

GilderNewsletter

Views and News from the World of Gilderfluke & Co.

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New Pc•MACs

The newest version of our Show Programming Software should be nearing completion by this year's IAAPA. This new release adds:

- The maximum number of channels has been increased to 16,384. That's thirty-two DMX-512 Universes, or 131,072 Digitals!
- Multiple sequencer support (see page 3)
- RealTime programming for up to 16 channels (128 digitals) is now completely FREE! MACs-License is only needed for more than 16 channels, using an external USB-to-DMX device, or importing or exporting raw data.
- Soft Console: Increases analog inputs to eight. Digitals increased to twenty, and no longer have to be in the same channel. USB joysticks work thru the soft console.
- Support for Mackie flying fader consoles and expansions for up to 32 simultaneous analog or digital programming inputs.
- More than one console can be used at the same time, including the soft console.
- New backwards compatible AutoDownload files to support lots more channels.
- Adding outputs by simply adding 'devices' from a 'GilderGear' List i.e.: add a Sd-50/40 or a Br-miniBrick8 to the channels list, and the appropriate number and types of outputs are automatically added to the show.
- Trigger by name: Sets up and automatically configures an Sd-50 by just dropping markers on the OffLine timeline.
- Supports ArtNet via ethernet and third party DMX-512 output devices.

This release is only a first step. More features are coming! -G

Br-Brain4!

The Br-Brain4 combines the functions of our Br-SmartMedia, MACs-USB and Bs-Brain-CRD. Features of the Br-Brain4 include:

- Sd/SdHC flash card for virtually unlimited show storage capacity.
- Four DMX-512 outputs for up to 2048 channels of data.
- BrickNet to sync other SmartBricks and more Br-Brain4s for even larger shows.
- MultiSequencer support for eight independent sequencers.
- Smpte reader for syncing with external time code.
- Automatic 'Ease-Ins' for smooth transitions between shows or when timecode jumps.
- LCD display for monitoring and local control.
- Rotary switch allows you to jog analogs, start shows, etc.
- Most configuration is done in PC•MACs and stored with your shows in the AutoDownload.
- Primary RS-422 serial port for control and configuration.
- Secondary RS-422/485 port for syncing to DVDs, sending strings, & other 'special' functions for Moog motion bases, Rexroth EFB cards, MIDI, etc.
- Real Time Clock & Scheduling. An optional GPS is available for 1/1000 second accuracy.
- Ten optoisolated inputs. -G

New!

Isolated 'Open' USB-to-DMX512 in a XLR

The new PC•MACs gives you many more options for getting DMX-512 out of your PC and to your show.

To support this, we are making our own electrically isolated 'open' USB-DMX512 adapter. Built inside a standard five pin XLR connector shell, this USB-to-DMX512 converter supports one 512 channel universe in or out. More units can be used for additional universes.

The DMX-512 output is electrically isolated from the USB side of the converter, so your PC is protected from disasters on the DMX-512 network.

The USB-DMX512 is built to the 'open' standard design, so it should be compatible with all software packages that support this type of USB-to-DMX512 interface. The DMX-512 lines are also bidirectional, so they should be compatible with many RDM applications as well.

PC•MACs also supports Nicolaudio SIUDI-8C (up to two DMX-512 universes in or out) and the single universe Enttec DMX USB Pro and Open DMX USB adapters. -G

It's not 'Programming'. It's 'Performance Capture'!

Although our PC•MACs software is referred to as Show 'Programming' Software, this is a bit of a misnomer. It is used for 'Show Programming', but the idea of 'Programming' conjures up the mental image of years spent learning an arcane language with an odd syntax, weeks spent planning and looking up details in reference books, and finally months of typing, editing, and compiling your 'program' before you ever see anything run.

