

# GilderNewsletter

Views and News from the World of Gilderfluke & Co.

GilderHeadquarters • 205 South Flower Street • Burbank, California 91502-2102 • 818/840-9484 • 800/776-5972 • FAX: 818/840-9485

**Serving the Entertainment Industry for 36 Years!**

## New Application Note for Hunters

We have posted a [new application note](#) for folks with smaller Show Control System needs. This includes hunters and similar applications.

This note covers how to control stand-alone props, parallel triggering of props, networking together props using DMX-512, and finally controlling a complex multi-room haunt using a Br-Brain4.

Sidebar covers using traffic lights to increase throughput, a primer on DMX-512, and sensors used to trigger props. -G

## Simplest DMX Test Tool

We have found that one of the most effective tools for diagnosing problems with a DMX network is one of the simplest. It is a red/green LED and resistor.

Due to popular demand, we now sell them in packs of ten.

They can also be used as the terminating resistor at the end of DMX-512 networks, with the added advantage of lighting up and flickering if there is signal.

The leg that lights the red led when positive is usually marked with red shrink wrap.

Touch the two leads to the pin #3 '+' and pin #2 '-' DMX-512 terminals, and you should see a red/green glow. Reverse the leads if one color is too dim to see. If you see both colors, you have DMX-512, but the +/- could still be swapped. Compare

**DMX Tester: continued on p. 6...**



Kp-1500 now joins the 7" Kp-700 and 10.2" Kp-1020 touch panels. All three can configure themselves when used to control most GilderGear, or can be configured manually if you prefer.

Connect your touchscreen to anything from a Br-miniBrick8 to a Br-Brain4. Press the 'configure' button and the touchscreen will query the control system for all the shows it has on it, and populate the on-screen buttons with the shows' names. 'Maintenance' shows will be hidden and password protected automatically.

You can then start pressing the on-screen buttons and the Kp-700/1020/1500 will send the appropriate messages to select and play your shows. -G

## High Speed Serial

New v.38+ firmware for the Br-ANA, Sd-50/xxs, DAC-Quad, SER-DMX, Br-ZBR and Pb-DMX/xx now supports faster communications with Pc•MACs and GilderTerm. In many cases, this can eliminate the need for a DMX-512 connection during programming.

Easelns keep analog outputs from jerking when jumping between shows. The new firmware performs Easelns on all analog outputs. Including those sent thru the DMX-512 network. -G

## Gilder History

### A Rose by Any Name:

We named our first animation programming systems MACs. This stood for Microcontroller Animation Control System. It had a 5 Mbyte hard drive, 8" floppies, and ran using the CP/M operating system.

Later the IBM PCs debuted. They were more expensive, slower, and at least for a short time, had fewer options than CP/M-based PCs.

Just three years after the PC, in 1984, the first Macintosh was introduced by Apple. Macs were miles ahead of anything else! We bought the first one we saw, and used it to design the user interface for the penultimate Animation Programming System. The UI that is now so familiar on audio and video editing software was our creation. (We probably should have patented it)

The original Mac hardware was 'closed', making it impractical to build a Show Control System using those early Macs.

We designed and built the hardware for IBM PCs, but had to wait almost another ten years before the first stable version of Windows (v3.1) came out.

About six months after that, we released the first version of MACs for PCs: i.e.: Pc•MACs. -G



