

CREATE STUNNING VIDEO EFFECTS IN SD AND HD

**Dveous** *MX*

**The Best Solution  
Just Got Better**



**Abekas**



## SD *and* HD... Together in One Box

Abekas® Dveous®/MX, is a Universal Format Digital Video Effects system that provides broadcast professionals the capability of working in either Standard Definition (SD) or High Definition (HD) all in one box!

Dveous/MX provides the same robust feature set and the same control panel as its predecessor, the industry-standard Dveous – only now, operators have the luxury of working in either SD or HD, all from within the same chassis! No extra pieces of hardware – just a simple setting change and you are on your way to creating cool, real-time video effects in either format.

The Dveous/MX is targeted toward the discriminating broadcast professional, demanding the best picture quality for diverse applications such as: news, sports, special presentations, rock concerts, post-production and so much more.

# Dveous<sup>®</sup>/MX

# Warp Light

### NO LEARNING CURVE HERE

Skeptical about learning something new? Don't be. Dveous/MX is very familiar. In fact, the control panel of the Dveous/MX and the user interface are identical to the ones found with Dveous. Never used a Dveous before? No problem. It's easy! With a very user-friendly control panel, you'll be on your way to creating the most awesome effects in no time. That's right! To help visually connect the button with its function, the buttons on the control panel are grouped by functionality and color. The visual and physical grouping really helps when you are



pressing buttons at lightning speed. Knobs, display, quick keys, numeric keypad and joystick have been intuitively positioned so you can create effects in seconds and without any mistakes. You have effects that were built on Dveous? Don't worry. Effects built on Dveous are compatible with Dveous/MX. So you see, navigation on this baby is a no-brainer.

### SD/HD CAPABILITIES

Dveous/MX can be set to work as a dual twin system in SD (525 or 625) or, with a simple setting change, be transformed to work in HD – 720, 1035, or 1080 at all known frame rates.

Choose from any of three configurations to meet your needs or start with the Dual Twin SD and upgrade it later all the way to a Dual Twin HD – all in the same chassis.

### NOW AND INTO THE FUTURE

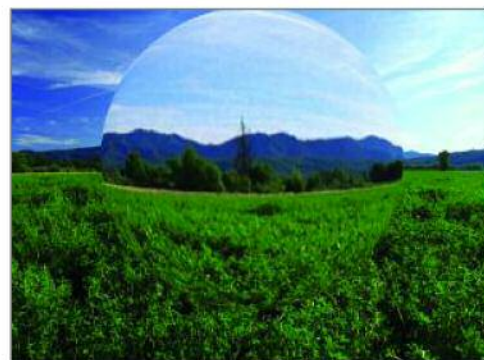
Buying a Dveous/MX and working in SD today guarantees you to be working in HD tomorrow. Every Dveous/MX comes with at least one channel of HD, so the full capabilities of HD are built right into your new machine. There's no getting away from it.

### FULLY EQUIPPED

Features galore! Can you think of an effect that you've been wanting to build that just needed that little extra something? Perhaps a little more detail on that flat looking object?

#### UltraWarp™

Try UltraWarp and really see your effect take on a whole new look. Start with anything. Warp it. Swirl it. Twist it. Shed some light on it. How about a spotlight from front-left on the first channel? And, maybe some soft blue floodlights



shining from 50 feet down the z-axis for the second channel. Over 60 warp patterns to choose from. Go wild!



Texture

Shadow

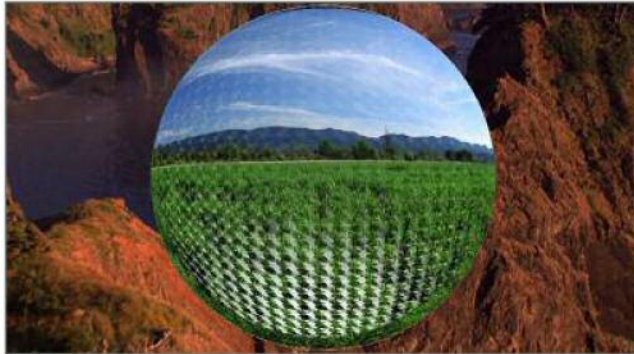
Color

Spin

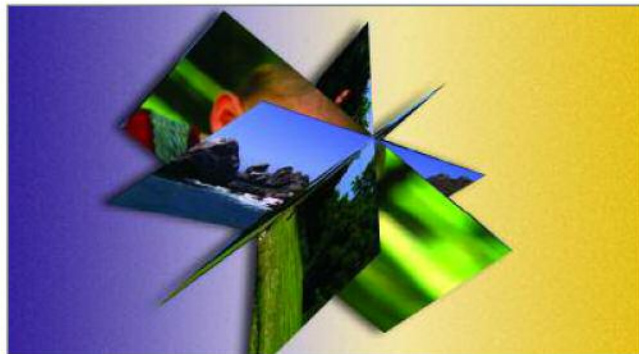
Wipe

### SurfaceFX™

Did you say texture? Go on. With Light Source, apply SurfaceFX and give that piece of video some interesting texture. Choose from either live video, one of the many internal texture patterns, or create your own JPEG pattern and import it into the pattern framestore via a floppy.



