



INI Programming and Remote Control

Broadcast Electronics Tech Note

THE INFORMATION IN THIS ARTICLE APPLIES TO:
All AudioVAULT products

SUMMARY

AudioVAULT commands with the exception of those requiring a parameter may be mapped to an external contact closure, most commonly via a BEI remote control board or a SeaLevel GPI card. The assignments must be located in one or more sections of the AUDIOVAU.INI. The remote control device must reside in the same PC requiring push button remote control. The assignments are loaded in two possible ways:

- When the AudioVAULT program starts
 - With the LoadRemoteControl "Section-name" command is executed
-

MORE INFORMATION

All Remote Control lines follow the same basic syntax. All characters are case insensitive:

IDD_<command><n>=,<device>:<polarity><input-bit>

IDD_	All remote control assignments begin with these four characters. IDD is short for ID entifier D evice.
<command>	The AudioVAULT function or command being mapped.
<n>	The command selector, used to specify which deck a command applies to
=	An equal sign separating condition and action.
,	A comma defines this statement as an input . Statements WITHOUT commas are interpreted by the system as outputs .
<device>	Identifies the remote control device. Options include BEI, PCR, COM, SEA, TCP, KEY and custom-defined devices.
	The device number. This is the BEI board number, COM port or SeaLevel card number for example.
:	A literal colon separating the Remote Control device from the Input Bit.
<polarity>	Use "-" to indicate a logic high (click or leading edge) and "+" (unlick or trailing edge) for a logic low. If neither is specified, + is assumed.
<input-bit>	This lists the logical bit on the remote control device assigned to the function. This is not a physical pin number. It also can refer to the Serial/COM information or Keyboard key combination.

MULTIPLE PUSH BUTTONS PER FUNCTION

In some cases you may need two different commands to activate the same AudioVAULT function. Separating the two assignments with a semicolon can easily accommodate this.

```
IDD_Start1=,BEI1:-1;,Key+F1
```

↑ ↑ ↑
the first assignment (BEI1, bit 1) the multi-button separator (semicolon) the second assignment (F1)

Do NOT use two IDD_XXX statements, one for the BEI board and another for the keyboard key – only the first will be used by the AudioVAULT software.

INDICATORS, MACROS, THE INCLUDE STATEMENT AND NULS

Adding or modifying AUDIOVAU.INI remote control information requires a thorough understanding of Indicators, Macros, the "INCLUDE" statement, and NULs.

"**Indicators**" are software "buttons." Indicators can:

- Output NUL bits.
- Allow remote control of external equipment.
- "Fire" other events (including Indicators) when turned "on" or "off"
- Be "clicked" by hot keys, contact closures, playlists, and macros.
- Be momentary or latched operations.
- Have user-definable momentary durations.
- Have user-customizable button captions
- Present visual "on" and "off" states

"**Macros**" are another type of software "button." Macros can:

- Automate several simple steps into one.
- "Fire" other events (including Indicators) when turned "on" or "off"
- Be "clicked" by hot keys, contact closures, playlists, and macros.

The "**INCLUDE**" command allows several INI sections to be combined and be treated as one "machine." Each section to be included is defined in the INI and separated by a comma.

Important Note #1

Each AudioVAULT machine (defined as INI sections combined by the INCLUDE statement) can have a combined TOTAL of 15 Indicator and 15 Macro commands. For example, using the following statement:

```
[F3AVSat]
Include=Buttons.Record3:1,F3_RM,F3_AP
```

[F3AVSAT], [Buttons.Record3:1], [F3_RM], and [F3_AP] have a TOTAL of 15 Indicators and 15 Macros available.

Important Note #2

Indicator and Macro definitions are specific to each AudioVAULT machine, defined as INI sections combined by the INCLUDE statement. Another machine on the same workstation can have different Indicators and Macros. EACH machine can have a total of 15 Indicators and 15 Macros.

"NULs" are internal software wires. NULs can:

- Be sent and received by different INI sections or applications ON THE SAME COMPUTER.

