

Quick Contents

- Overview
- Input Setup Menu
- Output Setup Menu
- Remote Setup Menu
- Engineering Menu
- Remote Enable Menu
- No Xpnt Button
- Personality Menu
- Acquire Button
- Disk Menu

Section 6: Setup Menus

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Overview

Dveous/MX lets you make almost all engineering adjustments and configurations from the Control Panel. Since Dveous/MX controls these setups in software, you can save and recall them to and from floppy disk or hard drive. This lets you quickly access multiple engineering setups as needed.

This section covers all the System buttons to the right of the control panel's display. These menus are used for timing and configuration of the Dveous/MX. The disk menu, used for saving and/or recalling effects, JPEGs and setups to floppy or hard drive are also discussed.

This involves the following menus:

- The Input Setup menu allows adjustment of blanking on an input-by-input basis. The internal matte generator can also be selected as an input and adjusted in this menu.
- The Output Setup menu lets you set output timing, horizontal blanking type, reference, output configurations and SD/HD Video formats.
- The Remote Setup menu lets you change the editor timecode offset and configure GPIs.
- The Engineering menu lets you:
 - Select the edge processing (shaped or unshaped) for the program (main video) outputs
 - Bypass the internal background keyer (background on/off)
 - Set the menu display brightness, contrast, and screen saver timeout
 - Perform software updates and first birthdays
- The Remote Enable menu lets you enable the three Remote Serial ports and select their serial remote protocol.
- The Personality menu lets you set Field Dominance. This allows you to determine the field your effect will start on when operating in a timing sensitive environment such as post production.

You can also set Run mode which determines if all channels run when running a timeline or only delegated (selected) channels. Pattern autoload can be set for textures to load automatically when recalling an effect.

The Personality menu also allows you to change the current aspect ratio through the Anamorph settings.

- No X-Point (crosspoint) allows you to turn off or on Dveous/MX's ability to recall source information as part of an effect.

Overview

- The Acquire button allows users to turn off or on multiple control panels attached to one chassis.
- Use the Disk menu for all floppy disk or hard drive functions, including naming, saving, recalling, copying, and deleting files; formatting disks; and setting the system clock.

Input Setup Menu

Press the INPUT SETUP button to bring up this menu.

Channel Softkey

Input Softknob

Press the Channel Softkey to bring up the Input # softknob. This allows you to select the input you want to set up. The range is 1 through 12.

Blanking Softknob

Normal mode Allows you to set different blanking compensation for each input individually. Normal maintains a true aspect ratio for the image by stretching the aspect ratio of the input video so that the blanking edges are not visible. The advantage to this method is that each input can have its own blanking compensation. The disadvantage is that the video is now stretched slightly, preventing you from transitioning or match-framing back to the original, unstretched image, either in Dveous/MX or in some external device, without seeing a visible difference between the two images.

Crop (A57) Blanks all inputs by the same amount by simply cropping in the edges to remove the offending blanking areas. The advantage to this method is that all images maintain their original aspect ratios so there is no visible difference between the original and the cropped image, allowing match-framing between the two. A disadvantage to this method, however, is that blanking compensation applies to all external inputs equally, and not individually.

H & V Blank Allows the blanking of width and height compensation. Dveous/MX lets you compensate for input video with overly wide blanking, which results in horizontal and/or vertical black edges on the input video. To adjust the blanking, go to the Input Setup menu and press the *Channel* softkey. Use **Input** to select the video source. Then select either *Normal* or *Crop (A57)* with the **Blanking** softknob. Adjust the horizontal and vertical edges with the **H Blank** and **VBlank** softknobs. Note that these adjustments apply only to video routed to the DVE channels and not to video selected as a background source.



Note: If you will be using Solid Builder to construct slabs and need to match unity size, you must use Crop (A57) mode.

Matte Softkey

6

This softkey enables an internal matte to be selected as any input source. Press Matte to bring up controls for selecting external video or the internal color matte generator for the currently selected input, and to adjust the matte's color. All twelve inputs have matte mode available.

Matte Enable The default setting for this softknob is Off, which passes the video connected to this input to Dveous/MX's crosspoint matrix. If set to On, it disables the selected input's video and replaces it with a color matte generator.