4:4:4 RGB. Any way you choose, you have control of black, white, gamma and knee on each of the color components. Additional controls include hue, rotation and saturation. Believe it or not, you can even solarize, posterize and invert each color component with precise control. Whether you want to match sources or simply improve on the original, this option does it all.



### SuperShadow™

Cast the perfect shadow. Full bandwidth SuperShadow gives you independent control of all transforms and warps. Ripple them. Italicize them. Let your imagination run free.

### TimeFrame™ Effects Editor

The keyframe-based TimeFrame Effects Editor gives you the precision, control and convenience you have been longing for. Independent effect timelines allow you to fix one channel without rebuilding the entire sequence. Imagine that!

### reTouch™ Color Corrector

Want that perfect color? No problem. Dveous/MX offers four reTouch color correctors — one for each channel. Each has RGB/YUV control so you can independently color correct in YUV color space, or translate and up sample the video to

### OrbitalFX™

Are you thinking spin? The Dveous/MX OrbitalFX feature gives you the spinning effect you have been craving. Without cutting a second into your deadline, simply specify amplitude, frequency and waveform, and let the oscillators do the rest. These automatic number generators find trails of coordinates that make your orbit smooth and gravity-like instead of jerky and man-made. Just turn it on.



### Supermatte™

Adjust those mattes. With Supermatte you can redesign your mattes by using the built-in two-color matte generator. Call up different wipe patterns to redesign your mattes creating backgrounds, sources or keys.

### SpiralFX™

Want to create more complex wipes and backgrounds? Done. Dveous/MX comes equipped with SpiralFX allowing you to create



them in Supermatte with the addition of two spiral matte generators. Go on, add some rings and arms, maybe give it a spin, and create a whole new look — all at your fingertips.

### Target FrameStore

Sparkles? Trails? Composite montages? Consider it done with Target FrameStore. Get a little more creative and use Target FrameStore's unique z-axis to create an intersecting planes effect with FrameStore montage images.

### Wide Range Defocus

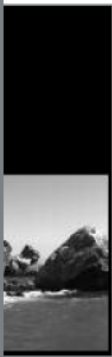
Going for that soft look?

# Sparkle Trail Soften Shape

Dveous/MX has two channels of Wide Range DeFocus with independent controls for defocus of luminance or chrominance in vertical or horizontal axis. You choose.

## Solid Builder

"How about Solid Builder?" you ask. Don't worry. Dveous/MX comes complete with this feature. Build cubes or slabs at the touch of a button. Create six sided rectangular shapes with different sources on all sides.



And by the way, waiting is not a part of the Dveous/MX experience. You instantly see the interaction between warps, lighting, texture and shadow effects. Of course, real-time.

We can go on and on about all of the standard features of Dveous/MX, but we won't. You'll just have to set up a test drive to see how you can unleash your creative desires.



# Abekas

## DVEOUS/MX CONFIGURATIONS

Dveous/MX is available in three configurations that can work in SD or HD and is software configurable in the user interface.

### Dual Twin SD Configuration

- **SD Mode** – Two DVE channel pairs of SD with each pair capable of working as a Video + Video (V/V) pair, or as a Video + Key (V/K) pair, or as a Video + Key + Shadow (VK/S). All functionality is available in SD Mode.
- **HD Mode** – One DVE channel (1/2 of a single twin) of HD, capable of working in Video mode only. No Input Key available. Therefore, Video + Key (VK), Video + Key + Shadow (VK/S) and Solid Builder functionality is not available in HD Mode.

### Single Twin HD Configuration

- **SD Mode** – Full functionality as described above.
- **HD Mode** – One DVE channel pair of HD capable of working as a Video + Video (V/V) pair, or as a Video + Key (V/K) pair, or as a Video + Key + Shadow (VK/S). To create six sided cubes with Solid Builder will require two recording passes in HD Mode.

### Dual Twin HD Configuration

- **SD Mode** – Full functionality as described above.
- **HD Mode** – Two DVE channel pairs of HD with each pair capable of working as a Video + Video (V/V) pair, or as a Video + Key (V/K) pair, or as a Video + Key + Shadow (VK/S). All functionality is available in HD Mode.





#### **A High Resolution Display**

An integrated display shows your setup at a glance.

#### **B Channel Menus**

Straightforward single level menus give you quick and simple access to any parameter.

#### **C TimeFrame Effects Editor**

Loaded with features, this keyframe editor makes easy work of timeline building and effects editing.