# Gilder Gear Comparison Chart

Gilder Gear Name	Show Control	Audio Player	Show Control Outputs	DMX-512 Input	DMX-512 Output	Other Features	Trigger Inputs	Clock & Calendar Schedules	Serial Port(s)	Memory	Flash Card	Starter Kits	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							Amplifier is equivalent to a 200-250 Watt Linear Amp
<b>Sd-25 w/DMX</b>		Yes (stereo)	1 Status Output	1 Universe (512 Chan.)		50 Watt Amp Mixer Input, Line Level Output	Two Opto + Serial		Rs-232, InfraRed	Sd Cards up to 32 GBytes	removable Sd or SdHC	Yes	Amplifier is equivalent to a 200-250 Watt Linear 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 or SdHC	Yes	Amplifier is equivalent to a 400-500 Watt Linear Amp
<b>Sd-50/8</b>	Yes	Yes (stereo)	Up to 8 Digital	1 Universe (512 Chan.)	1 Universe (512 Chan.)	100 Watt Amp 8 ServoMotors*	Four+Eight + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 8 MBytes Sound: Sd	removable Sd or SdHC	Yes	Our 'All-In-One' Show Controller * ServoMotors can use up to 8 Show Control Outputs
<b>Sd-50/40</b>	Yes	Yes (stereo)	Up to 40 Digital	1 Universe (512 Chan.)	1 Universe (512 Chan.)	100 Watt Amp 8 ServoMotors*	Four+Eight + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 8 MBytes Sound: Sd	removable Sd or SdHC	Yes	Our 'All-In-One' Show Controller * ServoMotors can use up to 8 Show Control Outputs
<b>Br-miniBrick4</b>	Yes		Four Digital				One Opto		Optional	8 KBytes			Our Smallest Show Controller
<b>Br-miniBrick8</b>	Yes		8 Digital 2 Servo	1 Universe (512 Chan.)	64 DMX-512 Channels*	Two PCM ServoMotor Outputs	Two Opto + Serial		Rs-232	64 KBytes			Our Most Popular Show Controller * DMX-512 outs eat up Memory
<b>Z-Brick (Br-Br-ZBR)</b>	Yes		32 Digital	1 Universe (512 Chan.)	1 Universe (512 Chan.)		Four Opto + Serial		Rs-422	Sd Cards up to 32 GBytes	removable Sd or SdHC		Combines functions of Br-multiBrick2 and Z-Brick
<b>Br-ANA</b>	Yes		16 Analog	1 Universe (512 Chan.)	1 Universe (512 Chan.)		Four Opto + Serial		Rs-422	Sd Cards up to 32 GBytes	removable Sd or SdHC		Sixteen 8 or 12 bit Resolution Analog Outputs, plus DMX-512
<b>DAC-Quad</b>	Yes		Four Analog	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Four PCM ServoMotor Outputs	Two Opto + Serial		Rs-232	micro Sd up to 32 GBytes	µSd or µSdHC cards		Four 8, 12 or 16 bit Resolution Analog Outputs, plus Four Model Airplane-Style Servomotors
<b>Br-Brain4</b>	Yes			1 Universe (512 Chan.)	4 Universes (2048)	Smpte Reader, sends serial strings, MIDI,	Ten Opto + Serial	Yes (GPS Optional)	2) Rs-422	Sd Cards up to 32 GBytes	removable Sd or SdHC		Plays 8 asynchronous shows, PopOut Shows, LCD on front displays status, shows, etc.
<b>Pb-DMX/8, /16, /24 or /32</b>	Yes		up to 32 3.5	1 Universe (512 Chan.)	1 Universe (512 Chan.)	3.5 Amp AC or DC Relays	Four Opto + Serial		Rs-232	micro Sd up to 32 GBytes	µSd or µSdHC cards		You can freely mix AC and DC relays on the same unit
<b>Br-EFB</b>	Yes		4 Closed Loop	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Built-in Web page for Config. & Control	Two Opto + Serial + Ethernet		Ethernet Rs-422 USB	µSd Cards up to 2 TBytes	µSd, µSdHC or µSdXc		Four Self Tuning PID Loops for Pneumatic, Hydraulic or Electric servo loops
<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				Controls up to 8 DVD players or other serial gear
<b>SER-DMX</b>	Yes		16 PCM Output	1 Universe (512 Chan.)	1 Universe (512 Chan.)	16 PCM Servo-Motor Outputs	Two Opto + Serial		Rs-232	micro Sd up to 32 GBytes	µSd or µSdHC cards		DMX-512 to Model Airplane-style ServoMotors
<b>Bt-DMX</b>			16 PCM Output	1 Universe (512 Chan.)		Wireless Control of ServoMotors			USB Rs-422				Bt-DMX = Base Station, Bt-Servo = output cards. Bidirectional RF Link.
<b>BrightSign HD/UHD</b>		Yes (stereo)		1 Universe (optional)		4K UHD & 1080p HD Players	Eight TTL (select models)	Option on some models	Rs-232	µSd Cards up to 2 TBytes	µSd, µSdHC or µSdXc	Yes	Up to 1080p, MPEG-2, H.264/MPEG-4
<b>LG-DMX/DC</b>				1 Universe (8 Chan.)		12-24 vdc DMX-512							DMX-512 to DC Dimmer
<b>DP-DMX20L</b>				1 Universe (4 Chan.)		115 vac DMX-512							Other dimmer sizes available

## New & Updated Series 4 BrightSign Players

BrightSign recently upgraded their Xd and Xt lines with fourth generation video players.

