

# GilderNewsletter

Views and News from the World of Gilderfluke & Co.

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**Serving the Entertainment Industry for 30+ Years!**

## New Z-Brick

The Br-multiBrick32 is a 32 digital (on/off) output card with built-in flash memory. The Z-Brick is a 32 digital (on/off) output card without any memory. These two very similar cards have been combined into one new card. Since it had the 'coolest' name of the two, this new card has inherited the Z-Brick name.

The new Z-Brick has a slot for a standard Sd or SdHC flash card. If you insert a flash card, it takes the place of a Br-MultiBrick32 (but with a LOT more flash memory!). If you leave the flash card out, it is a Z-Brick you can use as a 'slave' on a DMX-512 network.

### The new Z-Brick features include:

- The 32 digital (on/off) outputs are rated for 150 ma. continuous, or 500 ma. peak. These can drive small solenoid valves, relays, LEDs and similar devices. Outputs are protected against most short-circuits.
- Shows are stored on standard Sd/SdHC Flash cards for a virtually unlimited capacity (up to 32 GBytes). The Sd card's 'Write Protect' switch can protect show data from accidental changes. Like all GilderGear, up to two hundred fifty-five shows can be loaded onto a Z-Brick at one time.
- Networkable! Transmits standard DMX-512 to act as a network 'master', or receives DMX-512 to use as a 'slave'.
- Triggerable! Four optoisolated inputs or the RS-422 serial port can be used to start, stop, pause, continue, or access shows. Rising or falling edges can trigger different actions. Supports new playlist commands.
- Fits any 'Brick' card cage. These are available with one to sixteen slots, rack mounted or freestanding.
- The v.3 Z-Brick runs on any voltage from nine to twenty-four vdc. - G



## Sd-25 with DMX-512 Networking Built-In

Our best selling audio player is the Sd-25. Starting in 2014, we will begin production of a new Sd-25 with built-in DMX-512.

### Features of the New Sd-25s include:

- Built-in DMX-512 input.
- DMX-512 can be used to randomly select and play any of 255 SoundFiles.
- Optionally control the volume level with a second DMX-512 channel.
- RJ-45 DMX-512 input/output/thru to daisy-chain using standard Ethernet patch cords.
- Uses USITT-standard pinout for DMX-512 through RJ-45 cables.
- External switches to set operating modes, bridge amplifier or select line in or line out on the RCA jacks.
- RS-232 serial port comes 'standard'. The serial port can be used to control the volume, call up sounds and monitor the Sd-25.
- Alphabetically sorts first 255 SoundFiles

### Features of all Sd-25s include:

- Stand alone stereo playback of standard Mp3 (all data rates) or .WAV audio files (up to 48 K/16 bit). Up to 255 AudioFiles in most modes, 32,737 in some. The audio capacity is limited only by the size of your Sd or SdHC flash card.

**Continued on p.3: New Sd-25**

**New!**

## Digital Outputs From a SER-DMX

Introduced just last year, the SER-DMX is a new version of our popular servomotor controller. It has sixteen PCM outputs compatible with model airplane-style servomotors.

We found that with only servomotor outputs, that there was no convenient way to trigger just a few digital functions. These are often needed to start a video or audio player or turn on the relay that supplies power to the servomotors. You could add some digital outputs via the DMX-512 network, but that would mean adding additional hardware.

We recently added a special feature, unique to the SER-DMX, that allows you to use what are essentially analog outputs as digitals. You just set to 'zero' both of the endpoints for one or more of the servomotor outputs.

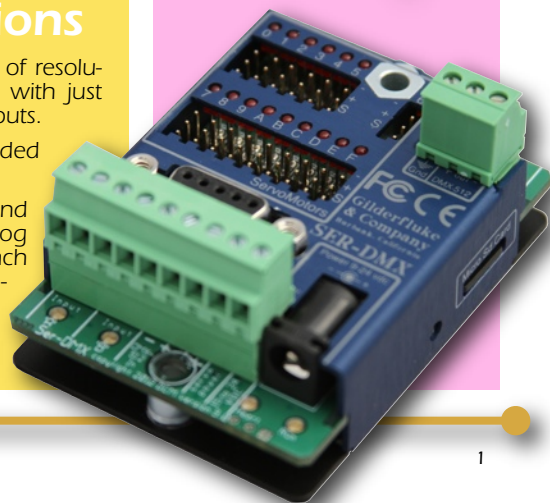
The channel(s) that are used for these digitals should be created as 8 bit resolution analogs. When the value of the channel is above 50%, the digital output will be on. - G

## Support for Higher (and Mixed) Resolutions

Since its very first release, Pc•MACs has supported analog outputs with up to 32 bits of resolution. The AutoDownload files that Pc•MACs generated contained only a small header, with just enough information to find and play the shows. There was no resolution data for the outputs.

