored (see below).

When a variable control is tapped on in a window, the lower right white key (4) will become illuminated. Position 4 is a temporary position for new controls as they are assigned. Each tap on a control will put it in the next position on the raised display; when all 8 positions are full, any new control will then appear at the top left, overwriting the existing one.

Once groups of controls have been assigned to white key 4, they can be saved into any of the other positions by holding down the selected key for a couple of seconds. These groups of controls are saved by user, so each user can have 7 sets of preset controls on the orange panel. To return the top 4 keys to their factory presets, hold down "Alt" key and press the appropriate key; this will re-assign that key to its normal function. It can then be made to have its preset function on it again by holding it down for about two seconds.

The controls on the orange display can be ganged together by use of either the "Alt" or "Control" keys. If the "Alt" key is held down and the rightmost upper or lower knob is turned, all the controls currently on that row (across the display) will be varied by the same amount. As groups of RGB controls are normally assigned from the left to the right, the third from left knob (usually the B channel control for RGB groups) will also adjust the three controls (itself and the two to its left).

This only works with the rightmost two knobs, and if there is a function assigned to them. If the "Control" key is held down and any knob adjusted, the one above or below it will vary by the same amount. Using these keys is the only way to gang different controls. Pressing any one of the white keys once will temporarily remove control from the raised display; another press will return them to whichever keys function was selected.

THE ROLLER-BALL PANEL

Most of the panel is occupied by the tablet, which, if the pen is not being used, can be used as a mouse pad. The roller-balls control the primary balance of the selected Revolution level; they are illuminated with different colours depending on which level or layer is currently selected. Green is for telecine control; the other colours are described later in the manual.

The outer ring of each ball controls the master value, and the ball itself the balance (differential) between the colours. The left ball is for the blacks or lifts, the right the whites or gains, and the centre the gamma or mid tones. The Pandora correctors emulate the behaviour of telecine channels, in that there is a natural interaction between each of these controls. Their responsiveness is set in the 'User Setup' window. If a Revolution level does not have gamma control the centre roller-ball will not be illuminated.

Next to each ball is a black reset button; the first press of it will reset the colour balance back to its default setting, and a double press will reset both the balance and master. If any of these buttons is held down for about 2 seconds, all the roller-balls are returned to their default settings. The roller ball controls are duplicated on the 9 knobs at the top right of the SCC Panel; if one of these black reset buttons is held down, the values set from both controls will be reset, but not the HSL values. If the cursor is placed over a roller-ball icon on the vdu and tapped, control of it will be assigned to the orange sub-panel, although the roller-ball will continue to function as normal.

Above the gamma roller-ball are two white macro keys. If used with a tube type telecine, and with the telecines own colour

Fig 42

controls selected (i.e. with the roller-balls illuminated green), the left-hand key will toggle the centre roller-ball between controlling the telecine gamma, when it will be illuminated green, and the PEC levels, when it will be red.

The three black knobs at the top of the panel control (from left to right) the hue, saturation and luminance levels at the output of the selected colour corrector (where applicable; see the sections on each Revolution corrector level). Each one has its own reset button, and they always control the same function.

Across the top of the panel are two sets of macro keys. These are pre-programmed; those on the right select the Revolution level, in the same order as the normal selector keys on the SCC panel. They are a duplicate of those on the SCC panel itself, and can be over-written by other macro sequences, as described later in the manual. This manual always assumes the keys on the SCC panel will be used, although those on the roller-ball panel can used if preferred.

The leftmost button turns on the colour picker cursor, used with the Revolutions selectable colour channels, and its use is described later. The other buttons in this group on the left will normally be pre-programmed, but the functions on them may not be relevant to a particular installation; check with Pandora for details. If not needed, they can be programmed as described later.

Like all the knobs, the roller-balls are velocity sensitive. The faster they are moved, the more effect they will have; this may sometimes account for apparent differences in their sensitivity.

THE SCC PANEL

The track-balls function varies slightly depending on which corrector level is active; it will be described in detail in the relevant chapters. The black button above and to the left, and white one to the right, are dedicated to the track-ball, and alter its operational mode.

The six large white keys across the bottom select the channel of the active level, where appropriate. Although labelled R,G, B, Y, C and M, (for Red, Green etc), these should be regarded only as names, as any colour channel can be made to work on any colour by rotating the vector selector knob through 360 degrees. If a key is illuminated green but dimmed it means its channel is available although not yet used; if it is green and brightly lit, the channel has been selected but again is not yet in use. A brightly lit blue key means that channel is selected and in use (i.e. any of its controls are off their default) and a dimly lit blue key, that the channel is in use but not currently selected. The row of keys above vary in function depending on the current colour corrector; they will be described in detail in the relevant chapters. The basic functions are as follows.

The two left-most select Layer 1 or 2 for the current level, and the third one toggles between Background (when illuminated) and Foreground (when off). Not all levels have these functions; if the keys are not illuminated, they are not available. The fourth key (on the immediate right of the track-ball) is the Mask function; then there is the Show. These two are used to indicate, in different ways described later, which areas will be affected by the output controls. The last key, Expand, will make the current colour channel include all the picture in its selection, inside any shapes being used. Once expanded with this key, the selection cannot be un-expanded.

Above these keys are 6 macro buttons. The left-hand one (above the R key) is pre-programmed to be the same as the "Alt" key on the Transport panel, although it can be re-programmed if required; the two next to it (above the G and B keys) are available for use as macros. The rightmost key will switch back and forth to Pandora's stillstore (if fitted), and the button to its left will change the transition type. The remaining button, the third from the right, is the same as the "Control" button on the Transport panel.

Fig 43

Across the middle of the panel are three sets of smaller, square white keys. The right-hand group of 6 switch between the Revolutions levels; selecting a level will automatically assign relevant controls to the two sets of knobs and switches across the top of the panel. The six switches at the left and the raised displays above them are the A pages (Fig 44), and the 9 knobs on the right and centre row of keys are the B pages (Fig 45). If additional functions are available on a particular level and layer combination, they are accessed with the page keys which assign controls to the knobs.

The eight knobs next to the raised orange display will then have the (usually abbreviated) function name shown on the display. For some of these functions, the small black buttons act as switches, not as resets; these will be mentioned in the relevant sections of the manual.

The three rows of three knobs at the top right of the panel will have their function displayed in the small panel to their left; the reset for each knob is the appropriate button below that display. If controlling a value that can also be set with a roller-ball, the reset button will only affect any changes made from the knob it refers to, not that set on the roller-ball. The track-ball controls the position of any shape made by any of the different channels. The track-ball will be illuminated the same colour as the outer roller-balls as the Revolutions level and layers are changed.
IN GENERAL.

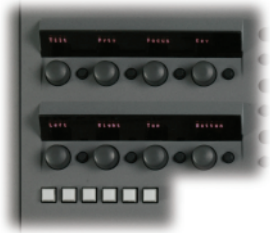

Fig 44

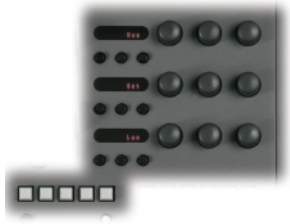

Fig 45

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IN GENERAL

The Revolution is a multi-level device; some levels also have internal layers and/or a foreground/background function. Users should understand not only the operation of each type of colour corrector, as these are usually repeated at several stages, but also the configuration of each level, as well as the flow of the signal through them. As the levels and layers are selected, their various controls are automatically assigned to the appropriate knob or switch, most of which are on the SCC Panel.

SCC PANEL: KEY LAYOUT

Fig 46

Across the middle of the panel are three groups of keys. As described earlier, those on the left are the A page selectors; they switch various functions to the two sets of four knobs above them, those with the raised orange displays. The centre group of five keys are the B page selectors; they control which groups of functions are assigned to the 9 knobs at the top right of the panel. The keys on the right are the Revolution level selectors. Not all levels have controls that use the A and B Pages; keys will illuminate when options are available on them.

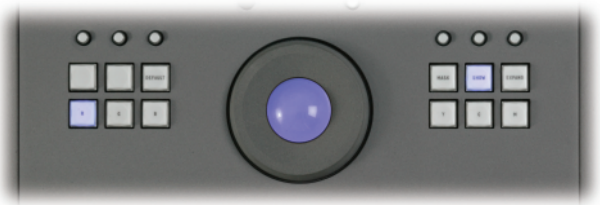

Fig 47

Across the bottom of the panel are 6 larger keys; these are the colour channel selectors. Although labelled from R (red) to M (magenta), these are only names, as any channel can select any colour. All six are available with the 6-Vector correctors, while the Creative levels depend on which, if any, of the Revolutions options are fitted.

Above the channel selectors are another row of large keys; those on the left select the layer or toggle between foreground and background (if available on the current Revolution level). Those on the right (Mask, Show and Expand) are used when selecting colours to be modified.

INPUT AND OUTPUT CONTROLS

The Revolution uses different sorts of primary and secondary colour processors. The selection of part of the image is done by the input processors, which can then be modified by the primary or secondary controls on the output, or both

There are two types of secondary processors. One, the 6 Vector, uses a colour cube, and is sometimes referred to as such. So called because the colours and levels of the picture signal are described mathematically by their position inside an imaginary cube, it has a slightly different functionality to those on layer 1 of the Creative and R2 levels; these are called the Bezier channels, as they have full Bezier curve control over their outputs, as described below.

In the 6 Vector, the colour channels are in parallel, so selecting a colour with one channel does not prevent the same colour being selected with another channel at the same time. In the Creative layer 1 levels the Bezier channels are in series, i.e. they occur in the order of the keys. Thus selecting part of the image with the Creative layer 1 'R' channel will mean that the 'G' or 'B' channels cannot then select it as well. The Creative levels also have their own 6 vector correctors, which work the same way as the others; they are on layer 2, and any correction from them is applied after layer 1.

The colour cube does not allow the same accuracy of selection as the Creative (and R2) layer 1 levels, but it is quicker to use, and there is always a degree of softness about the selection. 'Softness' used in this context does not mean in terms of focus, but accuracy of selection. The Creative levels offer a focus/defocus option, but this is quite different; it will always be referred to as 'focus' or 'defocus' to make clear which type of control is being referred to. 'Softness' is also used when working with shapes, but its meaning should be clear from the context. The Bezier channels of the Creative levels can select any colour with great accuracy, but this is more time-consuming than the softer selection of the 6 vectors.

When making a selection with any of the levels, the Revolution generates an internal key signal, but the key referred to (rather than panel keys) should always be clear in the context in which it is used. The Revolution does not provide this key signal as an output.

There are several different types of output primary controls, as follows:

CDL (Colour Decision List), a cross-platform format for exchanging basic settings between various types of colour correction systems. There is only one CDL control, applied at the input of the Revolution (although various LUTs may be applied, depending on the system configuration);

Bezier curves, which, as well as being controlled from the roller-balls (or knobs), can also be modified directly on the GUI. There are several sets of Beziers that can be applied at different levels;

Density, which is similar in function to film grading printer lights, and is available whenever Bezier primaries are;

Each channel of the 6 vector correctors also have lift, gamma and gain, but with a fixed position for the gamma curve (unlike the Beziers);

The OP level has a simple Gains and Lifts control, and LUTs can be applied at the output stage, again dependent on the system configuration.

There are also Hue, Saturation and Luminance (which will always be abbreviated to 'HSL') controls at different points. They are always controlled by the 3 knobs at the top centre of the roller-ball panel, and always in that order and position.

Similar controls work the same way regardless of which level or layer they are on. So, for instance, the Bezier Primaries are identical in their function both on the Input Level and the background of layer 1 of the Creative levels; the GUI's will also be the same. For this reason their operation will only be described in detail once, at the first level in the colour correction chain that they are available.

Switching between levels changes the internal colour illumination of the roller-balls; if the centre ball on the roller-ball panel is not on, it means that gamma control for that level and layer combination is not available. Any type of primary control can be assigned to the knobs at the top right of the SCC

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panel with the B page keys; if density controls are also available, they will automatically be assigned to the top left 3 knobs on the SCC panel (or the A page keys can select them if there are other options available) .

The Pogle remembers which keys were last used on each level and will automatically reassign them if that level is re-selected; in this guide, it will be assumed that, unless stated otherwise, each level starts off with layer 1 and, where appropriate, keys A1 and B1 selected. Keys that have options available on them will be illuminated at a low level; a key that is not illuminated in any level/layer combination will not be available.

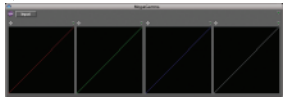
REVOLUTION SIGNAL PATH

The Revolution's levels are arranged as follows (the Creative levels are options, and Focus/Defocus is an additional option for them):

IP LEVEL: IP LUTs, CDL AND BEZIER:

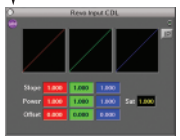
Video input

↓



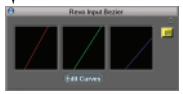
Input LUTS

↓



CDL – Slope, Power, Offset and Saturation

↓



Bezier primaries

↓

R1: 6 VECTOR CORRECTOR, BEZIER;

x 6

6 channels with lift, gamma, gain, black and white clips, plus HSL on the output of each

↓

Full screen Bezier / HSL *(which are after the Bezier)*

↓

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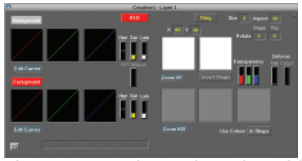
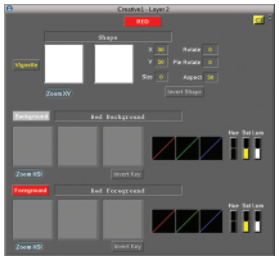
C1: MULTIPLE CHANNELS AND LAYERS



x 3

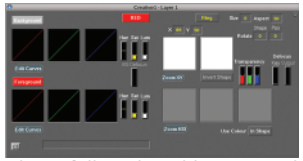
Three Bezier channels, selectable with pixel level accuracy, each with its own user-modifiable system shape, plus a common background for all 3 channels. The output controls for these channels are Bezier primaries, plus HSL



x 6

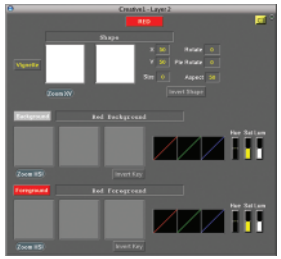
6 Vector channels in the Foreground and another 6 in the Background, with 1 set working inside and the other outside a shape. Each channel has lift, gamma, gain and HSL controls on the output.

C2: MULTIPLE CHANNELS AND LAYERS, *IDENTICAL TO C1*



x 3

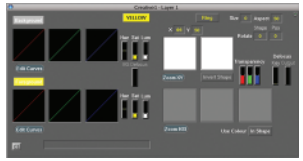
Three fully selectable Bezier channels, each with its own user-modifiable system shape, plus a common background for all 3 channels. The output controls for these channels are Bezier primaries, plus HSL



x 6

6 Vector channels in the Foreground and another 6 in the Background, with either group of 6 working inside and the other outside a shape. Each channel has lift, gamma, gain and HSL controls on the output.

DEFOCUS: 3 CHANNELS AND BACKGROUND



x 3

These channels are selected from the YCM keys on C1 layer 1. They are the same as the RGB ones except the C,M and Background layer can either be defocused or have their focus enhanced. If this option is fitted, the key signals for the RGB channels in both C1 and C2 layer 1 can also be de-focussed.

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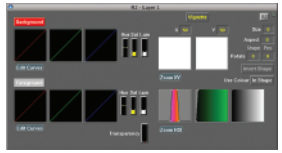
R2: SINGLE BEZIER CHANNEL WITH SHAPE AND BACKGROUND, PLUS SINGLE LAYER 6 VECTOR



Similar to a single channel of the Creative Levels, it has one fully selectable colour channel, a user modifiable system shape and a background layer, followed by a 6 Vector processor.

