

Auto Audio Mastering System V3

www.curioza.com



As a musician or technician working on music sound material, you need the best sound possible when releasing material to the public. How do you know when audio material is equalized, compressed and maximized correctly and plays loud and evenly on all audio systems when it has been mastered?

To master a mix in general takes a lot of time and the procedure is mostly done after the mix is polished enough to go through the mastering process. To make a master that sounds alike on all speaker systems and also sounds like a real professional commercial recording is a difficult and time consuming task.

This is where AAMS steps in and takes control!

The Goal of AAMS Auto Audio Mastering System

AAMS is a Limited Freeware software package that provides suggestions for Equalizer, Multi-Band Compression and Loudness settings with internal DSP Processing to make all such audio corrections within the AAMS Program and creates a final mastered audio file. This makes the Audio Mastering Process easy and by far less time consuming and turns your mix into a great sounding commercial quality Audio Master.

Now you can listen to what you expect!



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AAMS Limited Freeware



AAMS Auto Audio Mastering System V3 - Limited Freeware Version, upgradable to Full Version. **(www.curioza.com)**

This software package is available free of charge, as for the AAMS Limited Freeware Version, but with a high encouragement that the user Registers for AAMS Full Version when used over a longer period, to the author and main supplier of the AAMS product. Registration for a Full Version License can only be done by the author and main supplier of AAMS. Go to www.curioza.com / Registration Page for more details.

This software package AAMS V3 is free of use for the Limited Freeware Version.
You can continue to use AAMS V3 Limited Freeware Version, without registering for the AAMS V3 Full Version. But more professional options are not available in the AAMS V3 Limited Freeware Version. The AAMS V3 Limited Freeware Version is mainly intended for the 'easy' and 'fast' user. Where mastering of a single track is done with a few button clicks and is done by AAMS V3 automatic functions. The end result will be a fully mastered track and all free of charge, AAMS V3 will stay Limited Freeware! You can master as many tracks as you like.

Register for the AAMS V3 Full Version.

This software package is available free of charge, but with an encouragement that the user makes a registration to the Full Professional Version. You can show your appreciation and support future development by registering AAMS, and make full use of the AAMS Software Full License Package. Without any blocking of options. A registered and licensed user can make use of all AAMS V3 professional functions! The price for registering a single computer and full license for AAMS V3 will be around 65 dollars or 65 Euros. For each single computer after registration is 25 Dollars or 25 Euros.

Go to www.curioza.com / Registration Page for more details.

Thank You!

Denis van der Velde
Sined Supplies Inc.



Registration by Website

Go to www.curioza.com / Registration page. Read the information to obtain a Full License Registration.

Registration by email

Send an email to email@curioza.com or sales@curioza.com.

We will send you an email back to you, with the information how to obtain a license for AAMS.

Shareware Info

Shareware is a form of software distribution. Distributed as Shareware stipulates that the user must register to make use of the software full software package. Cause in order to "register" the software. The user does need to contact the author with any information in order to "register" the program. It is implicit with shareware that registering does "unlock" extra features. This means, you can freely download and distribute AAMS Software on a personal base and use free of cost. But when you need AAMS professional features to work, you need to register the AAMS software. We spend hundreds of hours every year to make unique products and many extra hours, to test them so you get the best possible solution possible. To continue further development and bring you the best possible tools, we need your support and registrations.

Privacy

We fully appreciate the generosity of those who donate or register and it is very important to us to maintain the community's trust. If you use PayPal, credit cards, google wallet or other payment methods, they will require certain personal information from you in order to create and establish an account. Some of this information, such as your name, e-mail address, and donation / registration amount will be transmitted to our PayPal or credit card account upon receipt. Other details will only be held by PayPal or credit cards and not sent to us. Rest assured that the details of any donation or registration received, will be kept private and never sold or otherwise divulged to any third party.

AAMS Introduction



The user interface is quite simple, once you understand the main functions of AAMS. Your own music audio files are called 'Source'. As Source Material, these files you will deliver and import to AAMS as your own made music / audio / stereo mixes, these files are placed into a directory. Your mix down is processed to a stereo WAV file. This is the file you import into AAMS as Source Material.

