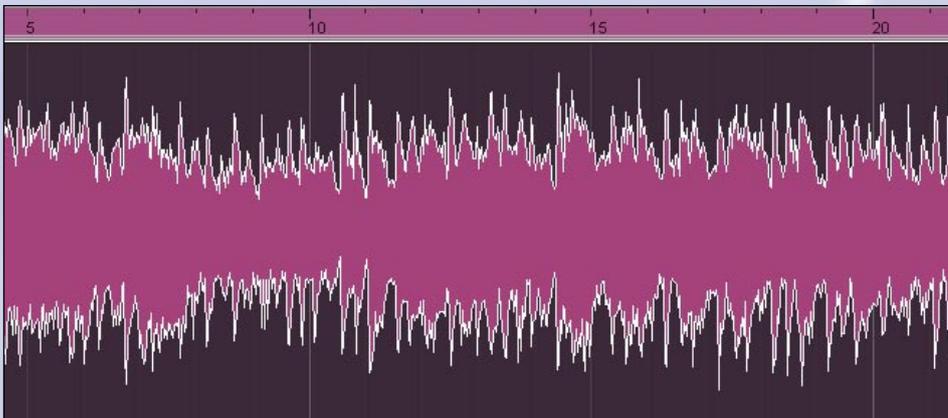


# March for Quality

Fritz Fey

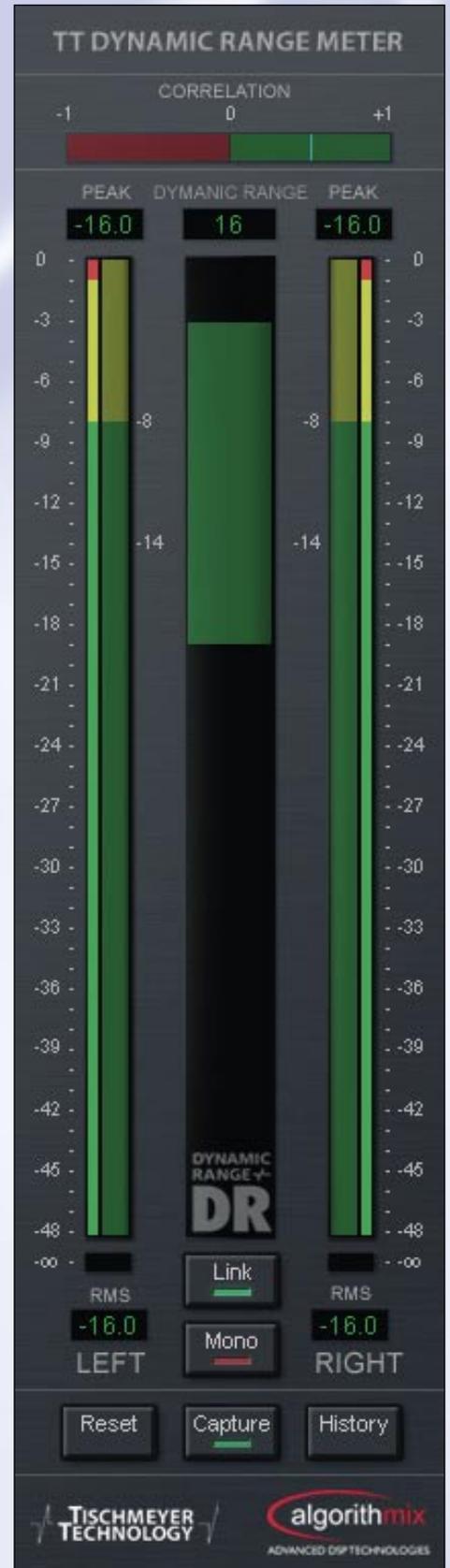
Graphics: Friedemann Tischmeyer and Friedemann Kootz

The Pleasurize Music Foundation fights against the insanity of loudness



I will begin with a piece of good news: the Loudness War is over, because it is simply not possible for today's music productions to get any louder. In other words — for anyone who feels any encouragement to go further — it can't get any worse. For sensitive listeners, contemporary pop and rock music can only be tolerated with either a hard hat or a good dose of alcohol. In our magazine studio we have tested various productions over time and come to the conclusion that current popular music hardly has a dynamic range of more than 2 dB; when radio stations broadcast this, measuring instruments simply display a static image. The situation is disastrous. What's worse: the music industry — constantly whimpering over decreasing sales figures — still doesn't seem to understand? Meanwhile, free music downloads and music copying are held up as being the source of the music industry's woes. „Just don't blame us!“ the industry seems to be saying. All of us,

