

Ubuntu 10.04 gst-inspect lame etc

Added *ubuntu-restricted-extras* which adds all the Gstreamer plugins and the LAME encoder needed by then added *sound-juicer*, whose 'Quality MP3' profile is :

```
audio/x-raw-int,rate=44100,channels=2 !  
lame name=enc mode=0 vbr-quality=6 ! Id3v2mux
```

After initial research and expert advice, this was modified to :

```
audio/x-raw-int,rate=44100,channels=2 ! lame name=enc mode=1 vbr=4  
vbr-min-bitrate=32 vbr-max-bitrate=320 vbr-quality=3 ! Id3v2mux
```

Much more recently, to satisfy keener hearing ears, this has become

```
audio/x-raw-int,rate=44100,channels=2 ! lame name=enc mode=1 vbr=4  
vbr-min-bitrate=32 vbr-max-bitrate=320 vbr-quality=2 ! Id3v2mux
```

However, Ubuntu 10.10 Alpha2's new default profile is

```
audio/x-raw-int,rate=44100,channels=2 ! lamemp3enc name=enc target=0  
quality=6 ! xingmux ! id3v2mux
```

(Again, for those with keener hearing, *quality=2* is better)

gst-inspect lame

(detailing all the available Gstreamer LAME attributes)

Factory Details:

```
Long name:      L.A.M.E. mp3 encoder  
Class:         Codec/Encoder/Audio  
Description:   High-quality free MP3 encoder (deprecated)  
Author(s):    Erik Walthinsen <omega@cse.ogi.edu>, Wim Taymans <wim@fluendo.com>  
Rank:         marginal (64)
```

Plugin Details:

```
Name:          lame  
Description:   Encode MP3s with LAME  
Filename:     /usr/lib/gstreamer-0.10/libgstlame.so  
Version:      0.10.14  
License:      LGPL  
Source module: gst-plugins-ugly  
Binary package: GStreamer Ugly Multiverse Plugins (Ubuntu)  
Origin URL:   https://launchpad.net/distros/ubuntu/+source/gst-plugins-ugly-multiverse0.10
```

GObject

```
+----GstObject  
  +----GstElement  
    +----GstLame
```

Implemented Interfaces:

```
GstTagSetter  
GstPreset
```

Pad Templates:

```
SRC template: 'src'  
Availability: Always  
Capabilities:  
  audio/mpeg  
    mpegversion: 1  
    layer: 3  
    rate: { 8000, 11025, 12000, 16000, 22050, 24000, 32000, 44100, 48000 }  
    channels: [ 1, 2 ]
```

SINK template: 'sink'  
Availability: Always  
Capabilities:  
  audio/x-raw-int  
    endianness: 1234  
    signed: true  
    width: 16  
    depth: 16  
    rate: { 8000, 11025, 12000, 16000, 22050, 24000, 32000, 44100, 48000 }  
    channels: [ 1, 2 ]

Element Flags:  
  no flags set

Element Implementation:

  Has change\_state() function: gst\_lame\_change\_state  
  Has custom save\_thyself() function: gst\_element\_save\_thyself  
  Has custom restore\_thyself() function: gst\_element\_restore\_thyself

Element has no clocking capabilities.  
Element has no indexing capabilities.  
Element has no URI handling capabilities.

Pads:

  SRC: 'src'  
    Implementation:  
      Has custom eventfunc(): gst\_pad\_event\_default  
      Has custom queryfunc(): gst\_pad\_query\_default  
      Provides query types:  
      Has custom iterintlinkfunc(): gst\_pad\_iterate\_internal\_links\_default  
    Pad Template: 'src'

SINK: 'sink'

  Implementation:  
    Has chainfunc(): gst\_lame\_chain  
    Has custom eventfunc(): gst\_lame\_sink\_event  
    Has custom queryfunc(): gst\_pad\_query\_default  
    Provides query types:  
    Has custom iterintlinkfunc(): gst\_pad\_iterate\_internal\_links\_default  
  Pad Template: 'sink'

Element Properties:

  name : The name of the object  
          flags: readable, writable  
          String. Default: null Current: "lame0"  
  bitrate : Bitrate in kbit/sec (8, 16, 24, 32, 40, 48, 56, 64, 80, 96,  
112, 128, 160, 192, 224, 256 or 320)  
          flags: readable, writable  
          Integer. Range: 0 - 320 Default: 128 Current: 128  
  compression-ratio : let lame choose bitrate to achieve selected compression ratio  
          flags: readable, writable  
  Float. Range: 0 - 200 Default: 0 Current: 0  
  quality : Quality of algorithm used for encoding  
          flags: readable, writable  
          Enum "GstLameQuality" Default: 3, "3" Current: 3, "3"  
          (0): 0 - 0 - Best  
          (1): 1 - 1  
          (2): 2 - 2  
          (3): 3 - 3  
          (4): 4 - 4  
          (5): 5 - 5 - Default  
          (6): 6 - 6  
          (7): 7 - 7  
          (8): 8 - 8  
          (9): 9 - 9 - Worst

```

mode                : Encoding mode
                    flags: readable, writable
                    Enum "GstLameMode" Default: 1, "joint" Current: 1, "joint"
                      (0): stereo           - Stereo
                      (1): joint            - Joint Stereo
                      (2): dual             - Dual Channel
                      (3): mono             - Mono
                      (4): auto             - Auto

force-ms            : Force ms_stereo on all frames
                    flags: readable, writable
                    Boolean. Default: false Current: false

free-format         : Produce a free format bitstream
                    flags: readable, writable
                    Boolean. Default: false Current: false

copyright           : Mark as copyright
                    flags: readable, writable
                    Boolean. Default: false Current: false

original            : Mark as original
                    flags: readable, writable
                    Boolean. Default: true Current: true

error-protection    : Adds 16 bit checksum to every frame
                    flags: readable, writable
                    Boolean. Default: false Current: false

padding-type        : Padding type (DEPRECATED: this setting has no effect)
                    flags: readable, writable
                    Enum "GstLamePadding" Default: 0, "never" Current: 0, "never"
                      (0): never           - No Padding
                      (1): always          - Always Pad
                      (2): adjust          - Adjust Padding

extension           : Extension
                    flags: readable, writable
                    Boolean. Default: false Current: false

strict-iso          : Comply as much as possible to ISO MPEG spec
                    flags: readable, writable
                    Boolean. Default: true Current: false

disable-reservoir   : Disable the bit reservoir
                    flags: readable, writable
                    Boolean. Default: true Current: false

vbr                 : Specify bitrate mode
                    flags: readable, writable
                    Enum "GstLameVbrmode" Default: 0, "none" Current: 0, "none"
                      (0): none            - No VBR (Constant Bitrate)
                      (2): old             - Lamme's old VBR algorithm
                      (3): abr             - VBR Average Bitrate
                      (4): new             - Lamme's new VBR algorithm

vbr-mean-bitrate    : Specify mean VBR bitrate
                    flags: readable, writable
                    Integer. Range: 0 - 320 Default: 128 Current: 128

vbr-min-bitrate     : Specify minimum VBR bitrate (8, 16, 24, 32, 40, 48, 56, 64,
80, 96, 112, 128, 160, 192, 224, 256 or 320)
                    flags: readable, writable
                    Integer. Range: 0 - 320 Default: 0 Current: 0

vbr-max-bitrate     : Specify maximum VBR bitrate (8, 16, 24, 32, 40, 48, 56, 64,
80, 96, 112, 128, 160, 192, 224, 256 or 320)
                    flags: readable, writable
                    Integer. Range: 0 - 320 Default: 0 Current: 0

vbr-hard-min        : Specify whether min VBR bitrate is a hard limit. Normally, it
can be violated for silence
                    flags: readable, writable
                    Integer. Range: 0 - 1 Default: 0 Current: 0

lowpass-freq        : frequency(kHz), lowpass filter cutoff above freq
                    flags: readable, writable
                    Integer. Range: 0 - 50000 Default: 17000 Current: 17000

```

```

lowpass-width      : frequency(kHz) - default 15% of lowpass freq
                    flags: readable, writable
                    Integer. Range: -1 - 2147483647 Default: -1 Current: -1
highpass-freq      : frequency(kHz), highpass filter cutoff below freq
                    flags: readable, writable
                    Integer. Range: 0 - 50000 Default: 0 Current: 0
highpass-width     : frequency(kHz) - default 15% of highpass freq
                    flags: readable, writable
                    Integer. Range: -1 - 2147483647 Default: -1 Current: -1
ath-only           : Ignore GPSYCHO completely, use ATH only
                    flags: readable, writable
                    Boolean. Default: false Current: false
ath-short          : Ignore GPSYCHO for short blocks, use ATH only
                    flags: readable, writable
                    Boolean. Default: false Current: false
no-ath            : turns ATH down to a flat noise floor
                    flags: readable, writable
                    Boolean. Default: false Current: false
ath-lower         : lowers ATH by x dB
                    flags: readable, writable
                    Integer. Range: -2147483648 - 2147483647 Default: 3 Current:
3
cwlimit           : Compute tonality up to freq (in kHz) default 8.8717
(DEPRECATED: this setting has no effect)
                    flags: readable, writable
                    Integer. Range: 0 - 50000 Default: 0 Current: 0
allow-diff-short   : Allow diff short
                    flags: readable, writable
                    Boolean. Default: false Current: false
no-short-blocks   : Do not use short blocks
                    flags: readable, writable
                    Boolean. Default: false Current: false
emphasis          : Emphasis
                    flags: readable, writable
                    Boolean. Default: false Current: false
vbr-quality       : VBR Quality
                    flags: readable, writable
                    Enum "GstLameQuality" Default: 4, "4" Current: 4, "4"
                    (0): 0 - 0 - Best
                    (1): 1 - 1
                    (2): 2 - 2
                    (3): 3 - 3
                    (4): 4 - 4
                    (5): 5 - 5 - Default
                    (6): 6 - 6
                    (7): 7 - 7
                    (8): 8 - 8
                    (9): 9 - 9 - Worst
xingheader        : Output Xing Header (BROKEN, use xingmux instead)
                    flags: readable, writable
                    Boolean. Default: false Current: false
preset           : Lame Preset
                    flags: readable, writable
                    Enum "GstLamePreset" Default: 0, "none" Current: 0, "none"
                    (0): none - None
                    (1006): medium - Medium
                    (1001): standard - Standard
                    (1002): extreme - Extreme
                    (1003): insane - Insane

```