Reference Material is mostly the AAMS Database with Styles. You can choose a preset reference file out of the Reference Database. AAMS will redirect you to the directory where all reference files are placed. Choose a reference that reflects your music (source) the most. See the Reference Database for all reference files installed with AAMS. The other possibility is that you can create your own Reference File(s) out of Analyzed Audio. In this way you can import your own music or reference music track into AAMS, analyze them and use them as Reference File.

The AAMS program is mainly focused on audio mastering. Especially Automatic Mastering. With easy to learn automatic features the end result is a good sounding master fit for commercial release. If you are a user that wants great sounding masters with a minimum of effort, AAMS can automatically create a master out of your stereo mixes in minutes of time!

AAMS is an all-in-one solution for mastering and a good learning tool for mixing and mastering audio in general. AAMS is mainly a mastering tool, but the outcome (a mastered mix or track) can help you to listen and evaluate your mix better. This helps most users to understand their mix problems better. You might go back to your mix and do single tracks adjustments and the re-evaluate again with AAMS. The main focus of AAMS is automatic and easy. The user can setup AAMS for Full Automatic Mastering for Single Files, as well as Albums or Collections. Also AAMS can be setup for Semi-Automatic Mastering and Manual Mastering.

The build in Analyzer automatically analyzes audio data, calculates the differences between your music and selected musical styles (references) and shows you where the differences are. The Source and Reference spectrum function is the key element of AAMS. You can load Source and Reference data at any time and AAMS will recalculate its suggestions instantly. Also for the visual aspect Charts and Graphs are created to make the user understand more and learn, even adjusting the Reference or the DSP-EQ Suggestion is possible. A mastering document is created to read how results were processed and are processed correctly or not.

Based on the Analyzer results AAMS presents suggested Mastering, Equalizer, Compressor and Loudness settings. AAMS uses these suggested calculations from further processing towards the end result, a fully automatic mastering chain. These can be reviewed and edited by the user in many ways. All you need to master your mix to a perfect result. The settings can be previewed and processed by the AAMS internal Players alike Analyzer and DSP-EQ, so you can hear the proposed changes. Also the suggestions are displayed on the Suggestion Tab in Charts and Text, so that you can also use any hardware outboard equipment and software plugins that you already own. In a few simple steps you can see what differences there are between the source audio material and a Reference Style chosen from a database of over 200+ reference styles provided. Even it is possible to create your own References. Just load a Source and Reference and see what happens! Maybe this will confuse you a bit, just remember AAMS is there to take the mastering process out of your hands, making mastering audio easy and gives you back the time and inspiration to mix!

Check your music mixes, masters and even single tracks or collections / albums against different musical styles. The references in the database of AAMS are specially crafted to match a source file with a reference

database file and master your material accordingly and automatically. You can also generate a new reference style from scratch with AAMS. If you want to make your own Reference Styles, this is called batched reference analyzing. It is possible to mix and match different reference styles together, like Pop with Rock or RNB with Rap etc. Or create your own specialized sound by combining your own analyzed masters and the reference styles found in the AAMS Database. Single audio tracks (vocals, guitar, bass etc.) can be analyzed so that your mix can be enhanced before it reaches the mastering stage. You can process a batch of source files together and get an overall sound for a compilation / collection or album (making your whole album sound equal of quality) and turn them into one single reference style of your own... There are many different ways to do this.

AAMS offers endless possibilities for analyzing, mixing and mastering audio, all functions are included and made simple with ease in mind. For the amateur the Automatic features are easy as clicking a few buttons. For the more professional users AAMS can be a helpful learning and viewing tool. Previously mastered material can be re-analyzed, viewed, processed and re-processed. The built-in DSP audio processing includes a 100-band DSP-EQ, 8-band DSP-Compressor and DSP-Loudness that can process audio in fully automatic, semi-automatic or manual modes. And AAMS will take care of all in between audio problems as clipping, dithering or normalizing. Simply spending the time to listen and understand AAMS suggestions can help you to improve your mixing and mastering. So AAMS can be an easy and fast tool to do mastering jobs on the fly, or you can take more time and learn where problems are inside your mix and learn from AAMS to improve yourself and your audio quality will get to the next level.

Now it's time for you to start Mastering with AAMS!



