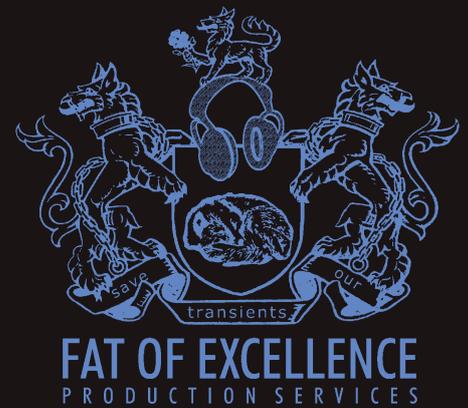


# HOW TO DELIVER YOUR PRE-MASTER FILE



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## WHAT YOU HAVE TO DO

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Simple. Bounce/Export/  
[Mix-]down your tracks  
to 24 Bit / 44.1 / 48 KHz  
before sending them to us.  
*-Please don't change the  
sample-rate of your project,  
keep it in the rate you used  
while producing the song-*  
Check thoroughly that  
there are no compressors or  
multi-band-"worseners" in  
the stereo-sum and please  
stay under 0 dB digital full  
scale at any case.

If you are an experienced producer  
and you'd like to have your own  
bus-compression / "mix-glue"-  
flavour on the sum [probably using  
your own favourite outboard], then  
please go ahead! In this case please  
consider leaving some dynamic  
headroom for EQ-ing and limiting  
for the mastering-engineer:  
*An average level of -15 to -12 dB  
RMS is very suitable for mastering,  
-8dB RMS isn't.*

You may want to provide us with  
an additional "personally mastered"  
track so we get a feel where you  
are heading at.

*Don't worry if the levels are low  
after you switched off all your  
plug-In-voodoo.*

Keeping the data at 24 Bit  
leaves more than enough digital  
headroom for us to work with  
the music and make it loud and  
proud...

[Of course we also accept 32-Bit Floating-  
Point formats or 24 Bit / 96 KHz / 192  
KHz audio-data]

*Send us your tracks online or on a data-CD  
(NO AUDIO CDs!) with uncompressed /  
unprocessed WAVs or AIFFs. Of course we  
will also accept Tape, DAT and probably  
even more exotic formats. Just ask us! :)*

## ABOUT VINYL:

If your are planning to send your mastered tracks to a vinyl plant or cutter, please tell us. Vinyl is a very demanding format and we have to put special attention to low-end phase-alignments and excessive highs up of 8 KHz. We are very experienced with this topic and can help you with a detailed mix-analyze of your production to see if you are on the way to get a fat cut.



# IMPORTANT ASPECTS OF AUDIO-TECHNOLOGY AND DELIVERY FORMATS

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## 1. MIXDOWN (BOUNCE - EXPORT)

### 16 BIT vs. 24 BIT / THE DOs & DON'Ts

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Some freshmen still export and archive their unmastered mixdowns in the 16 Bit-Format.

#### **DON'T!**

You should know that every -6dB step equals 1 (One!) Bit of resolution. Because of that a mixdown with a peak-level of -12dB will probably have most of its musical content being described by only 13 to 15 Bit or less. This is one of the important reasons (but not the only one!) why the worldwide accepted actual format-standard to avoid digital artefacts has 24 or more Bits.

Also: Your Sequencer is processing at 32 Bit floating-point-accuracy, so you are giving away digital resolution if you export your mix at 16 Bit. Or put in other words: If you export your mix with a peak level of -12dB in a 24 Bit-Format, then the average levels of your precious music is still effectively "described" with more than 20 Bits, which is a good thing.

The 16-Bit Export is mainly needed as a final step before CD-manufacturing as specified in the RED BOOK Standard. It is NOT used for archiving digital mixdowns (anymore).

SOUNDS COMPLICATED?  
IT ISN'T REALLY.