The v-Xt243 and v-Xt1143 are now the v-Xt244 and v-Xt1144, and the v-Xd233 and v-Xd1033 are now the v-Xd234 and v-Xd1034

The v-Hd and v-LS lines remain unchanged.



### Features of the v-Xt244 include:

- Most [powerful 4K video engine](#) capable of dual video decoding of two 4K videos simultaneously
- Plays [H.265](#) and H.264 encoded 4K and Full HD video
- Supports [Dolby Vision](#) and [HDR10+](#)
- Plays 4K full resolution graphics
- Offers our most powerful enterprise performance [HTML5](#) engine
- Includes [Power over Ethernet](#) (PoE+)
- Standard I/O package of: Gigabit Ethernet-networking, [Interactive controls](#) including GPIO, IR, analog/digital audio, and an [M.2 SSD](#) PCIe interface



### Features of the v-Xt1144 include:

- All the features of BrightSign v-XT244 plus...
- Dual USB (type A and type C) & serial control for engaging [interactive options](#)
- [HDMI 2.0 input](#) to play Live HDTV content from any broadcast channel, even protected HDCP content.



### Features of the v-Xd1034 include:

- [Powerful 4K video engine](#) capable of dual video decoding of two Full HD videos simultaneously
- Plays [H.265](#) and H.264 encoded 4K and Full HD video
- Supports [Dolby Vision](#) and [HDR10+](#)
- Advanced performance [HTML5](#) engine
- Standard I/O package of: Gigabit Ethernet-networking, [Interactive controls](#) including GPIO, IR, analog/digital audio, and an [M.2 SSD](#) PCIe interface



### Features of the v-Xd234 include:

- All the features of BrightSign v-XD234 plus...
- Dual USB (type A and type C) & serial control for engaging [interactive options](#) -G

## Rollercoaster Sound

With their robust construction, low current draw and high power output, Gilderfluke & Co.'s Sd-10s, Amp-50s, and especially Sd-25s are ideal for on-board and off-board rollercoaster sound systems. They are on roller coasters all over the world.

One major theme park company got their first Sd-25s, and immediately bolted them to the back of their roughest roller coaster. They ran there for several months. Then they ran the same Sd-25s for weeks on a running paint shaker. After that, they sent them to a 'G-Force' testing lab, where they were repeatedly slammed into a big block of concrete.

These were standard, off-the-shelf Sd-25s with no special reinforcement for high vibration use, and they are still running more than a decade later on a 'coaster in Japan.

Off-Board audio with wayside speakers works for sound effects, safety announcements and similar applications.

The doppler effect precludes using off-board sound systems for musical playback,

**'Coaster Sound: continued on p. 6...**

## GilderFun

### Why Roller Coasters Need Static Brushes

A steel rollercoaster has a lot in common with a Van De Graaff generator.

A Van De Graaff uses a moving belt to move electrons to its top.

In a rollercoaster, the car moving on insulated wheels does exactly the same thing.

Metal brushes on the car and/or track normally discharges the static electricity before it zaps guests or gear.

One 'coaster at a central Florida park was blowing out the audio and lighting system. The one difference between this and all the other 'coasters at the park: No static discharge brushes.

Later we got a call from a South American park that has GilderGear on their 'coasters. They had run flawlessly for several years, but as they were preparing for the upcoming season, there were problems.

'Was the track painted in the off-season?' we asked.

'Yes' they answered.

'Sandblast the paint off the plates where static brushes touch' we recommended.

Sandblasting instantly fixed their problem. ~G



# ENIGMA

## Wiring it Up

### GilderEscape Room Hardware

The hardware for the Escape room 'Game' consists of one or more digital output GilderDevices (Br-miniBrick8s, Z-Bricks, Sd-50s, etc.), all connected together on a DMX-512 network. The DMX-512 'Master' (shown below as a Br-miniBrick8) runs both the 'Game' and 'Show'.

The hardware for the 'Show' consists of whatever other DMX-controlled GilderGear, lights, smog machines,

### App Note: Make a GilderEscape Room

With 35+ years of experience, Gilderfluke & Co. Show Control Systems have been used to control tens of thousands of shows all over the world. GilderGear has been used to control Seance Rooms, Haunt Attractions, certain popular Magic Wand Shops, Mazes, Laser Tag, Mini Golf, Restaurants and shows in a myriad of other interactive venues. Many of these are what would now be called 'Escape Rooms'.