AutoDownload files generated by the Alpha version of Pc•MACs have a greatly expanded header that contains outputs' names, resolutions and a lot more information.

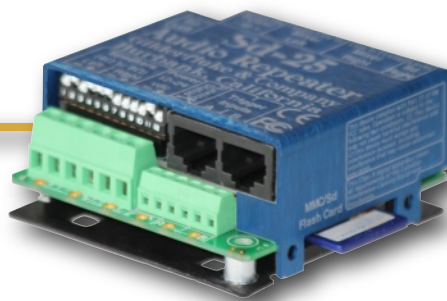
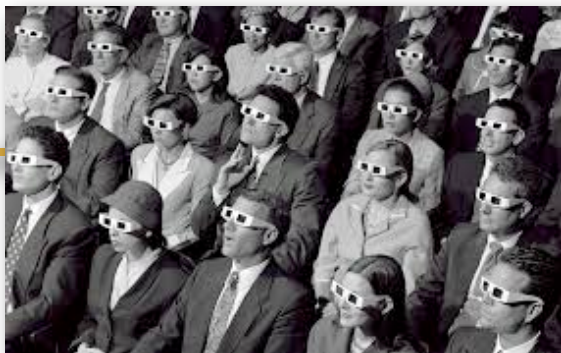
The firmware in our Br-ANA, DAC-Quad and SER-DMX has been upgraded to understand the expanded headers in the new AutoDownload files. They automatically find the analog channels for each output, skipping any digital channels, and setting the resolution for each output individually. The Br-ANA can output analogs at 8 or 12 bits of resolution, the DAC-Quad and SER-DMX can take advantage of resolutions through 16 bits, albeit with the endpoints set to the full range of output. All of these will accept analog data at higher resolutions than they support natively, and use their best resolutions to support them. - G



