

TriceraSoft Lighting Controls

^KLIGHTING

Lighting modules are used to enhance your DJ/VJ/KJ shows. SCRAM stands for Serial Controlled Remote Addressable Modules. These modules in conjunction with Swift Elite 2.0 or Higher allow you to control different lighting devices. There are four types of modules: DMX, Relay, Triac, and Dimmer:

[Relay Controller](#)

[DMX Controller](#)

[Triac Controller](#)

[Dimmer Controller](#)

#^KRELAY CONTROLLER

This module is an 8-Port Addressable Relay Controller. The module is fully programmable and stores up to 85 programmable scenes. There are two built in articulating modes. Each DMC Relay Module controls a standard Relay Pack such as the RP-8 through the DB9 interface. Use Swift Elite 2.0 or Higher Direct Commands to control each or all channels (Direct Commands are accessible in all Swift Elite 2.0 or Higher lighting effects). Special Modes include Single and Multi Chase.

Random single light chase. To activate this mode on node 1, you simply press 1 followed by 9 on the keypad. The display will show the number 19. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Random multi light chase. To activate this mode on node 1, you simply press 1 followed by 9 on the keypad again if you are in mode 1 but if you are in direct mode you must press 1 followed by 9 a second time. The display will show the number 19. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Please note: module requires a 12V power supply and an RJ11 Telephone wire to interconnect.

RelayController
^K Relay Controller

#^KDMX CONTROLLER

This module converts SCRAM Protocol to standard DMX512 Protocol. The module is fully programmable and stores up to 99 programmable scenes. Each DMX Module can handle 64 Channels in a combination of Appliances. Each Module is addressable to accommodate 57800 universes. Use Swift Elite 2.0 or Higher DMX Direct Slider Control, Extended Scenes, or Active Scenes to animate any DMX light including Scanners and Spots.

Please note: module requires a 12V power supply and an RJ11 Telephone wire to interconnect.

DMXController

^K DMX Controller

#^KTRIAC CONTROLLER

This module is an 8-Port Addressable Triac Controller. This module is fully programmable and can store up to 85 programmable scenes. Each Triac Module can control one Triac based pack, this includes the Co-Pilot device. Remove your Co-Pilot control head and interface this module to make it come alive. Use Swift Elite 2.0 or Higher Direct Commands to control each or all channels (Direct Commands are accessible in all Swift Elite 2.0 or Higher lighting effects). Special Modes include Single and Multi Chase.

Random single light chase. To activate this mode on module 1, you simply press 1 followed by 9 on the keypad. The display will show the number 19 on the display. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Random multi light chase. To activate this mode on module 1, you simply press 1 followed by 9 on the keypad again if you are in mode 1 but if you are in direct mode you must press 1 followed by 9 a second time. The display will show the number 19 on the display. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Please note: module requires an RJ11 Telephone wire to interconnect.

TriacController
^K Triac Controller

#^KDIMMER CONTROLLER

This module (DIM4) is addressable and fully programmable. The module can control 4 dimmer lights and stores up to 35 programmable scenes. The module has two built in articulating modes. Each Dimmer Module controls a standard Dimmer Pack such as the DP-20A or the DMX-35 through the DIN8 analog pin. Requires a DB9 to DIN8 cable to interface (please inquire). Use Swift Elite 2.0 or Higher Direct Commands to control each or all channels (Direct Commands are accessible in all Swift Elite 2.0 or Higher lighting effects). Special Modes include Single Chase and SCRAMWAVE.

Random chase. To activate this mode on module 1, you simply press 1 followed by 9 on the keypad. The display will show the number 19 on the display. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Scramtec Wave. To activate this mode on module 1, you simply press 1 followed by 9 on the keypad again if you are in mode 1 but if you are in direct mode you must press 1 followed by 9 a second time. The display will show the number 19 on the display. While in this mode you can select a speed for the chase by pressing 1 followed by the speed value (1 the fastest - 8 the slowest).

Please note: module requires an RJ11 Telephone wire to interconnect.

DimmerController
^K Dimmer Controller

#^KSCRAM CONTROLS

The SCRAM Control keypad is accessible through the 'Preferences' menu or directly on the DMX skin interface. The keypad allows you to control and save lighting effects either by a direct command or by a scene. The control pad has 12 buttons: 1 through 0, Black Out, and Mode.