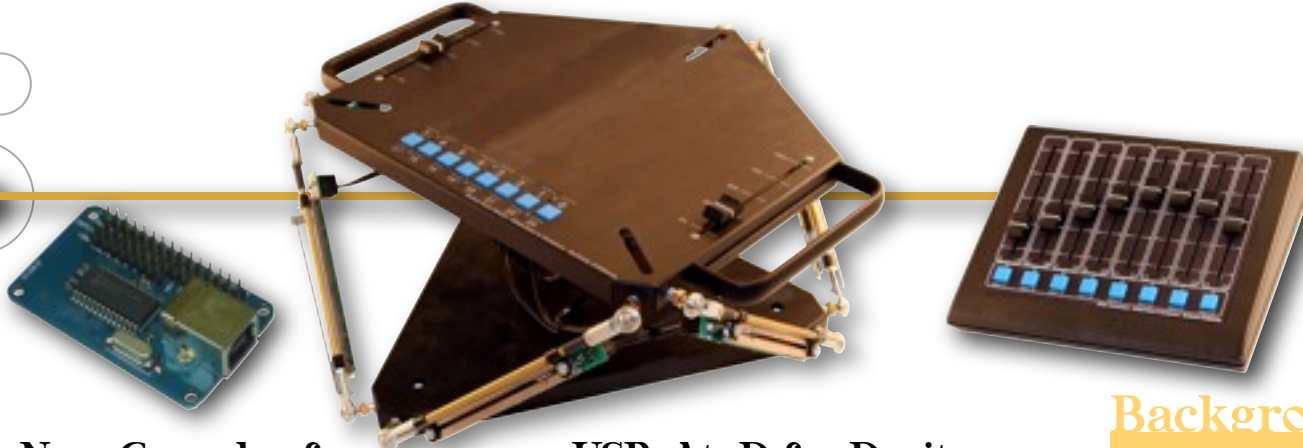
But that's not the way our software works. If you can use a computer, you can probably learn to use PC•MACs in an hour or two of goofing around. In a day or two of using it, you can master it.

What you do in PC•MACs is 'Performance Capture & Editing', and it's a lot of fun! You move the figure like it's an electronic puppet. You 'play' the fountain like it's a calliope. You move the sliders and watch the lights do precisely what you want them to do. Our PC•MACs software records exactly what you did and how you did it. You can then use the dozens of graphical editing tools to tweak your performance until it is 'perfect'. Most shows are then saved to the Br-Brain4, Sd-50, Br-miniBrick8 or whatever device that the show will run from and the PC can then go away. -G



Gilder Gear Comparison Chart

GilderGear Part Number	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
Sd-10		Yes (stereo)	Line Level Out				2) Opto + Serial		Rs-232 (optional)	Sd Card up to 32 GBytes	MMC/Sd/ SdHC	Yes	CD player Replacement
Amp-50			50 Watt Digital Class-D Amp										Equiv. to a 200-250 Watt Amp
Sd-25		Yes (stereo)	50 Watt Amp Mixer Input			1 Status Output	2) Opto + Serial		Rs-232/422 (optional)	Sd Card up to 32 GBytes	MMC/Sd/ SdHC	Yes	Equiv. to a 200-250 Watt Amp
Sd-50/0		Yes (stereo)	100 Watt Digital Amp				8) Opto + Serial		Rs-232	Sd Card up to 32 GBytes	MMC/Sd/ SdHC	Yes	Equiv. to a 400-500 Watt Amp
Sd-50/8	Yes	Yes (stereo)	100 Watt Amp 8 ServoMotors*	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Up to 8 Digital	4+8* + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 4 MBytes	MMC/Sd/ SdHC	Yes	* Uses 8 Show Control Outputs
Sd-50/40	Yes	Yes (stereo)	100 Watt Amp 8 ServoMotors*	1 Universe (512 Chan.)	1 Universe (512 Chan.)	Up to 40 Digital	4+8* + Serial	Yes (GPS Optional)	1) Rs-232 1) Rs-422	Show: 4 MBytes	MMC/Sd/ SdHC	Yes	* Uses 8 Show Control Outputs
Br-MiniBrick4	Yes					4 Digital	1) Opto		Optional	8 KBytes			Our smallest controller
Br-MiniBrick8	Yes		2 PWM ServoMotor Outputs	1 Universe (512 Chan.)	64 DMX-512 Channels*	8 Digital 2 Servo	2) Opto + Serial		Rs-232	64 KBytes			* DMX-512 outs eat up Memory
Br-MultiBrick32	Yes			½ Universe (256 Chan.)	Feedthru	32 Digital	4) Opto + Serial		Rs-422	512 KBytes			Runs stand-alone or in Smart Brick Brain
Br-ANA	Yes			1 Universe (512 Chan.)	1 Universe (512 Chan.)	16 Analog	4) Opto + Serial		Rs-422	Sd Card up to 32 GBytes			DMX-512 to Analog Card
Z-Brick (Br-ZBR)	Yes			1 Universe (512 Chan.)	Feedthru	32 Digital							DMX-512 to Digital Card
Bs-Brain4	Yes		Simple Reader, DVD Control	1 Universe (512 Chan.)	4 Universe (2048 Chan.)		10) Opto + Serial	Yes (GPS Optional)	2) Rs-422	Sd Card up to 32 GBytes	MMC/Sd/ SdHC		Plays 8 asynchronous shows
Pb-DMX/8, /16, /24 or /32	Yes		3.5 Amp AC or DC Relays.	1 Universe (512 Chan.)	64 DMX-512 Channels*	up to 32 3.5 amp Relays	2) Opto + Serial		Rs-232	4 MBytes			* DMX-512 outs eat up Memory
MACs-USB	Yes		Simple, DMX & Console in/out	1 Universe (256 Chan.)	1 Universe (256 Chan.)		4) Opto						Turns PC into Show Control System
Br-SDC			Serial Device Controller				10) Opto		1) Rs-232 or Rs-422				Runs DVD players in kiosks, etc.
Br-SDC8			Serial Device Controller/Mux.				10) Opto + Serial		8) Rs-232 1) 232/422				Runs 8 DVD players or other serial gear
SER-DMX	Yes		16 PWM Servo-Motor Outputs	½ Universe (256 Chan.)	Feedthru	16 PWM Outputs			Rs-422				DMX-512 to pwm ServoMotors
BrightSign HD-410		Yes (stereo)	1080p, 1080i, 720p, 576p, 480 Video Player				8 TTL (incl. adapter)		Rs-232	Removable Sd or SdHC	Sd or SdHC	Yes	Up to 1080p, MPEG-2, H.264/MPEG-4
DVX-F150		Yes (stereo)	NTSC/PAL Video Player							Removable Sd/CF Card	Compact Flash, SdHC		JPEG, MPEG1, MPEG2, MPEG4
LG-DMX/DC			12-24 vdc DMX-512 Dimmer	1 Universe (8 Chan.)									DMX-512 to DC Dimmer
DP-DMX20L			115 vac DMX-512 Dimmer	1 Universe (4 Chan.)									Other dimmer sizes available