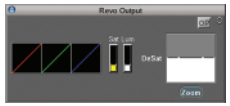
↓

x 6

6 channels with lift, gamma, gain, black and white clips, plus HSL on the output of each

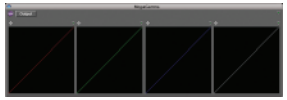
↓

OP LEVEL:



A simple full-screen primary control with master gain, lift, luminance and saturation controls; after these is a graphically controlled black and white saturation control

↓



Output LUTs

↓

Revolution output

In order to maintain consistency, regardless of the actual order of the various layers inside each level, the 6 Vector correctors are always selected with the layer 2 key, and those using Bezier primaries are always on layer 1. A similar convention applies with the A and B page keys; similar controls will always be accessed from the same pages, even if their actual function is slightly different.

For R1 only, the layer 1 and 2 keys can be reversed, so they select the layers in the order they are processed; how to do this is described in the section on Users setups.

chapter 3

revolution colour corrector levels

REVOLUTION COLOUR CORRECTOR LEVELS

IP LEVEL

Layer 1: Roller-balls illuminated green.
If a telecine is connected to the Pogle, its own controls will be assigned to the A and B pages as appropriate with the 'Layer 1' key; the exact controls will vary with the type of machine, and are outside the scope of this manual. If there is no telecine but there are scan controls available for the current source, these may appear instead.

Layer 2: (the outer roller balls illuminated blue, the centre one red) and B2 will open *Fig 48*: these are the CDL controls (which are always full-screen). There are no A Pages used at the Input Level.

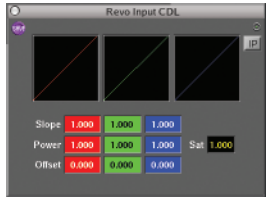


Fig 48

The B1 and B2 keys switch the roller-balls and B Page controls between the Bezier and CDL functions. Although reached with key B2, the CDL correction happens before the Bezier (the B1/B2 combination is to maintain consistency through the rest of the levels.). CDL controls are called Slope, Power and Offset, and are similar (but not identical) to Gains, Gammas and Lifts; Offset is the same as Density, which works in the same way as film printer lights.

CDL values are measured on a scale of 0 to 16, but near the end of the range very little effect will be seen; for this reason, the controls are limited to plus or minus one from a fixed point. To make these controls more usable, typing a number on the numeric keypad (on the Transport Panel) and then clicking on one of the CDL value boxes will put that value in the box. The knob will then vary that number by plus or minus 1. Each value has to be set independently; the same value cannot be entered in several boxes at the same time. The saturation level is set from the top centre knob on the Roller-ball panel.
The B1 key switches control of both the roller-balls and knobs to the Bezier Primary, and opens *Fig 49*:

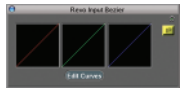


Fig 49

This is a full-screen corrector with no selection; its correction is applied after the CDL stage.

The B page knobs control (from left to right) RGB, and from the top down, Gains, Gammas and Lifts. The roller-balls will work differentially; i.e. adding one colour will always reduce those opposite it, whereas the knobs will work either additively or subtractively; they mainly affect the level they directly control, and leave the others more or less as they are. This is true for all the various primary controls.

Clicking on the 'Edit Curves' icon will open a new window *(Fig 50)*.

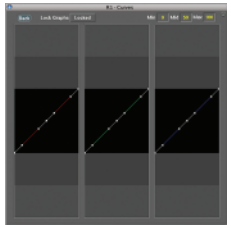


Fig 50

The graphs reflect the current values as they are set, either from the roller-balls or knobs. The black area in the middle represents the picture as seen on the viewing monitor; anything above the top of it will be clipped to white, and below the bottom crushed to black. However, if the graphs do not go outside the darker grey areas, picture information is retained, and can be recovered by adjustment of controls later in the chain.

For example, if the Input Bezier is adjusted such that the bottom of each graph is anywhere inside the lower dark grey area, the image as seen on the viewing monitor will appear to be crushed at the point where the graph crosses from the black area into it; however, by increasing the black levels with any of the Bezier curves in the other levels, the information will re-appear as the graph is lifted back into the black area. This only works with the Bezier controls. If the graph crosses into the light grey areas it is then outside the range of the processors, and cannot be recovered in the same way.

Any Bezier primary in the Revolution allows its curves to be manually edited on the GUI. The position of the pivot points for each of three levels can be set, either by clicking on them and dragging, or by adjusting them from the lower set of knobs on A page 2, labelled Min, Mid and Max. There are small windows at the top right of the window that reflect the relative level each point is set at. Once the pivot point is set, the handle for it can be adjusted by clicking on it and dragging. However, the pivot points stay in the same relative positions for each graph, they cannot be set individually.

Although the graphs move when adjusted by either the roller-balls or knobs, they can still be edited on the screen. The default is that all three graphs are locked together, but they can be unlocked with the 'Lock' button at the top of the window; they can then be relocked at any time, when any subsequent changes will affect them all equally. The 'Back' button (as in any window) will close the enlarged window and re-open the original one.

Clicking on the reset button at the top right of the either Bezier window will reset the primary controls back to their default; that in the smaller window will also reset the hue, saturation and luminance levels. However, if a reset button for a knob is used, only the control it directly relates to will be affected, but resetting the roller-balls will reset all the related controls (i.e. those set from the roller-balls and knobs, but not the HSL values).

R1 LEVEL

Layer 1: roller balls illuminated red; layer 2, centre roller-ball blue.

In this level, there is a 6 Vector corrector followed by a Bezier primary; to maintain consistency, the 6 Vector is selected with the layer 2 key (this can be altered in the User setup window, described later). In this mode, the outer roller-balls will be illuminated red and the middle one blue.
There are no A Pages available.

Fig 51

The channel selector keys will illuminate green at their low level (if none have been previously used for the current event); selecting a colour channel will open it at the appropriate vector. The 6 available channels work in parallel; selecting a colour with one channel (regardless of which it is) will not prevent another channel selecting the same colour. Each channel has a window similar to Fig 51; there isn't a window with a graphic display of all 6 channels (although the Status windows, described later, show all active controls). To see the current selection, there are Mask and Show modes. Mask will leave the selected colour as is but make everything else monochrome; Show will highlight the selection in white.

Normally selection is set on the B Page knobs, with, at the top left, vector (hue) centring, then vector width; the second row

down is saturation – exclude lower sat on the left, exclude upper in the middle - and the bottom row, luminance levels (again, exclude lower levels on the left, exclude upper in the middle). Each pair of these has a slope control, the knob on the right, which varies the softness of the selection, as shown on the graphic display (this is not the same as the CDL Slope, which is a level control). Adjusting the slope changes the amount by which the output levels are applied to pixels which don't exactly match the original selection. If there is no slope, i.e. the graphs are right angles, only those pixels which fall inside the selection will have any of the output values applied to them. Conversely, the gentler the slope angle, the more of the output value will be applied to pixels that are less accurately selected, decreasingly so down the slope gradient. To make asymmetric slopes, i.e. different at either side of the centre point, hold down either 'Alt' key while adjusting either the centre knob, which will adjust only the lower slope, or the rightmost knob, which will then affect only the upper slope. Similar selection controls are assigned to the same knobs for all levels and layers.

The initial position the vector opens at can also be set with the colour picker. It is turned on with the leftmost macro key on the Roller-ball panel, which will overlay a cursor on the viewing monitor; clicking will then select the colour underneath the cursor. If a channel is already open, it will reset any existing selection to match that under the cursor; if there is no channel open, it will open the one that is illuminated green. Additional clicks can be used to expand the channels selection. The cursor is turned off by pressing the macro button again; the selection can be modified with the knobs as normal.

The selection can also be modified on the GUI, which allows a wider range of adjustment. Click on the 'Zoom HSL' icon in the lower left of the window, and then click on the white dots and drag to modify, *Fig 52*

Fig 52

The 'back' icon at the top left will return to the normal window *(Fig 51)*

The "Expand" key will open all the channels selection parameters fully so the whole image is selected (this cannot be undone without resetting the channel and starting again); the 'Invert key' button in the window will reverse the current selection, so everything apart from the selected part of the image will then be affected by the output controls.

The output controls are always available on the roller-balls, while the B2 key will switch the knobs from selection mode to control of the primary output. If a change is made with the knobs, resetting them using their dedicated reset buttons will only affect that change; it will not alter any settings made from the roller-balls. Similarly, resetting each roller-balls individually will reset just the controls associated with it back to their defaults, and resetting all the roller-balls by holding down any of the reset buttons for a couple of seconds will reset all the associated controls back to their default (but not the HSL). To reset the whole channel, including the selection parameters, (but not the whole layer), hold down the channel selector key for a couple of seconds. To reset the whole layer, click on the reset icon at the top right of any of the channel windows *(Fig 51)*.

The Clip controls set the limit of either the white or black output levels for each channel; they are on B page 3. The white clip is set from the top left knob, and the black from the bottom left one.

Each channel can be named; clicking on the area next to the channel identifier at the top left of the window will enter any text from the System area directly into it – it doesn't have to be dragged from the text area.

Layer 1 will open *Fig 53* , and all the roller-balls will be illuminated red.

Fig 53

There are no A or B page options available; Density controls are available and are automatically assigned to the top row of A Page knobs, while the position of the Bezier pivot points can be set from the lower row. The B pages will have control of the output levels. As described already, clicking on 'Edit Curves' will open a larger window in which the curves can be manually edited.

The correction from this control is applied at the output of the level, after the 6 vector described above. It is applied across the full picture, there is no selection for it.

C1 LEVEL

Layer 1: roller-balls illuminated violet; layer 2 centre roller-ball is blue.

A pages 1 to 3, B pages 1 and 2, plus Foreground/Background, are all available. When a layer is selected, a window like *Fig 54* will open.

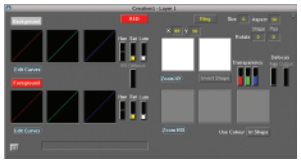


Fig 54

Selecting a colour channel (from the RGB keys) will open it at the appropriate vector; the selection controls are assigned to the B page knobs, in the same layout as for the 6 Vector colour channels. The selection, including the slope, can also be controlled from the GUI in the same way, by clicking on the 'Zoom HSL' button.

"Mask" also works the same way, leaving the selected part of the image in colour and making the rest monochrome, but "Show" will highlight the selected area in the colour of the channel being used, rather than white. 'Show' and 'Mask' can be used in combination. "Expand" is also the same, but only works inside any shape being used with a channel; i.e. it will not expand the shape itself to full screen.

The shape controls are on the A1 page. The shape type selector is at the top left; in this case, instead of using the knob, its reset button acts like a switch, stepping between one of three basic shapes. They are: Ring (a hollow circle), Square or Vignette (these can also be selected with the button at the top of the window). To use a shape, select its type, and reset it by a double push of the white button above and to the left of the track-ball on the SCC Panel. In Mask mode the shape will be visible on the output monitor even if nothing inside it is currently selected by the colour channel.

The size, aspect and position of the shape can be set with the other A1 page controls (the track-ball can also be used to position it). The actual options vary with the Shape type, but similar controls will be in the same position for each. Some of the shape controls can be set directly from the GUI; click on the 'Zoom XY' icon (near the centre of the window) to open a new window, and then click and drag on the white markers to modify. The shape can be inverted with the 'Invert Shape' button.

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With any type of shape selected, the outer ring of the track-ball always controls the degree of softness on the outside of it. Increasing softness enlarges the apparent size of the shape, as the increase spreads the softness away from the shapes centre. Holding down the small black button to the left of the track-ball for a couple of seconds will reset any shape to be full-screen. If the white button to its right is not illuminated, the track ball will move the whole shape but, if the selected shape is a square and the button is illuminated red, the track-ball will alter its aspect ratio.

If A2 is selected, the controls change; the top row become Density controls, and the bottom has the Min/Mid/Max pivot points for the Bezier curves. If the Focus option is fitted, the top right knob controls the focus of the key signal for the selected colour channel. A3 will assign Transparency to the top row, which will fade the channel into the those behind it (and the background). Increasing the level of Transparency fades the channel more, so turning the knob clockwise will make the channel less visible.

B2 will assign the primary controls to the knobs; as they are Bezier primaries, they can also be modified on the GUI as already described.

"Background" selects another Bezier primary that works in all parts of the image not selected by any of the RGB channels (which constitute the Foreground). Its key toggles between the Background layer (when highlighted) and Foreground. If adjusting the Background layer seems to affect something apparently selected by a foreground channel, it probably means that the foreground channel is not fully selected. This will often depend on the amount of slope used with each of the channels selection parameters.

As with the 6 Vector levels, the channels can be named by entering text in the System area and then clicking on the name box near the bottom of the window. There is a button, 'Use Colour', near the bottom right of the window, which is not used by current Revolution systems.

Layer 2 will open a window like *Fig 55* and the middle roller-ball will be illuminated blue. The correction applied from this layer is applied after that done on layer 1.

Layer 2 comprises of two 6 Vector correctors, one working inside and the other outside a system shape. All the colour channel selector keys will be available, but only A page 1, the

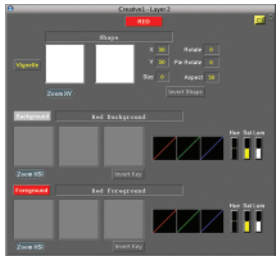

Fig 55

shape controls. The B pages are the same as for other the other 6 Vector levels; B1 is for selection, and B2 assigns the gains, gammas and lifts to the knobs.

The Background key toggles between the two sets of 6 channels. There must be a shape open for the Background channels to be visible - the Foreground correction is inside the shape. If no shape is open, any Foreground selection and correction will be applied to the whole image.

Otherwise, the operation for each set a 6 channels is the same as for the R1 6 Vector. The selection and the Shape can be modified on the GUI, and the channels named as usual; text can also be entered in the window near the top of the window (labelled 'Shape' in *Fig 55*).

FOCUS/DEFOCUS OPTION

If this option is fitted, it adds another three channels, on the YCM keys, to Layer 1 of the C1 level, plus a common background for them. Whatever is selected by the C and M channels can then either be de-focussed, or have its apparent focus enhanced, as can the background. Additionally, the key signal that is generated when a selection is made with any of the RGBYCM channels can be defocused, and, if the C2 levels are fitted, the key focus for its Bezier channels as well. The control for this is automatically assigned to the A2 page, on the top right-hand knob.

The correction from the YCM channels and its background is applied after that of all the others channels and layers of both the C1 and C2 levels.

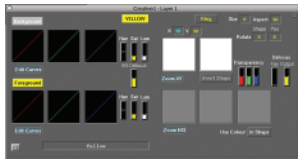

Fig 56

The operation is the same as for the C1 RGB channels, but, for the C and M channels, and the Background, the bottom knob on the right of the A2 page allows either focus enhancement or defocus. For the C and M channels this is applied to whatever has been selected by them, and for the Background everything that is not selected by any of the YCM channels. The 'Show' colours are as per the selected channel name.

C2 LEVEL

Layer 1: all roller-balls illuminated a dimmed blue; layer 2, centre roller-ball is full blue.

The C2 level is a duplicate of C1, with the RGB channels and their background on layer 1. If the Focus option is fitted the key signals for the RGB channels can be defocused; the control is on the lower rightmost knob of the A2 page, the same as for C1.

Layer 2 has the two 6 Vector correctors (the middle roller-ball will illuminate blue when layer 2 is selected). All the operations are the same as for C1. As already mentioned, if the Focus option is fitted, any correction from the YCM channels and their background is applied after the C2 level.

R2 LEVEL

Layer 1: roller-balls illuminated orange; layer 2 centre roller-ball blue.

R2 (A1/B1) will open this window:

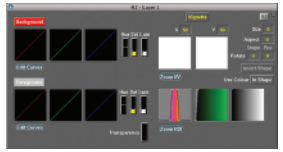

Fig 57

Layer 1 on this level is similar to the Creative levels, but with only one foreground channel (which has to be opened with the R key). The A and B pages are very similar the Creative levels.

A page 1 is the shape controls, and, on page 2, the top row is Density with the Transparency for the single channel on the right. The bottom row is the Min/Mid/Max positions for the Bezier curves. B page 1 is the selection parameters, page 2 is output controls.

Layer 2 is another 6 Vector corrector, and all the key assignments and other operations are the same as for R1 (*Fig 58*). Like R1, and unlike the Creative Levels, this is a single layer. There are no A page options, the B pages are arranged as before: page 1 is selection, page 2 is output and page 3 is clips.

Fig 58

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OP LEVEL

Roller-balls with be illuminated blue, although the centre one will be off, as there is no gamma control.