The keypad allows you to quickly control up to 9 SCRAM modules only in Direct Mode and access any of the built-in scenes (01 to 99) in Scene Mode. The keypad is limited to controlling modules with addresses 1-9. Address 0 is not used for a module address. The SCRAM system is an address based control system. An address is simply a number assigned to each SCRAM module to make it unique. This assigned number is also known as a node number. The SCRAM system uses numbers 1-225 for node numbers. A node number may be used by more than one module at the same time resulting in one or more modules reacting to the same command at exactly the same time. This may be useful when you have multiple fixtures or lights on more than one light tree but wish to control both light trees with one command. In addition to the node number of each module, there is a sub-node number. This sub-node number ranges from 1-255. In most cases you will not be using the sub-node number when using the keypad. The sub-node number is used to allow the use of a group of modules when you have exceeded 225 single modules - The sub-node number is used to increase the number of unique nodes for very large applications.

The keypad is designed around a 2 number input system. This means 2 numbers are used for most commands. For example, to turn on channel 1 of module address 1, you simply press 1 followed by another 1 on the keypad. The number 11 will show on the display. The first number entered is the address or node number of the module you wish to control. The second number is the channel number for that module. To turn on/off channel 6 on node 2, you simply enter 26. Special commands can be used to blackout a specific module or load presets, refer to Direct Commands and Universal Commands.

Enable: Click this option to activate the control keypad.

Save Scene: Once you are satisfied with a scene, assign a number to it and click this button to save it. Once it's saved, you can recall it.

COM Port: Select your COM Port setting that is assigned to your controller.

SCRAMControls

^K SCRAM Controls

#^KMODE KEY

The Mode key is used to switch between Direct Mode and Scene Mode. Each press of the Mode key will change the mode. In Direct Mode you can send Direct Commands to the Node. If you are in Scene Mode you can type the Scene Number from 01 to 99 and it will recall the scene for all modules. Extended Scenes are not executed from the Keypad, use the SCRAM Extended Scenes or the Quick Scenes dialog to execute each scene.

ModeKey
^K Mode Key

#^KPROGRAMMING LIGHTS

There are five different ways to control your DMX lights:

Direct Command

Extended Scenes

Dynamic Program

Per Song program

Active Scenes

ProgrammingLights

^K Programming Lights

#^KDIRECT COMMAND

Direct command is mostly used for Relay and Dimmer Lights. For most functions you will be using Direct Command Mode or Direct Mode. In this mode, only 2 numbers or key presses are needed to complete a command. Direct Mode is indicated by the green status light and will be the default mode when you first start the program. Direct mode is used primarily to turn lights on and off. Sending a command when a light is off will turn it on. If the light is on, it will be turned off when the same command is sent the second time. Only modules with a node address of 1-9 may be controlled with the keypad. Node address 0 (zero) is a special "Universal" address used to access all modules at the same time for certain commands. Any command that starts with a 0 is considered a "Universal" node command. To Blackout a specific module, send a data 0 command to it, for example, a 10 will blackout module node 1. Refer to the SCRAM lighting utility software for information on how to lockout certain modules from accepting a Blackout – Super Blackout will not be deflected by any module.

DirectCommand

^K Direct Command

#^KSCENE MODE

Scene mode is selected by pressing the Mode key as the first key press or button pushed. You may switch between the 2 modes at any time. While in scene mode, the 2 numbers command entered is the scene number you wish to execute or have the modules display. Each module stores its own unique scene information for each scene location or number. For example, scene 01 is the first scene number for all modules. To execute scene 01, select the Scene Mode by pressing Mode if in Direct Mode. Press 0 followed by 1 on the keypad. The display will change to reflect 01 was entered. As soon as the second number has been pressed, the scene will be executed by the modules. All modules will display the scene number settings for each module at the same time, including blank scenes.

Please note, DO NOT ENTER 00 AS A SCENE NUMBER. 00 (zero zero) is a "Universal" Super Blackout command and will turn all lights off. Only enter the 00 command if you wish to have a total blackout of all lights or fixtures. Note: If you are using Scenes within Swift Elite 2.0 or Higher and do not have already saved Built-In Scenes, use the Extended Scenes options in Swift Elite 2.0 or Higher which extends the capability of the modules. Refer to the SCRAM lighting utility software for information on how to lockout certain modules from accepting a Blackout – Super Blackout will not be deflected by any module.