#### **D Channel Select**

Take your pick of any combination of the five independent channels to be controlled and edited.

#### **E Quick Keyframes**

Perform Insert, Delete, Modify and Undo operations on the current keyframes with the touch of a button.

#### **F Effects**

Save up to 100 effects in memory. Additional storage on internal hard drive or floppy disk.

#### **G Graphics**

Cursor & channel ID, Joystick Lock control & OrbitalFX parameters.

#### **H Global Menus**

True 3D Global Channel with background and combiner control. Target Framestore, Supermatte, Defocus & Solid Builder parameters.

#### **I System**

Quick & easy access to all engineering functions, including editor protocols and output formats.

#### **J 3D Joystick**

Control any menu parameter from the Joystick or use the "Joystick Lock" to tie the

joystick to the current menu while you enter other menus.

#### **K Numeric Keypad**

Enter numeric parameters directly with easy copy and paste of any number.

#### **L On-Air**

Going live? The On-Air control gives you one button access to any effect or any keyframes within the effect as well as instant freeze for any channel.

#### **M Timeline Control**

Run through your effect forward or backward, or step through from keyframe to keyframe with precise control.



## NUTS AND BOLTS

### Internal Hard Drive

Dveous/MX has an internal hard drive for more storage and faster save/recall of files.

### I/O

Six inputs support either serial digital HD signals or serial digital 525 or 625 signals (additional six input option available). The output type is software selectable and the input format follows the output, so simply choose your format and start creating.

The six serial digital outputs can all be configured as SD or HD formats. Each of the outputs can be user defined to be video or key from any individual channel or twin channel or combined dual twin channels.

### Open Architecture

Oh yeah. Dveous/MX is based on FPGA technology, which now allows Accom the freedom to make changes and additions to the programming via software updates.

### Interfaces Galore

Dveous/MX comes equipped with three remote ports complete with all the standard interfaces. This makes it easier to interface with most any device on the market.

### Abekas Reliability

Did you know that Abekas DVEs have been in use for 20 years? That's right, and some of those antiques are still in operation today. We call that, reliability. Because of its predecessors, the Dveous quickly became the industry-standard for digital video effects and is in use worldwide. With that remarkable history in mind, Dveous/MX marks a new era for DVEs and continues in the tradition of its founding fathers. Expect nothing less – quality and reliability 24/7 for many years to come.

# Abekas

Acbekas, Inc.

1430 D O'Brien Drive  
Menlo Park, Ca 94025 USA  
Tel 650.470.0900  
Fax 650.470.0913

[www.abekas.com](http://www.abekas.com)

## SPECIFICATIONS

<b>Digital Video Inputs</b>	SMPTE 292M or SMPTE 259M 6 SDI inputs capable of handling either HD (10-bit at 1.5 Gb/s) or SD (10-bit at 270 Mb/s) formats. Option for additional 6 inputs
<b>Digital Video Outputs</b>	SMPTE 292M or SMPTE 259M 6 SDI outputs selectable as video or key from any individual channel, twin channel or combined dual twin channels. HD (10-bit at 1.5 Gb/s) or SD (10-bit at 270 Mb/s) selectable
<b>Reference Loop</b>	Tri-Level HD or Composite Analog SD
<b>System Characteristics</b>	
Supported Video Formats	High Definition 1080: /60i /59.94i /50i 1080: /30psf /29.97psf /25psf /24psf /23.98psf 1080: /30p /29.97p /25p /24p /23.98p 1035: /60i /59.94i 720: /60p /59.94p Standard Definition 525: /59.94i (ITU-R/BT.601-4) 625: /50i (ITU-R/BT.601-4)
<b>Aspect Ratios Supported</b>	Anamorph® User Selectable Includes 4:3 and 16:9
<b>Internal Processing</b>	Frame Based, 10-bit Processing
<b>Communications</b>	Serial Three RS422/RS232 Serial Ports: Sony, SMPTE, GVG Peripheral Bus, CPL/A53-D, and Switcher Aux Bus Protocols.  GPI I/O 12 Inputs, 12 Outputs, Fully Programmable. Includes Intelligent On-Air Tally and Front/Back On-Edge Switch.

## PHYSICAL SPECIFICATIONS

<b>Power</b>	90-250 VAC 50/60 Hz, Auto sensing w/PFC
<b>Power Consumption</b>	Main Chassis--400 Watts Control Panel--25 Watts
<b>Weight</b>	Main Chassis--25 lbs. (11.3kg) Control Panel--10 lbs. (4.5kg)
<b>Dimensions</b>	Main Chassis--7" H X 19" W X 16" D (17.8cm X 48.3cm X 40.6cm) Control Panel--5.6" H X 19" W X 11" D (14.2cm X 48.3cm X 27.9cm)
<b>Safety &amp; Emissions</b>	CE, CSA, TUV FCC Class A EN55103-1, EN55103-2