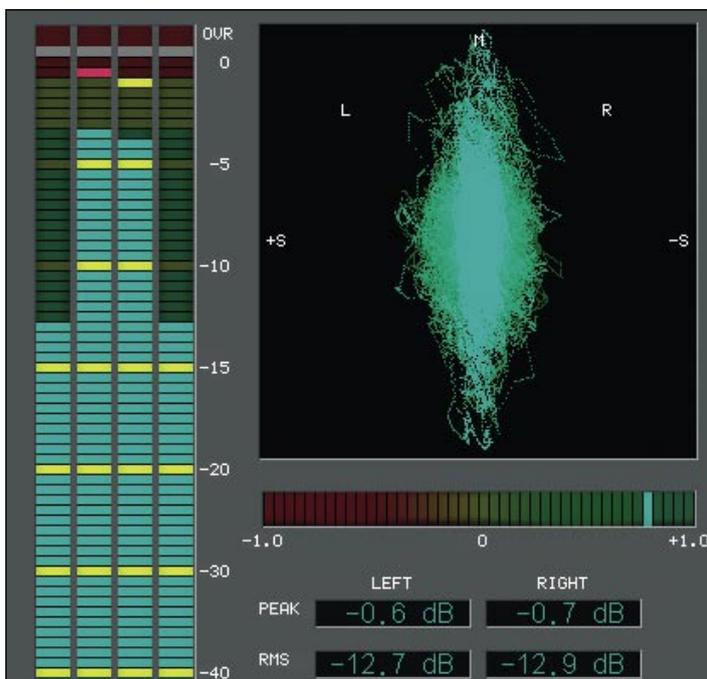
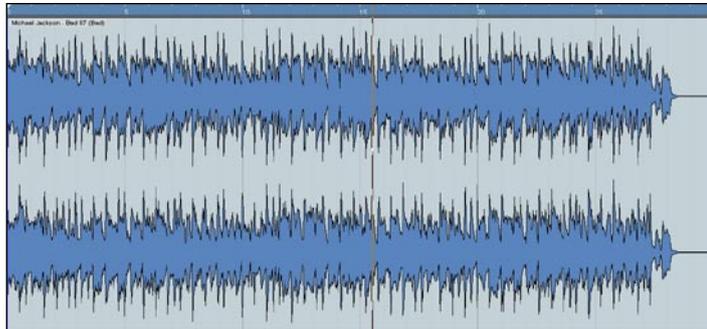
as members of the music production system, have helped create this problem and should be the ones most aware of this molestation through distortion and loudness which has decreased the consumer's desire to pay for music down to the zero point. Who is supposed to buy this garbage? The musician's work is not at issue here; driven by their clients' demands, mixing and mastering engineers push their tracks to the limit, thereby crushing any bit of dynamic that the music might have contained. „Louder is better“ might be one of the biggest fallacies in the history of music production. At the same time, everyone theoretically has the choice of adjusting their volume knobs at home to determine how loud they want their music to be. Many pop productions are already so loud that instead of turning them down, people just turn them off. There we have the simplest explanation as to why people are buying less music.



It is simply not possible for a single person to change things on his own. This makes it important to gather many people together to speak with one clear voice. This is the task that the non-profit Pleasurize Music Foundation has set

time as it has in the past. Therefore, the goal must be to make music better, both in terms of sonic character and in terms of content. This must be the case through all channels: CDs, radio, TV, or compressed formats such as MP3

or AAC – which also is proven to sound better with more dynamic music. Only music that results in a positive listening experience will have a chance of being purchased in order to reach listeners' ears. This is also the stated objective of the Pleasurize Music Foundation (from now on re-



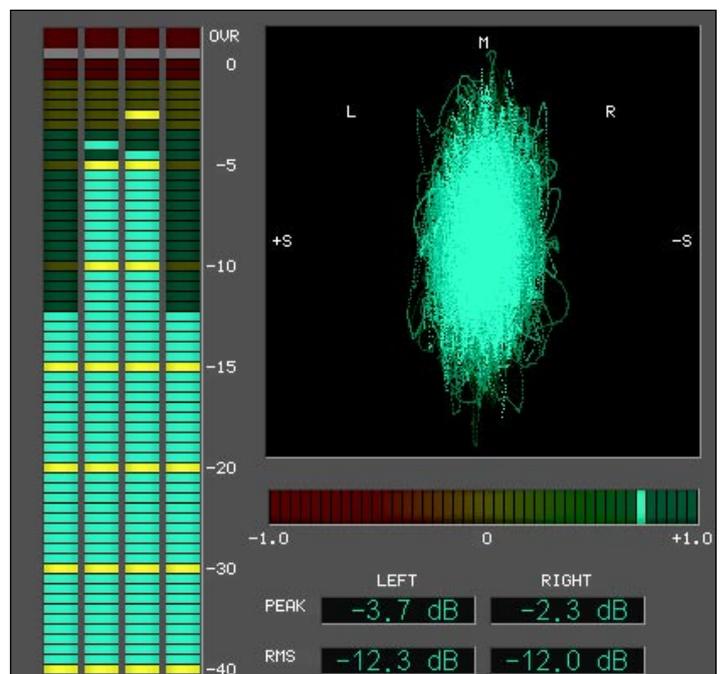
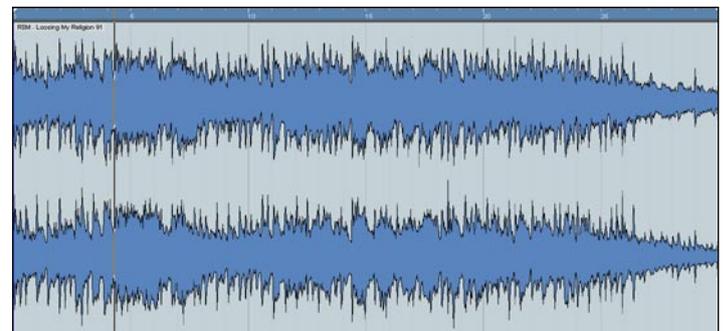
**Loudness and Waveform Michael Jackson - Bad 1987**