SceneMode
^K Scene Mode

#^KUNIVERSAL COMMANDS

Universal commands are used to control one channel on more than one module at a time. A Universal command always starts with 0 (zero). When the second number is 1-8, that particular channel is turned on or off on all modules. If the second number is 9, the Presets command is sent and all modules capable of using a preset will turn the programmed channels on. Refer to the SCRAM lighting utility software for information on how to lockout certain modules from accepting a Blackout and to configure Presets – Super Blackout will not be deflected by any module. Use Extended Scenes if you require more control.

UniversalCommands

^K Universal Commands

#^KBLACKOUT KEY

The Blackout button results in an all module Blackout. The only exception is that modules may be configured to override the Blackout command for certain pre-programmed channels (this is useful if you have, for example, a fog machine that must always have the power enabled and only turned off when the gig is over). In most cases though, Blackout will turn all lights or fixtures off. A Super Blackout (00) will blackout all modules regardless of setting. Refer to the SCRAM lighting utility software for information on how to lockout certain modules from accepting a Blackout and to configure Presets – Super Blackout will not be deflected by any module. Use Extended Scenes if you require more control.

BlackoutKey
^K Blackout Key

#^KEXTENDED SCENES

Scene #: This column will display scene numbers in the sequential order.

Scene Name: This column will display the name of each scene.

Blank: This is the 'add new' scene button. Press once to create new scene.

w/DMX: You can add many scenes one after another with slight movements of DMX. You can then find the Quick Scenes button on the main interface (upper left of the SCRAM panel) and click each scene to execute. Move the device to one position and click this button to save it, move device again to another position and click again. Repeat process as desired.

Edit: Select a scene you wish to make changes to and click this button. You will then be able to change, the name and/or commands.

Update DMX: Once you make changes to a scene, click this button to override previous setting and update the scene.

Recall DMX: This will bring up the last saved sliders' settings.

Add: This allows you to add a command to a specific scene.

Edit: This allows you to modify a command for a specific scene.

Remove: Select a command from the list and click this button to delete it.

Remove: Select a scene from the list by highlighting it and click this button to delete the specific scene.

Clear: This button will delete ALL scenes off the list.

Execute: This button will perform the specific scene selected.

Show: This option will display the scene on the 'Quick Scene' dialog box when you recall scenes.

Hide: This option will not display the scene on the 'Quick Scene' dialog box when you recall scenes.

ExtendedScenes

^K Extended Scenes

#^KDYNAMIC PROGRAM

Dynamic Program is set based on VU Level. When a media file reaches a specified VU range, the command/scene associated with that range will activate and execute.

Enable: Pressing this button will activate the dynamic programming and allow you to set commands.

Profile: Drop-down menu displaying all profiles.

Add: Type in a name for the new profile.

Interval: Drop-down menu with units of time ranging from 100ms up to 5 seconds. This is the length of time for each command to execute.

Add: Select a VU level and a command to execute.

Edit: Select a range from the list and use this button to modify the range for the VU, command, and/or scene.

Remove: Select a range from the list and use this button to delete it.

VU: Displays the range for which a specific command should execute

How to set a 'Dynamic Program': (Example)

Make sure 'SCRAM Per Song' is disabled

Click the 'Add' button (found to the right of table)

Select 30-34% from the 'VU Level' drop-down menu

Select FF (Extended Scene) from the 'Command' drop-down menu

Select 1 – Scene 1 from the 'Node' drop-down menu

Repeat (only this time select a different range and/or command)

Click the 'Add' button (found to the right of table)

Select 45-49% from the 'VU Level' drop-down menu

Select FF (Extended Scene) from the 'Command' drop-down menu

Select 2 – Scene 2 from the 'Node' drop-down menu

Please note: We recommend you cover 5-60% in a Dynamic Program, such that you will have a variety of effects happening (since different media files only hit a specific level, you would have a more efficient and enjoyable show if more of the ranges are covered)

Select 500ms for the interval time

Check the box for 'Enable Dynamic Program'

Play deck

DynamicProgram

^K Dynamic Program

#^KPER SONG PROGRAM

Programming per song allows you to have different lighting effects for individual songs. Remember that Auto Gain will keep it under 50-60%.

Enable: Pressing this button will activate the 'Program Per Song' and allow you to set commands.

Program/Song Name: Displays the media file name.

Add A: This will add the media file name from deck A.

Add B: This will add the media file name from deck B.

Edit: Select an item from the program list and click this button to modify the commands.