New Consoles for PC•MACs

As part of the support for the new PC•MACs software and its expanded 'Soft' Console features, we have several new consoles.....

USB-Slider Console

- Plug-n-Play USB connection to your PC.
- Eight 100mm long throw slide pots.
- Eight Digital button inputs.
- Four additional Digital inputs for expansion.
- Plug-n-Play USB connection to your PC.
- Twelve bit analog resolution. Supports eight through sixteen bit resolution channels. -G

USB-Motion Base Joystick

- For 3-DOF or 6-DOF motion bases.
- Plug-n-Play USB connection to your PC.
- Easily converts to program 3-DOF.
- Older MB-Joystick models can be field upgraded to USB.
- Two extra 100mm long throw slide pots.
- Eight Digital buttons.
- Four additional Digital inputs for expansion.
- Plug-n-Play USB connection to your PC.
- Twelve bit analog resolution. Supports eight through sixteen bit resolution channels. -G

USB-AtoD for Do-it-Yourselfers

- 2" x 1.25" PCB with Analog and Digital inputs and USB output. This is used for making your own consoles & Waldos.
- Plug-n-Play USB connection to your PC.
- Eight 0-5 volt analog inputs.
- Twelve discrete button inputs. Can be wired for up to 36 buttons using a 6x6 matrix.
- Twelve bit analog resolution. Supports eight through sixteen bit resolution channels. -G

USB-Mackie Consoles

- Eight 100mm motorized 'flying' faders. Program eight analogs or eight digitals.
- Plug-n-Play USB connection to your PC.
- Transport control (play/record/stop/etc.).
- LCD 'scribble' bar shows channel Names.
- Large timecode display.
- Add up to three expansions with eight 100 mm 'flying' faders on each for 16 ,



Background

Just What is 'Multi-Sequencer'?

Most GilderGear will play only one show at a time. Multi-Sequencer support means that more than one show can play at the same time on the same player. Examples of multiple sequencers use are:

- Haunted attractions, where each room is run independently from one controller.
- A ride-through attraction where each scene is triggered by the car entering the scene.
- A museum where different areas are run from one controller.
- Any installation where elements that run independently can be brought together to run as a single large show when needed.

