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Cue Manager^{tm} Software User's Guide

For use with the TA-10 Digital Theater Automation

Serial Communications
GPIO Communications

Revision C

<u>Overview</u>

Cue Manager software allows you to create automation macro cues. A macro cue is a set of *triggers* and *actions*. *Triggers* determine what causes the macro cue to fire. *Actions* determine what the automation does when the macro cue is fired.

Cue Manager software communicates with the **TA-10 Digital Theatre Automation** to store macro cues in the automation. Once the macro cues are stored in the automation, the automation will respond to *triggers* and perform the *actions* specified by the macro cues. Macro cues need to be assigned to the automation only once. Macro cues stored in the automation remain in effect until modified or deleted.

<u>Status Indicator</u>

The **Automation Status Indicator** displays "Connected" at the bottom of the screen when the host computer is properly connected to the TA-10 Digital Automation through the computer's serial port.

<u>Macro Cues</u>

The Macro Cue dialogs allow you to create, edit, and delete macro cues. By adding *triggers* and *automation actions* to a macro cue you can control when a macro cue fires and what the automation does when it is fired.

<u>How to Create or Edit a Macro Cue</u>

To create a macro cue, select **Add Macro Cue** from the Cues command menu or click on the **Add Macro Cue** button. To edit a macro cue, select **Edit Macro Cue** from the Cues command menu or click the **Edit** button at the bottom of the macro cue.

In the Add Macro Cue dialog, enter the name of the cue in the **Macro Cue Name** field.

Select the *trigger* or *triggers* for the cue. *Triggers* define the condition or conditions that cause the macro cue to fire. A macro cue will fire if *any* of the selected conditions are true. Note: Some *triggers* and *actions* require that additional data are entered.

Next, select the *actions* you would like the automation to perform when the macro cue is fired. To add an *action* to a macro cue, select the *action* from the **Automation Actions** list and click the **Add** button. To remove an *action* from a macro cue, select the *action* from the **Assigned to Macro Cue** list and click the **Remove** button. Double clicking an *action* works the same way.

For the Dolby Digital Start/Pause/Stop Commands, **Dolby Digital Show Start**, **Dolby Digital Show Pause**, and **Dolby Digital Show Stop**, you need to assign a command string to each command. Click the **Dolby Digital Start/Pause/Stop Commands** button to edit these strings. The factory default command strings are START, PAUSE, and STOP. Be sure to program your digital cinema server to respond to the command strings entered.

Note: *Triggers* can be assigned to one and only one macro cue. Once assigned, the *trigger* is grayed out when you go to create or edit other cues.

Dolby Example (serial): You wish to create a TA-10 digital macro cue named CREDITS that pulses Event 1 and Cue 7 relays whenever the serial command "CREDITS" is issued by the Dolby server and received by the automation. Perform the following steps:

1. Assign the name "CREDITS" to the macro cue in the name field. Note: For simplicity, it is recommended that the name of the cue and the name of the Dolby serial automation command (programmed into the Dolby server) be identical.

2. Select the **Serial Command** check box.

3. Enter the serial command string "CREDITS" that will be received by the automation from the Dolby digital cinema server to trigger your new cue. Note: The command string sent by the cinema server is case sensitive and it must match the command string that acts as the trigger for the macro cue.

4. Select the **Pulse Event 1** action from the action list and click the **Add** button or double click the **Pulse Event 1** action.

5. Select the **Pulse Cue 7 Relay** action from the action list and click the **Add** button or double click the **Pulse Cue 7 Relay** action.

6. Click OK.

Doremi Example (GPIO): You wish to create a TA-10 digital macro cue named CREDITS that pulses Event 1 and Cue 7 relays whenever a signal is received by the automation on the DX-10 GPI 4 input from the Doremi server. Perform the following steps:

1. Assign the name "CREDITS" to the macro cue in the name field.

2. Select the **GPIO Command** check box.

3. Select the **Discrete** radio button.

4. Select the GPI input **4** from the pull-down menu.

5. Select the **Pulse Event 1** action from the action list and click the **Add** button or double click the **Pulse Event 1** action.

6. Select the **Pulse Cue 7 Relay** action from the action list and click the **Add** button or double click the **Pulse Cue 7 Relay** action.

7. Click OK.

The newly created cue will appear on the screen. You can create and display up to ten macro cues at a time. Macro cues are not uploaded to the automation until you choose **Update Automation**. Similarly, macro cues are not saved to a file until you choose **Save to File**.