out to accomplish in order to help us all become reasonable again. The founder of the organization is Friedemann Tischmeyer. Many readers certainly know him as a mastering engineer, author of a number of books, or from his work giving seminars and workshops. In the last 25 years, music releases have lost an average of 14 (fourteen!) dB of dynamic range, thereby losing nearly everything that makes music worth listening to from a sound engineering point of view. The constant blaring of trailers, ads, and „brute sound“ coming from all directions can aptly be described as torture to the ears and drives music lovers into other leisure activities in droves. It has long been possible to have a varied and pleasant life without TV, radio, and music recordings. Music can no longer expect to monopolize free

ferred to as PMF): increase the consumer's willingness to once again pay for music and to therefore lay down the economic foundation for an artistic and creative cooperation between musicians and producers. Today, artists like the Red Hot Chili Peppers, Madonna, or Metallica have become negative examples concerning the disappearance of dynamic range. With boundless over compression, they force their loyal fans to simply turn the music off. Surround, a promising new for-

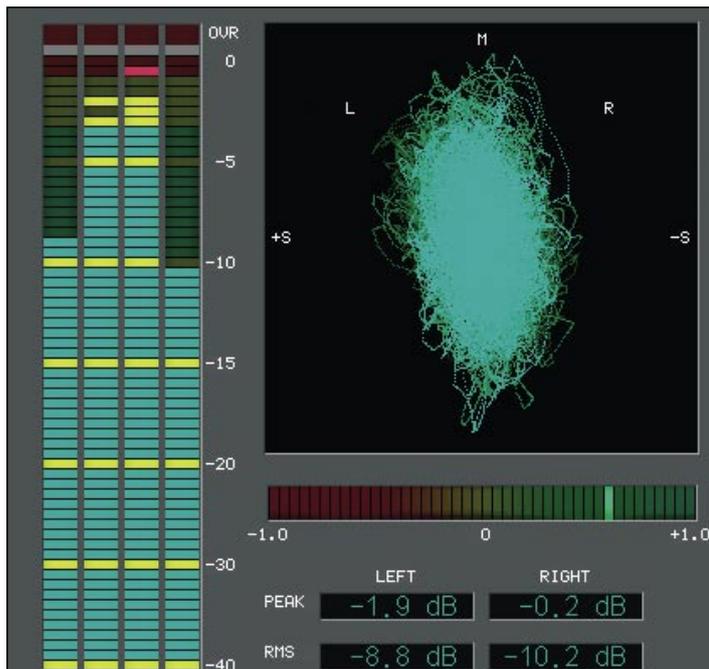
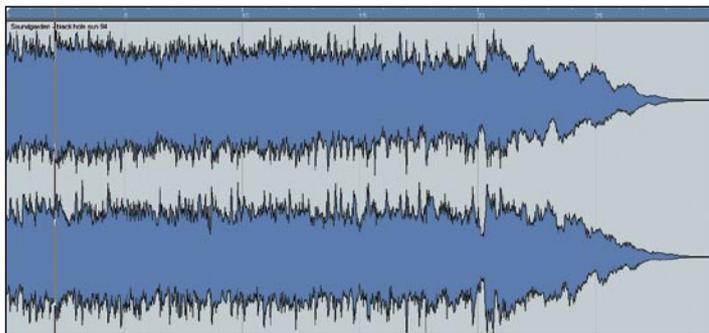
mat, has been sadly fed 5-channel simulation by music industry, which has not understood the sound aesthetic potential of the format. The stereo mix originals sound better than the cheaply produced multi-channel copies. The choice that audio enthusiasts are given today is simply a sign of abysmal brashness on the part of the industry. It is not surprising that today's debt-ridden music industry, suffering from un-

fulfilled sales projections and not concerned with music culture, art, or creativity, only has dollar signs in its eyes. Those of us on the production side of things talk about subtle differences in sound and the aesthetic features of high-end equipment, only to slam the whole mix through a loudness maximizer. How grotesque! Most sound and mastering engineers excuse their ways of working by blaming the client, who wants everything to be produced



**Loudness and Waveform REM - Losing My Religion 1991**

louder than loud. Of course, this attitude is understandable; engineers don't want to lose their customers to competition, thereby threatening their very economic existence. Simply



**Loudness and Waveform Soundgarden - Black Hole Sun 1994**

appealing to good taste won't have much effect when clients arrive in the studio, convinced of their misconceptions concerning competing with other releases.