# Gilder Gear Comparison Chart

GilderGear Name	Show Control	Audio Player	Other Features	DMX-512 Input	DMX-512 Output	Show Control Outputs	Trigger Inputs	Clock/Calendar Schedules	Serial Port(s)	Memory	Flash Card	Starter Kit	Notes
<b>Sd-10</b>		Yes (stereo)	Line Level Out				Two Opto + Serial		Rs-232 (optional)	Sd Cards up to 32 GBytes	removable Sd or SdHC	Yes	CD player Replacement
<b>Amp-50</b>			50 Watt Digital Class-D Amp										Equiv. to a 200-250 Watt Amp
<b>Sd-25</b>		Yes (stereo)	50 Watt Amp Mixer Input			1 Status Output	Two Opto + Serial		Rs-232/422 (optional)	Sd Cards up to 32 GBytes	removable Sd or SdHC	Yes	Equiv. to a 200-250 Watt Amp
<b>Sd-50/0</b>		Yes (stereo)	100 Watt Digital Amp				Eight Opto + Serial		Rs-232	Sd Cards up to 32 GBytes	removable Sd Card	Yes	Equiv. to a 400-500 Watt Amp
<b>Sd-50/8</b>	Yes	Yes (stereo)	100 Watt Amp 8 ServoMotors*	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Up to 8 Digital	Four+Eight* + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 4 or 8 MBytes	removable Sd Card	Yes	* Uses 8 Show Control Outputs
<b>Sd-50/40</b>	Yes	Yes (stereo)	100 Watt Amp 8 ServoMotors*	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Up to 40 Digital	Four+Eight* + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 4 or 8 MBytes	removable Sd Card	Yes	* Uses 8 Show Control Outputs
<b>Br-miniBrick4</b>	Yes					Four Digital	One Opto		Optional	8 KBytes			Our smallest controller
<b>Br-miniBrick8</b>	Yes		Two PCM Servo-Motor Outputs	1 Universe (512 Chan.)	64 DMX-512 Channels*	8 Digital 2 Servo	Two Opto + Serial		Rs-232	64 KBytes			* DMX-512 outs eat up Memory
<b>Z-Brick (Br-ZBR)</b>	Yes			1 Universe (512 Chan.)	1 Universe (512 Chan.)	32 Digital	Four Opto + Serial		Rs-422	Sd Cards up to 32 GBytes	removable Sd or SdHC		Combines functions of Br-multiBrick32 and Z-Brick
<b>Br-ANA</b>	Yes			1 Universe (512 Chan.)	1 Universe (512 Chan.)	16 Analog	Four Opto + Serial		Rs-422	Sd Cards up to 32 GBytes			DMX-512 to Analog Card
<b>DAC-Quad</b>	Yes		Four PCM Servo-Motor Outputs	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Four Analog	Two Opto + Serial		Rs-232	micro Sd up to 32 GBytes	removable micro Sd		DMX-512 to Analog Card
<b>Br-Brain4</b>	Yes		Simple Reader, DVD Control	1 Universe (512 Chan.)	4 Universes (2048 Chan.)		Ten Opto + Serial	Yes (GPS Optional)	2) Rs-422	Sd Cards up to 32 GBytes	removable Sd or SdHC		Plays 8 asynchronous shows
<b>Pb-DMX/8, /16, /24 or /32</b>	Yes		3.5 Amp AC or DC Relays.	1 Universe (512 Chan.)	300 DMX-512 Channels*	up to 32 3.5 amp Relays	Two Opto + Serial		Rs-232	4 or 8 MBytes			* DMX-512 outs eat up Memory
<b>MACs-USB</b>	Yes		Simple, DMX & Console in/out	1 Universe (256 Chan.)	1 Universe (256 Chan.)		Four Opto						Turns PC into Show Control System
<b>Br-SDC</b>			Serial Device Controller				Ten Opto		1) Rs-232 or Rs-422				Runs DVD players in kiosks, etc.
<b>Br-SDC8</b>			Serial Device Controller/Mux.				Ten Opto + Serial		8) Rs-232 1) 232/422				Runs 8 DVD players or other serial gear
<b>SER-DMX</b>	Yes		16 PCM Servo-Motor Outputs	1 Universe (512 Chan.)	1 Universe (512 Chan.)	16 PWM Outputs	Two Opto + Serial		Rs-232	micro Sd up to 32 GBytes	removable micro Sd		DMX-512 to pwm ServoMotors
<b>BrightSign HD Video</b>		Yes (stereo)	1080p, 1080i, 720p, 576p, 480 Video Player				Eight TTL (select models only)	Option on some models	Rs-232	Sd Cards up to 32 GBytes	removable Sd, SdHC or SdXc cards	Yes	Up to 1080p, MPEG-2, H.264/MPEG-4
<b>LG-DMX/DC</b>			12-24 vdc DMX-512 Dimmer	1 Universe (8 Chan.)									DMX-512 to DC Dimmer
<b>DP-DMX20L</b>			115 vac DMX-512 Dimmer	1 Universe (4 Chan.)									Other dimmer sizes available





## 3-D Video Playback Using Just One Video Player

Until recently, if you wanted to display 3-D video content, you needed to use two synchronized players, or one very expensive 'video server' with two or more video outputs.

Using our high definition Brightsign video players, you can now display true 1080p High Definition 3-D content using just a single inexpensive player. By using a single video player, it is impossible to lose sync between the left and right eye imagery, with all the hosing down and mopping up that is the usual side-effect.

There are several ways of encoding 3-D content onto a high definition player. If using one of the v-Hd series of players (v-Hd120, v-Hd220 or v-Hd1020), you can encode the video side-by-side or top-over-bottom. Note that all of these formats use one half of a standard high definition video frame for the left eye imagery, and the other half for the right eye. This does reduce the final resolution of your imagery.

The BrightSign Xd series of players (v-Xd230, v-Xd1030 or v-Xd1230) have much more decoding horsepower, and can do what is called 'frame packing' using h.264 MVC encoding. This encodes 1080p video at twice the normal frame rate, and decodes every other frame for either the left or right eye. This means that there is no reduction in resolution from full 1080p video.

Most 'Full HD 3-D' compatible projectors and monitors will plug right into any of the BrightSign players using a standard v1.4+ HDMI cable and decode the 3-D imagery properly. These will use electronic shuttered 3-D glasses, and will either transmit the codes to the glasses to synchronize with them directly or with a simple add-on IR or RF transmitter.