The Output level will open *Fig 59*:

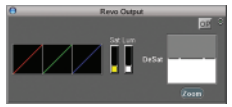

Fig 59

The gains and lifts are assigned to the B page knobs; there are no options for the Output level, so no other keys are illuminated.

The DeSat graph allows control of the saturation at different luminance levels; it can be zoomed like other GUI controlled functions. Dragging the small white indicators with the cursor set the levels; these are dynamically programmable. The X or horizontal axis represents the pictures luminance level, with black on the left and white on the right, and the Y or vertical axis is the saturation at that point. The horizontal centre of the square is normal saturation, so levels can be either reduced or increased, by dragging the graph upwards.

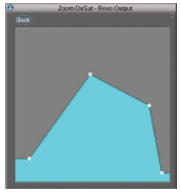

Fig 60

STATUS WINDOWS

In the corner of each level or layer window is a square icon with its abbreviated name; clicking on this opens its Status Window, which lists the functions available and, by highlighting in yellow, if they are active or not.

There is also this small panel with all the status window icons in, which can be opened from the System area by clicking on the Revolution icon highlighted in *Fig 61*:

Fig 61

If any of the icons are highlighted in yellow, that level is currently active (in *Fig 62*, they all are).

Fig 62

As an example, in *Fig 63* the 6 Vector R channel is open (because 'R' is highlighted), and that its primary output controls are active (i.e., off their default positions) - the key symbol is

Fig 63

not highlighted as the selection controls have not been altered from their default settings. The 'B' channel is active, its key has been adjusted from its default, and both its primary output and one of its HSL output values have also been adjusted. The 'Y' channel is open, its key has been adjusted and one of its HSL values has also been adjusted. All three have labels. It also shows that the Bezier primary on layer 2 has been adjusted from its default.

The Status windows can be used to swap and copy channels. To swap them, place the cursor over any of the buttons in a window, then hold down and drag it to the target button to swap. To copy channels, hold down the 'Shift' key while dragging. Although the 6 Vector and Creative correctors use different technologies, similar functions can be copied and swapped between them (although the results might not be identical). For instance, as keys and HSL levels are similar they can moved, but, as they are of a completely different type, the primaries cannot.

In 'Read' and 'Copy' modes, highlighted channels show that there is information in them; if clicked on, that channel only will be selected, and can then be copied individually to the current event. Once selected this way, any trims will only be applied to the channel until either entered or cleared; subsequent clicks on the same channel button will toggle it on and off, but will not reselect the all the channels of the original 'Copy' or 'Read'. Only one channel can be selected at any one time this way, although more than one can be entered into the current event by selecting each channel in turn.

FASTRACK

Fastrack allows the user to enter key frames for every individual parameter , for every channel of every level; it then splines, or smoothes out, any change between the entered points for that parameter. It is turned on from the System area, by clicking on the FT icon highlighted here:

Fig 64

This window will open:

Fig 65

To use FastTrack, there must be a normal events both before and after the FastTrack timelines; it will use normal events as keyframes for every parameter, so its events cannot cross normal event boundaries. FastTrack events are stored with the list.

Clicking on the 'Record' button will turn it red, and the system then remembers any changes made to any controls ("Record' can also be turned on by clicking on the icon in the System Area). All the current settings are then stored when any transport key (apart from 'Stop') is pressed; each parameter which has been adjusted will have its own timeline. Clicking on 'Record' to turn it off again returns the Pogle to its normal mode.

While in 'Record', the button to the right, showing 'Off' above, will either say 'Play', 'Trimmed' or 'KeyFrame', and the small round indicators will also change colour to show the current mode (there are two similar indicators next to the 'FT' icon in the System area). The Status windows have the same indicators, so it is possible to see the current status of every channel. There are four colours for these indicators.

Fig 66

Fig 67

Red: Record mode. Shows that FastTrack is in record; this indicator appears in the main FastTrack window and in the System area.

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Fig 68

Fig 69

Green: Play mode, showing there is a FastTrack event for the current point, and that it is being displayed.

Fig 70

Fig 71

Blue: Trim mode. A FastTrack event already exists and it is being trimmed. The trimmed settings will be automatically stored when a transport key is pressed, but only if FastTrack is in 'Record' mode, as shown here. Otherwise, any trim will be applied to the whole event.

Fig 72

Fig 73

Orange: KeyFrame. The source deck is parked on a frame that has a FastTrack event on it.

As an example, the Output Status window here shows that the Output Primary has a FastTrack timeline, and it is currently parked on a keyframe in it. The Output HSL controls also have a FastTrack timeline, which is currently in 'Trim' mode; the Desat control has no FastTrack events as it is greyed out.

Fig 74

Fig 75

The Status window opened from the Revolution symbol in the System area shows which levels have FastTrack events. Fig 75 shows that R1 has FastTrack events it is displaying (as it is in 'Play' mode), while C1 and the OP both have FastTrack events, and the current frame has keyframes for both. R2 has a FastTrack event that is being trimmed. The other levels don't currently have FastTrack timelines.

To move between the keyframes, either click on the 'Prev' (Previous) or 'Next' buttons in the FastTrack window, or use the white buttons near the bottom left of the Transport panel, on either side of the small display panel (this panel will not show anything).

To make new FastTrack events, simply turn 'Record' on and then make the changes needed, storing them as before by using any transport key; the system will add in new events or make new timelines for each change.

Clicking on one of the indicators will outline it in red, which locks the system temporarily to the timeline the event occurs in. Functions such as jumping to keyframes will then only apply to that timeline; as there are indicators for each level, and, in their Status windows, each channel, it is possible to set the exact parameter that that command affects.

Individual keyframes can be deleted with the 'Delete KeyFrame' button. Whole timelines can be deleted by first locking them, selecting 'Delete Key Frame' and then the 'All' button in the FastTrack window (unlike most other buttons with similar names, this one only refers to FastTrack events), and then clicking on either the 'Enter' button or panel "Enter" key. If no timeline is selected, all the FastTrack events will be deleted. This action deletes the keyframes inside the normal list events.

In the list window, the FastTrack icon will appear on the thumbnail image for events that contain FastTrack timelines.

chapter 4
the vault in detail

GENERAL

The Vault is the access to all types of stored grading (and some other) information, reached by a series of icons; tapping on any of the those on the right hand side will show the available files of that type. Several of the icons cannot be opened unless a user is logged in, and others need a project to be open; e.g. notes cannot be accessed unless the project that contains them is open.

If the Vault is not visible or has been closed, either running the cursor off the bottom of the screen or pressing the "Vault" key on the Transport panel will bring it to the front or re-open it. It will re-open at whatever page it was last open at; if there is any text in the text area, any method of opening the Vault will search for that text, as described later. If there are no matches for the text, the Vault will appear to be empty.

The Vault window is not of a fixed size or shape, so can be resized and positioned at any time; it will then stay at the selected size and position regardless of the page it is on or type of item it is displaying. If it is moved or resized, the new size and position will not be stored unless the current view is updated with 'Save over view', as already described.

To resize the window, place the cursor, which should change shape, over a corner; press and hold, then drag with the pen to resize. Each side of the window can also be moved the same way; the cursor will have a different shape for each side (an arrow pointing to a flat line). If the vertical size is reduced, the right hand items will appear in columns, instead of one above another. The description here assumes the height is great enough for items to be displayed one above the other.

Items in the Vault can be renamed by entering a new name in the System text area and then dragging it over the Vault icon (the cursor should be positioned over the item, not the text) and releasing the pen switch. The Pogle keeps track of all items by the usually concealed operating system name, so that shown in the Vault can be changed as required. Like most computer operating systems, Linux believe 10 to be a lower number than 2, 29 a lower number than 3 and so forth.

If an item apparently vanishes, it is probably outside the currently displayed area, as it will have been resorted as soon as its name was changed.

ON-LINE HELP

As the icons on the right of the Vault are selected, the area between the top window bar and the Vault display will change to show the number of items, and of what type they are.

On the right of this area is a '?' icon. Clicking on it opens Platinum Topics, which uses a browser-like interface (The Drifter) to access the information it contains. Either click directly on one the listed topics, or on the highlighted link to The Drifter, near the bottom of the screen, which will open a page describing how to use it.

A click and hold on the '?' symbol opens a drop down menu which, as well as Platinum Topics, also has an option to open the release notes; this will open the notes that are sent with each software version. Software versions often contain only minor bug fixes and so forth; check with Pandora for information about new features.

VAULT ITEM OPTIONS

Vault items all have various options; a single tap will normally load or make them active, but a press and hold will reveal the other options available (the options for different items are not in the same order in each of these drop down menus). To select an option, keep the pen in contact with the tablet, position the cursor over the required option and then release the pen. This method will not highlight the option; to make the highlight appear, keep the pen in contact with the tablet and move the cursor out and then back inside the drop-down menu; selected items will then be indicated by a embossed area.

One option will always be to load or make the item active (the same as a single tap) and (usually) another will be to remove it. Removed items are placed in the rubbish bin (Trash), and will remain there until the user logs out, or another user logs in. If an item is accidentally placed in the rubbish, tap on the bin icon at the bottom of the Vault to open it, and then tap on the icon for the item; it will be returned to its original location. When the Vault is showing the contents of the rubbish, the bin icon will flash. Only one item at a time can be moved to the rubbish; it is not possible to select multiple items for deleting directly from the Vault.

All items in the Vault have a 'Show info' option, which will open a window containing information such as the owner, creation time and date, and the Linux file name. Some files have a 'write over' option, which overwrites the time and date as shown with the extra Information (see below) switched on, but the information in 'Show Info' should always have the original creation time and date.

FIRST PAGE

Fig 76

Users, Projects, Lists and Notes (the bottom icon is for Shapes, which has been re-assigned for exporting images in Revolution systems).

For the Users, there is a 'Log Out' option, which will close all the windows. 30 seconds after a user logs out (and if another one doesn't log in), the Pandora screen saver will appear. For lists, there are two additional options.

The first, 'Merge with active list', will attempt to add to the current active list any additional event points and other information the selected list contains. The active list should be saved before merging with it, as the results can sometimes be unpredictable.

Simple event lists will successfully merge, but any grading information may be changed by the merging of values. There is also an 'Export' option. Press and hold to see the options; any selected will be sent to the Virtual area in the Black Hole (see later).

Notes have a 'Write over note' option; selecting this will take all the current grading information and store it in that notes position. Any names will be retained, but the thumbnail image will update to the current frame; its date and time stamp will also be updated.

SECOND PAGE

Fig 77

LUTs, Panels, Views and Macros.

The second page items are, from the top down: LUTs, Panels (these are vdu windows, and are referred to as such in this manual; 'panels' always refers to the control panels except in the section on user views); Views and Macros.

MegaGamma files have two additional options, one 'Set as custom clip', is not used in Revolution systems. The other, 'Show file contents', opens a window with the Ascii values of the file. Panels have the option, 'Edit Panels'; this will open the panel (window) editor, which also has its own section later in this manual. Files with an extension including '3d' are not used in the Revolution.

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Views have a 'Save over view' option which, as with notes, leaves the name as is but changes the information stored to that of the current view. As well as the existing system views, this will show any of the current users own views, but not those of other users.

Macros have a 'Show macro contents' option, which will show the operating system commands for the macro. There is no 'Remove'; this is done by overwriting the macro from the user setup window. Macros are stored by user, not by project.

THIRD PAGE


Fig 78

Tube setups, Masks, System setups, Software/Firmware versions

The third page stores tube setups, telecine masking, system setups plus software and firmware versions. Generally, these are engineering related and their use is outside the scope of this manual. However, tube setup generation, naming etc. conforms to that for all other Vault items. They are not stored by project or user.

Masks are made, named and stored as usual; they are stored by project. Generating both of these are specific to the telecine type.

'System setups' stores all the information for the various windows accessed through the Engineering window except for User and Default Setups. Selecting it and then clicking on 'New' will generate a file that, if any other Engineering setups are changed, can then be reloaded. System setup files cannot be renamed, so must be named before they are made, by entering the name in the text box before clicking on 'New'. To load a file, click on it, which will open a new window (which contains all the system information) and then click on the 'Apply' button. This automatically generates another new file, called 'Last Setup', which contains all the settings that are being replaced. There can only be one 'Last Setup' file, and reloading a system setting will overwrite any existing file with the same name.

VAULT ACTION ICONS


Fig 79

New, Search, Sort Order, Information, Black Hole and Bin.

Across the bottom of the Vault are another set of icons, which are the same for each page. 'New' will generate a new item of the type selected on the right hand side (if possible). It will take as its name any text entered in the System text area at the time of its creation; if no name is entered, it will (depending on what kind of item it is) be given a generic name.

The next icon is a search function. If any text or other characters are entered in the System text area, tapping on this icon will then search the current Vault selection for that text (pressing the 'Vault' key on the Transport panel does the same thing, as does dragging and dropping the text onto the search icon). It follows normal computer search logic; the more characters there are in the text area, the more refined the search becomes. Searching does not remove text from the System area, so it may be entered as a list label, or become the name of new item unintentionally. The Black Hole has an extended search that will look for more precise criteria; its operation is described later in the manual.

The third icon changes the order of display of items in the Vault, between sorted alphabetically and by creation date. In the former, items starting with numbers are sorted before those with letters (e.g. 1 before A), displayed from the top left, and, in the latter case, with the most recently created item at the extreme bottom right. This will often be outside the displayed area, so recent items may not be visible withour scrolling.

For large numbers of items, alphabetic sort may be easier to use. Like most operating systems, Linux believes 12 to be a lower number than 2 (so an item called '12' will be sorted to appear before one called '2'). Each set of Vault items can be sorted either way, and the 'Sort By' preference is remembered for each type of item.

The next (fourth) icon on the right turns additional information on or off (this is also remembered). It will show the full name, which can be up to 30 characters, file size and creation date, as well as what sort of item it is (this is not the same as the 'Show Info' option from the drop-down menus that a press and hold will reveal). However, the Vault never remembers which item was last displayed; when changing the type of item, the display reverts to showing the contents sorted as selected, but always from the first item (i.e. the top left hand corner).

Tapping on the fifth item of this group will open the Black Hole, whose use is described below.

The last icon is the rubbish bin (Trash); its position will change with the size of the Vault window, as it stays on the extreme right. Vault items can be dragged into the rubbish for removal, or have the 'Remove' option selected from their drop down menu. System files must not be removed from the Vault.

Items will stay in the Rubbish bin until the current user logs out, or they can be immediately removed by a press and hold on the rubbish icon, then selecting 'Empty Rubbish Bin' from the drop-down menu. If the system runs out of disc space, small items (e.g. old notes) should be placed in the bin and deleted one at a time, as the operating system actually requires twice the size of an item to delete it. So several small items need to be deleted to make room for bigger ones to go in the bin.

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THE BLACK HOLE

The Vault only allows access to the files belonging to the current user, so only that users projects, and thus lists and notes, can be accessed, and then only those files inside the current project. The Black Hole allows access to all files, as well as external devices and networks, and has an extended search facility. To open the Black Hole, tap on its icon, the fifth from the left at the bottom of the Vault. A new window, Fig 80, similar to the Vault, will open.

Fig 80

It will have an additional icon at the top right hand side; tap on it to access any other devices connected to the host computer, as well as the Virtual, an area set aside for moving files to and from the host computer. There is no 'New' icon in the bottom row, as new items cannot be generated in the Black Hole. Only the owner of files should delete them (with the drop down menus), so there is no rubbish bin. There are additional icons at both the left and right of the bottom row, whose use is described below. The icon labelled 'USB' is a shortcut to allow import or export to or from a device such as a USB pen drive.

When the Black Hole is first opened, it should always show several items; the host computer, which is named, and shown as an icon of the Pogle roller-ball panel (ibc1 in Fig 80); the Virtual, the icon for which is a folder; a vdu icon which represents the Evolution panels, and one for the Revolution itself. If there are additional devices connected and mounted, they will also appear on this page, as will any other computers on a shared network. Tap on an icon to open it, as usual.

The icons for users etc. on the right cannot be opened until a valid host is selected, so, to access user files, first tap on the host icon, and then on the user. That users projects, and their contents, will then be available. If a loadable item is tapped on in the Black Hole it will load immediately, so lists, notes or other grading information can be read from one project and stored in another. This requires that a user is logged in and a project open.