The Br-Brain4 supports up to eight sequencers, and the new PC•MACs supports multiple sequencers for programming them.

In PC•MACs you can assign any output to any of the sequencers. When you choose a sequencer to program, you can only access the outputs for that sequencer. You program your show just like normal, then select and program the other sequencers too.

When shows are sent to a Br-Brain4, they include information that tells it which channels go with each sequencer, as well as which analogs need 'Ease-Ins'. The outputs for all the sequencers are 'Eased-In' and blended as they are sent to the four separate DMX-512 outputs. -G

1080p High Definition Video with Built-in WiFi

The new HD210w and HD1010w video players are now available through Gilderfluke & Co.

These new models feature built-in wireless 802.11a/b/g/n networking and all the standard features of the BrightSign line:

- They can be used in any triggered or looping application.
- Video up to a full 1080p (1080i, 720p, 576p, 480p are also supported).
- SdHC flash cards for storing video.
- A variety of input and output options, including RS-232, switch closures, and ethernet.



Tip

Controlling GilderGear from your iPad/iPod/iPhone: There's an App for that!

Well, not specifically, but there are off-the-shelf Apps that can be used to control all types of GilderGear.

One example is TCP/IP Remote. This App allows you to set the ASCII string that will be sent when you press an on-screen button. With just a few characters, these ASCII strings can adjust the volume of audio, call up and play a show or SoundFile, or do just about anything else.

The string is sent to the WiFi network to the wired ethernet network through any standard WiFi router. Once on the wired network, the command is sent to a standard ethernet to serial converter. The Rs-232 or Rs-422 serial output from the converter is attached to the GilderGear. Any command you can send from GilderTerm can now come from your iPhone, iPad or iPod Touch. -G

BR-CC08 Card Cage Enclosure

The new Br-CC08 card cage was created to hold a single 'Brick' card. It provides enclosed protection for the card for a more 'industrial' look than our other open frame single card cages. It can be mounted in your electrical enclosure using screws, 2-3/4" Snap-Track, or on standard DIN rails (with the addition of our DIN rail adapters). It mounts either horizontally or vertically, and includes both screw terminal and ribbon cable connectors for i/o, as well as Smppte and Secondary serial port connections for the new Br-Brain4 cards. Power, DMX-512 and network connections are available on both sides of the cage, to make daisy chaining multiple card cages a snap. -G



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How To: Make a Br-miniBrick16

We did a little blurb an issue or two ago about using two Br-miniBrick8s to make a Br-miniBrick16, but didn't go into the details about how it is accomplished. It is really easy to do!

The first step is to tell one of the Br-miniBrick8s that it is going to be the 'master', and the other that it is the 'slave'. All the triggering, show storage, and programming is done through the 'master'. The 'slave' just listens to the 'master' and does whatever it is told to do.

To set one Br-miniBrick8 as a 'master', just plug it into the serial port on your computer and use GilderTerm to bring up the menu (press the 'configure' button on GilderTerm). Once the menu is displayed, use the 'a' key to set the address to '0'. Then use the 'b' key

until the menu reads 'DMX-512 transmit'.

Gilderfluke & Co., Inc. * Br-miniBrick8 * v3.25 copyright 2010 DCM

a) Address- __0

1) Servo 1 ends: (min: 128 | max: 128)

2) Servo 2 ends: (min: 128 | max: 128)

b) DMX-512 transmit

Settings for Br-miniBrick8 'Master'

Repeat this process for the 'slave', except you need to use the 'a' key to set the address to '1' (if you are not using the servomotor outputs on the 'master') or '3' (if you are using both Servo-Motor outputs on the 'master'). Then use the 'b' key until the menu reads 'DMX-512 receive standard Digital GilderDMX' (you may need to hit the 'c' key if the DMX-512 Rx is set for 'Analog (on @ 50%+) DMX)').