To use the less-expensive polarized glasses, you will need to use two projectors mounted in parallel. If the projectors can't be configured to use only the left or right eye imagery, a splitter/decoder box will be needed to separate the left/right eye frames and send them to the appropriate projector. -G

v-Xd1030 with  
v-Hd-to-DMX for  
triggering from  
DMX-512



### Continued from p.1: New Sd-25

- An amazing 50 Watt Class-D stereo amplifier packs the power of most 200-250 Watt linear amps! It draws only a fraction of the power of a typical amplifier, and only when it is pumping sound. Works with most 8 ohm speakers. The amplifier can be bridged for 50 watt mono output into a 4 ohm load.
- Two RCA line level inputs for mixing in external line level audio signals like pre-amplified microphones, Sd-10s, etc..
- Audio is stored on standard Secure Digital (Sd or SdHC) flash cards. These can hold months of CD-Quality sound.
- All configuration is done using a dipswitch. No software or drivers are ever needed.
- LEDs show unit is alive and accessing the flash card. The modulation LEDs show audio being played.
- Two non-polarized optically isolated trigger inputs with LED indicators. Easily attached to PLCs, pushbuttons, motion detectors, foot pads, IR sensors, alarm systems and other controllers. These inputs can be configured to ramp audio to preset levels or to select and play specific sounds round-robin or randomly. StoreCasting and Music-On-Hold modes can play an announcement between each music track. Triggered SoundFiles can be set to accept or ignore additional requests once started.
- Sturdy aluminum enclosure. Mounts in Snap Track, DIN rail (optional), or just Velcro or screw it down.
- One optically isolated 'running' status output. This output becomes active whenever the Sd-25 is playing a triggered SoundFile. It can be used to turn on lights, relays, audio ducking mixers, etc..
- Optional Sd-IR/Rx IR receiver, allows specific SoundFiles to be triggered with requests from a IR-Tx.
- Runs on any voltage from twelve to twenty-four vdc. Use 24 volts at 2.5 amps for maximum amplifier output power.

• Low current draw makes the Sd-25 ideal for batteries or solar cells use where line power is unavailable.

• A 'Starter Kit' is available: Includes a USB flash card reader/writer, 24 vdc power supply, Sd card, etc. -G

## Tip

### Cameras to Keep Ticket Takers Honest

One of the hazards of running a string of attractions remotely, is that you can not always trust your ticket takers and cashiers. A simple fix for some clients has been to use an inexpensive digital camera to 'count noses' each time the attraction runs.



Just modify the camera with a pair of wires across the shutter button, stick in a big flash card, permanently power it, and trigger it from the Gilderfluke show control system just like any other '4D' effect. If you time it right, you can even incorporate the flash from the camera into your shows! -G

## Art Project

### Kinetic Sculpture Restoration

"Tap Dancing Legs" built by Stephan von Huene in 1967 were recently brought back to life for an exhibition at the Getty Museum in Los Angeles.

Noted Illusion designer and builder, John Gaughan, assisted by long-time GilderUser Larry Odien, completed the restoration and upgrade to a PbDMX/08 controller in only ten days. - G

More at:

<http://youtu.be/7ZFuOvxFa0k>

<http://blogs.getty.edu/iri/s/art-with-an-on-off-switch-restoring-stephan-von-huene-tap-dancer/>



## New Concepts in Interactive Shows

Imagine an animated show that is running. Now the Br-Brain4 that controls all the movements, effects, lights, sound and video receives a signal from a sensor, audience or an operator. As a result of this signal, one or more of the figures, or even only a part of a figure temporarily leaves the 'main' show's timeline to do its own little show. When this show has finished, all the functions that left the 'main' show then seamlessly return to it as though they had never left.

That's exactly what the Br-Brain4's PopOut shows allow you to do.

You can define entire figures, or just a small part of a figure for PopOuts. You can have seven different PopOuts running together, or separately. Any part of the show that is not being run as part of a PopOut show, will continue to run the 'main' show on sequencer 'A'.

We know that at first this concept can be pretty difficult to fathom, but it is actually very easy to do. As another example:

With a show that has just a single animated figure: All of the actuators on the right arm are assigned to Sequencer 'B', the left arm's actuators are assigned to sequencer 'C', and all of the the neck actuators are assigned to Sequencer 'D'. All the other actuators are assigned to the 'A' Sequencer. There are a total of eight sequencers available on a Br-Brain4, so you can assign other body parts, or other figures (or just parts of other figures) to these other sequencers.

As the 'main' sequencer, all the actuators will follow whatever show is playing on sequencer 'A'. Those actuators assigned to sequencers 'B', 'C', 'D', etc. will also follow, so long as their sequencers are not running a PopOut show.

In addition to the 'main' show(s) several PopOut shows are also programmed:

Show1 raises both the right and left arms and nods the head 'yes'.