If an item is dragged from the Black Hole to the Vault, it will be copied into the location for an item of that type; it is not necessary for the Vault to be displaying the same type of item at the time. It can be used to copy System windows for editing; see the section on the Panel Editor.

SEARCHING IN THE BLACK HOLE

Apart from the topmost icon on the first page, those on the right in the Black Hole itself are the same as for the Vault, and behave the same way. However, there is one icon at the bottom which does not, and another which does not appear there at all. At the left, instead of the 'New' icon, is the same search icon as in the Vault; a press and hold will show two options, Fig 81.

Fig 81

Both these will carry out searches for character strings entered in the text area. One, 'Show Only Matching Titles', works in the same way as the Vault search function. The other, 'Extended Search...', allows for far more accurate searching. When selected, it opens a new window, in which icons of the item to be searched for appear; Users, Projects, Lists, Notes and Panels (vdu windows) can be chosen.

Fig 82

Fig 83

The main part of the window has buttons that allow the search destination or name to be chosen, from the host down. The top two, Hosts and Users, have a small arrow symbol next to the name; a press and hold will reveal a drop down menu containing all the available names to look in.

Once these have been chosen, the type of item to look for can be selected by tapping on the button to the right; those to the left will change as item types are selected. The search options are 'Any', which does not restrict the search, or, by typing in a text string and then tapping on the button, the search will look for that text string (searches are not case sensitive).

At the bottom is another button which has options to restrict the search by date; its default is 'Any Date', but it has a drop down menu to limit or expand the date criteria. When all of the above have been set, tap on 'Search'; the Black Hole display will change to display any matching files. Depending on the number of files it has to look through, and how accurate the search criteria are, this can take from a couple of seconds to a lot longer.

The found files cannot be opened directly, but can be copied to the current project by dragging into the Vault. At the top of the Black Hole display will be the file path, although if any of the search buttons for the path were left at 'Any', the path cannot show the precise location of original items. Searching does not remove text from the System area, which may then be entered as a list label, or may unintentionally become the name of new item.

The rightmost of the bottom left-hand icons is 'Possible Actions'; press and hold to reveal a set of drop down menus. The actions always apply to all the currently displayed items; it is not possible to either select or deselect any. The actions are: 'Copy to Vault', which will move the displayed items to the current project if they are lists or notes, but will otherwise move the whole item; 'Copy to virtual', for exporting to an external drive or computer; and 'Move to rubbish bin', which will delete all the items. However, it is not possible to use this last option unless you are logged in as the user who owns the items. 'Close' will dismiss the Black Hole window from the screen.

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USER SETUPS WINDOW (USER CONTROLS)

Any control which has a fixed set of values, rather than is continuously variable, can have its value increase by one by tapping on it. However, positioning the cursor above the vdu icon and pressing the side switch on the pen will decrease the value by one. This requires some practise; if the pen touches the tablet, it will be interpreted as a click, and the value will then increase by one.

Tapping on the Engineering symbol in the lower left hand corner of the vdu will open the Engineering menu, containing another set of options, most of which are engineering setups. Once set, they should not usually need to be changed; they are generally outside the scope of this manual. However, the top option, User Setup, is an important part of the Platinum interface, and is described in detail here. When this window opens, it is labelled 'User Controls'
(Fig 84).

All the settings in this window are applied to the current user only; tapping on the 'Close' button at the bottom stores them. They are mostly 'live' controls, which means that changing them has an instant effect on the appropriate control. Their use is described from the top left, with all the option buttons covered first.

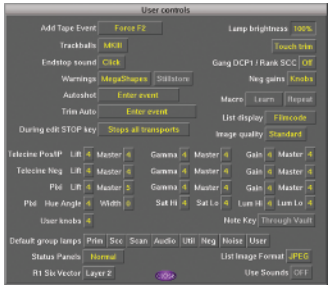

Fig 84

ADD TAPE EVENT

This button is only relevant with tape source material, in that it forces all events in a list with a tape source (rather than telecine) to be on the selected setting.

TRACKBALLS (Roller-balls)

This option refers to what in this manual are always called roller-balls, and means those that are used for colour control, not the one on the SCC panel, which is always referred to as the track-ball. There are two options, which change the direction of control of all the roller-balls; they are MK111 and Vector. In the former, the roller-balls conform to the directional movement that originated with joystick controls (MK111 is a misnomer, as television colour cameras had similar controls before any telecines). In Vector, the roller-balls move in the same direction as the display on a vectorscope. Neither option is better than the other, and the choice depends on user preference. However, new operators may find 'Vector' preferable if there is a vectorscope in the grading room desk, as it is easier to see a direct correlation between roller-ball movements and the colour changes they make.

ENDSTOP SOUND

Sets the various sounds that the Pogle produces; see 'Use Sound' below.

WARNINGS

'MegaShapes' is not used with Revolution systems. If a Pandora Stillstore is fitted, the 'Stillstore' button will display a warning if it has failed to grab a frame when either "Add", "Enter" or "Note" are pressed.

AUTOSHOT.

(This requires an external scene or shot change detector to be fitted)

The default is to simply enter the detected point in the list; the single option available will also stop the transport after a scene change is detected.

TRIM AUTO.

If the Pogle is in 'Trim' mode and the 'Auto' flag is on in the System area (turned on by pressing the "Auto" key), there are several options available. The default is to enter as normal, i.e. put a point in the list with the current grading.

The other options are: Do Nothing (in blue lettering), which will have no effect. This is the least destructive option, and should be selected for most normal operations. Otherwise, if 'Auto' is left on after being used to build a list, reviewing a trim can cause it to either automatically be entered as the event boundary is passed, overwriting the existing grading, or discarded before the review process is complete.

If 'Clear Trim' is selected, then any current trim will be discarded as the list passes an event, and the Pogle will return to 'Program' or 'Live' mode. 'Enter Event and Clear Trim' will put the currently displayed grading in the event and then return to 'Program' or 'Live' mode. The setting of this option makes no difference to the normal operation of "Auto" when marking events.

DURING EDIT STOP KEY

There are only two options; either 'Stop all transports' (the default) or 'Stop current transport', which will stop only the machine currently selected on the Transport panel.

LAMP BRIGHTNESS

Sets the level of the internal illumination of the roller-balls (on some systems, the level controls are compressed near one end of the available range).

TOUCH TRIM

If selected, the "Trim" key will need to be pressed to make the Pogle go into 'Trim' mode, rather than whenever a control is altered, which is the default.

GANG DCP1 / RANK SCC is not used in Revolution systems

NEG GAINS. This will toggle neg matching controls between the knobs and the roller-balls.

MACROS

Each panel has several small, round white buttons, which are macro keys.. These are used to store sequences of key presses (although nearly all keys can store macros on them). Macros are stored by User but not by view; the same macros apply to all the views for each User.

To make a macro, first tap on 'Learn', which will change to say 'Key?'. Pressing a macro key will then change the button display to say 'Learning'. Any keys then pressed will be remembered; to end the sequence of recording, tap on the macro window button again, when it will change back to 'Learn'.

The sequence of recorded key presses is then carried out when the selected macro key is pressed. As an example, tapping on 'Learn', pressing any available macro button, then typing 01:00:00:00, pressing "All" and "Cue", and lastly tapping 'Learning', will, when the chosen macro button is pressed, send all the connected and slaved decks to code 01:00:00:00 (if possible).

However, all controls are live when recording macros so, if making one which sends transport to various codes, remember not to press "Stop" while recording the macro, or it will be included as part of it.

To delete a macro, tap on 'Learn', which will change to 'Key?'. Then press the key with the macro to be deleted on it, then tap on 'Learning'; the macro key now has no function assigned to it. The 'Repeat' button on the right will repeat a sequence of events, but should be used with caution, as it is possible to program an unending loop, which cannot be stopped or deleted. If this happens it will be necessary to restart the whole system to escape the loop.

Although macros cannot store and recall values directly, they can be programmed to read notes, which can have the values stored in them, although any notes to be read must already be in the existing project.

To make a macro read a note as part of its program, give the note a unique name (say 1X) and then include "Read" "1X" as part of the keystroke sequence. Because the Group Keys work with notes, they can also be included, so "Read" "1X" (Group key) "Scans" "Enter" will read and enter in the current event only the scan information from the note.

If, when the button is showing 'Key?', the keyboard "Shift" key is held down, most other buttons can then be made macro keys. (A warning may appear indicating that proceeding will overwrite a system function; continuing may well cause operational problems).

If no such warning appears, highly dedicated macros can be created on directly related keys. For instance, press 'Learn', and when 'Key?' appears, hold down the "Shift" key and press "R" on the SCC panel; 'Learning' should now appear in the vdu button. Then press the "C1" key on the SCC panel (to select C1) then "R" again, followed by a press of every reset button on both selection and output sides, including a press and hold on the trackball button. The layer and Foreground/Background keys may also have to be selected.

This will make a macro that will reset only the C1 R channel. To play macros made this way, hold down the "Shift" key and press the key on which the macro was programmed. If a mistake is made when recording a macro, it is usually not possible to edit the macro sequence; going back and starting again is quicker, and more reliable.

LIST DISPLAY
Sets the type of code displayed in the vdu list window when the source of the code is a telecine (the display in the telecine transport window will stay as filmcode); there are four options. Filmcode (the default) is time plus frames; a + sign in a code number normally indicates that the last digits are frames, not timecode.

The filmcode option, and those of Feet and Frames and Frames, take their counting point from either the preset counter value for a telecine, or convert source timecode into the appropriate values. So, to make a measurement from a fixed point, either the telecine counter must be set at zero, or the editor must be used to calculate a duration.

The selected display can also be changed by holding down the telecine transport key for a couple of seconds; this will step through the possible code displays. This will change the code type for the default setting in the User control window, but will stay as the set default unless the User Control window is closed while displaying a different option in the relevant button.

SETTING THE TK COUNTER FOR TIMECODE DISPLAY
Timecode, the other option (shown in blue), is useful when running the telecine at any speed other than normal, as it will show the real running time. It can be set from the counter in the same way as filmcode.

IMAGE QUALITY
Allows larger thumbnail images to be grabbed for the List. This is not compatible with older software versions (before vers 600).

CONTROL SENSITIVITIES
The grid of numbers in the lower half of the window directly affect the sensitivity of the roller-ball and other knobs, on a scale of 0 (no response at all) to 9 (very sensitive). To change the values, a tap will increase the value by one, while clicking the pen side switch will reduce it by one Alternatively, press and hold to reveal a drop-down menu with all the numerical values in it; select one by highlighting and releasing the button. 'Master' is the outer ring.

The top two rows alter the behaviour of the roller-balls when controlling a telecine, with different film types selected, as labelled on the left of each row. The third row down, labelled Pixi, sets the sensitivities for the roller-balls when controlling the Revolutions own colour correctors

The fourth row down, also labelled Pixi, controls the sensitivities of the nine knobs at the top left of the SCC panel. The first two (Hue angle and Hue width) control the leftmost and middle knob; the rightmost knob in each row has the same setting as the middle one. Then the next two (Sat) control the centre row, and the last two (Lum) the bottom. The single button down (labelled 'User') is for all the knobs on the two orange display panels; there is the same sensitivity applied to all 8 on each panel, for all functions.

NOTE KEY is not used in Revolution systems.

DEFAULT GROUP LAMPS
This is used to include or exclude group controls from events in a list. For instance, to make a list containing only scan information, deselect all the buttons except 'Scans'. Then, any press of the "Add" (or "Start Mix") key will make an event at which only scan values are remembered and changed; this requires the window to be closed before it takes effect.

To force the Pogle to make a point with all the groups, press the white "All" group key on the Transport panel; the next "Add" will then make an event for all groups. Any other group can be selected this way, with the system reverting to the setting in the User control window after "Add" is pressed. If using this function, remember to reset it after use, or an entire list can be built with events that will have no effect.

This function will work with an existing list, so, for instance, pan and scan information can be added to an existing grading list. However, it cannot work retrospectively, so existing lists cannot have groups turned on or off after their creation.

STATUS PANELS
Sets whether the Status Panels open in either their normal or expanded form.

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LIST IMAGE FORMAT
Sets the format of list image files, which affects the size of the saved lists. The default is now for the images to be jpegs, resulting in much smaller list sizes. However, older systems use RGB files, so lists saved this way will not be backwards compatible; this button allows for them to be loaded, and show their thumbnails, properly.

R1 SIX VECTOR
To maintain consistency, all the 6 vector correctors are accessed with the Layer 2 key on the SCC panel. However, the R1 6 vector is before its Bezier Primary; this button allows for the layer 1 and 2 keys to be swapped, so the correctors are then in the order of the keys.

USE SOUNDS
The default for this is Off, as the host computer has no built-in speaker. However, the system does produce some warning sounds that can be routed via external speakers, which would then require that they are enabled both via the hosts own setups and this button.

TELECINE SHUTTLE SPEED (Limit Max Shuttle)
While not in the User Controls window, it is included here, as it can be considered a user preference (although it cannot be stored as such). The shuttle speed is accessed through the Engineering icon and then the Source Setup window (the middle icon in the Engineering menu).

The top left item is 'Limit Max Shuttle'; it is set on a scale of 0 to 15, with 15 the telecines own maximum speed. It is not live; if the telecine is already in shuttle, changing this value will not have an instant effect; pressing the "Stop" key and then shuttle straight away will change to the new setting (it is not necessary to wait for the telecine to stop moving before doing this).

Some telecines shuttle at different speeds for different film formats; what is a reasonable speed on one format may be too fast or slow on the other, so the value of this setting might need to be changed for different film formats. This control will not affect vtr shuttle speeds, which are set on the machines themselves.

This control can be put into any window that is made with the Panel Editor, described later, and then iconised in the Dock for faster access.

VIEWS IN DETAIL
Users can have different views (i.e. vdu screen layouts) for different types of work, which can be named and saved. Views store only the screen layouts; settings from the User Control window are applied to all the owners views. (If an operator wants more than one set of User Control settings, they can make a different user and then apply the alternative setups). They are accessed from the Vaults second page, by tapping on the icon of a pair of dark glasses. The Vault contains several System views, shown by the Pandora icon in the View thumbnail; these are opened by tapping on them as normal. They should give a starting point for using the system they represent.

Fig 85

Views are made by opening and positioning the windows as required on the vdu; once saved in the Vault they can also be placed in the Dock. If an existing view has been modified, to store the new version press and hold on the current views icon in the Vault, and select the 'Save over view' option, *Fig 86.*

To make the current layout a new view, select the Vault views icon and then tap on 'New' at the bottom left of the Vault window. As usual, any text in the System area will be taken as a name when a new view is generated.

Fig 86

This will make a new view with all the existing windows in their current positions; the layout etc. can then be re-arranged and stored with the 'Save over view' option in the drop down menu. Views can be re-named as normal for Vault items. Only the current users views will be shown in the Vault; to copy an existing view from another user, open the Black Hole, then select the user whose view is to be copied. Navigate to the Views, and drag the selected view over the Vault and release the pen. The existing user now owns a copy of the view.

THE PANEL (WINDOW) EDITOR
User can make their own windows, and modify existing ones, using the Panel Editor, *Fig 87*. To open the editor select 'Panels' from the Vault and either tap on 'New', which will open the editor and a generate a new, empty window, or press and hold on any panel icon in the Vault; then select 'Edit panels' from the list of drop down options (this will open the editor without generating a new window, to allow modification of existing ones).

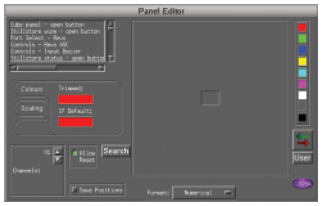

Fig 87

To put a control in a new window, and remove it from a current one, drag items directly from an existing window to the new one (the system will not normally allow items to be removed from System windows). Some items move individually, and others are in groups; these groups cannot be split up. A new window can be shaped and sized as for any variable window.

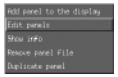

Fig 88

Dragging an item from a existing window removes it; to make a new window with a similar item, but leave the original window intact, first drag the item into the editor, then drag it to the new window. The original item will stay in the editor, from where it can be replaced in the source window.