Remove: Select an item from the program list and click this button to delete it from the list.

Clear: This button will delete ALL programs off the list.

How to set 'Per Song Program': (Example)

Load media file in deck A

Click 'Preferences' Menu

Select 'SCRAM Per Song'

Click 'Add A'

Highlight the media file name (under 'Program/Song Name')

Click 'Edit'

After 5 seconds, click 'Tap/Add A'

After 10 seconds, click 'Tap/Add A' again

Stop the song

From the command list, select the first one and click 'Edit'

From the 'Command' drop-menu, select 'FF – Extended Scenes'

From the 'Node' drop-menu, select 1 - Scene1

Click 'OK'

Repeat (only this time select the second item)

From the 'Command' drop-menu, select 'FF – Extended Scenes'

From the 'Node' drop-menu, select 2 – Scene2

Click 'OK'

Close 'SCRAM Program Editor' (Click 'X')

Check the box for 'Enable SCRAM Program Per Song'

Play deck A

PerSongProgram

^K Per Song Program

#^KACTIVE SCENES

Active Scenes are sequences of 2 or more extended scenes.

Add: This button will create a new active scene.

Edit: Select an active scene from the list and click this button to modify the commands

Add: Insert a command and a count on which the command will take place.

Edit: Select a command from the list and click this button to modify the function and count.

Remove: Select a command from the list and click this button to delete it.

Single Pass Active Scene: Check this box when you wish to have a specific scene, pass through once and not repeat.

Remove: Select an active scene from the list and click this button to delete it.

Activate: This button will enable an active scene.

Deactivate: This button will disable an active scene.

DMX Effect: Create circular, figure 8's, or pan across a room using this option.

Please note: Your DMX Sliders must be set to the correct parameters and Node/Sub-node before you proceed to generate an effect.

Calculate: Circle (8-32 Points) and Figure 8 Effects (Horizontal – 8/16 Points, vertical – 8/16 Points, Horizontal Tight – 16 Points, or Vertical Tight – 16 Points).

Effect Name: Type a name you wish to assign for a specific effect.

Generate: This will create a new effect.

Save: This will store the effect generated.

Load: This will recall/bring up a saved effect.

Clear: This will delete an effect.

ActiveScenes
^K Active Scenes

Scale (Zoom): Type in a value between 0.50 to 3.50 in order to increase or decrease the size of the effect according to the needs of the room. The zoom is only used when you generate.

Interval: This will be the time between each spot as the effect progresses from start to finish. 1 – 16, 1 being the fastest and 16 the slowest. 1 count is equal to 100ms on the clock, count values can be edited at any time after you generate. Each Extended Scene generated under the Active Scene can be edited at a later time.

Channel X (Pan) Axis: Channel 1 – 16, Select proper channel to assign a panning (horizontal) position of the light direction.

Channel Y (Tilt) Axis: Channel 1 – 16, Select proper channel to assign a tilt (an angle) position of the light direction

Planar Grid: This view is used from the user's perspective out to the room (bottom right hand corner is 0, 0 and top left corner is 255, 255) and in accordance with the device. This grid is designed to be used with Scanners. This grid can also be used with Spotlights but will not represent the results (i.e. a straight line in Planar will result in a Spot performing a circle).

Polar Grid: This view is an aerial view from the device's perspective (0, 0 or 255, 0 are found at the top centre of the grid, center is 127,255). In order to make the light move horizontally in a straight line across the room, you will need to map out a curve. This grid is designed to be used with Spotlights. This is a Polar Coordinate graph, Tilt is the distance from the center and Pan is the circumference angle (like facing the earth from the polar caps).

Max Pan: This option applies only to Polar Grid. Use this to set limits for the pan as to make sure the light does not end up in useless space. Since only 360° can be shown at one time, you must correctly set the Max Pan setting for the device to correctly map each 360° of useable space.

Extend 360°: This option only applies to Polar Grid. This will add another layer for such lights that go beyond 360°. For devices that can Pan over 360°, the Extend 360° is a useful option. The 0 to 360° is a barrier that when designs are created passing this line, the device must turn back 360° - to avoid this situation use the Extend 360° to design beyond the limitation. For example, say I have an Auto Spot 150 that needs to preset a Figure 8 toward the crowd and low, this would mean that the Figure 8 would be drawn in the upper two quadrants of the Polar grid – but remember, if the Figure 8 is drawn across the line the device will rotate 360° back to continue the other

side of the pattern. You would avoid this by first starting the pattern on the left/upper quadrant and cover the 270° to 360° then enable Extend 360° and draw the right/upper quadrant of the pattern (which is now in the 360° to 450°). You will notice that the points are now colored Green (Red points are the first 360°). This is where the Pan of your device is very important to calculate the correct 0 to 255 DMX value – the status will show the correct DMX value, refer to it while creating your pattern to ensure the correct position.