Show2 extends both arms out to the sides, and shakes the head 'no'.

Now if show1 is started on sequencer 'B', the right arm will Easeln out of the main show it has been running on sequencer



'A', and raise the right arm. At the end of

show1, the right arm rejoins whatever show is running on sequencer 'A', doing an Easeln so there are no jumps in the movement.

If show1 is started on sequencer 'C', the left arm would raise instead.

If show1 is started on Sequencer 'D', the head would nod 'yes', while both arms would continue to follow the 'main' show on sequencer 'A'.

You can start more than one PopOut at the same time:

If show1 is started on sequencers 'B' and 'C', the figure would raise both arms.

If instead you started show1 on sequencer 'B' and 'D', the figure would raise its right arm and nod its head 'yes'.

One PopOut show can be interrupted by another:

If show1 is started on sequencer 'B', the character will raise his right arm as expected. Now if show2 is started on sequencer 'B' before show1 has ended, the figure will seamlessly extend his right arm out to the side. At the end of show2, his right arm will return to whatever show is running on sequencer 'A'.

With a capacity of 255 shows, and each show holding data for up to seven different PopOut sequencers, that means you can program in as many as 1785 different individual PopOut movements on a Br-Brain4. The number of possible combinations of PopOut shows is in the millions!

Although the examples above used animated figures, there is no reason that lighting, fountains, effects, sound and video can't also be included in these PopOut shows. - G

## Touchscreen Triggering

For starting just a few shows, a few buttons can be attached to any GilderGear. If you start getting into a more complex installation with lots of shows and sequencers to trigger, then nothing beats a touchscreen.

We recently wrote firmware for a Beijer touchscreens to allow the the text on the buttons and serial strings to easily be entered and edited, by just plugging in a standard USB key-





board. It also talks back and forth with the Br-Brain4 so that it knows and displays which sequencers are running, and lights up the buttons accordingly. This works perfectly with PopOut shows.

Touchscreens can be used with fountains, animation, or any other type of show. They connect right to the GilderGear's serial ports. You can also connect to an iPhone or iPad using a Modem-Internet and your WiFi network. -G

This year we added the same pluggable connectors to our Br-miniBrick8s and Pb-DMX relay controllers, as seen above. -G

## Using the Randomizer

When you use the Alpha version of Pc•MACs to AutoDownload shows, you now have two 'playlisting' options on all GilderGear except the Br-miniBrick4 and Br-miniBrick8.

When you save your AutoDownload file, you can assign a range of shows as a 'playlist' to be triggered by an input either 'sequentially' or at 'random'. Other inputs can have their own 'playlists' assigned to them as well.



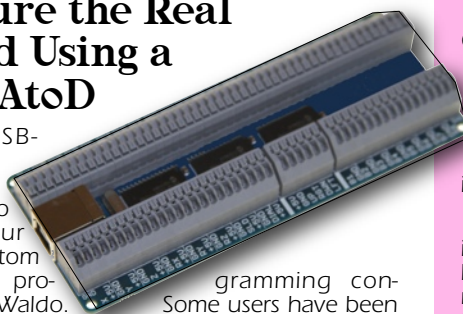
If you select 'Sequential', then the selected shows will play in order until the end of the list is reached, and then start over at the beginning.

If you select 'Random', then the player will select which show is to be played completely at random from among the selected range of shows. It does this until it has played all the shows in the playlist, and then will 'reshuffle' the shows and start over.

If you are using the 365 day scheduler on a Br-Brain4 or an Sd-50 to start shows, one weakness of the scheduler is that it doesn't know about these new 'playlisting' features. The easy workaround is to use a spare digital output, and wire it into the trigger input that has been set to trigger the playlist. Use the scheduler to start a little show which just activates this spare digital output, and it will then trigger a show from the playlist. -G

## Capture the Real World Using a USB-AtoD

The USB-AtoD is typically used to build your own custom programming console or Waldo. Some users have been using them for capturing real world data to incorporate into their shows:



By using a phototransistor and a resistor, one user captured the flickers from real candles and fires to control artificial candles, torches and fire effects in an attraction.

An auto parts manufacturer used accelerometers to record the ruts and valleys of really bad roads, so that they could test car parts on a GilderGear controlled motion simulator.

Other motion bases have also been programmed in this way, using the recorded data as the basis of the ride profiles. -G

## Awards Won!

### 250 year Old Clock Upgrade

The Stollwerck Carillon Clock dates to c1760-63. It plays one of thirteen songs on each hour. About five years ago, the carillon was disabled to prevent further wear on its delicate mechanism.