Hue / Sat / Lum Use these softknobs to set the color for the matte generator. The Hue softknob controls the tint, the Sat softknob controls the chrominance saturation, and the Lum softknob controls the brightness. Note that it is possible to create "illegal" colors that fall outside the RGB, NTSC, and/or PAL color ranges if saturation is set to 100%. However, colors are correct if saturation is set to 75%. It is a good idea to use a waveform monitor or vectorscope when creating a color matte with this feature.

Output Setup Menu

Press the OUTPUT SETUP button to bring up this menu. Here you can set the output timing, horizontal blanking width, output bit rounding.

Timing

Press this softkey to bring up controls for adjusting the program (video) and key output timing. Note that the program output timing affects all outputs equally.

Program Coarse Phase Use this softknob to set the horizontal output timing by lines in coarse steps.

Program Fine Phase Use this softknob to fine tune the horizontal output timing by full pixels.

Digital

Press this softkey to bring up controls for setting the horizontal blanking width outputs. You can select different blanking widths and bit resolutions for the program (video) and key outputs. Select Video for Program output adjustments or toggle to Key for Key output adjustments.

Program Blanking / Key Blanking Use the Program Blanking softknob to select a blanking width for the digital video outputs. Use Key Blanking to select a blanking width for the digital key outputs. Both softknobs have the same settings.

- Crop—Passes the full digital active line with blanking edge risetimes of about 150 nsec.
- Shape—Filters the transition from blanking to active video to avoid ringing, with blanking edge risetimes of about 300 nsec.

Z-Data Since some external devices can process Z, or depth, key information, you can enable this data to be included in the digital key output in the Output Setup menu under the Digital softkey.

Config

Press this softkey to toggle between SD or HD mode. Switching modes requires a reboot. This config softkey also brings up the following adjustments:

Output # — the output number you select is tied to the mode type you then choose with the Mode softknob. Each of the 6 outputs can be configured independently

Output Setup Menu

6

Mode — You may select a different output mode for each output number. The following modes are available — 1A Fill, 1B Fill, 2A Fill, 2B Fill, 1AB Comp, 2AB Comp, 1/2 Comp, 1/2 Bgnd, 1A Key, 1B Key, 2A Key, 2B Key, 1AB Key, 2AB Key, 1/2 Key, 1/2 TFS Key. The default is 1/2 Bgnd which selects everything.



Note: Background can also be turned off and on in the ENG Menu. If you use the Output Menu's Mode setting of 1/2 Comp to turn the background off, remember this setting does not include the Target Frame Store (TFS).

Reference — allows you to sync with other devices. Choices include: Tri Level or Bi Level. If feeding Bi Level sync, it must be 300mv Analog sync with or without burst (i.e. black or black burst).

Format — allows you to set resolution and frame rate. The standards which are supported now include:

Table 6-1: Field/Frame Rates

Mode	Standard	Field/Frame Rate				
HD	1080p	30	29.97	25	24	23.98
	1080s	30	29.97	25	24	23.98
	1080i	60	59.94	50		
	1035i	60	59.94			
	720p	60	59.94			
SD	625i	50				
	525i	59.94				

Remote Setup Menu

Press the REMOTE SETUP button to bring up this menu. Here you can change the editor timecode offset and setup GPI input and output functions.

Setup

Offset Use this softknob to change the timecode values that Dveous/MX sends to an edit controller or other device via the remote ports. Since all time-line effects start at a timecode value of 00:00:00:00, this is the typical “in point” for Dveous/MX when under editor control. You may need a timecode value greater than 00:00:00:00, for example, to prevent the editor from having to pre-roll “before midnight” (meaning across the boundary between 23:59:59:24/29 and 00:00:00:00). Use the Offset softknob to add a fixed offset to the default timecode value. The default offset value is 0:00. You can enter an offset of any value up to 43,200:00, or 12 hours. A field two number is indicated by a *.