Macro Cue Triggers

Check the **Serial Command** trigger check box if you would like the macro cue to be fired by a serial command from the cinema server. Enter the serial command string sent by the server that triggers the macro cue stored in the automation.

Check the **GPIO Command** trigger check box if you would like the macro cue to be fired by a GPIO command from the cinema server. Select the "Discrete" radio button if you would like to use discrete decoding. This method is preferred if you have four or fewer macro cues to be triggered with GPIO commands. Select the "Binary" radio button if you would like to use binary decoding. This method is required if you have five or more macro cues to be triggered with GPIO commands.

What happens when you choose the Discrete radio button?

If you select 1 from the pull-down menu, the macro cue will fire when the GPI 1 input on the DX-10 is pulsed low. The table below summarizes all available Discrete input options.

Discrete

Pull-down Menu	*Macro Cue Fires When:*
1	GPI 1 input is pulsed low
2	GPI 2 input is pulsed low
3	GPI 3 input is pulsed low
4	GPI 4 input is pulsed low

What happens when you choose the Binary radio button?

If you select 3 from the pull-down menu, the macro cue will fire when GPI 1 and GPI 2 inputs on the DX-10 are pulsed low simultaneously. The table below summarizes all available Binary input options.

Binary

Pull-down Menu	*Macro Cue Fires When:*
1	GPI 1 input is pulsed low
2	GPI 2 input is pulsed low
3	GPI 1 and GPI 2 inputs are pulsed low
4	GPI 3 input is pulsed low
5	GPI 1 and GPI 3 inputs are pulsed low
6	GPI 2 and GPI 3 inputs are pulsed low
7	GPI 1, GPI 2 and GPI 3 inputs are pulsed low

8	GPI 4 input is pulsed low
9	GPI 1 and GPI 4 inputs are pulsed low
10	GPI 2 and GPI 4 inputs are pulsed low
11	GPI 1, GPI 2 and GPI 4 inputs are pulsed low
12	GPI 3 and GPI 4 inputs are pulsed low
13	GPI 1, GPI 3 and GPI 4 inputs are pulsed low
14	GPI 2, GPI 3 and GPI 4 inputs are pulsed low
15	GPI 1, GPI 2, GPI 3 and GPI 4 inputs are pulsed low

Notes: GPI inputs listed above refer to input terminals labeled GPI 1 thru GPI 4 on the DX-10 board. For Binary decoding above, when multiple GPI lines are specified, they must be pulsed simultaneously.

Check the **Start Button** trigger check box if you would like the macro cue to be fired whenever the automation's (or remote box's) Start button is pressed. If the automation is connected to and can be controlled by a remote box, then selecting the **Start Button** trigger turns the red LED on at the remote box, indicating that the remote box Start Button is activated and ready to be pressed.

Check the **Stop Button** trigger check box if you would like the macro cue to be fired whenever the automation's (or remote box's) Stop button is pressed.

Check the **Panic Stop** trigger check box if you would like the macro cue to be fired whenever the automation receives a panic stop signal from the remote box.

Check the **Film Run-Out** trigger check box if you would like the macro cue to be fired whenever the automation receives a film run-out signal from a projector. For example, using this *trigger* starts a digital presentation upon the completion of a film presentation.

Note: *Triggers* can be assigned to one and only one macro cue. Once assigned, the *trigger* is grayed out when you go to create or edit other cues.

Macro Cue Actions

Use the **Show Run On** action to set the show run line to the on state. This action lights the automation and remote box Show Run LEDs, energizes the auxiliary relay if it is connected to the Show Run jumper, disables the Start button, disables the Remote Start button, disables the Automation Start from clock, selects digital server sound, and disables all other sound select options. Use **Show Run Off** to reverse this action.

Use the **Dolby Digital Show Start** action to cause the automation to send a start command to the digital cinema server's serial port. For example, using this action in conjunction with the Start Button trigger starts a digital presentation with the automation's Start Button.

Use the **Dolby Digital Show Pause** action to cause the automation to send a pause command to the server's serial port.

Use the **Dolby Digital Show Stop** action to cause the automation to send a stop command to the server's serial port.

Use the **Pulse Cue Relay** and **Pulse Event** actions to fire the automation's internal relays that are connected to your house functions.

Use the **Pulse Motor Off** action to energize the auxiliary relay for 500 milliseconds if it is connected to the Motor Off jumper.