Escape Rooms typically have two parts:

1. **The 'Game':** This is typically a sequential series of puzzles. When one clue is solved, the clues to the next puzzle to be solved are presented. Most GilderGear can control a single puzzle 'thread' at one time. The Br-

Brain4 can control up to eight independent puzzle 'threads'. This can be used to control up to eight parallel 'threads' within the same escape room, or up to eight independent single-thread escape rooms within the same facility.

The 'Game' is sometimes spun off into a simple PLC or other controller, leaving the GilderGear to run just the 'Show'.

2. **The 'Show':** This sets the mood for the escape room's theme, and presents the players with the clues in an entertaining way at each step of the game. The clues can be presented to the players through audio, video, lighting, electro-mechanical effects, hidden messages or any-

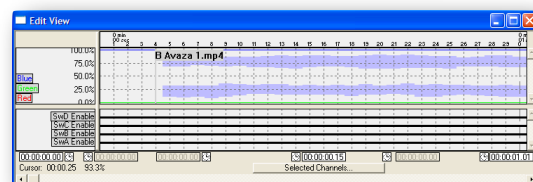
thing else you can imagine. The players must solve each step of the puzzle to move the game along toward its eventual conclusion.

There are only three basic types of shows used in most Escape Rooms:

- **'Idle' and 'Puzzle' Shows:** These are the shows that have one or more switch clo-

sure inputs enabled, and simply step to the 'next' show in the AutoDownload list when any of the enabled inputs are closed.

The 'answer' switch enables for all the switches used by this question are enabled, typically for the entire length of the show:



'Idle' shows typically loop until the game play is started:

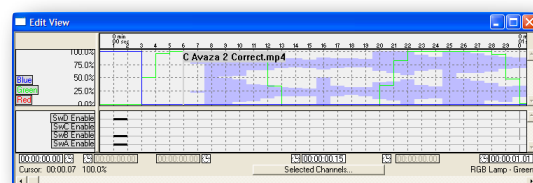
'Puzzle' shows are used to pose the questions and provide clues to the players. The length of these shows sets the amount of time the players have to answer.

If there is no correct/incorrect answer for the 'Puzzle' show, then the 'next' show in the AutoDownload list will probably be another 'Puzzle' show.

If there is to be a correct/incorrect evaluation for the puzzle answer, then the next show will be a 'Correct' answer show.

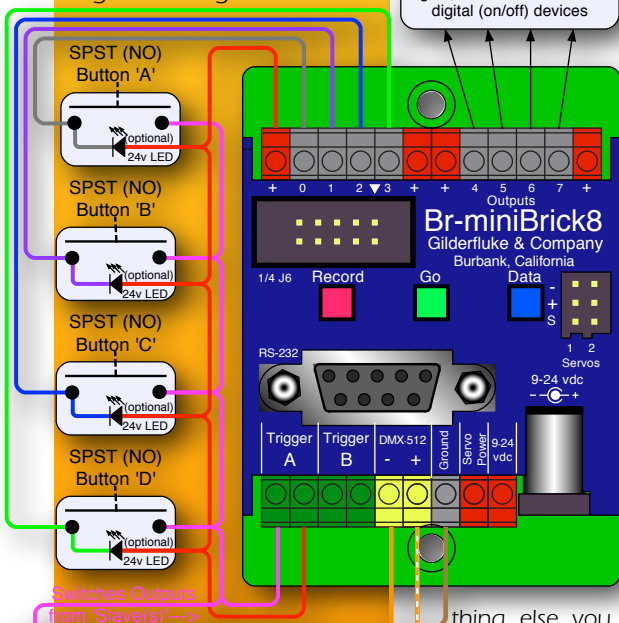
- **'Correct' Answer Shows:** Played immediately after the player makes any selection in a 'Puzzle' show that needs to determine if the answer was correct or not.

The 'Correct' shows determine if the player selected the correct answer or not. If they did, then the remainder of the 'Correct' show plays. If the answer was 'wrong', it branches to the 'Wrong' answer show.