GPI In The following softmenus appear when GPI In is selected:

GPI Funct scrolls through the following GPI Input functions:

Table 6-2: GPI Input Functions

Run Forward	Run Reverse
Pause	Jog 1 Frame Forward
Jog 1 Frame Reverse	Jog 1 Field Forward
Jog 1 Field Reverse	Next Keyframe
Previous Keyframe	Rewind
Fast Forward	Freeze Channel 1A
Freeze Channel 1B	Freeze Channel 2A
Freeze Channel 2B	Freeze All Channels
Unfreeze Channel 1A	Unfreeze Channel 1A
Unfreeze Channel 1B	Unfreeze Channel 2A
Unfreeze All Channels	Toggle Freeze Ch1A
Toggle Freeze Ch 1B	Toggle Freeze Ch 2A
Toggle Freeze Ch 2B	Toggle Freeze All chnls
Toggle Cursor On/Off	

GPI Type allows you to select the type of GPI trigger being sent.

- Hi-Low—GPI triggers on a falling edge
- Low-Hi —GPI triggers on a rising edge
- Toggle—GPI triggers on either a falling or rising edge

GPI Out There are three modes for the GPI outputs that you can select in the Remote Setup menu.

Mode 1 assigns functions to the 12 GPI outputs as follows:

- GPIs 1 to 4—Programmable on a keyframe-by-keyframe basis in the Events menu. You can fire any combination of these four GPI outputs on any keyframe of the Global timeline.
- GPIs 5,7,9, and 11—These GPI outputs provide front/back switch tallies for each of the four DVE channels (5 = Ch 1A, 7 = Ch 1B, 9 = Ch 2A, 11 = Ch 2B). A high output indicates that the channel’s “Front” side is visible, while a low output indicates that the channel’s “Back” side is visible. These outputs are useful for connection to a switcher that accepts Front/Back toggles for switching Aux Bus outputs. By allowing the switcher to perform Front/Back switching, only two switcher Aux outputs are needed to feed each twin channel (1A/1B or 2A/2B).
- GPIs 6, 8, 10, and 12—These GPI outputs provide on-air tallies for each of the four DVE channels (6 = Ch 1A, 8 = Ch 1B, 10 = Ch 2A, 12 = Ch 2B). An on-air tally is low whenever that channel is visible on the Dveous/MX main output, and high otherwise.

Mode 2 is identical to Mode 1 except GPI 6, 8, 10 and 12 provide on air tallies for each of the four aux buses feeding the DVE when under external aux ctrl interface.

Tally mode allows the 12 GPI outputs to function as on-air tallies for the 12 inputs. An on-air tally is low whenever that input is visible in the Dveous/MX main output, and high otherwise.

Network This menu allows you to set the following Dveous/MX networking parameters: IP Address, Subnet Mask, Gateway, and Host.

Engineering Menu

Press the ENG button to bring up this menu. Here you can select the edge processing for the main video output, bypass the internal background keyer, adjust Control Panel setups, and perform software updates. This is also where you may perform “first birthday” or RAM reset. This menu also displays the current software versions, and hardware option currently installed.

Setup

Press this softkey to bring up controls for turning the internal background keyer on and off, for shaping the output video’s edge, for adjusting the Control Panel menu display, and for setting the timeout for the Control Panel lamp saver. Setup toggles Chassis, Panel and RAM. With Chassis highlighted, the Video Out and Background softknobs appear. With Panel highlighted, the Backlight, Bias, Display, and Lamp Saver softknobs appear. RAM has no functions assigned to any softknobs.

Chassis Softkey

Video Out Use this softknob to select the edge processing for Dveous/MX’s program (video) outputs.

- **Shaped**—(the default) Multiplies, or shapes, the program output edges so that they exactly match the key output edges. Use this setting when viewing the transformed video keyed over Dveous/MX’s own background, or when feeding Dveous/MX’s output to a keyer that can perform a “matte” (or additive) key. This type of keyer does not process the key fill before compositing it over a background.
- **Unshaped**—Does not process the program output edges. Use this setting when feeding Dveous/MX’s program and key outputs to a normal multiplicative keyer, which processes the key fill before compositing it over a background. Note that if the transformed video is keyed over Dveous/MX’s own background in this mode, the edges appear to overlap the background because they have not been correctly processed to fill the key shape.

Background Use this softknob to turn Dveous/MX’s background keyer on and off. To view the transformed video over the internal background, leave the background keyer turned On. To key the transformed video externally (for example, in a switcher), turn the background keyer Off to avoid double-keying the transformed video. You may also want to use Unshaped mode, described above, when using an external keyer.



Note: Background must be set to Off if video out is set to unshaped.