#^KDMX EFFECT

Create exciting DMX effects and patterns using this feature. Remember that your DMX Sliders must be set to the correct parameters and Node/Sub-node before you proceed to generate an effect.

How to create a circle effect:

- Click Calculator, Circle, and pick a circle type.

How to create a figure 8 effect:

- Click Calculate Figure 8, and pick a figure type

DMX Effect can be used to generate across multiple scanners, the Generate works similar to BeamX except you can prepare a pattern ahead of time and allow the DMX Editor to configure all Extended Scenes, Timing, and

Things to Consider:

You must remember that when you are in Polar mode only 360° of the device are visible at once time, to Extend (or surpass) the 360° boundary use the Extend 360° option before placing the new points. Refer to Active Scenes, Extend 360° for more information.

Always consider the delays within your device, motor delays cannot be superseded – they are limitations of Physics. The DMX protocol can always handle commands with increments of count 1, but the device will attempt to catch up and respond as quickly as possible. If you are positioning points far apart, be sure their interval count is large and will allow the device to move the motors before receiving a new position – devices that cannot move fast enough to what you communicate them will appear to not complete the pattern but infact they will be receiving every point except they will not be able to reach those points due to physical limitations. DMX devices read all possible points but only react to the last received position, watch your timing and understand the limitations of your device or appliance.

DMXEffect
^K DMX Effect

#^KDMX BEAMX

Use BeamX to move two axis together (like a joystick). For example, if Channel 1 and 2 are the axis, 3 and 4 is the sensitivity, channel 5 the Gobo, channel 6 the lamp colour – assign Channel 1 to Pan, and Channel 2 for Tilt. Be sure you have the scanners enabled to set the correct channels (scanner 1 is channels 1 through 16, scanner 2 is 17 through 32, etc). Correctly configure your DMX appliance to match your Swift Elite settings.

BeamX allows you to set both yoke channels to this feature (which can span across scanners) - the BeamX dialog is a 2D locational box, you move the mouse on it like a touchpad and it updates the DMX. The Planar mode allows positioning of 2D scanner devices where the location of the box is relative to your room (such as the American DJ Mighty Scan). The Planar mode can be limited by Min and Max Pan/Tilt to effectively narrow your bounds; this will increase the sensitivity of the scan. The Polar mode is used to relate a device such as a spotlight (i.e. Chauvet Auto Spot 150) in relation to the room – spots are 3D devices that Pan in a circular motion and Tilt vertically from the floor to the center/middle pointing straight in the air. For this to relate correctly you must enter the correct Pan Maximum, in degrees, of the device (an Auto Spot 150 would use 540 degrees). Planar can also be used for Polar devices if you require a limited Pan/Tilt environment, though you must understand that in Planar Left/Right movement on the BeamX box translates to Panning in a circular motion in the room, and Up/Down movement is Tilt. Examples of Min/Max values in Planar mode for an Auto Spot 150 (a 3D Polar device) – consider that Pan of 170 is 360 degrees and that it points forward and does not have the 0/360 degree barrier:

Min Pan: 140

Max Pan: 200

Min Tilt: 0

Max Tilt: 75

These limits will make sure that the Auto Spot 150 is pointing only forward and down toward the crowd.

DMXBeamX
^K DMX BeamX

#^KSCRAM SCHEDULER

Schedule lights (a sequence of commands) to execute at a given time of day.

Enable: Click this button to activate the SCRAM Scheduler.

Program List: This window will show you a list of all programs and their start time

Create New: Select this button to create a new program. Choose a program name, start time, then add, edit, or remove commands.

Add: This option will allow you to browse your computer to insert a program already saved.

Edit: Select a program from the list and click this button to make changes to the name, start time, and/or add, edit or remove commands.

Remove: Select a program from the list and click this button to delete it.

Clear: To remove all programs at once, click this button.

SCRAMScheduler

^K SCRAM Scheduler