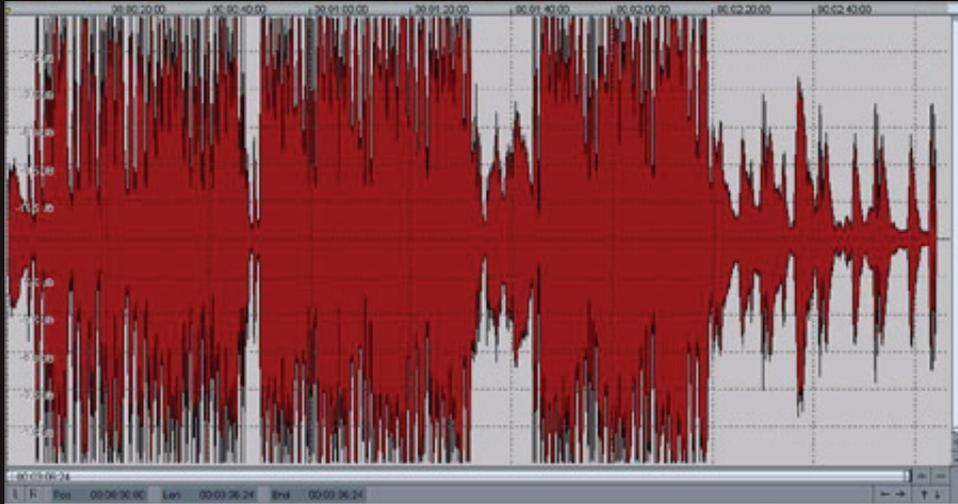
JUST TAKE A DEEP AND  
LONG LOOK AT THE SCALE:

dB (Volume)	@16 Bit Format:	@24 Bit Format:
0	16 Bit	24 Bit
-6	15 Bit	23 Bit
-12	14 Bit	22 Bit
-18	13 Bit	21 Bit
-24	12 Bit	20 Bit
-30	11 Bit	19 Bit
-36	10 Bit	18 Bit
-42	9 Bit	17 Bit
-48	8 Bit	16 Bit
-54	7 Bit	15 Bit
-60	6 Bit	14 Bit
-66	5 Bit	13 Bit
-72	4 Bit	12 Bit
-78	3 Bit	11 Bit
-84	2 Bit	10 Bit
-90	1 Bit	9 Bit
dB (Volume)		(...)

## 2. DATA-DELIVERY VOODOO

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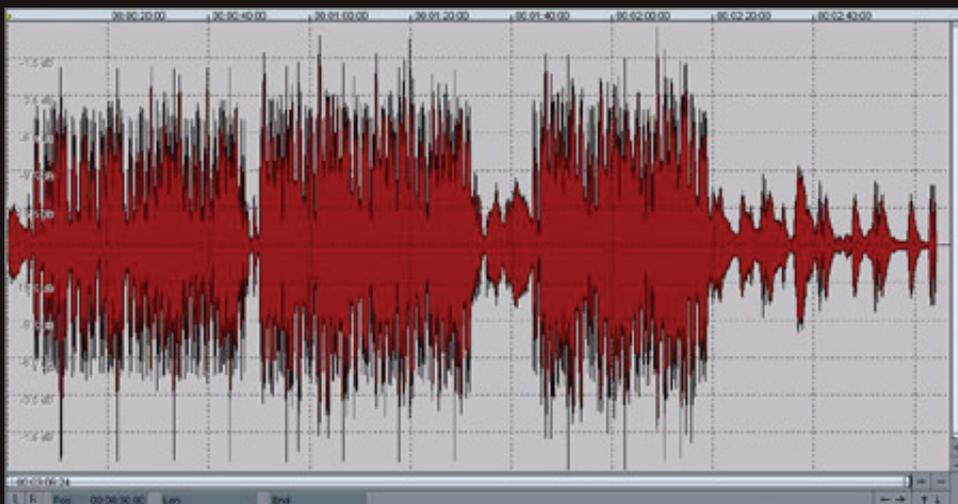
YOUR TRACK SHOULD *NOT* LOOK LIKE THIS ...