Panel Softkey

Backlight Use this softknob to adjust the menu display's overall brightness.

Bias Use this softknob to adjust the contrast between the menu characters and the background.

Display Use this softknob to select dark menu characters over a light background (Normal) or light menu characters over a dark background (Inverted).

Lamp Saver Use this softknob to set the timeout for the lamp saver. The lamp saver turns off the menu display and all LEDs if the Control Panel is idle for a set length of time. The default timeout is ten minutes. You can set a timeout between one minute and 255 minutes (four hours 15 minutes), or turn the lamp saver function off.

Ram Softkey

RAM can be selected for doing "first birthday." See Section 3 for first birthday instructions.

Update Softkey

Use this softkey to install system software updates. See Section 3 for Software Update instructions.

Remote Enable Menu

Press the REMOTE ENABLE button to bring up this menu. Here you can enable and disable the remote ports and select their serial remote protocol.

Remote 1, Remote 2 and Remote 3

Use these softkeys to bring up controls for setting the communications protocol, baud rate, parity, and address (if applicable) for the RS-422 ports labeled remote 1, remote 2 and remote 3. The highlighted On or Off setting indicates whether the selected port is active. Any of the remote ports can be used for any protocol.



Note: Before making any changes to a remote port, it is recommended that you first use the remote softkey to toggle the port off, make your changes, then toggle it back on. This procedure greatly reduces the chances of losing communications between Dveous/MX and the remote device.

Protocol Use this softknob to select the protocol needed to communicate with edit controllers and switchers, or to control switcher Aux Bus outputs. These are the available settings:

- Sony—emulates Sony VTR communications to allow control by a Sony editor.
- SMPTE—emulates SMPTE VTR communications to allow control by editors that transfer data and commands using this protocol. This setting also brings up the SMPTE Addr control, described below.
- Periph—emulates Grass Valley Group Peripheral protocol, for control by Grass Valley Group switcher Effect Memories (E-MEMs). This lets Dveous/MX learn effect register recalls as part of a switcher E-MEM. This setting also brings up the Periph Addr setting, described below.
- Aux Bus— allows Dveous/MX to control switcher Aux Bus outputs. Use this when feeding Dveous/MX's inputs from switcher Aux Bus outputs. This setting also brings up the Function softknob with Config and Control settings described below.
- CPL—allows control of switchers and other devices using the CPL protocol.
- A53D VTR—allows Thomson (DD series, Exten series and Seraph HD) switchers to control Dveous/MX as if it were an Abekas A53-D, emulating VTR commands.

Baud Use this softknob to set the baud rate for the serial remote control port. The default baud rate of 38400 is typical, but 1200, 2400, 9600, and 76800 are also available.

This parameter must be set to the correct rate when using Sony or SMPTE protocol to allow proper Aux Bus control.

Parity Use this softknob to set the parity for the serial remote control port. The default parity is Odd, but Even and None are also available.

Address

Under SMPTE protocol, this softknob sets the SMPTE address for the serial remote port. Most edit controllers require a SMPTE address of 1, but you can select any address from 1 to 64. Abekas device addresses correspond to SMPTE addresses as follows:

Abekas SMPTE address 1 = true SMPTE address 80A2
Abekas SMPTE address 2 = true SMPTE address 80A4
Abekas SMPTE address 3 = true SMPTE address 80A6
Abekas SMPTE address 4 = true SMPTE address 80A8
and so on, through
Abekas SMPTE address 64 = true SMPTE address 8120

Under Periph protocol, select 0-23 for PBUS-I or 24-64 for PBUS-II.

Function

Config - Under AUX protocol, this allows you to select the switcher type (swr type). The options include ASWR 8150, GVG 200, GVG 300 and SONY.

Control - Under AUX protocol, the Chnl Select and Aux Select softmenus appear allowing you to map Dveous/MX channels to Aux Bus IDs. This enables you to change or remap switcher aux buses for use by Dveous/MX without reconfiguring your edit suite.

No Xpnt Button

Toggling the No Xpnt (crosspoint) button on, tells Dveous/MX to ignore the input type and source selections for the current effect. This allows you to run an effect using different sources or crosspoints than were used when the effect was saved.

