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# Synchronous Trunk Record Playback (STRP)

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# T1 E1 Hardware Platforms



**tProbe™ - Portable USB based T1 E1 VF  
FXO FXS and Serial Datacom Analyzer**

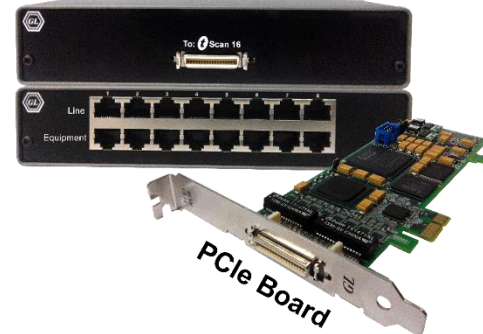


**Quad / Octal T1 E1 PCIe Card**



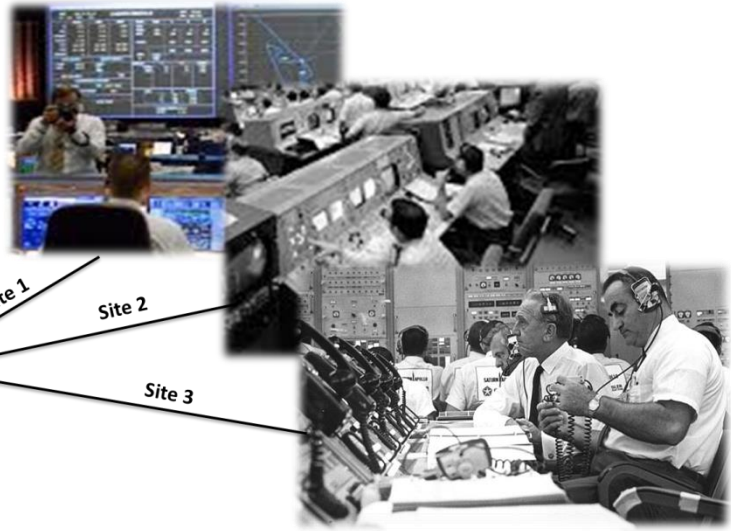
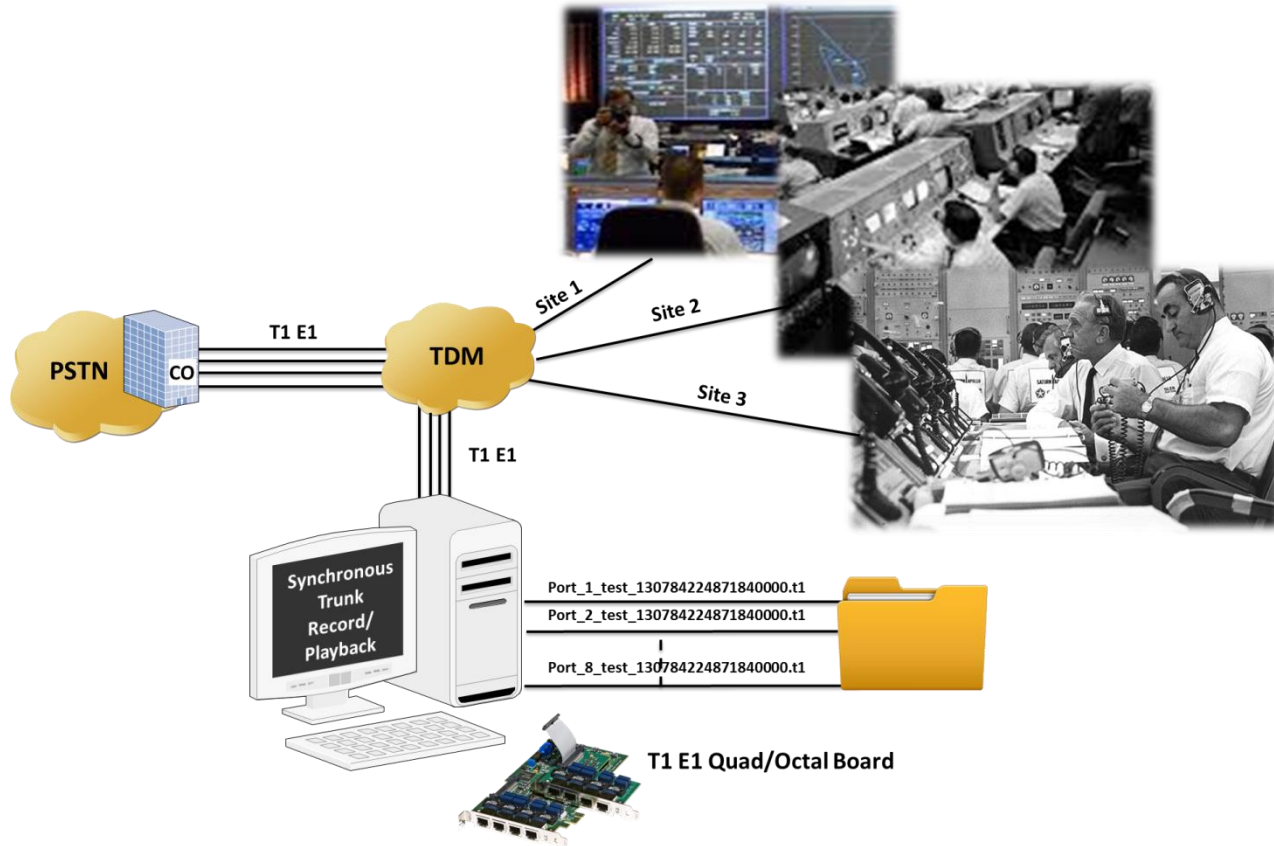
**Dual T1 E1 Express (PCIe) Board**