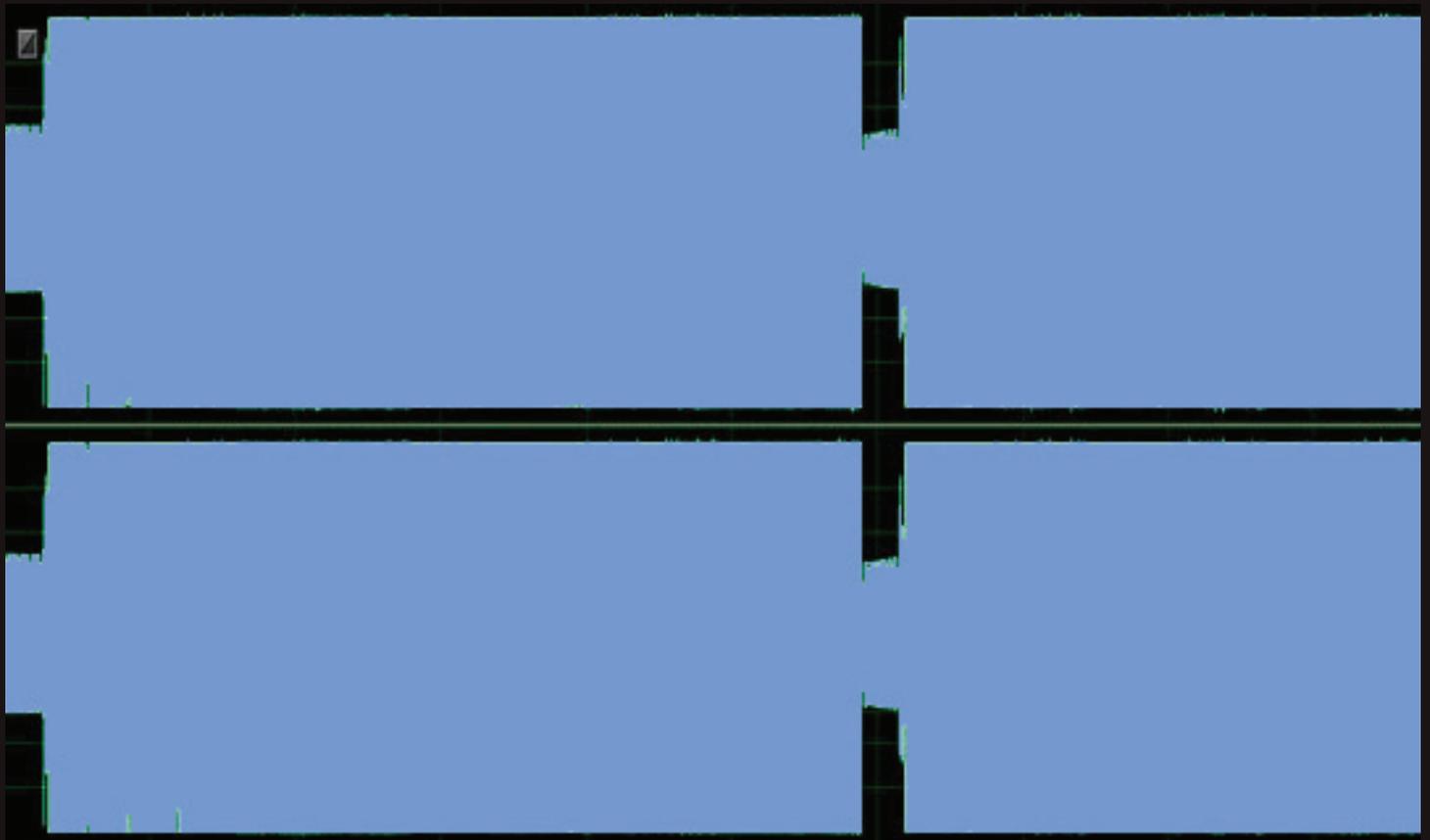
... when you send it to us for mastering purposes. You can clearly see how most peaks of the recording have been clipped by the fact that 0 dB is the highest possible level on a digital recording. Such a delivered track doesn't leave enough dynamic headroom for us to carefully push the sound to sonic class, style and loudness. Actually this image resembles that of an already mastered (and therefore limited) audio-track.

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NOW, THIS IS HOW YOUR TRACK SHOULD LOOK LIKE ...