Personality Menu

Misc Softkey

When this softkey is selected, the following softknobs appear:

Axis Mode On (default), Off

Run Mode All Chnls (default), Delegated

This setting determines which channels will run under timeline control. Either All Chnls or only those channels Delegated (selected) by the Channel Select buttons will run as part of the effect timeline.

Run Dom. Off (default), Field 1 or Field 2

When set to Off, this setting allows an edit controller to establish the starting field dominance when effects are run. Field 1 or Field 2 forces the starting field dominance.

Pattern Autoload Off (default), On

When set to ON, the corresponding pattern or texture will be loaded when an effect is recalled. This will slow down the recall process.

Orbital Effects When Orbital FX is selected, the RunEnv softknob is enabled.

Run Env - This setting allows you to set how the OrbitalFX will run. The options are: *Post* - recalls the saved OrbitalFX state when run. *Live* - allows the live user to have an OrbitalFX effect running, then hit run to start a timeline portion of the effect.

Anamorph Softkey

This softkey allows you to set the horizontal and vertical units applied to the video. You must press MODIFY and CONFIRM to enable this setting. The default for Dveous/MX is 1 x .75 in SD mode and 16 x 9 in HD mode.



Note: Anamorph changes might take a moment to update the workspace effect.

Film Softkey

Under this softkey you can set various run time Motion Update modes for the system. These modes are intended for use when working with video footage originated on film and other equipment requiring motion other than the default field motion interpolation.

The following softknobs appear when Mode and/or Motion are selected.

- Film Softknob - with either A or B modes enable, the system runs an effect by updating the Dveous/MX picture position only at the frame boundaries. This appears jerky when run, but when used to track an object originally shot on film, it eliminates the object-to-effect mistracking problem observed when the effect is run at field rate. Mode A uses Field 1 to update its position during the effect and B mode uses Field 2.
- 3:2 Softknob - allow you to set a frame boundary phase of A - E. The phases behave as follows:
 - Phase A - gives the sequence 2:3:2:3...
 - Phase B - gives the sequence 3:2:3:2...
 - Phase C - gives the sequence 1:2:3:2:3...
 - Phase D - gives the sequence 1:3:2:3:2...
 - Phase E - gives the sequence 2:2:3:2:3...

Acquire Button

This button is only used for multiple control panel systems.

Press and hold the acquire button and a Chassis softkey will appear on the LCD screen. Toggling this softkey so that Chassis is no longer displayed releases control of the chassis by this control panel. Once the chassis has been released, any other control panel can gain control by using the same procedure.

Disk Menu

Press the DISK button to bring up this menu, which controls all floppy disk and hard drive functions, including naming, saving, recalling, copying, and deleting files, and formatting disks.

Disk

Press this softkey to bring up the controls for saving, recalling, copying, moving, and deleting files, and for formatting floppy disks. Disk toggles Save, Recall, and Misc.

File Use this softknob to scroll through the list of files on the disk. The list shows only the files that are the currently selected file type (Effect, Setup, or All). The highlight in the list indicates the currently selected file.

File Type Use this softknob to select the type of file (Effect, Setup, JPEG or All) that you want to save, recall, copy, move, or delete. When the file type is Effect, the Reg # softknob appears.

Reg # (This softknob only appears when File Type is Effect.) When saving effects, use this softknob to select the on-line effect register (WorkSpace or 0 – 99) you want to save to disk. Use All Reg #s to save all registers containing key-frames to disk, using a common file name. When recalling effects, use this softknob to select the on-line effect register (WorkSpace or 0–99) you want to recall the disk effect to. Use Original to automatically restore the disk effect to the effect register from which it was saved.

Show Effect Name This softkey will toggle between showing the Effect Name or File Name for the selected effect.

Floppy Use this softknob to select the drive (Internal or External) to which you want to save a file, or from which you want to recall or delete a file. The internal drive is the one built into the Control Panel. The external drive is an optional disk drive that you can connect to the Control Panel Ext Floppy port. You cannot select External unless there is an external floppy drive connected to the Control Panel.

Dest Drive (This softknob only appears with Disk/Misc and Action/Copy highlighted.) Use this softknob to select the destination drive (Internal, External or Hard drive) for a file copy. The Internal drive is the one built into the Control Panel. The External drive is an optional disk drive that you can connect to the Control Panel Ext Floppy port. The source drive's file list appears in the menu display.