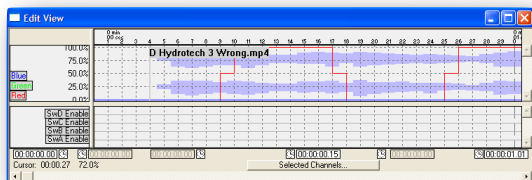
To make the 'Correct'/'incorrect' determination, a one frame long 'blip' is drawn on each of the 'Wrong' switch enables (In this case 'A', 'B' and 'D') on the second frame of the 'correct' shows. The 'correct' Audio/video (and reward celebration) start just after these 'blips'.

- **'Wrong' Answer Shows:** These shows play if the question was answered incorrectly, as determined by the 'Correct' answer show. No switch enables are needed for the 'wrong' answer shows. The red DMX-512 lights are blinked and a 'wrong' video is played during the 'wrong' answer show:



DMX-512 to 'Slaves' strobes, video playback, audio playback, etc. that you need, all attached anywhere on the DMX-512 (below).

Continued on next page...



Examples of how a typical single threaded sequential game works:

1. The 'Idle' show sets the initial mood for the room by fading the lights to the appropriate levels, flickering lights for candle or torch light effects and playing background audio and/or video tracks.

Once your players are locked securely inside, a button press begins the first 'puzzle' show.

2. The 'puzzle' show fades lights to the appropriate levels, locks/unlocks doors or cabinets, runs whatever effects (smoke, bubbles, lasers, etc.) add to the ambiance, plays audio and/or video tracks, and (most importantly) presents a clue.

During the time the players have to solve the puzzle, the lighting, sound and video can intensify to build the tension in the room. A 'countdown' for the remaining time the players have to solve the clue can be presented via lights, audio/video playback, or even by the hands of an analog clock (use a model-airplane-style servomotor to move the clock's hands).

If additional 'hints' are to be provided, these can be presented at any point in the 'puzzle' show timeline.

When the players solve this puzzle, then a switch closure tells the 'Show' Controller to run the 'next' sequence.

3. The 'next' show is typically another 'puzzle' show, so #2 above is repeated. If the 'next' show is a 'correct' answer show, then the switches are evaluated to see if the 'correct' or 'wrong' answer show should be played, followed by the next 'puzzle' show (which brings us back to #2 above). The result can also be used to branch the game to another series of shows, which can then offer a harder or simpler set of puzzles.

Numbers two and three are repeated for each step of the 'game' until the final clue is answered and the players escape.

**'Answer' Switch/Wiring:** GilderGear typically has many outputs, but only a handful of inputs. Instead of adding inputs for every switch, we use the plentiful digital outputs to simply enable only the switches we want to use in each step of the game.

For each switch, you will need one digi-

tal output from the show controller. In this example we are also using the same 'enable' outputs to illuminate the (optional) 24 volt LEDs on each enabled switch.

Each of the Br-miniBrick8s has four switches attached. All Eight of these switches feed just one input on the DMX 'Master'. This input is set so a closure will 'Play Next in List' in the AutoDownload list.

There are several advantages to using GilderGear instead of a PLC or typical 'Arduino' or similar 'hobbyist' solutions:

- **NO CODING:** You don't write a line of computer code when using GilderGear. All you do is draw in what you want to happen on the timeline in Gilderfluke & Co.'s easy-to-use Pc■MACs software.
- **SHOW READY:** Controls animatronics, lighting, mechanical effects, special effects, video, audio or anything else you can possibly think of, all in perfect sync.
- **NO PC:** Although a PC is used for designing your show, we never leave a PC as an active part of the control system. We simply don't consider PCs as being reliable enough to use in a permanent installation.
- **ROBUST:** GilderGear has protection on all inputs and outputs against shorts, miswires, and over current. It's not impossible to blow out a Gilderfluke & Co. controller, you'll just need to work at it a bit harder than with most other gear.
- **FLEXIBLE:** GilderGear can all be mounted in a central 'control' room, or distributed throughout the facility as needed on a DMX network, or both.
- **UNLIMITED:** There are no practical limits to the type and number of things that GilderGear can control. -G