**tScan16™ with  
16-port T1 E1 Breakout Box**



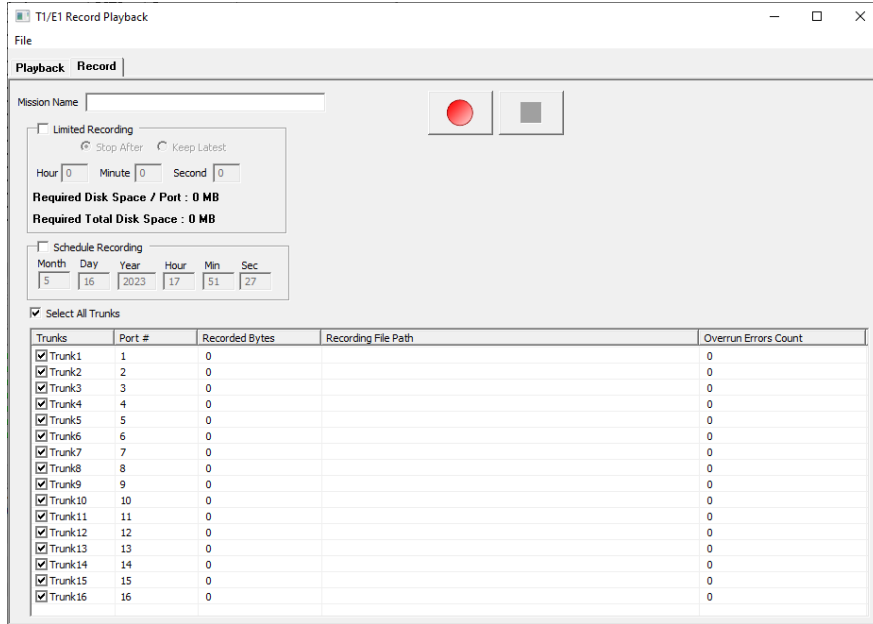
**PCIe Board**

# Live T1 E1 Traffic Recording



# Record and Playback Main GUI

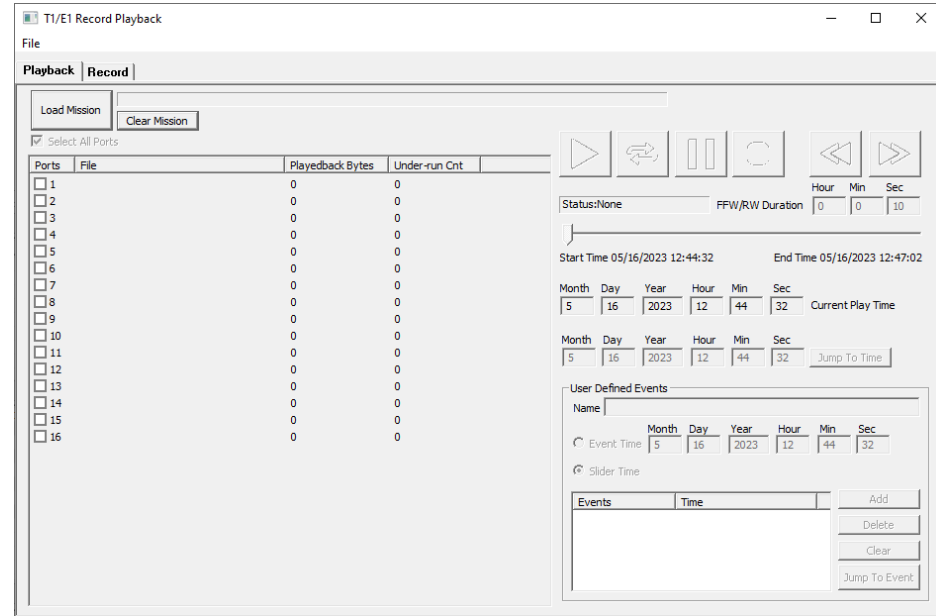
## Record Option



The Record Option GUI features a 'Mission Name' input field and a red record button. It includes two recording modes: 'Limited Recording' with 'Stop After' (radio buttons for 'Stop After' and 'Keep Latest') and 'Schedule Recording' with date and time pickers. A table at the bottom shows 'Select All Trunks' with columns for Trunks, Port #, Recorded Bytes, Recording File Path, and Overrun Errors Count.

Trunks	Port #	Recorded Bytes	Recording File Path	Overrun Errors Count
<input checked="" type="checkbox"/> Trunk1	1	0		0
<input checked="" type="checkbox"/> Trunk2	2	0		0
<input checked="" type="checkbox"/> Trunk3	3	0		0
<input checked="" type="checkbox"/> Trunk4	4	0		0
<input checked="" type="checkbox"/> Trunk5	5	0		0
<input checked="" type="checkbox"/> Trunk6	6	0		0
<input checked="" type="checkbox"/> Trunk7	7	0		0
<input checked="" type="checkbox"/> Trunk8	8	0		0
<input checked="" type="checkbox"/> Trunk9	9	0		0
<input checked="" type="checkbox"/> Trunk10	10	0		0
<input checked="" type="checkbox"/> Trunk11	11	0		0
<input checked="" type="checkbox"/> Trunk12	12	0		0
<input checked="" type="checkbox"/> Trunk13	13	0		0
<input checked="" type="checkbox"/> Trunk14	14	0		0
<input checked="" type="checkbox"/> Trunk15	15	0		0
<input checked="" type="checkbox"/> Trunk16	16	0		0

## Playback Option



The Playback Option GUI includes a 'Load Mission' button and a 'Select All Ports' checkbox. It features a table for port selection with columns for Ports, File, Playback Bytes, and Under-run Cnt. Playback controls include play, stop, and fast forward buttons, along with a 'Status:None' indicator and 'FFW/RW Duration' pickers. It also shows 'Start Time' and 'End Time' fields, and a 'User Defined Events' section with a table and 'Add', 'Delete', 'Clear', and 'Jump To Event' buttons.