Gilderfluke & Co., Inc. * Br-miniBrick8 * v3.25 copyright 2010 DCM

a) Address- __1

1) Servo 1 ends: (min: 128 | max: 128)

2) Servo 2 ends: (min: 128 | max: 128)

b) DMX-512 receive standard Digital GilderDMX

c) use standard Digital GilderDMX

Settings for Br-miniBrick8 'Slave'

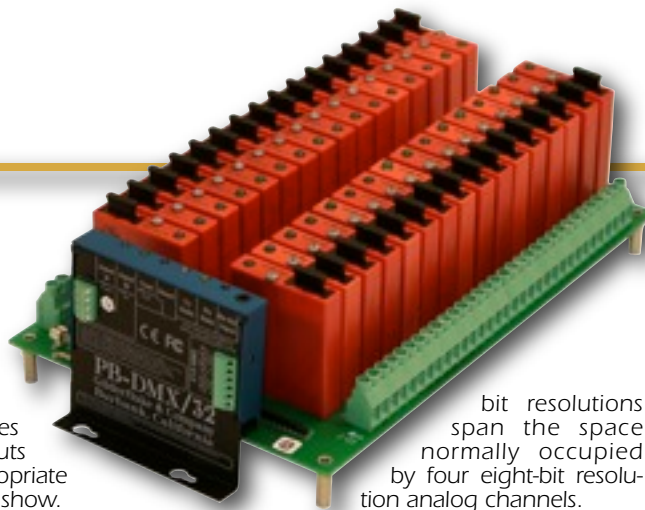
Wire the trigger inputs to the 'master' as needed. You will not need to wire the triggers to the 'slave'. Connect the screw terminals labeled 'dmx +', 'dmx -', 'ground' and '9-24 vdc' between the two Br-miniBrick8s. The two Br-miniBrick8s should be no more than a mile apart (that 'mile' is not a typo). Apply power to either Br-miniBrick8 and both will start blinking. Connect the serial port from your PC to the 'master'.

Open PCMACs and start a new show and site file. Open the channels dialog and create 8 digital channels on address '0' for the 'master' Br-miniBrick8. (If you are using the 'master's' ServoMotor outputs, also create two 8-bit analog channels at '1' and '2'). Then add eight more digital outputs for the 'slave' Br-miniBrick8. These will go into channel '1' (if the 'master' is not using its two ServoMotor outputs), or channel '3' (if the 'master' is using its two ServoMotor outputs). Add two more eight bit analog channels if the 'slave' is using its two ServoMotor outputs. Any DMX-512 channels for lighting or other purposes will follow those used by the 'slave'.

You can now rename the channels as

needed, and start programming as usual. If you are using RealTime features of PC•MACs, you will see that the outputs of both Br-miniBrick8s follow the appropriate data when you program or play back a show.

When you are done programming, you do a single AutoDownload to the 'Master'. PC•MACs will automatically include all the necessary channels for both Br-miniBrick8s.



bit resolutions span the space normally occupied by four eight-bit resolution analog channels.

We know of no light boards that can do this. A digital (on/off) function on a lighting board takes up the same space as an eight bit resolution analog. This effectively wastes $\frac{7}{8}$ of the data in each analog channel used to control a single digital output. When the analog value is over 50%, the digital output is 'on'. Below 50% is off.

To support using the Br-MiniBrick8, Br-ZBR and Pb-DMX/32 with standard lighting boards, we have added modes that accommodate the use of analog channels for digital outputs.

The eight digital outputs of the Br-miniBrick8 then occupy eight analog DMX-512 channels instead of the usual one.

The thirty-two outputs of the Pb-DMX/32 (3.5 amp relays) or Br-ZBR (medium current digitals) occupy thirty-two DMX-512 channels instead of the usual four. This limits the number of Pb-DMX/32s on a single DMX-512 universe to only sixteen (for up to 512 outputs) instead of the usual 128 (for 4096 outputs) per DMX-512 universe. -G

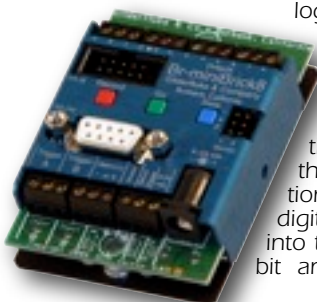
When the show is run on the 'master', you will see that it plays back using both of the Br-miniBrick8s.

DMX-512 networking can also be used for three or more Br-miniBrick8s. Depending on the 'master' used, up to 512 channels worth of data can be transmitted on each DMX-512 network. That can control an awful lot of stuff! -G

Using a Light Board's DMX-512 for Digitals

DMX-512 was designed for controlling light dimmers and similar equipment. All channels were meant to be used as eight bit analogs.

PC•MACs and GilderGear supports not just eight bit resolution analogs. We support resolutions from a single bit up through 32 bits of resolution. With GilderGear, eight digital (on/off) functions can fit into the space of a single eight bit analog channel. Thirty-two



Background Just what is DMX-512 Anyway?