... when you send it to us for mastering purposes. 24 Bit / 44.1 KHz of PURE JOY for a mastering-engineer... And enough dynamic (and digital) headroom to bring punch, definition, warmth, air and resolution to your precious recording.



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## 2. ABOUT “LOUD” RECORDS

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In contrary to popular studio-mythology it is not very difficult to master a loud record. But it is difficult to master a loud record that still sounds healthy and alive. All our masters are carefully tweaked and pushed to a certain loudness-level that will still allow your music to sound punchy, transparent and exciting while being as loud as physically possible. This is not a compromise, it is a carefully managed process where we have to optimise the relation of “loudness” against “sound-integrity” and the limits of physics itself. This can only be performed by an experienced mastering-engineer and not by a plug-in preset alone.

There is a lot of confusion on this topic and psychological manipulations of some rare greedy studio managers, disinformed A&Rs or exaggerated protective behaviour about the “production secrets” of your favourite studio don’t do much to help the case. Let’s make some clear statements here: Wherever you go to bring your masters... You will ALWAYS find someone mad enough to do even “louder” masterings to “prove” you that he / she is

“cooler” and more “street” with modern sound than that other Studio X. There is always someone silly enough to smash down those sexy peaks and the punch and transient-impact in your music in order to give you the apparent illusion of a louder record or to imitate a certain aggressive club-sound.

Mastering too loud has not much to do with creating an aggressive club-sound, it’s just desperate sound-engineering. Most people realize this only when they perform a blind test of two differently mastered tracks (played back at the same volume). If you play a mastered track and your RMS-meter shows you an average level of around -7dB RMS, over the whole length of the track, you have not been served, you have simply been robbed of precious time and money...

In reality (like on the PA in the club) those “overloud” masters will always sound wimpy, squeezed and will have extremely reduced sonic impact if you compare them with properly high-class mastered material. Why is this? Due to a psycho-acoustic

dilemma (playing something loud to a human, triggers his attention proportionally!) a direct (“blind-test” highly recommended!) comparison on the same “perceived volume” of a “too loud” vs. a “loud” record, will reveal missing bass impact and usually a lot of uncool distortion and clipping on the “too loud” record. Listen to this insanely loud record that you think is an industry-standard: Does it really have lows and punch below 50Hz?

Please don’t hesitate to contact us regarding any type of technical or philosophical question. We will definitely share our secrets with you and not mumble in arrogance. Simply because we love what we do.

If you want to dwell deeper into the topic of LOUDNESS WARS, please follow the BLOG and literature by the fantastic people at DYNAMIC RANGE (pleasurize our music). Lots of info in many languages, sounds and videos to comprehend the dilemma. I do not agree with all the topics they issue, but mostly they do get the important things right.





**FAT OF EXCELLENCE**  
PRODUCTION SERVICES

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# WHAT WE DO...

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## FAT OF EXCELLENCE MASTERING BY: BOB HUMID

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Our mastering-services include high-end equalisation, dynamic shaping, limiting, stereo-widening, restoration, elimination of “out of phase”-problems and all necessary [pre]adjustments for Vinyl-cutting and CD-premastering for any kind of music.

We are highly specialised in all modern musical styles and deliver industry-transparency and always keep an extra ear on the club-impact of your musical children. If you provide us with STEMS

(see below) we can also deliver you “american fat” or “british-EQ”-ed masters.

About “STEM-mastering”: In some cases or if desired, we also offer STEM-mastering for a slightly higher rate. this term describes a technique to make mastering mix-downs with 4-6 stereo-tracks (i.e. DRUMS, BASS, VOCALS, PERC, SYNTH etc.).

With this method we can give narrow, “digital” sounding tracks a very wide and

open “analogue” sound and also eliminate problematic frequencies in their specific instrument-range, without affecting the other program material. This technique is especially useful with very sharp vocal-recordings in a mix but will also sonically enforce those productions which haven’t been mixed-down by experienced producers. If you have ever wondered how some of your musical heroes achieve that magical “Mix-Glue”, the bus [=STEM] is where it happens...



**FAT OF EXCELLENCE**  
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