Ports	File	Playback Bytes	Under-run Cnt
<input type="checkbox"/> 1		0	0
<input type="checkbox"/> 2		0	0
<input type="checkbox"/> 3		0	0
<input type="checkbox"/> 4		0	0
<input type="checkbox"/> 5		0	0
<input type="checkbox"/> 6		0	0
<input type="checkbox"/> 7		0	0
<input type="checkbox"/> 8		0	0
<input type="checkbox"/> 9		0	0
<input type="checkbox"/> 10		0	0
<input type="checkbox"/> 11		0	0
<input type="checkbox"/> 12		0	0
<input type="checkbox"/> 13		0	0
<input type="checkbox"/> 14		0	0
<input type="checkbox"/> 15		0	0
<input type="checkbox"/> 16		0	0

# Main Features

- Synchronously Record and Playback live T1 E1 traffic on multiple T1 E1 trunks
- The Keep Latest recording option allows the user to retain recently recorded traffic based on hour minutes and seconds
- Supports multiple instances of STRP application to record on different/same Trunks
- Record traffic on all 24 T1 channels (or all 32 E1 channels) for a specified duration or continuously
- For large capacity, GL's Octal T1 E1 boards offers to record and playback on up to 192 T1 channels and 256 E1 channels per board. More scalability can be achieved with multiple boards
- Schedule recording to auto start recording of T1 E1 traffic on a specified Date and Time (Day, Month, Year, Hour, Minute, and Second)
- Recording performed using A-Law, and  $\mu$ -Law codec
- Mark the events as you playback recorded files. Jump to the event directly to start playing back from the marked event point
- Most valuable application for critical data analysis in defence and research activities

# Recording Feature

- Records all the incoming T1 E1 traffic on the selected T1 E1 ports (lines)
- Records Live T1 E1 traffic for a specified duration of time. The Countdown Time display remaining time duration
- Automatically start recording Live T1 E1 traffic as per the schedule. Traffic can be recorded continuously or for a specified duration

Mission Name: Test

Limited Recording  
Stop After  Keep Latest

Hour: 0 Minute: 2 Second: 30

Required Disk Space / Port : 28.80 MB  
Required Total Disk Space : 460.80 MB

Schedule Recording

Month: 5 Day: 16 Year: 2023 Hour: 17 Min: 51 Sec: 27

Adjust Recording Time  
Prepone  Postpone   
Hour: 0 Minute: 0 Second: 0 Apply

Select All Trunks

Trunks	Port #	Recorded Bytes	Recording File Path	Overrun Errors Count
<input checked="" type="checkbox"/> Trunk1	1	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk2	2	3124800	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk3	3	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk4	4	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk5	5	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk6	6	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk7	7	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk8	8	3124800	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk9	9	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk10	10	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk11	11	3124800	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk12	12	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk13	13	3124800	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk14	14	3124800	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk15	15	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0
<input checked="" type="checkbox"/> Trunk16	16	3125376	C:\Program Files\GL Communications Inc\Octal Xpress T1 Analyzer\T1RecordPl...	0

# File Naming Convention

Port Number

Port_1	Test	130832444772730000.t1
Port_2	Test	130832444772730000.t1
Port_3	Test	130832444772730000.t1
Port_4	Test	130832444772730000.t1
Port_5	Test	130832444772730000.t1
Port_6	Test	130832444772730000.t1
Port_7	Test	130832444772730000.t1
Port_8	Test	130832444772730000.t1

Mission Name

**The recorded file name contains start date and time details in file time format. It is internally interpreted by the application in local system time format**

The screenshot shows a playback control interface with various buttons (play, stop, previous, next) and a status bar. The status bar displays "Status:None" and "FFW/RW Duration" with fields for "0", "0", and "10". Below this, a "Start Time" field is highlighted with a red box, showing "08/05/2015 10:34:37". To its right is the "End Time" field, showing "08/05/2015 10:37:07". Below the time fields are two rows of input boxes for "Month", "Day", "Year", "Hour", "Min", and "Sec". The first row shows "8", "5", "2015", "10", "34", "37" and is labeled "Current Play Time". The second row shows "8", "5", "2015", "10", "34", "37" and has a "Jump To Time" button next to it.