Important Note #3

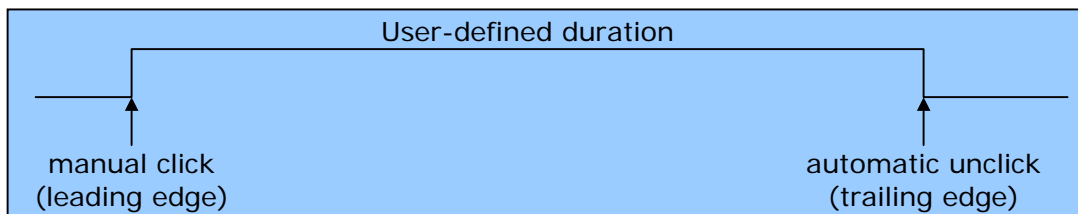
Since NULs can talk to other machines, defined as INI sections combined by the INCLUDE statement on the same computer, each **COMPUTER** is limited to a TOTAL of 56 NUL bits.

SETTING DURATIONS

It may be necessary to set durations for certain events, particularly Indicators. The default behavior is to remain latched while the button is clicked, or illuminated. It would take a second mouse click to turn the Indicator off.



By defining this Indicator's **duration**, we can change the behavior so that our logic change is only momentary. In effect, this turns the button off for us automatically.



Another example of

CLICK AND UNCLICK

Some functions require a down (click) and an up (unclick), as the function repeats while held "down". Without the up definition, once invoked, the function would never stop. For example, if NextLine were mapped to a down button but not an up, the on-screen highlight bar would go into a run away condition--it would continue to NextLine until it reached the bottom of the list.

These commands most typically use the same BEI input bit for up and down mapping. A correct definition for the above-mentioned NextLine (and its brother PreviousLine) is:

```
IDD_NextLine1=,BEI1:-1,BEI1:+1  
IDD_PreviousLine1=,BEI1:-2,BEI1:+2
```

MISTAKES AND TROUBLESHOOTING

If an IDD_ line is written incorrectly, it will probably just be ignored. If problems exist follow these steps to resolve it:

1. Enable DebugFlags or **trace logging**.
2. Double-check all comma, semi-colon, and colon characters. Each is critical.
3. Try to simplify the assignment. See if you can get a part of it to function.
4. If an IDD_xxx function is listed more than once, then the first one is used. If an IDD_xxx is listed in multiple AUDIOVAU.INI sections and more than one of those sections are used, then that section with the highest priority is used. If there is any question then enable DebugFlags for REMOTE to see what sections are being used and what their "priority" (order) is.
5. IDD_xxx remote control commands are always checked and executed from left to right, top to bottom.
6. If multiple push buttons are connected to a given IDD_xxx command then additional ", down, up" instances are appended to the same line, separated by a semi-colon.
7. The BEI card or other remote control device must reside in the workstation. It is not possible to access remote control devices that are not local.

INTERESTING COMMANDS THAT CAN BE REMOTE-CONTROLLED

A

AbandonList<..8>	Discard list's changes and re-read from the SCSI drive.
About	Show AudioVAULT software version dialog.
ArmDeck<..8>	Preloads the specified deck's cut for instant audio upon start and sets timer/outcue.
AutoSegue<..8>	Enable the auto start + signs, if present.
AutoTrimCut<..8>	Run AutoTrim on the highlighted cut.

B

BeginAutoTrim	Toggle trim-after-record mode on RecordSet dialog, or AutoTrim now if Trim & Tones dialog is visible.
BeginSearch	Begin file select/maint database search.

C

Cancel	Most DONE buttons.
CancelDelete	"NO" in response to 'ARE YOU SURE'--don't actually delete it.
ClearList	Delete all lines in the currently loaded list.
CopyLine<..8>	Copy highlighted line to 'paste buffer'.
CreateList<..8>	Make a new/empty playlist, cart, stack, editlist, or cartlist.
CutLine<..8>	Move highlighted line to 'paste buffer'.
CutMenu<..8>	Show CUT menu.

D

Default<..8>	Presets fields on the record dialog to speed inventory production.
DelayNextLine<..8>	After the specified number of seconds, execute the next playlist event.
DeleteCut	Delete highlighted cut and removes the line from the list.
DeleteList	Delete the currently loaded list.

E

EditCues<..8>	Show Trim & Tones dialog for the cut.
EOM<..8>	Record: add a SEC tone upon depress, stop recording upon release. Playback: indicates the cluster's last cut's SEC.
ExecuteString	Execute ASCII commands in the serial port buffer.
ExportList	Export the currently loaded list to PC disk file or DOS device (i.e., PRN).
ExtendedCutModify	Visibility toggle dialog portion showing sample rate & compression.