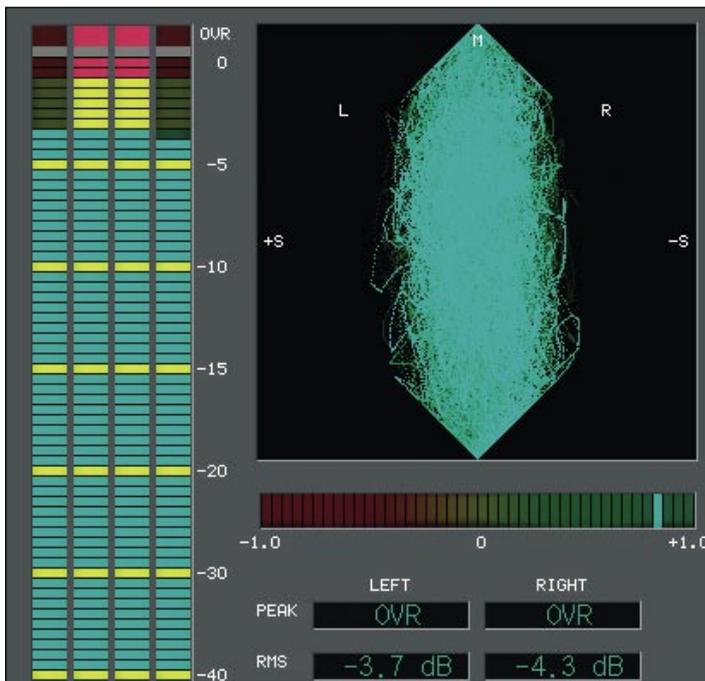
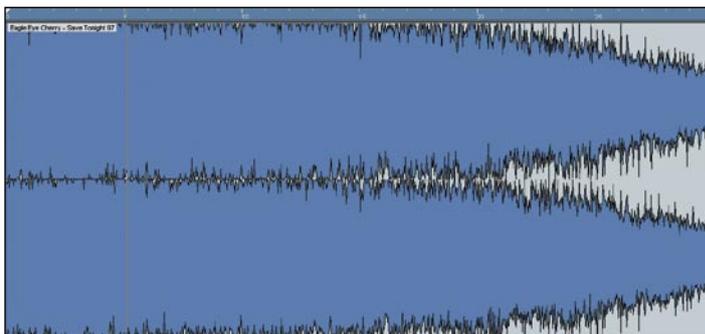
### The Solution

The Pleasurize Music Foundation needs broad-based support to carry out its objectives. The organization also takes on an educational role, providing technical explanations where needed. In addition, it helps to justify the introduction of high-definition formats with large dynamic range potential, since this added range brings real artistic benefits. The heart of the concept is a free Dynamic Range Meter VST plugin and open source technology, which gives any creator or producer of music the possibility of putting more (measurable) dynamic range into their production. Other plugin formats such as AU and RTAS planned to be developed as soon as budgetary means become available. The Dynamic Range Meter shows the dynamics of a program as a whole number value as a way of turning around the race for the loudest

and RMS levels. Most of our readers understand that disproportionate loudness results in a strong increase in distortion, while a dynamic range of 12 or more dB is normally perceived as natural and pleasant sounding. Productions with such a wide dynamic range can seldom be found anymore, since they are drowned out in the loud mush of today's productions. Turning around the „loudness competition“ into a „dynamics competition“ can only be done with the help of the recording industry and all those who are involved with music production. This is why PMF has developed a DR (Dynamic Range) logo which can be used free of charge along with a number — for example „14“ as

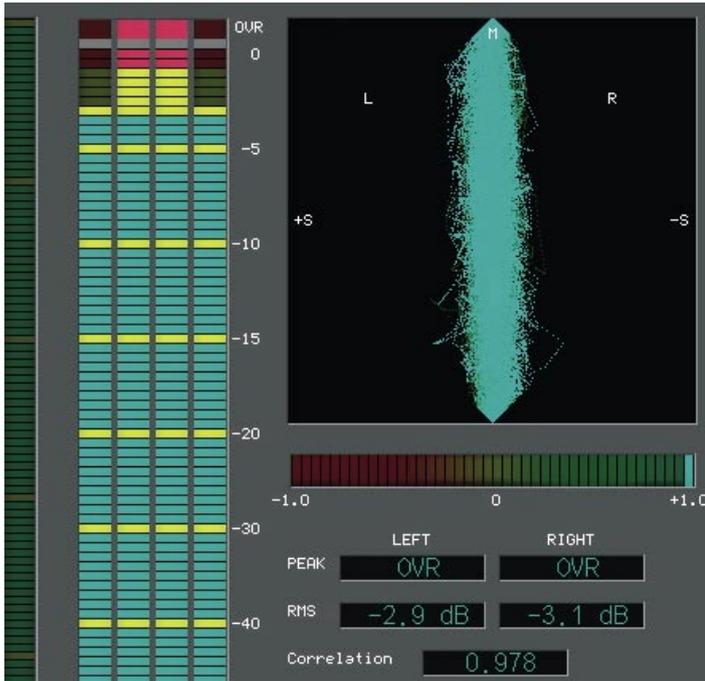
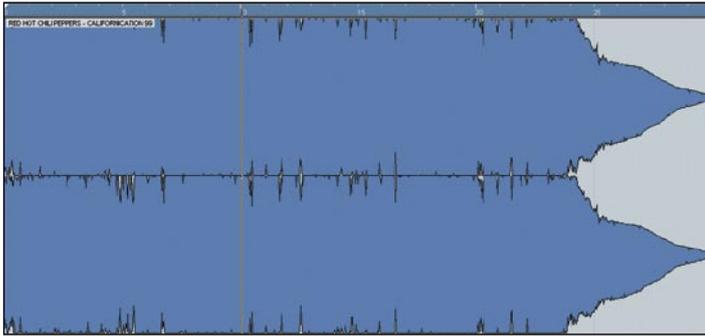
production. The higher the number, the better the „quality“ of the production. The majority of today's pop productions would have a value of less than 4 dB. This number stands for the cumulative difference over a specified time (a single song/track or an entire album, for example) between peak