Just about every article in this newsletter has at least one mention of 'DMX-512' in it.

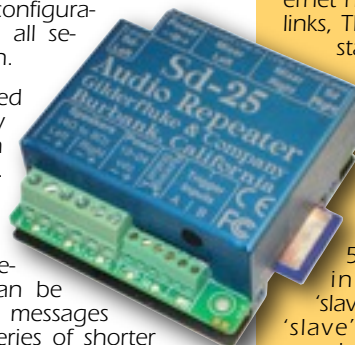
But just what is DMX-512? It is a standard developed by the United States Institute for Theatre Technology (USITT) in 1989 for controlling theatrical lighting equipment thru a simple RS-422 serial network. DMX-512 is used on virtually every piece of professional lighting equipment.

DMX-512 sends the commands for up to 512 analog channels (i.e.: Light Dimmers) down a twisted pair of wires. These are run point-to-point to all the devices, and 'terminated' at each end of the wire run. The length of the wire can be up to about a mile.

You attach a lighting (or other) devices to the DMX-512 wire, tell them which of the 512 possible 'address' to use, and it will follow whatever commands are sent down the wire for that device.

As technology has changed, DMX-512 has changed as well. It can now be sent through ethernet networks or via radio links. There is even a USITT standard for running DMX-512 through your existing in-wall ethernet cabling).

Just about every controller we make can act as a DMX-512 'master', sending commands to 'slaves', or a DMX-512 'slave', receiving commands from a 'master'. -G



Sd-25 Message Stacking

The Sd-25 is our most popular audio player. It includes not just a Sd/SdHC card audio player, it also includes the equivalent of a 200 to 250 Watt linear amplifier and audio mixer.

SoundFiles on the Sd-25 are typically set to play continuously, only when triggered, or a combination of the two. In all there are some thirty-one different configuration modes on the Sd-25, all selected by a simple dipswitch.

The Sd-25 can be triggered through its two optically isolated inputs, or through the optional serial port. When set to Modes 11, 12, 13 or 14, the Sd-25 will store serial requests for SoundFiles if they are received faster than they can be played. This allows longer messages to be assembled from a series of shorter SoundFiles.

This feature has been used in industrial appli-

Tip

IR Photo-Electric Sensors:

Most Photoelectric sensors use InfraRed (IR) light that is invisible to the naked eye to trigger a Show or SoundFile to play.

The kind of IR sensor you see most often are the ubiquitous 'Passive' sensors used for alarm systems. These look for an object that is a moving which is a different temperature than the room. Passive sensors are prone to false triggering, or missing people if the ambient temperature is about the same as 'body' temperature. They are not suitable for 'safety' applications.

'Thru-Beam' IR sensors use a separate IR light source and a receiver. The IR light beam may be polarized, modulated, or otherwise encoded so that ambient light sources won't interfere with it. Some long range versions of these use two InfraRed beams or even lasers.

'Retroreflective' IR sensors package both the emitter and receiver of the Thru-Beam sensor into a single housing. When the beam hits an appropriate retroreflector, it bounces the beam back to the sensor.

'Safety Curtain' and 'Elevator Door' Sensors are the equivalent of dozens of Thru-Beam sensors. As you might have guessed from the name, these sensors are engineered for safety applications. Instead of a single IR beam between the emitter and detector, there is a wall of IR light. Anything that crosses this wall will trip the sensors -G

cations. One installation uses the voice of a popular local DJ to announce problems in a room full of noisy, dirty tire making machines. 'Tire machine number', 'Two'. 'has', 'Electrical', 'Problems' is an example of a message built from five shorter SoundFiles.

A popular museum/entertainment application is what we call 'Kitchen Poetry'. A simple standalone touch screen (QSI Corp. or Maple Systems) is has a series of 100 or so words on the screen. Each of the words is a screen 'button' that sends the string to request the matching SoundFile on the Sd-25. The guests can assemble sentences from these words by pressing the words on the touch screen. -G



smooth, and often rather dramatic series of movements.

This technique has been used to program giant multi-ton figures, as well as frame accurate lip sync for film and television.