There can only be one item in the editor at once; dragging an item into the editor will replace any other items already in it. Generally, the larger graphic displays cannot be altered in the Panel Editor; the system will not allow these to be moved.

Once items are placed in the edit panel, they can be changed in various ways. Below the edit panel is a 'Format' button; holding down on that will open a list of all the possible formats that can be applied to the item currently in the area above. Select the required option and release the pen; then drag the item from the editor to the new (or original) window. As the original item stays in the editor, different formats for the same source item can be chosen and displayed at the same time. Some items (e.g. filmcode) can be displayed in formats not shown in this list. Press and hold on the item when it is in the editor; if there are further alternatives, they will appear in another window.

To the left of the edit panel are buttons allowing the colour of the display to be set for default and trimmed states. Tap on 'Colours' (if not already selected) and then drag the chosen colour (from the small boxes on the right of the panel) onto either of the buttons on the left. When the item is dragged from the editor to its window, it will have the default and trimmed colours as set. If the editor will not allow the colour to be dropped onto the buttons on the left, that function cannot be changed.

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The colours on the right are fixed; they cannot be altered from those displayed. For numerical values, the scaling (range of values) can be set. Once the item is in the editor, with 'Numerical' selected as its format, tap on 'Scaling' (to the left of the edit panel); boxes appear to allow the setting of maximum and minimum values (these cannot be negative). Then type the upper number of the scaling range in the System numeric area and tap on 'Maximum'; repeat with the lowest value for 'Minimum'. A control that has a midway point as its default (e.g. scans with a range of 0 to 100) will have the default value set at its midpoint (50). Using this should allow for very accurate numeric values to be measured; functions with a known range (say 0 to 64000) can be set to display the actual control level.

At the extreme bottom left of the edit panel is a box with 'Channels' and up/down arrows next to it. As this is changed, the window at the top left changes to show which controls have that number of channels. To its right is 'Allow Reset'; leave this checked to allow the reset button (new windows are always generated with all the system buttons present) to reset the value of any function in it to its default. To prevent new windows being able to reset values, uncheck the box.

Below the colour boxes on the right of the edit panel is a two-way arrow symbol. If a control group is placed in the editor, it will be either horizontally or vertically displayed; tap on the arrows symbol to change the orientation from one to the other. Below that is another button that will normally say 'User'. Tapping on it will change it to 'System', to allow editing of system windows. Normally, the editor will block the alteration of these.

Extreme caution should be used when editing system windows. Do not edit shared windows - one colourists useless button is another's essential control. If system windows are incorrectly modified, reloading the software will restore them to their correct configuration; this manual assumes that system windows will not be edited.

To make a modified version of a system window, click and hold on the original in the Vault, which will open a drop-down menu; select 'Make Duplicate Panel'. The resulting copy can then be modified as required; each user can copy and modify system windows individually, and the correct version will open for each user. The modified copy of a system window will open in preference to the original if it is opened and the original closed, and the View it is in is then saved.

To edit existing windows, open the editor and move items from the window into the edit panel, modify as required and replace in the source window; to remove an item from a window, drag it into the editor and don't replace it. Opening the editor will make the corner markers that allow size change to appear on any resizable window; existing windows can be expanded to allow space for more items, or reduced in size to exclude existing ones this way.

Once a new window has been made and positioned, it must be saved in the view by selecting views in the Vault and then choosing 'Save over view' from the drop down menu of the current view icon; otherwise it will not appear when the view is reloaded, although it will still be in the Vault.

An edited window is saved in its modified form when the editor is closed. If 'New' is selected to open the editor, a new untitled window is always made. This can result in large numbers of untitled window icons appearing in the Vault; they should be named as usual or, if not needed, deleted (new windows are stored by user). If a new window is made and named, the name will not appear in the window on the vdu until the user who made it logs out and logs back in again.

Holding down the pen on a new window opens another one, its 89, which allows various window options to be set. The top one 'Dock', makes it behave in the same way as the main Dock window; it can be sized and positioned as normal on the desktop, and vault items be dragged into it for quick access. If hidden, any additional Docks will open again with the normal one. If the Panel Editor is open, items in the Dock can be re-positioned, or re-named by dragging the new name from the System text area onto its icon.

Fig 89

Like some other options in the Panel Editor, 'System Bar' is for engineering purposes and should be used with caution. There must always be a System bar open, and any newly generated ones will open in preference to the normal one. If a modified version of that is needed, it would be better to make a copy and then edit that, rather than make a new one from scratch.

The Popup mode can be chosen with the next set of options of this new window and, to add the window behaviour button, select 'Mode Menu' from the bottom set of. If this is added to a window, it can then be used to keep that window open at all times if needed

The other options in this window are fairly self-explanatory, but some combinations will not allow windows to be iconised or closed. If this happens, the modified window will have to be deleted and remade.

There are two other buttons in the Panel editor, 'Search' and 'Save Position', which are engineering functions; their use is outside the scope of this manual.

chapter 6
editing

EDITING INTRODUCTION

The Pogle can control a telecine and any four other recorders or players; these can be a mixture of vtrs, dats (or other tape sources) and disc recorders (or servers), provided they are capable of using the correct control protocols. As with the transport controls, any editing commands will be applied to the machine currently selected with the keys on theTransport panel.

They can be connected to any port but, for the Pogles film cache to work, a recognised disc recorder must be connected to port 4 (it should be in 'Wild' mode, not a recorder); its icon should show it specifically as a disc, as in its 90 (Disc and server icons are the same). Fig 91 is a normal vtr icon with the deck stopped, its 92 shows it in record. These icons can also show other messages from whichever machine is connected to the relevant port.

Fig 90

Fig 91

Fig 92

The icons for the machines are at the right hand side of the System area; the telecine icon is always at the far right, although its white transport key is on the left, and it appears on the left of the Edit window. The same icons appear in each transports own window. In this section, 'vtr' can be any non-telecine source.

There are three possible edit states; Wild, Player and Recorder. If set to 'Wild', that machine will be ignored by any edit commands, even if it has valid in or out points. Vtrs can be any of the three options, but telecines obviously can't be recorders. Generally, any local settings on the vtr will have preference. So, if a machine has its record inhibit on, the Pogle cannot force it to record, or if it is set to 'EE', the Pogle cannot remotely switch it to playback. Hopwever. the reverse is usually true; a machine set to 'Playback' on the machine can normally be switched to 'EE' and back from the Pogle.

The transport windows are set to automatically appear when their transport keys are pressed, it is not necessary to open them in a user view. Their pop-up behaviour can be altered in the same way as other windows by using the Panel Editor, as described earlier.

Telecines have their own window, which contains a few extra functions; all other sources have similar windows, whose contents (edit points and various modes) change as each transport is selected.

The Pogle recognises some types of machine and puts the correct name in the top left hand box of the vtr window. Otherwise, they can be named (or renamed) in the Edit Setup window (this is accessed through the Engineering menu, it is not the same as the Edit window). Type a name and then tap on the button at the top of the column for that machine.

Once a machine has been named, the Pogle will recognise it again, even if it is disconnected and reconnected to a different port (on some older machines and modern domestic formats, the machines own protocol does not support this name recognition). To see all the machines connected to the Pogle at the same time, the Edit window needs to be opened in a user view.

TELECINE TRANSPORT WINDOW and BUTTONS

Fig 93

The icon, which is the same as that in the System area, will show various modes. In its 93 it is stopped; the large, upper indicator will change in different play or shuttle modes, while the smaller rectangle below can change colour to show the telecines tube or array status, depending on the type of telecine. Fig 94 shows that the film is unlaced, and that the tube is either off or in low beam. There will be some variation of these indicators with telecine type; contact Pandora for more information.

Fig 94

All the codes in the telecine window display filmcode, regardless of the code type selected in the User control window; this only sets the code type for lists. It is possible to copy and then edit the window to show different code types in the Panel Editor; see the previous chapter for details on how to do this.

At the top of the window is the current counter code; below, on the left, is a button that allows the telecine edit state to be chosen. It can be a player or wild, which means it will be ignored by any edits, even if it has in or out points entered. Player/wild state can be chosen by tapping on this button, or by holding down the "Alt" key and pressing the white telecine transport key. Immediately below the counter reading is a space labelled 'Key'; KeyKode can be fed to the Pogle and displayed here.

Below that is a label showing the current transport mode and speed. If play is selected, the word 'Play' will appear in grey until the telecine is at its play speed, when it will turn white.

STROBE will cut back and forward from a note to the event list. Read the required note, then tap on strobe; the duration, in frames, can be set for how long each grading is displayed before the other.

PING sounds a note when an event is added in 'Auto' or passed in 'Play'. It requires an external speaker and 'Use Sound' to be enabled in User Controls.

SLIDE will run the counter without the telecine moving; it can be used to program moves and other changes on still frames, or to preview a change (e.g. a dynamic) when not wanting to run a piece of film continually. The correct counter position is remembered when switching in and out of 'Slide' mode. 'Slide' will also work in tape mode, but the telecine transport key has to be selected for this to work.

LOOP will make the telecine cue back and play from before the 'In' point to the 'Out' point, then recue and run again until deselected. Park the telecine anywhere before the 'Out' point, select 'Loop' and press "Play" to start the loop; it also works in 'Slide' mode.

NORM selects the telecine to run at its default speed. The button alongside is the preset variable speed; although always shown in white, this is not the default speed. To set variable speed, enter the required speed in the System numeric area and tap on the value button; most telecines will go to the nearest available actual speed.

Then tap on the 'Norm' button, which will change to 'Vari' (in red); the telecine will now play at the speed set. It is not possible to program speed changes in a list without a picture disturbance, as the speed is the actual physical rate the film moves though the gate. So, at some point, the telecine capstan and motors must change speed and there will be either an acceleration of deceleration of the film; this will cause the picture disturbance. Dynamic events cannot overcome this problem as the same limitations apply.

At the bottom right of the window are flags to show the current film format, and whether the telecine is in local or remote.

The In, Out and Dur windows are for editing, whose use is described in detail later. The Cue window shows the current cue point for the telecine; pressing the "Cue" button twice will send the telecine to that point.

If a valid code is entered in the numeric area, pressing "Cue" once will enter that number in the box, and send the telecine to it. If an event is selected from the list, "Cue" will send the telecine to the trim frame (the one on which the "Enter" key was pressed, and the thumbnail picture is of) for that event. "Cue" commands can also be preceded by + and - numbers; "12" "Up" "-14" "Cue" will cue the telecine to 14 frames before the trim frame of event 12.
" + 10:00:00" "Cue" will cue the machine 10 minutes forward from the current point. Pressing "Cue" with no other number entered will have no effect; 'Cue' numbers cannot be deleted.

VTR TRANSPORT WINDOW

Fig 95

All codes in the vtr window are shown as timecode; it is not possible to change them without editing the window in the Panel Editor (the same is true of lists with a timecode source; these will always display in timecode mode, and cannot be changed). At the top left of the window is the vtr name (if this has been previously entered) and, to its right, the current edit state.

Holding down the "Alt" key and pressing the machines transport key will step through the options; a slight pause between presses will switch from 'Player' to 'Wild' and back, but a fast double press will select 'Recorder' (but only if the current state is 'Wild'). This mode can also be changed by tapping on the button, which will step through the options; or by a press and hold, which will open a drop down menu with the options which can then be selected.

The line below shows which port the machine is on (Vtr 1 to 4) and its current timecode type; this is set in the Edit Setup window (selecting 'Auto' in the Edit Setup window will switch between VITC and LTC when the machine moves, as appropriate).

A press and hold on this button will open a drop down menu showing possible timecode reader options, but it cannot be altered with this menu; it is always as chosen in the Edit Setup window. The current timecode is shown in the next window.

If part of the vtr icon at the bottom of the vdu is cyan coloured, then the timecode rate for that vtr is not the same as the room timecode standard. In the Edit Setup window, at the bottom of each column, is a button showing the timecode rate; this can be set to 30, 25 or 24 fps, as appropriate for the machine, which will then display its icon correctly. This is provided because some machines (Panasonic HD D5 and digitising Avids are known examples) sometimes displays the wrong code, and needs this switch to select the correct timecode rate. It should not be altered for other machines, as the cyan colour indicates that the machine cannot edit correctly; changing the timecode button simply hides the problem.

Most vtrs can be switched between Ready (i.e. have the head spinning) and Standby states with the left button on the third row, next to the current play mode indicator. In Ready mode, Rdy will be highlighted in white; in Standby, it will be greyed out. The transport mode indicator changes as the machine is played, stopped or shuttled. In 'Play' mode it will say 'Play' in grey until the machine is locked, when 'Play' will turn white. If in 4 or 8 field lock (set on the machine) it will say 'Play C' when in colour field lock.

However, tape machines should be in 2 field lock for all editing. Below the edit code windows (covered below) is 'Vt Cue'. This shows the current cue point; the cueing logic is the same as for telecines, except that it cannot use the list to get cue points directly, unless the system is in 'Tape' mode and the selected machine is the source deck. 'Cue' numbers cannot be deleted.

At the left of the row beneath is a button to switch between EE and Playback (this working depends on the switch setting on the machine itself). EE will be highlighted when on, and greyed out in playback mode.

EE/Playback can also be switched by holding down the "Control" key and pressing the white transport button for a machine. If the machine itself is set to EE, this will not highlight the button. The Edit mode (Insert or Assemble) is chosen with the next button; the default is Insert. In Insert mode, the small buttons at the bottom and right of the window select those channels that will be over-recorded and those which will not; the channels actually available will depend on machine type, although all vtr windows show the same options.

When 'Assemble' is selected, all available channels will be highlighted; switching between Insert and Assemble can only be done in the individual vtr window, not the Edit window. If the Platinum is restarted, all vtrs will revert to 'Insert'. To the right of the Insert/Assemble button is a space that will display other messages from the vtr, e.g. Rec Inhibit or Local. Unlike the telecine, there is no 'Remote' indicator in the window, but the icons at the bottom of the screen will show 'Local' in red, and different indicators for their current state when in remote.

TAPE MODE

There are two different 'Tape' modes. 'Tape' is used to distinguish between telecine and another source; it can be any valid video signal. In one of the 'Tape' modes, the Pogle (normally) has a telecine connected, and the grading system can switch between grading pictures from that or a video source, fed to Revolutions second input.

This mode is selected in either the SCC or Room setup windows (accessed through the Engineering menu), by tapping on 'Tape' (the second button from the top left in the SCC window, and the extreme bottom right in the Room setup window).

However, the grading room can be set to be a tape room only by selecting 'Tape' as the telecine type in the Room Setup menu Fig 96. The top left button in Room Setup allows the type of telecine to be chosen, but one option is 'Tape'; this will require rebooting the Platinum after changing the selection.

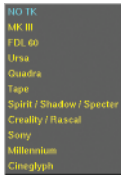

Fig 96

There are some configurations that require the room is set to Tape from this window, but for most uses the temporary switch is acceptable. The system cannot be switched to either 'Tape' mode if there is an active list.

If the Room is switched to Tape mode, the left-hand column in the Edit window will have the word 'Telecine' at the top, while the name box below will say 'Tape'. This column will show the same in and out points as the machine selected by the 'Lock' button at the bottom left of the window. This button selects which decks timecode will be used to generate the list, so the port the source deck is connected to should be selected. It should not be confused with the lock numbers shown in the bottom two rows, which are the editing sync references.

In both 'Tape' modes, the telecine icon will vanish from the bottom right-hand corner of the vdu, but in the temporary mode, if the telecine is made a player, the editor will still react

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if it has in or out points; it needs to be set as a 'Wild' machine. In both modes, the telecine transport button will also control the source deck.

CHANGING FIELD TIMINGS

The * by an event code indicates the field that the event occurs on (the default in PAL is field 2). This can be changed with the "Shift" key; entire lists (or part of them) can be changed with "Shift" and "All".

THE EDIT WINDOW

Fig 97

Below the port number (at the top of the window) is the name of the machine, if it has one. Below that are boxes for edit in points, then the current code, then the out point and below that edit durations. The next row has two buttons for each machine; one can select the edit state and the other, an 'S', is for locking machines together during editing, explained below. This symbol is not in the individual transport windows, so to select machines for locking together the Edit window must be opened.