Letter Use this softknob to name a file when you save, copy, or move it. Use the softknob to select a character, then press the D keypad softkey to enter the character in the name, which appears in the keypad buffer. If you have a PC/AT compatible keyboard connected to the Control Panel Keyboard port, you can use it to name the destination file instead. Filenames use DOS conventions, and Dveous/MX adds an extension based on the file type currently selected: EFF for effect files, ENG for engineering setup files. To type a number, enter the number from the numeric keypad.

Save (This softkey only appears with Disk /Save highlighted.) Press this softkey to enable the save file function. It brings up the Confirm Save softkey. To save a file to the selected drive with the current name and comment, press Confirm Save. Saving a setup file saves the settings in the Input Setup, Output Setup, Remote Setup, Remote Enable, and Engineering menus, except the Control Panel settings, which are saved in the Control Panel flash EEPROM, as they may be different for each Control Panel.

Confirm Save

(This softkey only appears with the Save softkey highlighted.) Press this softkey to save the currently selected register (if the file type is Effect) or the system setup (if the file type is Setup) to floppy disk. Dveous/MX uses the currently entered name and comment when it saves to disk.



Note: You can also view disk file comments on a DOS compatible PC by inserting the disk in the PC floppy disk drive and entering the command `type filename.ext` at the prompt. Be sure to use the actual file name and extension when entering this command, which displays the comment saved with the file.

Dveous/MX uses default comments if you save on-line effects registers without adding your own comments. If you save an effect with no keyframes, the default comment is “no keyframes.” Otherwise, the default comment is the effect register number and the time and date you first saved it.

Recall

(This softkey only appears with Disk/Recall highlighted.) Press this softkey to enable the recall file function. It brings up the Confirm Recall softkey. To recall a file from the selected drive to the selected effect register (if the file type is Effect), press Confirm Recall. Recalling a setup file resets Dveous/MX to the settings in the Input Setup, Output Setup, Remote Setup, Remote Enable, and Engineering menus, except the Control Panel settings, which are saved in the

Control Panel flash EPROM, as they may be different for each Control Panel. You are also allowed to toggle between the currently selected floppy and the hard drive.

Save

This softkey allows you to select between the currently selected floppy and the hard drive for saving. When selected it brings up the Confirm softkey.

Confirm Recall

(This softkey only appears with the Recall softkey highlighted.) Press this softkey to recall the currently selected file from the floppy disk.

Action

(This softkey only appears with Disk/Misc highlighted.) Press this softkey to toggle the other disk functions: Copy, Move, Del (delete), and Frmt (format). When you select a function, a softkey labeled Confirm [function] appears to let you execute the selected function.

Copy You can copy file(s) from one directory or disk to another using the File, File Type, Dest Drive, and Letter softknobs, described earlier. Press Confirm Copy to execute the copy.

Move You can move file(s) from one location to another on the same disk using the File, File Type, and Letter softknobs, described earlier. Moving a file is similar to copying it, except that the source file is deleted after the copy. Press Confirm Move to execute the move.

Del (Delete) You can deleted file(s) using the File, File Type, and Drive softknobs, described earlier. Press Confirm Delete to execute the delete.

Format (Frmt) You can format the disk in the floppy drive selected with the Drive softknob, described earlier. Dveous/MX formats floppy disks using a standard DOS formatting process, so you can read them on a DOS compatible PC. Press Confirm Format to execute the format.

WARNING: Formatting a disk erases ALL files and directories on it. Before formatting a disk, make sure that there are no files on it that you want to keep.

Set Clock

(This softkey only appears with Disk Misc highlighted.) Press this softkey to bring up controls for setting the system clock. Dveous/MX uses the clock to “stamp” disk files and for the default effect register comments when you save them. Set Clock toggles Time (which has Hour, Minute, and AM/PM softknobs) and Date (which has Month, Day, and Year softknobs).

Time

Hour Set the current hour with this softknob.

Minute Set the current minute with this softknob.

AM_PM Select AM (before 12:00 noon) or PM (after 12:00 noon) with this softknob.

Date

Month Set the current month with this softknob.

Day Set the current day of the month with this softknob.

Year Set the current year with this softknob.