in DR14 – and printed onto a CD cover, giving listeners an indication of the amount of dynamics they can expect to hear in a recording. As part of a voluntary declaration of intention, the record companies are asked to include printed material packaged with the CD to inform consumers of the system. In a later phase, which PMF has slated to begin on the of June 30, 2010, record companies commit themselves to sign a further declaration of intention stating that they all future CDs will have a value of DR14. Recordings that only would have been labeled with DR8 will be given an additional 6 dB of headroom (in other words, the

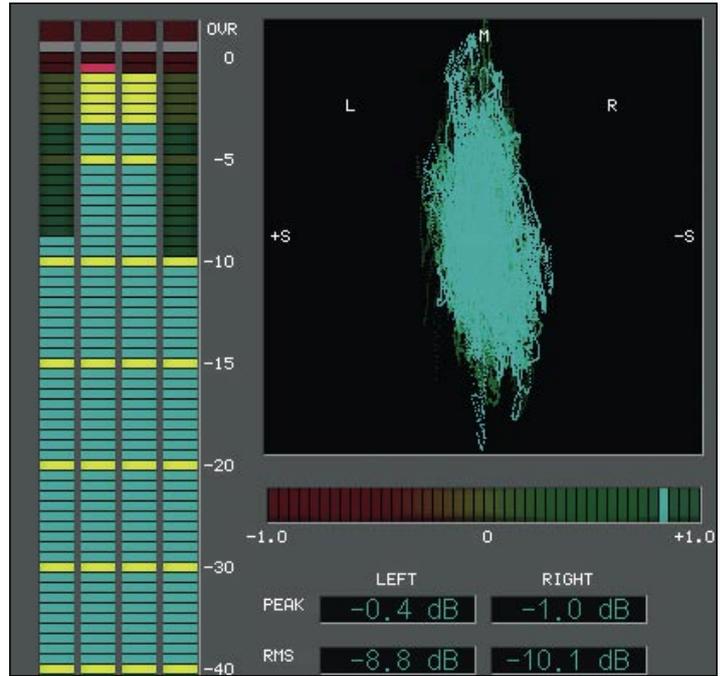
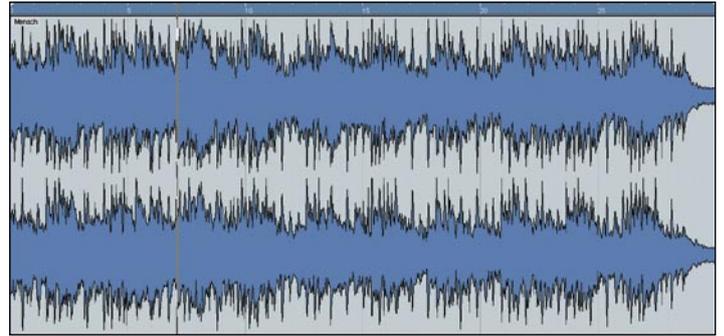