At the bottom of the telecine column is a button to show if the telecine is set to normal play speed or varispeed (labelled either 'Norm' or 'Vari'), and its current transport mode; vtr columns show similar information or a 'No Tape' message. At the bottom of the telecine column is a button that displays the current edit status (Perform, Preview and Review).

This is only an indicator; it cannot be tapped on to select a status, or make the selected edit happen. Each other column has a box showing various machine messages, which are the same as those shown in the individual transport windows. There is an indicator of its Edit mode, will will be either Ins(ert) or Ass(emble), shown in red. This indicator cannot be used to switch between the two; that must be done in the individual transport windows.

At the bottom left is a button labelled 'Lock', which selects which decks timecode is used to make lists in 'Tape' mode. At the foot of each column are rows of Film and Tape lock numbers. These numbers only appear in the Edit window, not the individual transport windows; they show the lock points for editing, described later.

EDITING

When editing, the frame that is the In or Out point will be visible. For example, if a telecine has a punch frame at counter number 01:00:00:00, which is also the edit in point, and the record machines timecode in point is the same, it will mean the punch is visible on the recording. If the same number is the out point of an insert edit, it will be the last frame recorded.

The Pogle can control a telecine and up to 4 other machines at once; the vtrs can be players or recorders (or wild, and ignored by any editing commands), in any combination, and the recorders can be in either Insert or Assemble (or a mixture of both). The Edit window needs to be open to see more than one machine at a time, unless it is a telecine and one other, when changing the individual window behaviour can allow both to be open at once. To be part of an edit cycle, a machine must be either a player or recorder, set as described earlier.

Editing requires that valid code already exists on all machines involved; like all editors, the Pogle will attempt to cue machines and carry out the edit as commanded, regardless of whether the code exists or not. So, if a machine has an in point of 01:00:00:00, but the existing code ends at 00:59:50:00, the Pogle will shuttle the machine past that point and stay in shuttle as it looks for its pre-edit cue point, which will be around 00:59:55:00 (depending on its setup).

With the same in point of 01:00:00:00, and if the code ends instead at 00:59:59:00, the Pogle will cue the machine and start the edit cycle, but will then abort the edit (and show a warning that the vtr was early or late), as the code finishes before the edit point.

It will carry out an insert edit if the in point has a valid code, regardless of the out point; if that is past the end of the existing code, the recorder will lose lock where the code ends, but the edit cycle will continue. In this case, the Pogle will not stop the machines, even though the recording will probably not play back correctly. However, the Pogle will flag, both by means of the icon colour turning red and a 'Lost Lock' message, also in red, that machines have lost lock.

If there is a gap in the timecode, after which there is more valid code, some machines will then relock; the 'Lost Lock' message will then vanish and the red icon will return to normal. For this reason, recordings should not be left unattended.

For whichever transport is currently selected on the keys above the transport controls, pressing either the "In" or "Out" key will enter the current code of that machine into the appropriate box in both the individual transport window and Edit window. If a valid number is entered in the system numeric area, that will be used instead. If there is an existing edit point, entering a (valid) number with a '+' or '-' prefix and then pressing the "In" or "Out" key will modify the edit point by that amount. Thus, with an in point of 01:27:12:04, "-204" "In" will make the in point 01:27:10:00.

If there are no existing edit points, numbers with '+' or '-' prefixes will enter invalid numbers. "Delete" and then either "In" or "Out" will delete the code from the appropriate box.

If there is an existing in point, entering a number and pressing the "Duration" key on the Transport panel will add the entered value to the in point and make an out point at that number. Entering a new value and pressing "Duration" will immediately recalculate the out point. If there is only an out point, the duration will be subtracted from that, and a new in point will be generated. However, once there is an in point, any further entries of duration are calculated by adding the entered duration to it; i.e. the out point is always recalculated. Duration's cannot be modified with "+" or "-", neither can they be deleted.

However, they can be entered in either feet and frames or frames only by using the "·" key on the numeric keypad; the Pogle will then work out the correct duration in timecode.

Once each assigned player/recorder has edit points, pressing "Preview" on the Transport panel will carry out the edit cycle, with the recorders switching to EE at the edit point; they do not go into record (this switching may not be frame accurate on some machines). The existing edit points will remain, unless modified in any way, as described above. Pressing "Perform" will carry out the full edit.

If a machine is selected as a player or recorder but either has no edit points or invalid ones (for example, an out point of lower value than the in point), the Pogle will display a message: Warning: Bad duration on VTR (number). If more than one machine has invalid edit points, they will be flagged one on top of the other, with the higher number vtr first and the telecine normally at the bottom. If the message appears, pressing "Clear" will show if more than one machine has invalid edit

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points by uncovering another message underneath; if the message vanishes, only the one machine is wrong.

If recording in 'Insert', at the end of the edit, the out point will become the in point; only one machine needs an out point when in Insert (it can be any machine in the edit cycle), all other machines will take their duration from that. To repeat an insert edit with the same codes, press "Restore" and "In" or "Out", for any machine that was part of the edit cycle; all the edit points will then be restored, and the edit can be repeated or modified. Pressing "Restore" again will toggle back to the updated edit points ('Restore' only works if the whole edit cycle has been completed). "Stop" can be pressed at any time when carrying out an insert edit, as the recorder will come out of record mode before stopping, so there will be no hole in the timecode. All the in and out points will remain as they were.

Recording in Insert doesn't require an out point; the edit cycle will be open ended (this assumes that the recorders have enough timecode for the duration of the recording). In this case, pressing "Out" at any point when in record will then behave as if the out point had already been entered; all the machines will stop, and the code the "Out" key was pressed on will become the new in point. The in points can then be restored.

If recording in insert with an existing out point, pressing the "Out" key before the machines have reached the out point will make the code the key was pressed on the new in point, delete the existing out point and stop the record cycle. This only works with the "Out" key, not "In". Once an edit is complete (in either insert or assemble), pressing "Review" will shuttle the record deck back to before the in point and play the recording, although it won't stop at the out point, if there was one.

When recording, pressing "Stop" will either stop all the machines, or, if selected in the User Setup window, just the currently selected transport; if black is programmed into a list (made by turning the Primary controls fully down), this can be a quick way of adding it onto the recording.

Selecting the source deck and stopping it when the black appears will then leave the recorder running until it is selected and stopped; this works in both Insert and Assemble modes. A macro could also be programmed to act as an all stop command instead. Pressing the Shuttle Wheel "Jog" button will also stop the currently selected transport while leaving the others running.

In Assemble mode, pressing "Stop" will stop the recording, but the edit points stay unchanged. Pressing the "In" key while still in record will make the point the key was pressed at the new in point, but the machines will stay in record until stopped. Pressing the "Out" key while in assemble will stop the edit and make that code the new in point; the original edit can then be restored with "Restore".

EDITING USING THE LIST

For the telecine (or source deck in tape mode), the list can be used to enter edit points, by selecting the scene required with "Up" or "Down" and then pressing "In" or "Out". Although "Up" and "Down" will move the list display to the trim frame, the right edit point (a frame after the event code) will be entered. Event numbers can be used, as the number is cleared from the numeric area by pressing "Up" or "Down", so is not seen by the Pogle as a command.

So "6" "Up" "In" will make the first frame of event 6 the in point. "Down" "Down" "Down" "Out" will make the out point the first frame of the forth event from the current point; that is, the edit cycle will now record from the existing in point the to the end of the event selected (the current event and three more) before stopping.

When used for editing, "Copy" is like "Up" or "Down", but applied to the next event. This is because "Down" skips to the end of the next event, so "Down" "In" doesn't select the beginning of the next event as the in point, but the one after. So "Copy" "In" or "Out" will make the first frame of the next event the edit point. List numbers can also be trimmed by entering modifying numbers on the numeric keypad, at the right time in the sequence. So, "19" "Up" "-100" "In" will enter an in point that is a second before the first frame of event 19.

TRANSPORT LOCK; editing with THE "ALL" KEY

Any of the players and recorders can be locked together, and the "All" key used to enter in and out points for all locked machines. In telecine rather than Tape mode, machines always lock to the telecine in point. To lock machines, the 'S' symbol in the Edit window must be highlighted, and the telecine and vtrs must have in points; then select the transport key for the machine to be locked, followed by "Trans Lock" and "Enter".

All machines with the 'S' highlighted can be locked at the same time, by pressing "Trans Lock" "All" "Enter"; each vtr will then lock its own in point to the telecine in point. The vtrs will lock to the telecine even if it does not have the 'S' highlighted; but the telecine needs an in point, even if it is not part of the edit cycle.

In Tape mode, the Film lock point is automatically set to 00:00:00:00, so all machines lock to the same reference. The two boxes at the bottom of the column for vtrs (in the Edit window) will update to show the codes the machines are locked at. If level sync is to be maintained (the same telecine counter number as record timecode) and the Film and Tape lock boxes already show the same numbers, the lock does not need to be re-entered, so recording rushes rolls at (say) one hour offsets does not require re-locking when film rolls or video tapes are changed.

Machines can have different locks points. For instance, it might be necessary to record a cut film both as a continuous program, and also each roll separately, with the timecode running from an exact hour code for the first frame on each individual roll. For the cut version, the transport lock point for the first frame of the film roll will be the last on the continuous recording (the vtr in point) but, for the individual rolls, the vtr lock point will be the code that the first frame of the telecine roll should be on.

Once a lock is established, any machine can be used to enter in or out points and, by pressing the "All" key, the correct timecode will be entered for all the locked machines.

In the same way, "All" will enter the same in or out points for all machines if a number is entered in the numeric area, or modify them all if the number is preceded by a + or - sign. Edit points can be deleted the same way: "Delete" "All" "Out" will delete all the locked machines out points. However, if the currently selected transport is not locked, it will also be included in the 'All' command. So, with the telecine and a recorder locked together, another recorder not locked and a player not locked, selecting the unlocked recorder and "Delete" "All" "In" will delete the in points from the telecine, the locked and unlocked recorder but not the player.

Edit numbers can be derived from the list, as described above, and the "All" key then used to put that number in as the edit point for all locked machines; the list numbers are treated no differently to those entered any other way, except that the Pogle adds a frame to them for the edit to be correct. With "All" this is done for all the machines. The "All" key should be pressed before "In" or "Out"; for example "1" "Up" "All" "In" to start the edit cycle from the beginning of event 1.

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Because it can use the list, event points at the beginning and end of a roll can be used to quickly enter the edit codes . To take a common example, a rushes roll which is the third such roll; it has a punch frame, which
will be given the telecine counter number 03:00:00:00, and it is to be recorded onto the same timecode (which needs to be striped onto the record vtr). Pressing "Add" on the punch frame (after the counter has been set) will make an event that can then be selected as the in point, followed by "All" "In"; this will make the punch frame (03:00:00:00) the in point on both machines. The last event can then be selected and the out point copied from that (but see Edit Notes later in this chapter).

"All" also works with 'Cue' commands; "All" "In" "Cue" will send all locked machines to their current in points. As above, any number in the numeric area will have priority, and cue commands can be modified by + or -. Selecting an event from the list and then "All" "Cue" will send all decks to the trim frame for that event. As holding down the "Alt" key when selecting an event and pressing "Cue" sends the source machine to the last frame of that event, all other locked machines will do the same. Alternatively, selecting an event and then "+1" "All" "Alt" and "Cue" will send all the decks to the first frame of the event after the one chosen.

RECALL KEY. This key is used to copy timecode numbers between machines. For instance, to copy vtr 1s in point to vtr 2, press "Recall", then vtr 1s transport key, then "In"; the in point should appear in the numeric area. Then select vtr 2 and press "In"; the in point is now entered for vtr 2. "Recall" will also recall 'Cue' points, which can then be used with another machine, with the same keystrokes as for edit points. 'Recall' will appear in a box in the System area when selected. It does not work with durations.

AUDIO MACHINES: SYNCING AND END SLATES

Known audio decks are treated slightly differently to other vtrs, to allow easy syncing. To see if a machine is recognised as an audio source, open the Engineering menu and then Edit Setup. In the column for the port the audio deck is connected to, check the 'Transport Lock' button; this should say 'Audio'. If it doesn't, it may be that the machines own control protocols are incorrectly set. Check with either the machines suppliers technical support, or contact your Pandora service agent to see if that machine is supported as an audio source.

Once the Pogle recognises the machine as an audio source, the transport lock function will behave differently to other vtrs. Highlighting the 'S' for the machine and entering an 'In' point followed by "Transport" "Enter" should empty the timecode in box. However, the Pogle will remember the 'In' point and, and, if "Perform" is pressed, the number will reappear and the machine will edit as normal.

For most audio syncing (from slates that display timecode), it is only necessary to mark the in points as normal on the telecine and recorder. For contiguous recordings, i.e. when recording the entire film roll without skipping takes, these two can be locked together. The timecode from each slate is the in point for the audio player, which should be entered on the numeric keypad, and "In' pressed (with the audio deck selected); it should not be locked to the telecine. However, for end or tail slates it can be more complicated, involving finding the sync points at the end of the take and then subtracting the durations from the telecine and audio deck. To overcome this problem the Pogle has a special mode.

The telecine and recorder in points are marked as normal, then the telecine parked on the tail slate. The code from it is entered on the numeric keypad and, with the audio machine selected (but not locked) the "Transport" and "Enter" keys are pressed; don't mark the telecine point. The audio machine will now follow the telecine, and pressing "Perform" will work out the duration needed for the audio to sync to the telecine at the head of the take. This assumes that there is enough continuous code on the audio tape for it to cue back to its edit pre-roll point.

Since this mode needs visible timecode, it cannot be used to sync tail slates with a purely visual and audible mark (a standard board clap). In this case, the in point for the telecine and recorder should be marked as normal, and the telecine then parked on the clap point, which is marked as the out point. The clap is then found on the audio deck, and that also marked as the out point; the duration shown for the telecine is then subtracted from the audio decks out point to calculate the in point. It is probably best to then delete all the out points so the recording can run on past the exact clap frame.

It may sometimes be necessary (or preferable) to record the pictures mute and insert the sync audio afterwards. In this case, when recording the sound, the telecine should be put in 'Slide' mode, and locked to the recorder.

The recorder is then parked at the start of each take, and "All" "In" performed. The end sync point is then found (on the record deck) and, at that point, "All" "Cue" "Cue" pressed (this sends the telecine counter to the same code as the recorder). As above, the code from the tail slate is then entered from the numeric keypad and marked as the out point for the audio deck. "Transport" "Enter" will lock it to the vtr, and the edit can be performed, again assuming there is sufficient code on the audio source for its pre-roll.

EDITING NOTES

If the list is not in timecode, but a number from it needs to be modified by a timecode number, using the "*" key on the numeric keypad will make any numbers then entered timecode, rather than filmcode.

If a disc is being used as a cache, it can be made part of the edit cycle by making it either a player or recorder, but this will cause a conflict with its use as the cache. The solution is to move it temporarily to another port, as caching only works with the disc on port 4 (setting the cache size to 0 will not prevent the conflict).

If any machine other than the telecine has an out point, the recorder must be in insert mode; the Pogle will not carry out an assemble edit with out points marked for other decks. To do a closed ended record in assemble, mark the 'Out' point on the telecine only. When the edit is performed, the Pogle will not show the out points for any machine other than the telecine, but will stop the telecine and all other decks after it. In Insert mode, the Pogle calculates the out points for all machines in the edit cycle and displays them.

If the Pogle attempts to modify the telecine speed, there are different durations for the telecine and other machines; a message, 'TK Speed trimmed to match durations' will appear, and the 'Vari' flag in red will appear in the telecine transport window and the Edit window. Deleting one or other out points (depending on which ones are correct) will run the telecine at normal speed.

If the telecine is in 'Vari' mode, the Pogle turns off its error checking and allows any edits to happen regardless of the telecine timing. Once an edit has been done, checking the difference between the chosen frame and actual frame recorded and adding or subtracting that from the telecine in point should allow for reasonably consistent editing. If the "All" key is used in 'Vari' mode, the Pogle will take into account the telecine speed and work out edit points accordingly.

chapter 6
editing

USING EDLS

The Pogle can import edls; they must to be CMX format (it cannot read binary files) and they need to be placed in the Virtual. This can be done easily from a cd (or USB device) loaded into the host computer, or files can be transferred over a network. The edl will normally be named 'Import'; only one edl with this name can be in the virtual at any time. Once in the virtual, tapping on it will make a list, containing the record timecodes, in the current project in the Vault; its icon is similar to the record icon for a vtr, as seen at the bottom of the vdu.