This upgrade had to be indiscernible to the ear, battery operated, and removable without leaving a trace. Senior furniture conservator Jürgen Huber and sound engineer John Leonard worked together to restore the clock's 'voice' using a Gilderfluke Sd-10.

It has been shortlisted for one prestigious conservation award and won a 'highly commended' certification in a second. It can be seen (and again heard) at The Wallace Collection, Hertford House, Manchester Square, London. -G

More at:

<http://www.wallacecollection.org/news/44>

## Gold plating on PCBs

If you look at the circuit boards used in most GilderGear, you will see that the bare pads are all gold plated. This is not just to make the insides of our products prettier. It is because gold doesn't corrode.

One client recently reported that they inadvertently ran a Br-miniBrick8 submerged in water for almost a year. When they found this out, they drained the water, cleaned up the controller and put it back into service. This Br-miniBrick8 is still running its shows today! -G

## Pluggable Terminals

We designed the DAC-Quad and SER-DMX with pluggable terminal blocks. These allow you to quickly remove the controller, even after it has been wired into the show.

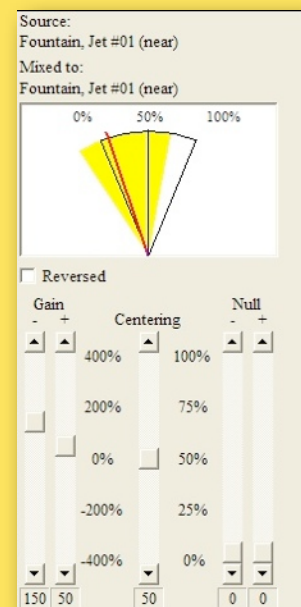


## Made in the USA

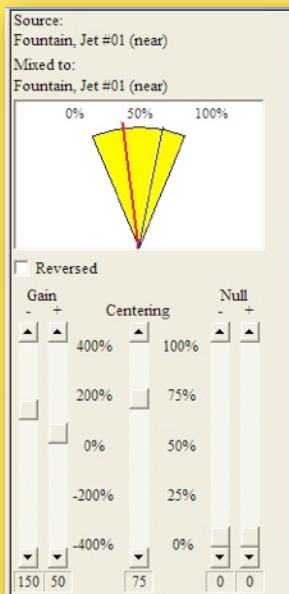
All equipment which is designed and built by Gilderfluke & Co. is manufactured in the United States of America. -G



## Sidebar...



The Mixer 'Gain' has been set asymmetrically for inputs below 50% and above 50%. The yellow 'pie' shows that the output will try to go below 0% (which can't happen), and never quite reach 100%.



By shifting the 'centering', the output range is once again 0-100%, centered at 75%

## App. Note: Getting the Most From Pc•MACs' Mixer:

The mixer that is built into Pc•MACs is a powerful tool used with analog functions to allow you to control one or more outputs using one or more programming console analog inputs.

When programming animation, this can be used to coordinate multiple movements. Examples of this include moving a figure's upper and lower eyelids to automatically keep them out of the way of the pupils as the eyes look up and down, or using a single control for both a shoulder rotate and the elbow, so that the forearm stays level as the shoulder rotates.

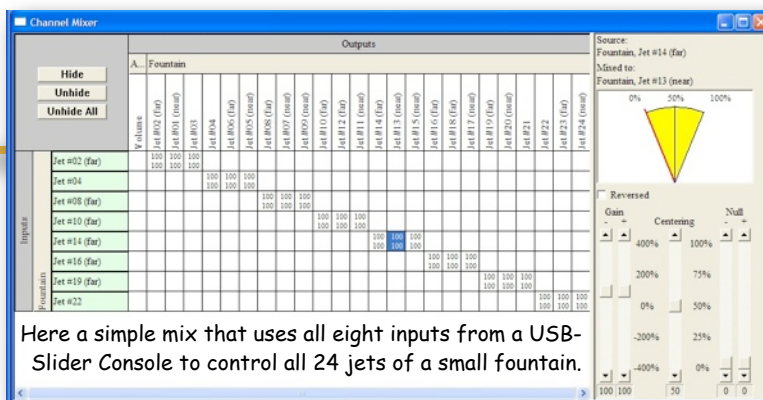
For programming a fountain or lighting, the mixer can be used as a much more flexible version of the 'patch' found in lighting boards. This saves you the trouble of programming each individual light or fountain jet individually.