**Loudness and Waveform Eagle Eye Cherry - Save Tonight 1997**

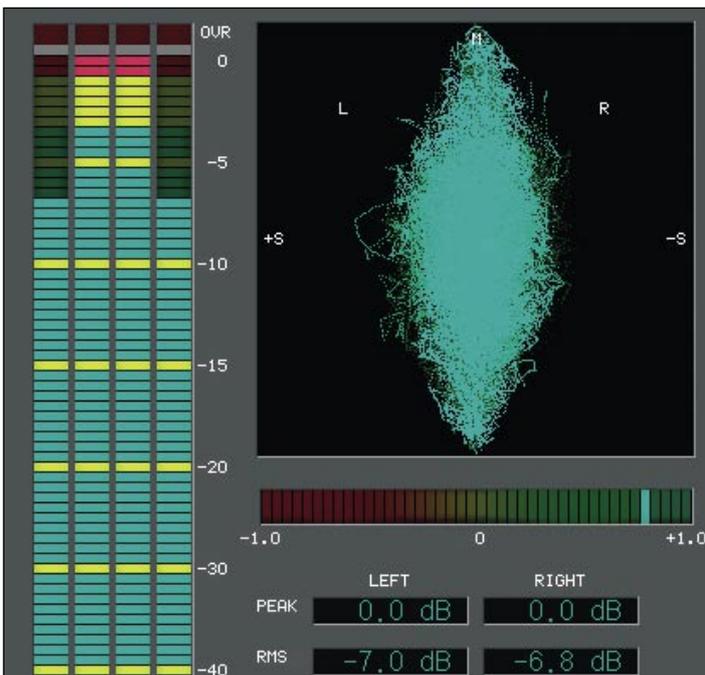
level is lowered), so that all releases will have approximately the same loudness. At first glance, this appears purely theoretical, especially because measured loudness with no detectable increase in dynamic range has long been standard practice, but industry professionals will be aware of the positive effects of increased dynamics on music. The apparent „punch“ of pitiless dynamic flattening of any dynamic



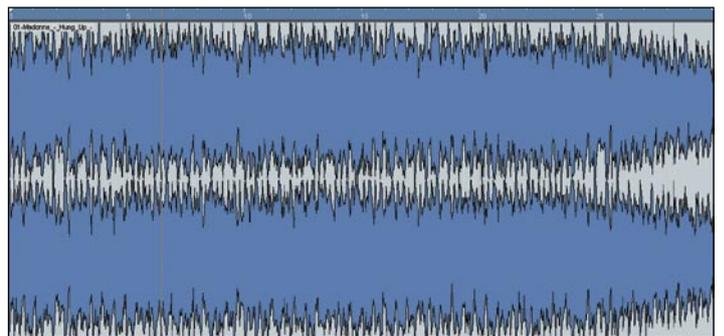
**Loudness and Waveform Red Hot Chilis - Californication 1999**



**Loudness and Waveform Herbert Grönemeyer - Mensch 2002**



**Loudness and Waveform Madonna - Hung Up 2005**



contour is pure deception; brick wall limiting flattens all transients, removing „punch“ by

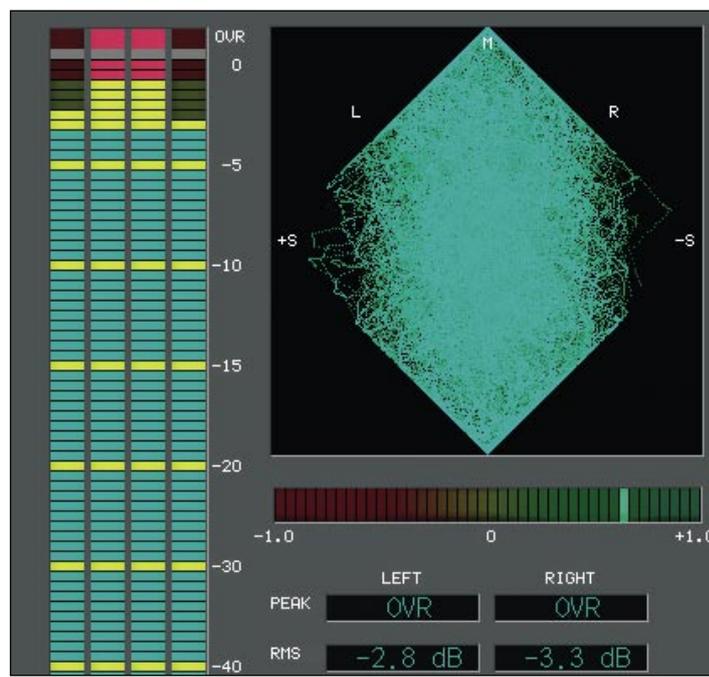
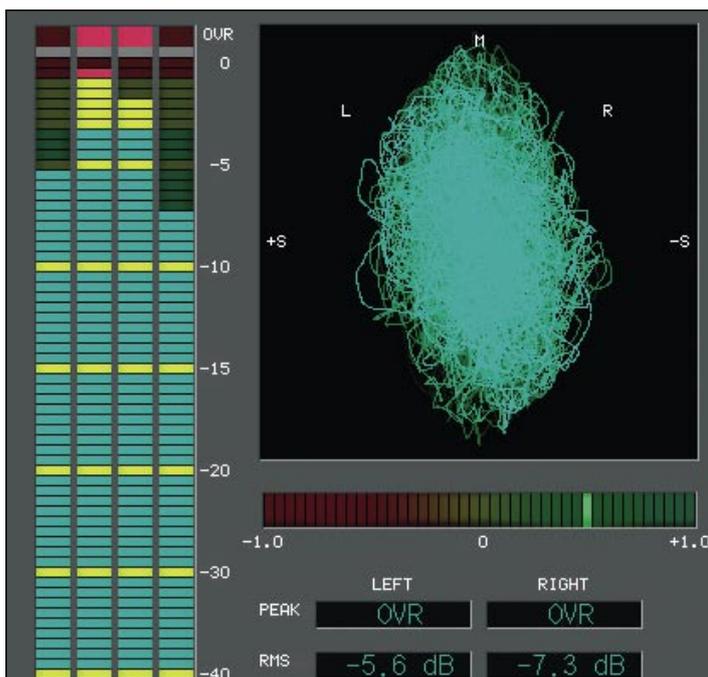
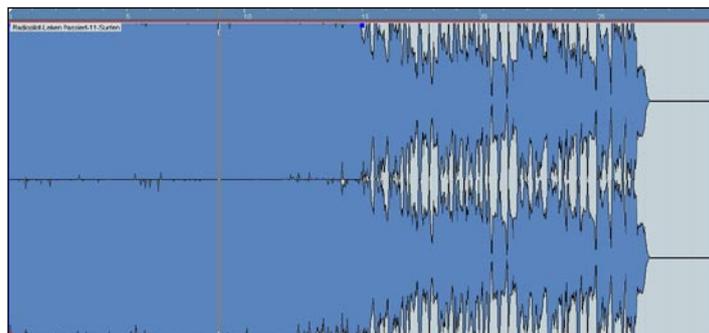
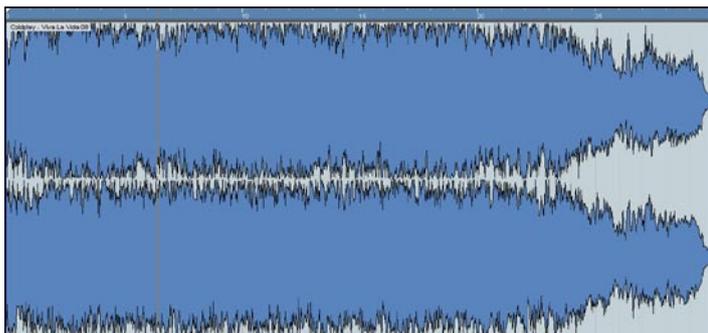
playback, as well as a normed level, giving listeners the possibility of adjusting loudness ac-