This list can then be opened; its window will be like a normal list, but will contain some extra icons above the thumbnails. The left hand icon 'EDL', will open the edl on the desktop, which can then be scrolled through. Further options are available for edl manipulation; they are covered later in this chapter.

The edl icons in the Virtual have their own set of options, revealed by a press and hold. The first is 'Convert EDL Record list', which is the action carried out by a single tap, detailed above. The next is 'Convert EDL Source list'. This option will make a list, or more usually several lists, again in the current project; their icons contain green arrows. Each list will contain the source code from individual reels, but these are not necessarily film reels or rolls; edit system reels do not have to be separate tapes, they can seem to repeat timecodes, by using usually hidden tape numbers. Some of the lists may be single events with apparently odd source code; these may be black, or a graphic. But there will usually be one or two lists with more events; opening them in turn should show which ones contain the correct codes for the telecine film source. A list made from source codes will only have the EDL icon (as well as normal list icons) which can be opened as with Record edls.

The next two options, 'Show info' and 'Remove file' are the same as most other Vault items, but the bottom option, 'Show file contents' will open the file directly onto the desktop. This should contain a standard edl list, with both record in and out points, and the same for the source; it may also contain a comments field. When a source list which was originated as an edl is saved, it will have a small green arrow icon at the top right of its list icon; one from a record edl will have a red dot.

ADDITIONAL OPTIONS OF EDL SOURCE LISTS

If a list is derived from a recognised edl format, it will something look like this:

Fig 98

The top two rows of icons will work as normal; how the bottom row works depends on whether or not the list is active. If it is, the bottom left icon, labelled EDL, will be highlighted; clicking on it will open a window, EDL Full, which shows the reel name or number, plus the source and record times for each event in the edit list.

Individual scenes can have other information in them, this will be shown in the long bottom window; it will also be imported as list labels. This display will not show all the extra information that is sometimes stored in edl's; to see that, click and hold on the edl icon in the Virtual and select 'Show File Contents'. However, if a search is made, using the 'Up' and 'Down' keys, all the hidden edl information is checked for matches.

'Src curr' and 'Rec curr' will display the current code when either a source or record list is active. The 'Up', 'Down' and 'Cue' buttons at the bottom left are the same as the keys on the Transport panel. If preferred, a smaller window, called just 'Edl", can be opened from the vault. This is similar to the 'Edl-Full' window but only shows one event at a time, and doesn't have the 'Up', 'Down' and 'Cue' buttons.

The row of icons with green arrows and red dots are used to move gradings from one list to another, or to break the existing list into separate reels, the information for which the Pogle gets from the edl. The red dot indicates a record list, the green ones are source lists, so the arrows show the direction the corrections will be moved in.

This icon works with record lists only. There must not be more than two record lists open at any time for this to work; clicking on the icon will move gradings from the active list to the inactive one. If there are any list labels in the active list, they will be copied over, but, if the edl source for the list already has labels these will not be over-written. If the inactive list is then activated and trimmed, clicking the icon again will move the new gradings back to what is now the inactive list.

The right-hand icon (which will only be highlighted if the list is active) will make a new list which contains only those events that have the same reel number as the current event; the thumbnails for events with different reel numbers will be black. This means that similar events (as long as they have the same reel number) can be trimmed together (with the "All" key). Several different source reels can be open at once, and gradings from them displayed by clicking on the thumbnails as usual.

Once the list made as above has been regraded, it can then be copied back into the original list with the icon on the left. Since the Pogle can open several lists at once, this means that gradings from these can be copied into a finished edit compiled from the different reels, as is the case with, say, film trailers.

When different reels are open, regardless of how they were generated, information from each shot can be displayed by clicking on its thumbnail as usual.

There is an additional window, 'EDL setup', which can be opened from the vault; it is designed to work mainly with servers such as the YoYo. It can take the source information and make a new edl to be used by the server, or to obtain an edl from it, by clicking on the 'Grab EDL' button.

It will add the number of frames shown in the 'handle' button both before and after the trim frame in each event of the current list, and add black between each one, the duration of which is set below. If, for example, the 'handle' duration is set to 10 and the 'black' to 50, a new edl will be made that consists of 21 frames of each scene in the current active list with 50 frames of black between each one. If both the buttons between the label and duration are set to 'Off', the edl will consist of 1 frame of each event cut directly together.

The button below allows for the new edl to be either in conform order, that is the order of the shots in the list, or source order, where they will be in timecode order. The 'Linear Reel - Source order' will make an edl of all the reels in source order using the values set in the boxes above; however, the black values will need to be large enough to allow any editor to use them, and if there are overlapping codes in the source reels they will be merged. Some servers might behave slightly differently; check with Pandora for details. 'Trim Time', the last option, will make a similar edl but with the events in record order.

Once all the parameters have been set, clicking on the 'Grab EDL' button will generate the new edl, which will be sent to the virtual with the name 'cmx'. Only one item named 'cmx' can exist in the virtual at any time. If the 'Download' button is turned on, the edl will automatically be sent to the server (if it supports this function).

chapter 7
lists in detail

LISTS IN DETAIL

For this chapter, references to the "Add" key include any keystroke that will generate an event, that is "Add", "Start Mix" (when in 'Live') and "Start Mix" "Add" (when in 'Program'). The later will not be repeated, but will assume correct operation to make a dynamic event.

When Lists are selected in the Vault, tapping on 'New' will make a new one, or an existing list can be opened by tapping on its icon. The size of the window is fixed by the size of the thumbnails it displays, but its height can be altered by pressing and dragging on one of its corner markers; when released, it will jump to the nearest size that will fit a thumbnail (even when they are not being displayed). The minimum height fits one thumbnail, the maximum depends on the size of the vdu. The scroll bar on the right can be dragged up and down to scroll through the list. Other windows can open in front of it; to bring the list back to the front, tap on any visible part apart from a thumbnail (which will put the Pogle in 'Copy'). List windows behaviour cannot be modified .

If no other lists are open, the one just opened immediately becomes active; if another is already active, then tapping on the button next to the word 'Active' at the top of the list window, will make that the active one. The Pogle can have up to 8 lists open at once, but only one active one. Tapping on a thumbnail in any of the lists will put the Pogle in 'Copy' mode; each list can be scrolled independently, and their display options (see below) set individually. If a new project is created, and there is not already an active list, one will be automatically generated. When a list is opened, the message 'Loading' will appear in the System area while its thumbnails are imported; this may take a few seconds, depending on the number of events in the list.

LIST ACTIONS

Fig 99

Close, Clone, Save, Export and Active.

At the top of the list window is the 'Close' button. It will close that window; if the list as it is has not been saved, a new window, will appear. There are three options, 'Don't Save', 'Cancel' and 'Save"; click to select.
The next button is a '2'; tapping on this will open a clone of the list. This is identical to the original, but it can be scrolled independently, and much faster, and will then stay on the event selected by scrolling; it is unaffected by any scrolling of the main list. Its display options (see below) are the same as the original, but they can be opened and closed separately. Tapping on a thumbnail in the clone will put the Pogle in 'Read' mode, and apply its grading to the current event; this can then be entered, or channels selected for copying with the group keys. If an event in the list is altered, the clone will instantly update to include the change.

The 'Save' button will be highlighted if the current version of the list has not been saved (this does not include backups), and it will be greyed out when it has been; there will also be a * in the name at the top of unsaved lists. The 'Save' button can be tapped on to save the list. If, for any reason, the Pogle panels are not responding and the "Save" key will not work, clicking on 'Save' with the host computers own left mouse button may store the list. The 'Active' button on the right (a small green box) indicates that the list is the current one, i.e. its information is being applied to the image.

The naming of lists is the same as other Vault items; if there is text in the System area when it is saved, that name will be given to the list, both in the vault, and also at the top of the list window. Each time a list is saved, a new file is made, the existing versions are not overwritten; there is no 'Write over list' option in the Vault. Closing a list will immediately dismiss the window if the list as it is has been saved, otherwise the 'Save changes' box will appear. "Delete" "All" "Enter" will delete all events from the active list, but there is no warning that all data will be lost. When deleted this way, all controls return to their default settings.

The 'E' icon will send a copy of the image currently selected as the output for Pandora's framestore (if fitted). Clicking on it will open a box with the file path shown at the bottom; clicking on 'OK' will put a thumbnail of it in the Shape page of the Vault. Once there, it can be dragged to the Virtual in the Black Hole, or directly to an external device such as a USB key or stick, (if it is mounted and displayed in the Black Hole). If the '.tif' suffix in the window that appears when 'E' is first clicked on is changed to '.jpg' the exported image will be a jpeg rather than a tif (this is not remembered between exports, but needs to be done for each image). The default name includes the name of the list the image is taken from, and its event number.

DISPLAY OPTIONS

Fig 100

Thumbnails, Event type and Labels.

The row of buttons underneath the list action icons select the display options; the default is just the thumbnails. There are three types of display, turned on and off by tapping on the buttons. From the left they are thumbnails, the event code and type indicator, and labels; they can be displayed in any combination, but their relative positions cannot be changed. In thumbnails, there are images for each event, stored when either the "Add" key was pressed to first generate the event, or when "Enter" was pressed inside the event (the trim frame).

If a new event is created inside an existing list there will normally be no thumbnail, but a grey space instead. Pressing "Enter" when parked inside the event will generate one.

As the transport will go to the trim frame when cueing, and store it in the cache when one is available, "Enter" should be pressed at a suitable point in the event to store a recognisable or representative image. If for any reason (e.g. to reduce the size of a list for storage) there is a requirement to make a list without thumbnail images, they can be turned off in the Room Setup window, accessed through the Engineering Menu. The button labelled 'List Images' (near the bottom left) should be tapped on to deselect it. However, turning this off will not delete thumbnail images from an existing list.

The current code is shown between the two most central thumbnails (this cannot be permanently changed, to put the code nearer the top or bottom). In telecine mode only, the type of code displayed can be changed in the User setup window, or temporarily changed by holding down the telecine transport key for a couple of seconds, to toggle through the different options. These are: Filmcode (time and frames); Feet and Frames; Frames only and Timecode.

EVENT TYPES

Fig 101

The event indicator has a graphic display of the type of event in the list, for each channel it controls (see below). A solid horizontal line in each channel, its 102 indicates a cut; the grading on one side will change instantly to the grading on the other at that point. If the event is a dynamic, also shown by a yellow cross over the thumbnail in the list

window, there will be a vertical yellow line in the channels, between the beginning and end points.

Fig 102

Fig 103

Fig 104

Fig 105

For most channels, each end will have an arrowhead, *Fig 103*, this indicates that the dynamic is linear. In these, the Pogle calculates the change needed on each frame to make the transition from one grading to another across the length of the dynamic; the change on each frame in the dynamic is the same amount. For scans only, the default will be a non-linear change (called an S-curve, or profiled), indicated by a solid circle instead of the arrowhead *(Fig 104)*. For these, the first and last few frames of the dynamic (depending on its length) will have increasing and them decreasing amounts of the change needed for each frame, so the scan change will speed up and slow down through the dynamic.

This emulates camera moves and zooms, where it is not (usually) possible to go from stationary to moving, and then to stationary again, without some acceleration and deceleration. How to change these scan dynamic types is covered later in this chapter; the other channels are fixed as linear profiles, and cannot be altered.

Lastly, there are null points, its 105, and no changes will happen in the channel at that point. These occur where the channel has been excluded from an event for one or more other channels.

EVENT LABELS


Fig 106

The label display has a space in which there is always the event number, but into which labels, strings of up to 20 characters, can be entered. If there is text in the System area, pressing "Enter" will put that text in the label area. If in the live event, any text will be entered when "Add" is next pressed, even if is no longer in the System area (it can have been stored already by a press of the "Enter" key). If a note with a name is read, then "Enter" will put the note name into the label; this also works with the live event. If the note has no name, then 'Note' will be put in the label. However, if there is an existing label, it will not be overwritten when reading a note. To delete a label, press the space bar on the qwerty panel and then "Enter"; the text will be overwritten by the space (but this will then be treated like any other label).

Labels can be searched for using the normal conventions of computer searches; the more characters in a search, the more accurate will be the results. Enter text in the System area and press "Up" or "Down"; if there are any matches, the list will jump to the first one, and subsequent keys presses will then go to any further matches in the direction of the key. If there are no more matches, further key presses will then jump to the first match again. This type of search is only carried out in the direction of the key, it won't look in both directions (up and down) in the list. In its 107, "l" "Up" would jump first to the event labelled 'lemon', then 'lime' and then 'apple', and then stop, as there are no more event labels with 'l' in them. "le" "Up" would also jump to 'lemon' and then 'apple', but 'lem' would only go to 'lemon', and wouldn't change on further key presses. Searches are not case sensitive.

Fig 107

LIST CHANNEL CONTROL

At the top of the event type display are icons showing which channel each column applies to. They are (from the left):


Fig 108

Telecine primary: normally telecine roller-ball controls and saturation.


Fig 109

SCC: all the Revolution colour correction controls.


Fig 110

Scans: the telecine size and position. If using a source such as Pandora's YoYo, which has its own sizing controls, these are also stored here.


Fig 111

Utility: normally the telecine play speed, aperture correction and some switches.


Fig 112

Noise: any external noise reducer and its options.

The telecine controls may vary with the type of machine, as will any noise reducer (if available). Each of these channels can be programmed separately (see below), but, as well as these, anything that has a group key on the Transport panel also has its own list; they are not displayed as the list would become unmanageable. For example, telecine audio and neg matching (where applicable) can be programmed independently of the other groups. When any group that does not have its own indicator has an event entered this way, the visible channels will show all null events (these are events that have no effect). If the event is a dynamic, the yellow cross will not be superimposed on the thumbnail; this only happens for the five main groups.

PROGRAMMING LIST CHANNELS SEPARATELY

The default when making a list is that pressing "Add" will generate an event in every channel. However, if one of the group keys is pressed before the "Add" key, an event affecting only the channel selected by that group key will be made; there will be null events in all other channels. Once the new event is created, the selected group key will deselect itself. So, by pressing group key "Scans", then "Start Mix", and reselecting the "Scans" key before the "Add" to end the dynamic, a scan change can be programmed, but any grading information entered anywhere in the duration of the dynamic event will be applied throughout its whole length.

This process can be used to overlap different dynamic changes in each channel; e.g. colour changes can start and end at different points to scan changes, and each event list for each parameter will work at whatever points are programmed.

The list window will show a series of yellow crosses on the thumbnails when programmed this way. To force a group key to stay selected, open the User Setup window and select the channel from the 'Default Group Lamps' buttons at the bottom of the window. As an example, Fig 113 shows various overlapping dynamics with null points for some groups.

All events entered now will only be in the channels selected, although other group keys can still be chosen on the Transport panel to put event points in for those groups. Where different channels have overlapping dynamics, there will always be an event made at the beginning or end point for each channel. However, each consecutive event, regardless of which channel it is in, will have thumbnail with a yellow cross through it, indicating that it is part of a dynamic.

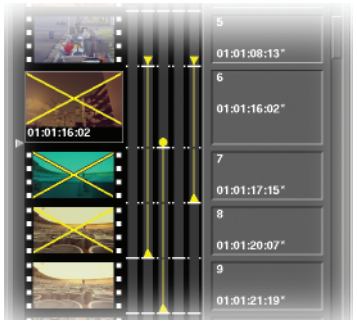

Fig 113

There is another instance where adjoining thumbnails will have the yellow cross indicating a dynamic on them, and that is if one dynamic event is immediately followed by another, or clustered. If "Start Mix" has been followed by another "Start Mix" rather than "Add", each channel has the same start and end points (if none of the group keys are selected).

For these, the Pogle will work out the dynamic as usual, but will immediately start another one at the second (and subsequent) start points. If a trim is made in a dynamic, any changes will be applied to the end; the same is true with clustered dynamics.

The most accurate way to trim these is to park on the last frame of each event in the sequence and make any changes there; the trim will be applied to the end of the current event and the start of the next, which is the same thing. It may sometimes be helpful to press "Add" on the frame after one of the dynamic transition points, make any trims required, and then delete the extra point.

