# MCI MIXER DOCUMENTATION
Version 1.4 BETA
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**INTRODUCTION**

With the MCI MIXER driver and its support library, MMMIXER.DLL, you can add mixer control functionality to your multimedia applications!

If you are a presentation designer using a tool that allows you to send MCI strings, you now have new volume control commands at your disposal.  If have any comments about the MCI mixer driver please contact Media Vision's Ken Nicholson at (510) 770-8600.

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**DISTRIBUTION**

Media Vision is offering the virtual mixer interface to MPC developers license free in the hopes of a standard mixer interface being developed.  We encourage developers to ship the following files with their products license free:

        MCIMIXER.DRV
        MMMIXER.DLL
        MVMIXER.DRV

If you are shipping these files, please let us know.  We may wish to assist you in promoting your product!

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**INSTALLATION**

The mcimixer.drv file should be in your \windows\system directory.

[mci]
mixer=mcivmixer.drv

The driver entry in your system.ini file should be:

[drivers]
mixer=mvmixer.drv

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## Command Set

reset       <device>

mute        [status]

set         <device> <linetype> <linespec> <control> [channel] [to]
                <value>

```
get         <device> <linetype> <linespec> <control> [channel]

adjust      <device> <linetype> <linespec> <control> [channel] [to]
<value>

connect     <device> <linetype> <linespec> [to] <linetype> <linespec>

disconnect <device> <linetype> <linespec> [from] <linetype> <linespec>

fade        <device> < [state <filename>] |
                         [<linetype> <linespec> <control> [channel]
                          [to] <value>]
                      > [delay] [duration]
```

```
                KEYWORD DESCRIPTIONS:
                =====================
```

the <device>  parameter must be either a valid mci device name or a
              valid alias

the <linetype> parameter must be one of the following key words:

```
        LINE_IN
        LINE_OUT
        DEVICE_IN
        DEVICE_OUT
```

the <linespec> parameter is dependent upon the <linetype parameter>.
              For "line_in" and "line_out", <linespec> must be a number
              between 1 and the number of lines (input or ouput)
supported
              by the mixer.

              For "device_in" and "device_out", <linespec> must be a one
              of the standard 3-letter names for device types:

```
              name:        Description:
              -------------------------------------------------
              N/C          No Connection
              AAT          Analog Audio Tape
              AMP          Amplifier
              AUX          Auxillary
              CDA          Compact Disk Player
              DAT          Digital Audio Tape
              EQU          Equalizer
              LPA          Phonograph
              MIC          Microphone
              MIX          Mixer
              MUS          Musical Instrument
              RAD          Radio
              SPK          PC speaker
              TEL           Telephone
              TVA           Television Audio
              VTR            Video Tape Recorder
              VDP            Video Disc Player
```

```
               WAV          Digital Waveform Player
               UNK          Unknown Device Type

  the <control> parameter is an optional parameter with the default
             being volume.  If used, this parameter must be one of
             the following key words:

          VOLUME           volume control
          ALC              auto level control
          BASS             Bass
          MIDRANGE         Midrange
          TREBLE           Treble
          CROSSOVER        Stereo to left, right or exchange channels
          LOUDNESS         Bass boost for low volumes
          MUTE             disables audio, maintains current volume
          REVERB           reverb control
          STEREOENHANCE    increase stereo separation
          CUSTOM1
          CUSTOM2
          CUSTOM3


  the <channel> parameter is an optional parameter with the default
             being "BOTH".  If used, this parameter must be one of the
             following key words:

          LEFT
          RIGHT
          BOTH


  the <value> parameter must be an integer between 0 and 100
             (inclusive).  This value represents the percentage
             of the maximum allowable value.


  the <delay> parameter must be a legal integer.  It represents the
             number of tenths of seconds that are to elapse before
             the specified fade operation is to begin.


  the <duration> parameter must be a legal integer.  It represents the
             time, in tenths of seconds, for the specified fade operation
             to occur.

  the <filename> parameter must be a fully qualified pathname to a
             mixer state file (.MIX extension).  Promix.exe is used to
             create these files.

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The following are some sample MCI commands that can be used to
control the mixer hardware.  The program MCITEST.EXE, which is
included as a sample application with the Microsoft Multimedia
Development Kit (MDK), provides an easy way to try out some of
these commands.
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You should precede each of the commands by the following line:
open mixer alias mix

When you are finished sending commands, send  this line:
close mix

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To reset the mixer to the startup settings as specified in WIN.INI:

        reset mix

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To mute all mixers

        mute mix

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To instantly change the volume of a specific mixer input line to 75%:

        set mix line_in 3 control volume to 75

which is the same as:
        set mix line_in 3 control volume 75
        set mix line_in 3 to 75
        set mix line_in 3 75

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To instantly change the volume of a CD-ROM device on an unknown mixer
input
line to 75%:

        set mix device_in CDA control volume to 75

which is the same as:
        set mix device_in CDA control volume 75
        set mix device_in CDA to 75
        set mix device_in CDA 75

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To find out the current volume of a CD-ROM device on an unknown mixer
input
line to 75%:

        get mix device_in CDA control volume

which is the same as:
        set mix device_in CDA
        set mix device_in CDA 75

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To find out the current bass EQ setting of the AMPLIFIER output line:

        get mix device_out AMP control bass

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To instantly reduce the setting of the AUX input volume to 10% less
than the current setting:

        adjust mix device_in AUX control volume -10


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To instantly connect both the microphone and the CD audio inputs to
the output which goes to the record circuitry:

        connect mix device_in MIC to device_out WAV
        connect mix device_in CDA to device_out WAV

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To instantly disconnect the microphone input from the record circuitry:

        disconnect mix device_in MIC from device_out WAV


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To instantly change the state of the mixer to a state that was
previously saved to disk:

        fade mix state c:\windows\saved.mix

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To gradually fade out the volume of the Adlib-compatible FM
synthesizer input over 30 seconds:

        fade mix device_in MUS to 0 duration 300


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To wait 10 seconds then gradually fade the master volume to 50% over
the course of 5 seconds:

        fade mix device_out AMP to 50 delay 100 duration 50

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Note: It is not necessary to fade a volume gradualy over .1 seconds
      to avoid noise.  All mixer volume changes are implemented by
      changing the volumes a step at a time to reach the desired
      setting.