# Load Mission for Playback

The screenshot displays the TI Octal Express Analyzer 64-bit software interface. The main window shows a table of port configurations and a 'Playback' window. The 'Load Mission' dialog box is open, showing a list of ports and a file selection window.

Port	Framing	Loopback	Termination	Clock	B8Z5	Cross-port
1	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
2	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
3	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
4	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
5	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
6	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
7	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
8	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
9	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
10	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
11	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
12	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
13	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
14	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
15	ESF (193E)	No Loopback	Terminate	Internal	On	Normal
16	ESF (193E)	No Loopback	Terminate	Internal	On	Normal

The 'Playback' window shows the following information:

- Mission Name: Test | Duration: 0:2:30
- Ports: 1-16 (all checked)
- Played Bytes: 0 for all ports
- Under-run Cnt: 0 for all ports
- Start Time: 05/16/2023 12:44:32
- End Time: 05/16/2023 12:47:02
- Current Play Time: 5:16:2023 12:44:32

The 'Load Mission' dialog box shows a list of ports and a file selection window. The file selection window shows a folder named 'TIRecordPlaybackFiles' with a file named 'Test' selected.

- Provides options to load the recorded files per Mission
- Display Mission Name, Total duration, Start and End time of the recorded file



# Playback Feature

- Start the playback on the selected ports
- The playback status is shown in terms of percentage
- Total number of bytes transmitted for each port is displayed

Mission Name - Test | Duration - 0:2:30

Select All Ports

P...	File	Playback Bytes	Under-run Cnt
<input checked="" type="checkbox"/>	1 Port_1_Test_133287133393410000.t1	9565632	0
<input checked="" type="checkbox"/>	2 Port_2_Test_133287133393410000.t1	9562752	0
<input checked="" type="checkbox"/>	3 Port_3_Test_133287133393410000.t1	9562752	0
<input checked="" type="checkbox"/>	4 Port_4_Test_133287133393410000.t1	9562752	0
<input checked="" type="checkbox"/>	5 Port_5_Test_133287133393410000.t1	9563328	0
<input checked="" type="checkbox"/>	6 Port_6_Test_133287133393410000.t1	9563904	0
<input checked="" type="checkbox"/>	7 Port_7_Test_133287133393410000.t1	9563328	0
<input checked="" type="checkbox"/>	8 Port_8_Test_133287133393410000.t1	9563904	0
<input checked="" type="checkbox"/>	9 Port_9_Test_133287133393410000.t1	9564480	0
<input checked="" type="checkbox"/>	1 Port_10_Test_133287133393410000.t1	9564480	0
<input checked="" type="checkbox"/>	1 Port_11_Test_133287133393410000.t1	9565056	0
<input checked="" type="checkbox"/>	1 Port_12_Test_133287133393410000.t1	9565632	0
<input checked="" type="checkbox"/>	1 Port_13_Test_133287133393410000.t1	9565056	0
<input checked="" type="checkbox"/>	1 Port_14_Test_133287133393410000.t1	9565056	0
<input checked="" type="checkbox"/>	1 Port_15_Test_133287133393410000.t1	9565632	0
<input checked="" type="checkbox"/>	1 Port_16_Test_133287133393410000.t1	9565632	0

Status: Playing 33% FFW/RW Duration 0 0 10

Start Time 05/16/2023 12:22:19 End Time 05/16/2023 12:24:49

Month Day Year Hour Min Sec  
5 16 2023 12 23 8 Current Play Time

Month Day Year Hour Min Sec  
5 16 2023 12 22 19 Jump To Time

User Defined Events

Name

Event Time 5 16 2023 12 22 19

Slider Time

Events	Time
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Add  
Delete  
Clear  
Jump To Event