definition. A little listening trip through the past 20 years of pop music history unquestionably proves how much punchier music can be with a greater dynamic range.

This standardization will also result in better MP3 and radio

recording to their tastes. The volume knob will no longer function as a defense mechanism against unexpected loudness attacks. Perhaps the advertising industry should be also made aware that during commercial breaks, an entire nation goes either to the bathroom or the kitchen. With 20-minute commercial breaks, some viewers even go out for a walk. There might even be TV broadcasters who dare to show portions of the prime time film within the commercial breaks.

Joking aside, my magazine colleague Friedemann Kootz took the time to examine a number



**Loudness and Waveform Cold Play - Viva La Vida 2008**

**Loudness and Waveform Radiopilot - Surfen 2008**

of songs from 1987 to the present in terms of loudness. The result: with only two famous exceptions (Herbert Grönemeyer's album "Mensch" and Madonna's "Hung Up"), dynamic range has steadily decreased. The illustrations all show the waveforms as well as the peak and RMS level displays for each song.

If the PMF plan succeeds, then any song with a dynamic range of less than 14 dB will sound inferior to more dynamic songs when both are played at the same level; music lovers will avoid such music. Radio broadcasts and compressed data formats will also bring the differences out. To accomplish this, both industry and consumers must recognize that over compression kills music. The task consists of making consumers aware of this and the DR14 logo will go a long way towards raising this awareness. If music with only 2 dB made people

break out with rashes, this would be easy to accomplish. But even so, we'll get there!

## Interview

I recently had a telephone interview with Friedemann Tischmeyer.

**Fritz Fey:** *What gave you the idea to take action against the loudness war?*



**Friedemann Tischmeyer**

**Friedemann Tischmeyer:** A number of things came together, starting with the fact that when I buy CDs nowadays, I only listen to them once and then never again. Other than keeping abreast of what's going on musically and in terms of sound engineering, they just aren't good anymore. Because of over compression, listening to new releases isn't fun any more. The other aspect is my daily work as a

mastering engineer, finding myself right in the middle of this battlefield of the Loudness War and in constant contact with customers and record companies. I have even come up with a process to deal with customer demands which entails me doing a master according to my tastes, but which allows me to make a "fat sausage" out of it if the customer so desires. Unfortunately, about 99.9 percent of all customers go for the fat sausage, even though they know that it sounds worse. The question arises: what value does all of the effort in shaping sound and transparency have, when in the end, the mastering engineer lowers himself to the level of the home computer owner and just shoves the whole mix through a loudness maximizer? The final processing of the tracks with maximizers and loudness generators destroys most of the previous detail work of crafting the sound. This is how mastering turns into a farce. Many colleagues even encourage me to voice my opinions on this even more strongly in my books. In this context, a so-

lution came to mind and I committed myself to making a case for it.