To use the mixer, you must first make sure it is turned on under the 'preferences' menu. Once enabled, you can open the mixer from the Real-Time menu (shortcut = F6). Along the left side you will see any analog channels you have assigned to your programming console. Along the top you will see all of the analog outputs in your show. By default, the inputs that are assigned on your console will be linked 100%/100% to the corresponding outputs.

When you select a cel in an output's column where it crosses an input's line, at the right of the window you will see the settings for that cel. (hint: You can use the <shift>+click and <Control>+Click to select multiple cels). The yellow 'pie' shows the range of command for the output, limited by the black lines that show the 0% and 100% levels for an output. The red 'needle' shows the 'current' value for an output.

An output can never go below zero, or over 100%, but the command level (the yellow 'pie') can. Overtly high gains can be used for things like eye blinks, where you want a small movement on a console's pot to max out the output.

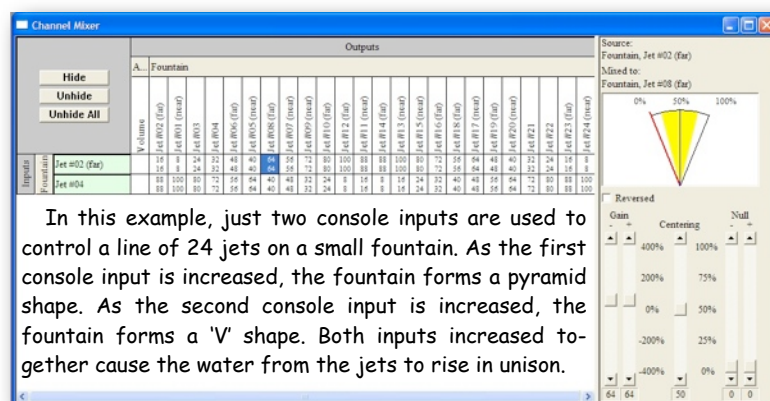
The first two mixer sliders are used to set the gain. There are two gain controls because the gain can be set for the first and second halves of the console input, which allows you to have



Here a simple mix that uses all eight inputs from a USB-Slider Console to control all 24 jets of a small fountain.

asymmetrical gain. You can also set the gain to be 'negative', so the input subtracts from the position from the output rather than adding it.

The next Mixer slider is used to set the 'centering'. If you are using symmetrical 'gain' settings, you probably won't be using this control. If your gains are asymmetrical, this control allows you to put the 'center' anywhere you would like on your console input.



In this example, just two console inputs are used to control a line of 24 jets on a small fountain. As the first console input is increased, the fountain forms a pyramid shape. As the second console input is increased, the fountain forms a 'V' shape. Both inputs increased together cause the water from the jets to rise in unison.

The final two Mixer controls are the 'null' sliders, these allow you to set an input so that it has no effect until it exceeds a minimum or maximum threshold. This is what is used in the lower eyelid example to keep the eyelids from moving down until the pupil starts looking upwards or downwards beyond a certain threshold.

Mixes are stored as a part of Console Preset. When you are happy with any mix you have created, be sure to save your console preset so you can call it up again when needed. -G



## Machao Orphanage

In addition to her work with people with Sickle Cell Disease, Dr. Carolyn Rowley, our VP and CFO, has been the

primary U.S. organizer and fundraiser for the Machao Orphanage in Makueni, Kenya.

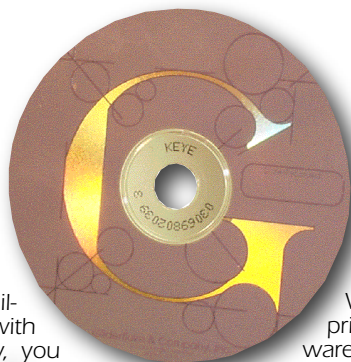
The project recently completed a chicken coop and greenhouse, and are working on installing a solar pump and provide educational assistance to support the children.

If you would like to help support the facility, or any of the kids directly with school tuition or other aid, more information can be found at [www.machaoorphanage.org](http://www.machaoorphanage.org) -G



## Custom Product GilderGear Labeling

If you are using a larger quantity of GilderGear, you can order the equipment with your own custom labeling. In this way, you can 'brand' the GilderGear as your own. -G



## Greatest Hits On CD

We distribute all our printed material and software on a single CD-ROM. Every manual, cut sheet, and piece of software we offer is all on one disk. These are included with most orders, or are available for a nominal charge. -G

## GilderSwag Available for Ordering

As everyone knows, there is no human being more fashionable on this planet than your typical Gilderfluke & Co. Employee.