## Made in the USA

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



## Escape Room Hardware: continued from p.4

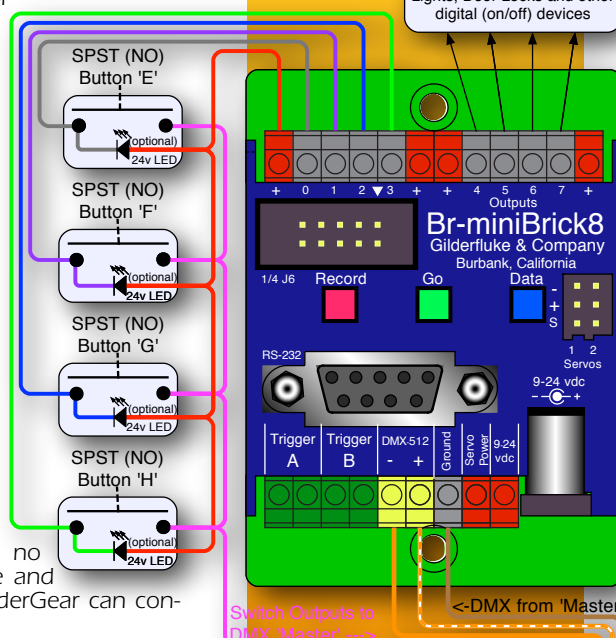
You can put all the control equipment in a central location, but it is usually easier to build the controllers for the DMX-512 'Slaves' right into your props.

In that way, you can just drop your prop in place, plug in power and the DMX-512 network cables, and you are ready to roll.

You can also disconnect the prop from the network, drop a show program into the controller, and run the prop stand-alone if needed.

### Switch-

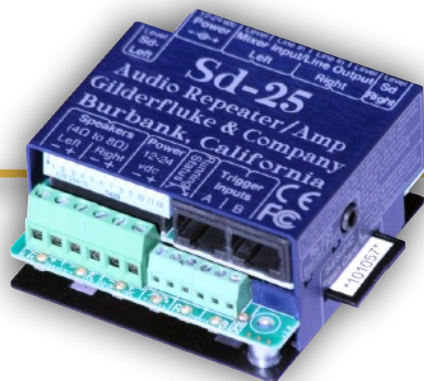
More Switches, or Relays, Lights, Door Locks and other digital (on/off) devices



es to control the 'Game' can be added to any standard digital output GilderDevices (Br-

Continued on next page...





## Escape Room Hardware: continued from p.5

miniBrick8s, Z-Bricks, Sd-50/8s or Sd-50/40s) attached anywhere on the the DMX-512 network.

With eight outputs, each Br-miniBrick8 can support up to eight switches. Each Z-Brick can support up to 32 switches, and each Sd-50 can control up to 40 switches.

The DMX-512 network cable can be as long as a mile, usually with up to 256 devices on the network. Isolators/Splitters can extend this further, if needed.

If using CAT-5 cable for the DMX-512 network, the DMX-512 uses just four of the eight wires. The four 'spare' CAT-5 wires can be used to bring the switch 'outputs' back to the DMX-512 'Master'.

Each switch is used to complete a task and advance the game to the next step. A digital output enables each switch at the appropriate point in the game,

The 'output' from all the switches are ganged together and brought back to just one input on the DMX-512 'master'. If there is more than one possible answer, then more than one switch can be enabled. The DMX-512 'Master' can decide if the answer was correct or not, and 'branch' the show as needed, as shown in the 'Correct' show. -G

## 'Coaster Sound: Continued from p.3

so music systems are always built on-board.

Most rollercoaster applications use just two track sensors to trigger the audio playback from the Sd-10s or Sd-25s. The sensors are triggered by bouncing an IR beam off retroreflectors attached to the tracks.

The first track sensor sets the audio playback to the first SoundFile (usually the 'keep your hands and arms inside the vehicle...' message), and tells it to play. It can be looped, if the sensor input is sustained.

The second sensor is typically triggered at several points during the ride to play the SoundFiles that match the next stretch of rollercoaster chills and thrills. -G

## TIP: Light Boards & Digital Functions

Theatrical lighting control boards don't understand digital functions. To them, everything is an 8 bit analog and the only ramps are linear. For digital functions, if it is above 50% it's ON and below 50% it's off.

If you find yourself having to program an installation where everything is treated as 8 bit analogs, use the following trick so you can treat them as digitals in Pc■MACs.

Skip over bits 0-6 and assign your digitals to bit7 of the DMX-512 address(es) that you need to control. Yes, you will be wasting 7% of the data in each byte, but that's the way lighting boards do things. You will be able to assign and edit these channels just like any normal digital functions in Pc■MACs. -G

## DMX Tester: from p.1

the relative brightness of the Red/Green glow to a known polarity DMX-512 signal. If the ratio of green to red is the same as elsewhere on the network where the DMX-512 is working, then the polarity is likely OK.