# Jump To Time Option

Current Play Time position as per Jump To Time

The screenshot shows a media player interface. At the top, there is a horizontal timeline with a playhead marker. Below the timeline, the start and end times are displayed: "Start Time 06/09/2015 18:16:35" and "End Time 06/09/2015 18:17:14". Below these times are two identical time input forms, each enclosed in a red box. The first form is labeled "Current Play Time" and the second is labeled "Jump To Time". Both forms have six input fields for Month, Day, Year, Hour, Min, and Sec, with the values 6, 9, 2015, 18, 16, and 47 respectively. An arrow points from the playhead marker on the timeline to the "Current Play Time" form, and another arrow points from the "Jump To Time" form back to the playhead marker.

Month	Day	Year	Hour	Min	Sec
6	9	2015	18	16	47

Current Play Time

Month	Day	Year	Hour	Min	Sec
6	9	2015	18	16	47

Jump To Time

Jump To Time

# User-Defined Events

Start Time 06/09/2015 18:16:35      End Time 06/09/2015 18:17:14

Month Day Year Hour Min Sec  
6 9 2015 18 16 59      Current Play Time

Month Day Year Hour Min Sec  
6 9 2015 18 16 47      Jump To Time

User Defined Events

Name vijay

Event Time    Month Day Year Hour Min Sec  
6 9 2015 18 16 35

Slider Time

Events	Time
vijay	6/9/2015 18:16:59

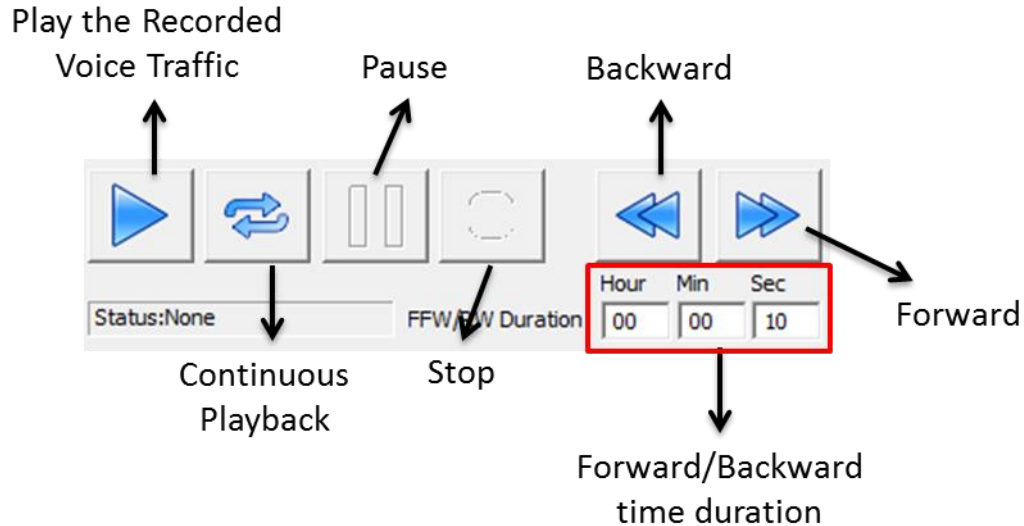
Buttons: Add, Delete, Clear, Jump To Event

Annotations:

- Play time position as defined in the event (points to the play/pause button)
- Play time position as defined in the event (points to the End Time field)
- User defined Event (points to the event entry in the table)

- Provides option to mark a particular time event and jump to the added event in the Current Play Time
- Similarly, such multiple user-defined events can be saved

# Playback Options



- Provides Play, Continuous Playback, Pause, Stop, Backward, and Forward features to listen to a recorded file

**Thank you**