MODIFYING LIST GRADINGS

with "All", "Trim" and "Copy" (including "Up" and "Down")

Once a list has been made, it can be modified in two ways. Its contents, i.e. the grading information, can be changed; this is done with trims, by copying other events or reading notes. Or the actual events points can be altered, by moving them, deleting them or changing their type, say from cuts to dynamics. Some of these modifications are done with keystrokes, but some can only be done on the vdu. These two types of modification are dealt with separately.

As a precaution, lists should always be saved before any use of the "All" key; extra lists can easily be deleted, but a single incorrect keystroke, or a misunderstanding of what is being asked for, can be very time consuming.

"All" is used to select more than one event; pressing the "All' key will open a window called 'Selection' Fig 114; a quick double press of the "All" key will select the whole list.

Fig 114

The buttons can be used to select (or deselect) controls from the "All" command – they duplicate those on the Transport Panel. The bottom row of buttons are for entering start and end event numbers, to select which events will be affected by any following actions.

The default for most modes is to change all events from the current one to the end of the list; these event numbers will be automatically entered in the start and end boxes. (The only exception is 'Delete', when "Delete" "All" will select the whole list, but "All" "Delete" will select from the current event to the end). In any other mode, a quick double press of the "All" key will immediately select the whole list.

Once the 'Selection' window is open, tapping on 'Start' will change the current event number in it to '1'; tapping again will change it back to the current event number. Tapping on 'End' will change the final event number to the current one, and tapping again will put the last event number back again. In this case, the last event number will include the live event, so will appear to be one higher than the number of events in the list. Pressing the "All" key again will close the selection window, and any selected actions will only be applied to the current event.

If there is a valid number in the numeric area, tapping on either 'Start' or 'End' will put that number in the box instead. If a number lower than that in the 'Start' one is entered in the end box, nothing will happen with "Enter"; it is not possible to enter a higher number than the last event in the end box. Numbers cannot be copied from events other than the current one; tapping on either the start or end boxes will either enter a number from the numeric area, or toggle back and forth from the current event to the first or last event, as applicable.

The top two rows, 'Telecine' and 'Revo', allow for individual groups or levels to be selected or deselected from the 'All' command; the 'Enter' button, at the bottom right, is the same as pressing the "Enter" key.

TRIM and COPY

the difference

When working on a single event, 'Trim' will simply alter the current grading by any offset applied with the controls; 'Copy' will take a grading from another event and show that on the current one. However, when working with more than one event by using the "All" key, the difference between the two is more complex. 'Trim' alters events by an offset; with 'All', that same offset is applied to the events chosen. 'Copy' will take the fixed value of an event and apply that fixed value to the events chosen. Technically, 'Trim' is relative and 'Copy' is absolute.

Imagine a list of five events; the first has a saturation value of 30%, and for each subsequent one it is increased in value by 10%, so the last event has a saturation value of 70%. If a trim of 10% is made and applied to all events, the first event would

now have a saturation level of 40% and the last, 80%. It would not matter which event the initial trim of 10% was made on; the effect would be the same. However, if 'Copy' were used instead, the saturation level in each event would be dependent on which event was copied.

So if event 1 were copied, every event would then have a saturation level of 30%; if event 5 were copied, it would be 70%. If any event has its saturation set to its default (50%) by resetting it, which would put the Pogle in 'Trim' mode, and then that applied to every event with the "All" key, the new values would depend on which event the reset was made. If it was the second, then the change would be +10% on all events; if it was the third, there would be no change, because event 3 already has a saturation level of 50%. Lastly, if event 5 has its saturation reduced by 40% and this applied to all other events, both events 1 and 2 will now have a saturation of 0%, as that is the minimum value.

If 'Copy' is selected and trimmed, then applied to the other events with "All", the trimmed value of the copy will be applied to all events. So if, from the list above, event 4, with a saturation level of 60%, is copied, then trimmed to a saturation level of 65% and copied to all the events, they would now all have a saturation level of 65%.

'Trim' and 'Copy' must be selected in the right order. If already in 'Trim', 'Copy' will remove the trim and select an event instead, but a copied event can be trimmed directly (although the Pogle will stay in 'Copy' mode). In 'Copy', if an event is selected, it can then be copied with the "All" key directly; it doesn't need to be entered in the list first. So "Up" "Up" "All" "All" "Scans" "Enter" will copy the scan value from two events up the list to the whole list.

'Read' is not the same as 'Copy'; if a note is read, its information cannot be applied to more than one event with the "All" key; it must be entered first, and then 'Copy' and 'All' used to transfer the grading to other events as required.

LAST TRIM

This will apply the last entered trim to the current event. If an event has a parameter with a value of 62%, which is then trimmed to 70% and entered, i.e. a change of +8%, pressing "Last Trim" and "Enter" on the same event will make the new value 78%. If the transport is moved to the next event, in which the same parameter value is 55%, and "Last Trim" and "Enter" are pressed, its value will become 63%. If a dynamic is trimmed at one end, the same trim can be applied to the other end this way. If several shots, intercut with others, have been balanced to match, and then each one needs to be altered by the same amount, "Last Trim" can be used. As with all such trims, how successful this is will largely depend on how much previous correction has been applied to the shots, as the effect of trims to any event with gamma correction will vary from event to event with the amount of the correction.

"Last Trim" can also be used if a trim is entered on one event, when it should have been applied to all or some of the list with "All". First, make a note of the event that has had the trim applied. Then press "Last Trim" "All "All" (or selecting events as required) and "Enter". The trim has now been applied to the selected events, and the note can be read back to reset the current event.

'Last Trim' remembers the last 5 changes, stepping through them with each key press, and then returning to the most recent on the sixth.

THE SHIFT KEY

modifying the timings of the event list

The "Shift" key changes the actual position of events; that is, it changes the code that events happen on. "Shift" "Enter" will move the next event to the current code; "Up" "Shift" "Enter" will move the previous event to the current code. It is not possible to move any other events this way, as the Pogle cannot move the intervening events. If there is a number with a + or - sign in the numeric area, "Shift" will use that; "+200" "Shift" "Enter" will move the next event forward by 2 seconds.

"Shift" works with the "All" key to move more than one event. "Shift" "All" "Enter" will move all the events from the current to the last by the difference between the current code and that for the event it occurs in. "+1" "Shift" "All" "Enter" will move all the events codes from the current one to the end forward by one frame. "-1000000" "Shift" "All" "All" "Enter" will move the entire list to a code one hour lower than the current one, as long as this will not make any of the list codes negative values. But "Shift" "All", where the current code is negative, will allow this. Like any other use of the "All" key, the list should be saved before it is used.

DELETING LIST EVENTS

Single events can be deleted by selecting "Delete" and "Enter"; this will delete the current event, so the grading from the next one is then applied to the current image. The previous event can be deleted with "Up" "Delete" "Enter", but it is not possible to select more than one event in each direction this way. To delete dynamic events, the fastest way is to do the same thing twice. If the transport is parked before the dynamic, "Delete" "Enter" "Delete" "Enter" will remove it; select "Up" each time if the transport is parked after the dynamic. A note should be made of each end before deleting it, or the list saved, in case information from either end of the dynamic needs to be restored.

COPYING TO EVENTS

other than the current one

It is possible to copy from one event to others without moving the transport. Put the telecine in 'Slide' mode and other events can then be cued to instantaneously. The original event (or a note) can then be copied into it; however, the screen image will stay at the original event, as the transport itself does not move. The same technique can be used with 'Last Trim', although it should be born in mind that, generally speaking, it is not a good idea to change a grading without seeing it applied to the actual image. If configured correctly, changes could be previewed on the cached frame, if available

ON-SCREEN MANIPULATION

By tapping on the correct part of the event type display on the vdu, ordinary events can be made dynamics, and existing dynamics can have their beginning and end points changed; scans can be changed from S-curve to linear. The side switch on the pen is used for some of these functions; its use requires considerable practise. However, the right mouse button can be used instead.

To make an existing event into a dynamic, position the cursor just above the event marker in the column for the group which has to be made into a dynamic. The exact position of the cursor is critical. A tap will now make the event the start point of a dynamic for that group; the end point will be the next event. Another tap in the same place will turn off the dynamic, for all groups except scans. A side switch press, also just above the event marker, will extend any existing dynamic starting before it to finish at that event; if there are no existing dynamics in that channel, there will be no change.

For scans only, tapping will step through a series of options. The first tap on an ordinary event will make a profiled dynamic event, the default type. Another tap will change this to linear at both ends; another will make the start linear and the end profiled; another will reverse that, and another will make both ends null events. As with other channels, pressing the side switch above an event marker will extend any existing dynamics before it to finish at that point.

To extend a dynamic so it starts at an earlier event, first tap on the event that is to be the start point of the new dynamic; this will make two clustered dynamics. Then turn off the second one by tapping at its start point, and finally side switch press at the end point to extend the dynamic to finish there.

With scans only, it is possible to make null points by tapping, which will make both ends of the dynamic null events; the other channels events cannot be turned off this way. One workaround is to program a dynamic in a channel with no actual changes, when then the other channels will then have null events in them.

MERGING LISTS

Lists can be merged in two ways. If there is an active list, one of the options available in the drop-down menu for lists in the vault is: 'Merge with active list'. This option will add any event codes from the selected list to the active one; however, it will also attempt to merge grading information, so should be used carefully. If the codes don't overlap (e.g. when adding separate film rolls together) there will be no such problems.

Non-active lists can also be merged. If there is an open non-active list, dragging the icon for another list from the vault and dropping it anywhere on the list display will cause the two lists to merge.

chapter 8
other windows

MEGAGAMMA

Megagammas are not stored in lists, but must be applied manually. They are user-designable LUTs that can be applied at either the input or output of the Revolution, or both. They are accessed by clicking on their icon in the System Area, highlighted in *Fig 115*.

Fig 115

This will open a new window, Fig 116. This window can be positioned and resized as normal, but will then open at the same place and size it was last set at; it is not stored by user or by view.

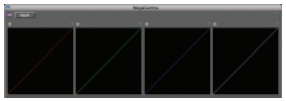

Fig 116

The button at the top left selects whether the curves made in the window are applied at the input or the output; separate curves can be made for each and applied simultaneously. MegaGammas are applied either at the very first stage of processing (before the CDL controls) or after the Desat controls on the output. 'Save' stores them in the LUT page of the Vault; they can be named as normal. There are individual reset icons for each channel; the one in the top right of the window will reset all of them back to their default as normal. These resets are separate for input and output modes.

To set the curves, click on one and drag. The rightmost graph is effectively the RGB values locked together, so should be used if an overall effect is needed, but the separate graphs can also be modified individually. Each graph can have many points around which the curves pivot; they are splined together, i.e. the Pogle works out the curves needed for there to be a smooth transition between each point.

The graphs can also be hand drawn. Clicking on the cross-hair icon above and to the left of each graph will turn the cursor for it into a pencil; this can be used to draw a line with angles instead of curves. Click on the icon again to return the cursor to its normal mode.

BLANKING

The picture blanking can be programmed, although if any further post-production work is to be done, it is best left at the maximum size. Open the SCC window from the engineering setup, which opens a new window 'Revo Setup', *Fig 117*.

Fig 117

Then click on the 'Blanking' button on the right, which will open another new window, *Fig 118*:

Fig 118

Clicking on any of the 'User Blanking' buttons on the left will assign them to the Orange sub-panel, and the values set from there will be programmed into the list. If much use is to be made of the User Blanking, its controls can be put in their own window and then placed in the Dock for faster access.

The other values in this window are engineering setups and, once set up, should not be altered unless the system configuration is changed.

VIRTUAL WINDOWS

For colourists who prefer to make greater use of the pen and tablet, there are several windows that mirror the Evolution panels. The qwerty window can be opened directly from its icon in the System area, as can the Virtual panel, *Fig 119*, which contains most of the functions of the Transport Panel.

Fig 119

There is a Revo Virtual panel that can be opened from the Vault, containing the various Revolution selection keys, *Fig 120*.

Fig 120

If required, there is also a Numeric Virtual panel in the Vault.

ENGINEERING MENUS

Tapping on the icon at the bottom left of the vdu will open the Engineering menu. Most of the windows accessed from this menu are for initial setup of the system, so are outside the scope of this manual. However, there are a few items that it may be useful to access; they are summarised here.

USER SETUPS

Use Setups has already been covered in the User Configuration chapter.

Apart from User Setups, any changes made in the other Engineering menu windows will be applied globally; that is, to all Users and all their views.

ROOM SETUPS

Room setups have boxes to switch between all the different tv standards supported by the system; these will require the correct references to work properly. This window also contains the settings for a scene detector, if fitted, and it may sometimes be necessary to change the minimum scene duration setting for this; enter the new duration from the numeric keypad and then tap on the box. Otherwise, most of the values in this window are engineering related, and should not need to be changed once set.

EDIT SETUP

Second from bottom of each VTR column is a button to select what type of timecode is displayed in the vtr window; there is a tape timer option which can be used to check the elapsed time of tapes. Machines usually count the start point from where the tape is in its cartridge when put in the machine, so one that is

not fully rewound when loaded will not give an accurate reading. At the very bottom of each column is a small box that shows the current timecode rate for that machine. If problem are encountered when editing, the error checking for both the telecine (the box labelled Check Tk sync) and vtr (Check Vtr sync) can be turned off. Quite often, the editing will be frame accurate even with these turned off (depending on the cause of the initial problem), but this cannot be guaranteed.

SOURCE SETUP
Contains the control of the telecine shuttle speed, labelled Limit max shuttle, at the top left hand corner, which works on a scale of 0 to 15. Also in this window, for Spirit / Shadow telecine types, it is possible to set the technical monitoring to switch between various modes automatically (if correctly connected); this is selected with the buttons at the bottom.

NR SETUP
is entirely dependent on the type of noise reducer, if fitted. The Thomson Scream is not supported as a noise reducer.

SCC SETUP
Revo Setup
The 'Test' button will turn on the internal Revolution test generator; the test patterns are chosen from the drop-down menu next to 'Test' (they are identified by number only). 'Over' will leave the test pattern at the top of the screen, with the rest of the picture visible. The number in 'Counter' should run continuous; if it stops there is a normally a problem with the video input. The Black and White legalisers can be turned off if required, but should usually be left on. Settings in this window are not stored in lists.

DEFAULT SETTINGS
Any changes made to the Default Settings apply to all views for all users. The values stored in each button on the bottom row are those that each set of controls will revert to if they are reset, or a new list is created, or the existing one emptied by "Delete" "All" "Enter". To change the stored values, the Pogle should be in either 'Program' or 'Live' mode, then tap on the button for which you want to store new values. This will store all the current values for that set of controls, so care should be taken.

The buttons are as follows:
Primary: telecine colour controls and some switches (e.g. Pos/Neg).

Secondary: all the Revolutions settings.

Noise reducer: any external noise reducer (and any options, like scratch concealment, it may also have). As already mentioned, the Thomson Scream is not supported as a noise reducer.

Scans: telecine scan size and positions; some servers and other sources have scan controls which are also stored in this group.

Audio: telecine audio switch and level settings.

Utility: depends on the telecine, but usually speed and aperture corrector settings.

Neg match: for Spirit/Shadow type telecines.

Shading: some tube machines have variable shading that can be saved.

Tapping on any of the top row of buttons will recall the base values as set by the manufacturer; to store these values as the defaults, press "Enter" (so the Pogle is in 'Program' or 'Live' mode) and then tap on the lower button of the same type.

Changing the Default values only alters the settings that each channel will go to if it is reset; it will not alter any existing gradings, in either lists or notes.

There are icons at the top left of the vdu that open some of the host computers own setups; above and to the right of the Platinum icon is one called 'EvoQT' its 121.

Fig 113

This opens a window, its 122, which shows if the Evolution panels are properly connected to the host computer.

If any of the knobs on the Evolution panels seem not to be responding, open this window and click on the 'About' tab at the top. As knobs are turned, they will show the values they are sending in the new window that opens.

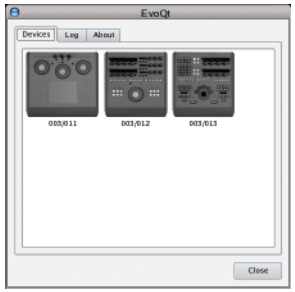

Fig 122