If you don't see any red/green glow, or it is extremely dim, you probably have a wire break. Touch between the pin #1 'shield' and the '+' and '-' data lines to identify which wire is broken. -G



## Enjoy a Mobley Burger

If you find yourself near one of the 700 or so Hilton Garden Inns worldwide, try a delicious Mobley Burger. Named after the noted Hamburger Connoisseur and founder of Gilderfluke & Co., these hamburgers are well worth going out of your way to find. (-)

## Art-Net support

ArtNet is an open standard for transmitting thousands of channels of DMX-512 over standard ethernet.

If you have a Macs-License and ArtNet receiver on the same network as your computer, when you go to the 'Universes' dialog under Pc■MACs' Preferences menu, you will see the ArtNet device as a potential target to send one or more universes of DMX-512 to. -G

## Machao Orphanage

Along with her work helping 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

age in Makueni, Kenya.

Thanks to donors like you, this past summer's project was painting the dormitory interiors. After five coats (!!!!) of paint, most of the interiors were completed. Next summer, 2019, the exteriors and remaining interiors (kitchen and matrons' rooms) will



be our volunteers' project.

If you would like to help support any of the kids directly with school tuition, the Machao facility, upcoming construction projects, other aid or even volunteer, more information can be found at:

[www.machaoorphanage.org](http://www.machaoorphanage.org)

## GilderSwag Available for Order

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, Gilder-Chocolates, Gilder-MousePads and other great GilderSwag are available from our online web store. -G

## Custom Designs

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

We can also custom-brand GilderGear, if you prefer to start with an off-the-shelf design.

If you are interested in custom-designed equipment, please contact the noted Hamburger Connoisseur Doug Mobley ([doug@gilderfluke.com](mailto:doug@gilderfluke.com)). -G

## Our Two Most Asked Questions

In the thirty-five or so 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.: "Jerry-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



## Greatest Hits on a GilderThumbDrive

We distribute all our printed material and software on a USB GilderThumbDrive. Every video, manual, cut sheet, and piece of software we offer is on each GilderThumbDrive. These are available for a nominal charge. -G



## Gildergear Anyone?

The spacious quarters at Gilderfluke Towers has a permanent display area where we offer classes. 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](mailto:Carolyn@Gilderfluke.com). -G

## On-Site Show Programming, 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 in our California GilderOffice.: ([Carolyn@Gilderfluke.com](mailto:Carolyn@Gilderfluke.com)) -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 13-16, 2018**

**Booth #1667**

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

**March 21-24, 2019**

**Booth #1030**

[Transworld's Halloween & Attractions Show](#), America's Center, Saint Louis, Missouri

**June 12-14, 2019**

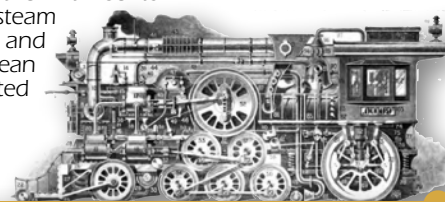
**Booth #5572**

[InfoComm](#) International, Orange County Convention Center, Orlando, Florida

**November 19-22, 2019**

**Booth #1667**

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



• You can follow us on:



## Who Are We?

For 35 years Gilderfluke & Company has been building 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 technological 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 COM 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

## In this issue...

- New App. Note for Haunters
- New! Simple DMX Test Tool
- High Speed Serial
- New! Kp-1500 Touchscreen
- What's in a Name
- 35th GilderAnniversary Cake
- New and Updated Series 4 BrightSign Players

- Rollercoaster Sound Systems
- Why Roller Coasters Need Static Brushes
- GilderEscape Room Hardware
- Made in the US of A
- Application Note: Make a GilderEscape Room
- TIP: Light Boards & Digitals
- Enjoy a Mobley Burger
- Art-Net support

- Machao Orphanage
- GilderThumb Drive
- GilderGear Custom Labeling
- GilderSwag Available
- Custom Design Work
- Classes Anyone?
- On-Site Show Programming, Installation & Service
- Show Plans for 2018-2019
- Our 2 Most Asked Questions



GILDERFLUKE & Co., Inc.  
205 South Flower Street  
Burbank, California 91502-2102 U.S.A.

Watch Our FREE Tutorial Videos On GilderYouTube