F

FileMaintenance	Show dialog used to delete SCSI file inventory.
ForceLoad<..8>	Show load dialog even if list changes aren't saved.

H

Help	Display on-line help.
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I

Indicator<..15>	General purpose remote outputs. Momentary or latched.
InsertCue	Trim & Tones INSERT: Inserts a 1/4 second SEC or TER tone at current cursor position.
InsertLine<..8>	Insert a new line after the highlighted line.

L

ListLabel<..8> Show the list's label/header. Can change header details & rename list.
ListMenu Show LIST menu.
ListName<..8> Shows what list is loaded. Sets edit focus when clicked.
Load<..8> Show load dialog.

M

Macro<..15> Automate some simple steps into one.
MarkBegin Set the selected tone's beginning to the cursor's position.
MarkEnd Set the selected tone's ending to the cursor's position.
MergeList Insert (import) PC disk file/list after highlighted line.
Minimize Hide the AudioVAULT screen from view.
MixOver<..8> Select satellite mix ratio 0 - 8.
MixOverX is "hard wired" to StartX.
ModifyCut<..8> Change the cut's label/header details. Use to rename cuts too.
ModifyLine<..8> Change the highlighted line.

N

NextEdge Scan towards the right for a tone or marker on Trim & Tones.
NextLine<..8> Move highlighted bar down. Requires "unclick" if button-activated.
NextPage<..8> Move highlighted bar down a page. Requires "unclick" if button-activated.

O

OK Accept the settings.
These buttons are also OK:
ARE YOU SURE: YES
TRIM & TONES: DONE
LOAD: LOAD
QUICKSTART: LOAD
TIME ANNOUNCE: SET FORMAT.

P

PasteLine<..8> Insert 'paste buffer' after highlighted line.
Pause Pause playing/recording.
Play Play audio from cursor on Trim & Tones.
Power Free the AV-to-Screen assignment.
Preview<..8> Play intro & outro of each spot in cluster.
PreviousLine<..8> Move highlighted bar up. Requires "unclick" if button-activated.
PreviousPage<..8> Move highlighted bar up a page. Requires "unclick" if button-activated.

Q

QuickStart<..32> QuickStart shows QuickStart dialog. QuickStart1 or greater executes a QuickStart line.
Quit Shutdown AudioVAULT program.

R

Record<..8> Re-record the deck's cut which is highlighted. TimedRecord is preferred.
RecordSet<..8> Show record new cut dialog.
Reload<..8> Get list changes made at other workstations.

S

SaveList<..8>	Save list changes to SCSI disk.
SaveListAs<..8>	Copy the loaded list to another list.
ScanForward	Audible scan towards end of cut.
ScanReverse	Audible scan towards front of cut.
Secondary	Adds a SEC tone on record. Indicates SEC tone on play.
SegueLine<..8>	Toggle the line's auto start + sign.
SelectDeck<..8>	Set edit focus to this deck.
SelectMachine<..8>	Flip screens in a multi-screen configuration.
SetClock	Update the PC clock NOW!
SkipForward	Skip to next cut.
SkipReverse	Skip to previous cut begin point.
Start<..8>	Start if no deck is running. Else nothing.
StartASAP<..8>	Start this deck as soon as possible.
StartImmediate<..8>	Stop the running deck, then start this one.
StartQueued<..8>	Start this deck once the running deck stops.
Stop<..8>	Stop playing/recording.
Submenu<1..8>	Show dialogs: 1=Ext 2=Files 3=Misc 4=Macros 5=Indicators 1 – 8 6=Indicators 9 - 15.
SwapLine<..8>	Swap pre-SWAP line with post-SWAP line.
SystemInfo	Show SCSI disk fullness/error dialog.
SystemMenu	Show SYSTEM dialog.

T

Tertiary	Adds a Tertiary tone on record.
TimedRecord<..8>	Set the cut's duration then re-record the cut.
TrimCut<..8>	Show Trim & Discard dialog.

Z

ZoomIn	Magnify around the cursor on Trim & Tones.
ZoomOut	Opposite of ZoomIn.