**Fritz Fey:** *Measuring loudness is nothing that special in itself – that's why the main point must be to convince people and to establish the DR logo and number...*

**Friedemann Tischmeyer:** The higher the number, the better the quality. The idea is to create a psychological turn-around in loudness competition. Sound engineers should be motivated by the idea of using more dynamic range in their productions so that a new, healthier competition develops. There was never the intention to find the truth within the decades-long discussion on loudness. That's why we decided to use RMS as the basis for measurement, which is an established standard, but without complicated weightings. First of all, we didn't want a software measurement tool that would be lean in terms of computer resources. Plus, we did not want to start a new and probably endless discussion about the one single "perfect" measurement method. Finally, my feeling was that the loudness evolution had reached a point which called for immediate action. This is why I really think it is important to have a tight timetable. The number of unbearable releases continues to soar and I wanted to make a proposal which would allow the least possible amount of discussion. At the end of the DR14 educational process, all productions won't have exactly the same psycho-acoustical loudness, but instead a little bit of natural difference as a result of measurement limitations. But that is perfectly acceptable.

**Fritz Fey:** *So, you mean that sound engineers are called on to create punchy sound on another level and to express their creative potential more effectively?*

**Friedemann Tischmeyer:** Yes. What is fatal in this loudness race is that in reality, there is a point where "punch" turns into a sort of "punchlessness." For older people like us, you can compare that to a bass drum that on track 1 of a 24 track analog mixer that was recorded too hot; once you've gone beyond a certain point, the only thing you get is hot air. That's why today, a lot of drummers sound like a limp cardboard box in the background. When you have 10 dB more dynamic range available and the volume knob is tur-

ned up by 10 dB, things are quite different. People need to understand this. I am amazed how many people in music lover circles are already aware of this problem. But there are also a lot of people who are unsatisfied when listening to music but don't know why they feel that way. A very fundamental part of what we are doing is really about having an informational and educational purpose – only when everyone understands within the next two years what dynamic range means in terms of listening experience can we say that we have reached our goal.

**Fritz Fey:** *When I look at your work in the 2nd phase – in other words, the idea of the recording industry only releasing albums with DR14 or more – then I think of the term "regulations." How do you see this implementation in the context of a very diversified music industry with many small labels?*

**Friedemann Tischmeyer:** It is true that we will only accomplish this when in the next six to nine months we have significant sponsors on board and we have put together an active team which can convince record companies and do the necessary PR work in various parts of the world and in different languages. First, we want to get attention from artists, engineers, and producers so that the public becomes aware of the issue. This is why it is very important that both professionals and music listeners sign the petition on our website ([www.dynamicrange.de](http://www.dynamicrange.de)). People must realize that loudness is no longer a sales argument. Up to now, the music industry has simply been convinced that loudness gets more listeners and sells more CDs.

**Fritz Fey:** *Isn't it possible that the "anarchy" of the music industry – strongly driven by the Internet – would give some people the idea that they could just pump up the loudness to distinguish themselves from the DR14 norm? After all, it isn't a law that must be obeyed.*

**Friedemann Tischmeyer:** That could happen. But it is a question of critical mass and the psychological turn-around effect. When it can be made clear that more dynamic range is good for a production, as opposed to the general assumption today that louder is the same as fatter and punchier, then those ignoring the move towards more dynamics will simply lead themselves into absurdity. When it can be made clear that songs played over the ra-

dio or converted to data-compressed formats simply sound better, then general consensus should not be far off. The only problem are the download portals where music can be pre-listened before purchase. Up to now, there is no standardization of loudness, leading to the situation that louder music simply has a better chance of being bought.

I would like to counter this scenario with the idea of "Dolby Volume," which is a process for ensuring the same psychoacoustic listening level regardless of the incoming signal. If this technology were used for iTunes and all other similar platforms, then problem is solved, because dynamic productions sound better. People who still want to produce fat sausages can keep on doing that. It would be conceivable to have a free public platform like CDDb, where all relevant releases are listed – also the ones without the DR logo and corresponding DR number. The "warning" about over compressed recordings must be perceived by the consumers, because within two years they will know what dynamics means in terms of a music production. As you can see with the Internet, if you search for "loudness war," you will see that for years, countless petitions from fans have been handed to record companies, asking them to stop releasing music which is ruined in the production phase. In my opinion, there are very highly respected and internationally known mastering engineers who do shabby work. A production with absolutely no peak headroom and which contains long chains of distorted samples and many inter-sample overs is, to me, a sign of amateurish work.

Unfortunately, there are still many recognized mastering engineers who find this "cool" only because of the fact that in their long career they have by chance received successful productions to master. I think that part of our informational and educational role would be to persuade mastering studios to adhere to a standard minimum headroom. It just doesn't make sense that brutally over compressed productions are only considered good because they are sold 12 million times. When they are badly mastered, then that has nothing to do with the sales figures.

**Fritz Fey:** *The idea being that "10 billion flies can't be all wrong."*

**Friedemann Tischmeyer:** Absolutely! ■