Now you too can dress just like one!

GilderShirts, GilderChocolates, GilderMousePads and other great GilderSwag are now available from our online web store. -G



## Classes Anyone?

The spacious quarters at Gilderfluke Towers has a permanent display area where we offer classes in GilderGear. We know that our stuff is pretty easy to learn to operate, but if you would like formal classes, they can be scheduled.

If you are interested in training on GilderGear, please contact Carolyn Rowley (carolyn@gilderfluke.com) in our California GilderOffice. -G

## Custom Design Work

As time allows, we do custom design work. Most jobs are for clients that need a product to do a specific job that none of our off-the-shelf boards will do. Usually, these have been incorporated into products produced by our clients.

If you are interested in custom-designed equipment, please contact Doug Mobley (doug@gilderfluke.com). -G

## Field Installation & Service

Gilderfluke technicians are available for installations worldwide. You will need to pay all the usual transportation expenses (business class or better airfare, hotel, food, and per diem) in addition to the fee for the technician.

If you are interested in field support and installation of Gilderfluke & Co. equipment, contact Carolyn Rowley (carolyn@gilderfluke.com) in our California GilderOffice. -G

## Gilderfluke Show Plans

We are scheduled to exhibit at the following trade shows in the upcoming year. Most of the equipment described in this newsletter will be on display at these shows. We have free passes for many of them, so contact us if you would like to attend.

November 19-22, 2013

### Booth #1858

International Association of Amusement Parks & Attractions (IAAPA), Orange County Convention Center, Orlando, Florida

March 20-23, 2014

### Booth #527

[National Haunt & Attraction Show](#), America's Center, Saint Louis, Missouri

June 18-20, 2014

### Booth #C10548

[InfoComm](#) International, Las Vegas Convention Center, Las Vegas, Nevada

November 18-21, 2014

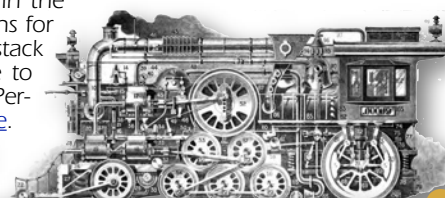
International Association of Amusement Parks & Attractions (IAAPA), Orange County Convention Center, Orlando, Florida

## Our Two Most Asked Questions

In the more than twenty-eight years we have been in business, the second most commonly asked question is where our company's unusual name came from.

Eli Gilderfluke was an 'inventor' whose illustrations appeared in railroading trade magazines in the 19th Century. A precursor of Rube Goldberg in the 20th Century, he developed strange inventions for steam trains. These were things like a big scoop to catch the exhaust coming out of the smoke stack and feed it back into the engine's firebox. The verb "to Gilderfluke" something eventually came to mean improvised repairs (i.e.: "Jury-Rigging") on a piece of machinery. To the right is 'Gilderfluke's Perfected Locomotive' from the [December 1897 issue of Railway and Locomotive Engineering Magazine](#).

The answer to the most commonly asked question is: 'No, we don't build animated figures'. -G



• You can follow us on:



## Who Are We?

Gilderfluke & Company was founded in 1983 to build Animation & Show Control Systems for theme parks, museums, and other entertainment venues. In 1988 we added Digital Audio Playback Systems to our product line, and became the first company to be able to provide the entire electronics package for your animated show or attraction.

We currently deliver an average of four or five systems a day. We are the only company that delivers complete, off-the-shelf Animation & Show Control Systems from stock. Most systems are bought by Animation Manufacturers for incorporation into their shows. They are simple enough to be installed by anyone.

Our **PC•MACs** Animation & Show Programming Systems were the first to run under Microsoft's Windows. It is still the technologi-

cal leader among Animation Programming Systems. Our 'Brick' Show Control Systems are the largest selling Animation & Show Control Systems in the world. These are modular systems which can be used to control any size show you can imagine.

Our Digital Audio Systems are led by our **Sd-10**, **Sd-25** and **Sd-50** Industrial-Strength Mp3 players. These store audio on standard MMC/SD Flash cards for any installation where you need a sound to play reliably and with zero maintenance; forever. Our systems are modular. Systems with two to thousands of outputs are can be made with our repeaters.

**Sd-50** players are also available with an option that adds eight or forty digital Show Control outputs, DMX-512, MIDI and serial ports to them. This turns them into a total Audio and Show Control playback solution. The GPS option allows shows and sounds to be scheduled, accurate to a thousandth of a second. -G

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