To do this in PC•MACs, you use the 'Single Step Programming' mode. On the OffLine editing window, move to each point in time in the show where the character has a key 'mark' to hit and turn on the 'Single Step Programming' mode. You can then 'pose' the figure by manipulating the controls assigned on the console. Once you are happy with the pose, single-step forward a few frames to lock in the figure's position.

Now comes what is called 'inbetweening' in traditional film animation. It literally means to draw in all the steps in between each of the key frames. This would be a daunting task with pen and ink, but with PC•MACs, it only takes a few seconds. You simply use the mouse to select the space between each key frame and use the 'Inbetween' command. You have different options for the way PC•MACs fills in the spaces 'Inbetween' the key frames. A 'linear' setting gives a straight line effect, much like a lighting board would create. This doesn't look too good unless you are trying for the 'robotic' look. The 'Spline', or more often the 'Curve' setting is used instead. -G

Triggering SoundFiles Thru Just Two Inputs

The Sd-10 and Sd-25 Digital audio players can hold hundreds of SoundFiles. But how do you randomly select and play specific SoundFiles through just two digital inputs from a Show Control System? There's a mode for that!

Set the Sd-25 to mode 'C', set to play sequentially and steppable (mode 1a on a Sd-10). Record your SoundFiles with an extra second or two of silence at the start of each. Wire the two inputs as shown on page two of the Sd-25 manual (page 1 of the Sd-10 manual).



When a SoundFile needs to be started, a single pulse is sent to the 'B' input of the Sd-10/25. This resets the player to the first SoundFile. The 'A' input is then pulsed to step to the desired SoundFile (in this example: four). When the pulses stop, the SoundFile will begin playing. -G

Programming Using 'Key Frame' Techniques

Rather than puppeteering an analog animated figure and recording the movements, some major animated shows have been programmed with PC•MACs using the same sort of techniques that are used for traditional film animation: The figure is moved between 'key' positions. Once all of these 'marks' have been hit at the appropriate times in the show, then all the positions inbetween are filled in to create a

Br-Brain4: PopOut Shows

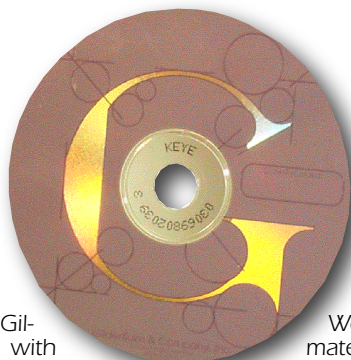
One of the new concepts found on the Br-Brain4 are PopOut Shows. PopOut shows give designers a whole new way for animatronic shows to run. They allow sequencers to follow the same timeline as the main show, and then 'pop out' of the timeline to run an independent show of their own before dropping back into the main timeline. 'Ease-Ins' automatically blend in the analog channels so analogs don't jump at the start or end of the PopOut show.

An example of the use of this feature would be in a multi character animatronic jazz band. Individual characters could be triggered to step out of the main show and play solos or make a verbal 'ad libs' at any point in the main show. At the end of the solo or ad lib, they would return to playing along with the whole band.

In a fountain, the show can follow the main timeline until the viewers trigger portions of the fountain to do a special interactive show. When done, it returns to the normal show. -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, Gilder-Chocolates, GilderMouse-Pads 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

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' who's 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



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 16-19, 2010

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

March 10-13, 2011

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

June 15-17, 2011

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

November 15-18, 2011

International Association of Amusement Parks & Attractions ([IAAPA](#)), Las Vegas Convention Center, Las Vegas, Nevada

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 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 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

In this issue.....

- New **PC•MACs** entering alpha
- **Br-Brain4** at last!
- It's not programming, it's Performance capture
- Isolated USB-to-DMX512 in XLR Shell
- GilderGear Comparison Chart
- BrightSign 1080p Video Players with Built-In WiFi
- New Consoles for **Pc•MACs**
- What is 'Multi-Sequencer'?
- Enclosed BR-CC08
- Controlling GilderGear from your iPad/iPod/iPhone
- How To Make a Br-miniBrick16
- Analog Channels for Digital Outputs
- Bigger Batteries on **Sd-50s**
- Sd-25 Message Stacking
- Just what is DMX-512 anyway?
- Triggering SoundFiles Through Two Inputs
- Programming Using 'Key Frame' Techniques
- IR Photo-Electric Sensors
- Br-Brain4: PopOut Shows
- Custom Labeling for GilderGear
- Show Plans 2011
- Our Two Most Asked Questions



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