Use the **Automation Alarm On** action to turn on the automation's audible alarm. Use the **Automation Alarm Off** action to turn off the automation's alarm.

Use the **Pulse TTL Output 1** action to cause the automation to pulse one of the two DX-10 TTL outputs. For example, this line could be used to control a cinema server's General Purpose Input that is programmed to stop the presentation. This might be useful in the case where the automation receives a fire alarm.

Use the **Pulse TTL Output 2** action to cause the automation to pulse one of the two DX-10 TTL outputs.

Cue Manager Commands

Cue Manager has a command set that allows a user to do the following tasks:

Read Automation
Update Automation
Clear Automation
Setup
Open File
Save to File
Print
Exit
Add Macro Cue
Edit Macro Cue
Delete Macro Cue
Test Relays
Test Macro Cues
About Cue Manager
About Automation

Read Automation

The **Read Automation** command is available whenever Cue Manager and the automation are connected. This command communicates with the automation, retrieves macro cues currently stored in the automation, and displays them on your computer screen for editing. Any cues displayed on the screen are overwritten.

Update Automation

The **Update Automation** command is available whenever Cue Manager and the automation are connected and cues are displayed on the screen. This command writes cues currently displayed on the computer screen to the automation. Cues stored in the automation are overwritten.

Clear Automation

The **Clear Automation** command is available whenever Cue Manager and the automation are connected. This command deletes all cues currently stored in the automation. Cues displayed for editing on the computer screen are unaffected by this command.

Setup

The **Setup** command opens the Setup dialog and allows you to establish and test communications with the TA-10 Digital Automation. The settings required to establish proper communication between the TA-10 Digital Automation and either the serial port of the digital cinema server (when running a show) or the serial port of the Cue Manager host computer (when programming the automation) are as follows:

Baud Rate: 9600
Parity: Even
Stop Bits: 1
Data Bits: 8

Open File

The **Open File** command opens the Open File dialog and allows you to read a Cue Manager macro cue file from your computer's disk into Cue Manager. When you open a file, cues displayed on the computer screen are overwritten. Cue Manager files are stored in text format and have a .dx extension. Files created by Cue Manager can be read into Cue Manager on any computer and are compatible with all TA-10 Digital Automations.

<u>Save to File</u>

The **Save to File** command is available whenever cues are displayed on the computer screen. This command opens the Save to File dialog and allows you to save the cues displayed on your computer screen to a file. Saved files can be stored for later use, for archive purposes, for emailing to colleagues, and for transferring macro cue data to other automations.

<u>Print</u>

The **Print** command is available whenever cues are displayed on the computer screen. This command opens the Print dialog and allows you to print the cues that are displayed on the computer screen to the host computer's printer.

<u>Exit</u>

The **Exit** command closes the Cue Manager program. If all your work has been saved to a file, the program closes immediately. If macro cues displayed on your screen have not been saved to a file, you are prompted to confirm that you want to exit the program without saving.

<u>Add Macro Cue</u>

The **Add Macro Cue** command opens the Add Macro Cue dialog which allows you to create a macro cue as follows:

1. Assign a name to the macro cue.

2. Choose the *triggers* that fire the cue.

3. Assign the *actions* taken when the cue fires.

<u>Edit Macro Cue</u>

The **Edit Macro Cue** command opens the Edit Macro Cue dialog which allows you to edit a macro cue. The Edit Macro Cue dialog operates in the same manner as the Add Macro Cue dialog.

<u>Delete Macro Cue</u>

The **Delete Macro Cue** command allows you to delete a cue from your computer screen.

Test Relays

The **Test Relays** command is available whenever Cue Manager and the automation are connected. This command allows you to test the Cue (1-7) relays, Event (1-5) relays, and the Show Run and Motor Off relays. When you press a relay test button, a single relay is fired.

Test Macro Cues

The **Test Macro Cues** command is available whenever Cue Manager and the automation are connected AND the displayed cues are the same as the cues stored in the automation i.e., after a **Read Automation** or **Update Automation** command is successfully processed. When you press a macro cue test button, all the *actions* assigned to that macro cue are performed including the firing of multiple relays.

About Cue Manager

The **About Cue Manager** command displays the About TA-10 Digital Cue Manager message and provides product version information.

About Automation

The **About Automation** command displays the About Automation message and is available whenever Cue Manager is connected to an automation. This message provides interlock zone, address, intermission delay time, and software version information for the TA-10 Digital Automation.