AAMS Explained

AAMS Program Install and Locations

The latest version of AAMS V3 is available for download on our website www.curioza.com. To check for the latest version of AAMS V3, download from our website and check the release / revisions for additional changes. AAMS is Limited Freeware. The common mastering features are in the Limited Freeware free of use. You can make an audio master for free, each time. For more options and professional features the AAMS V3 Full Version is available by registering for a license code. You will receive a key code for AAMS V3 and then you can make Full use of AAMS V3 software unlimited Professional Functions!

AAMS Program Installation Directory

AAMS installer will create a directory where Windows Program Files are placed normally, there is no need to change this directory. The AAMS software is installed in 'C:\program files\AAMS' or 'C:\program files (x86)\AAMS' by the installer. When AAMS Installation is placed on other drives or other locations, the AAMS software and files might not work correctly. Also simply copying the install directory to another place does not work. Use AAMS Installer to create a new installation of AAMS software.

Audio Files Input / Import and Conversions



Most common Source Audio Files to import are:



AAMS will convert any import file to AAMS Internal Format:

For now AAMS is mainly WAV-Format based, but you can use any of the formats above as Input/Import format, AAMS will convert these files to WAV-Format 16 Bits Integer internally for playing audio and WAV-Format 32 Bits Float or 64 Bits Memory Float for processing and calculations of all internal functions.

AAMS Import Wav Format Properties:

Possible Bit Rates : 8 Bit PCM, 16 Bit PCM, 24 Bit PCM, 32 Bit, 32 Bit Float, 64 Bit and 64 Bit Float.

Possible Sample Rates : 8.000 Hz, 11.025 Hz, 16.000 Hz, 22.050 Hz, 32.000 Hz, 44.100 Hz, 48.000 Hz, 96.000 Hz, 192.000 Hz, 352.800 Hz

Possible Channels: 1 Channel Mono, 2 Channels Stereo

AAMS Internal Format 32 Bit Float 44.100Hz Sample rate Stereo 2 Channel

Tested Playtime and Record time: > 59 Minutes.

Audio Files

The best location to place your audio files is in the 'AAMS\AAMS Files\Sources' directory.

Files placed in other locations are recommended to be copied to the Sources Directory of AAMS Software. 'C:\program files\AAMS\AAMS Files\Sources' or 'C:\program files (x86)\AAMS\AAMS Files\Sources'.

When audio files are placed on other drives or other locations, the AAMS software might not work correctly.

Source Files

The best location to place your source files is in the 'AAMS\AAMS Files\Sources' directory.

Source files (*.aam) placed in other locations are recommended to be copied to the Sources Directory of AAMS Software. 'C:\program files\AAMS\AAMS Files\Sources' or 'C:\program files (x86)\AAMS\AAMS Files\Sources'. When source audio files are placed on other drives or other locations, the AAMS Software might not work correctly.

Reference Files

The best location for reference files (AAMS Installed Reference Database) is in the 'AAMS\AAMS Files\References' directory, the AAMS database is pre-installed.

'@*.aam' Files placed in other locations are recommended to be copied to the Reference Directory of AAMS Software. 'C:\program files\AAMS\AAMS Files\References' or 'C:\program files (x86)\AAMS\AAMS Files\References'. When source audio files are placed on other drives or other locations, the AAMS Software might not work correctly.

AAMS Installation Files

The AAMS Software is best installed with AAMS Installer Software (setup), these files can be downloaded and transferred freely as long as you are not making money out of AAMS Software or AAMS Installer. The AAMS Software Directory can be backed up (but not transferred) but is not recommended. Also transferring the AAMS Registration Licensed software is not recommended and forbidden. Use the AAMS Installer to create AAMS software on another computer, and transfer your files (sources, reference and Audio Files) to the destination.

AAMS Registration Copyrights under international Law

Take a note that AAMS Software is Limited Freeware (shareware) and mention to other users (while you freely pass AAMS Software or AAMS Installation files to other users), that although AAMS Software is considered as Limited Freeware and can be used freely. A registration is needed for AAMS Full Version for each single user and is highly recommended when a user is using AAMS for a longer time and is satisfied with the end mastering results and needs to go further with AAMS professional Full Versions functions.

We do know manual audio mastering can be expensive and time consuming, so the fact that AAMS takes this time consuming process and makes it way less time consuming and AAMS can make a good quality master, is worth a consideration for a kind donation or license registration. Remember a donation does not mean you are registering for AAMS Full Version, for this you need to Register and have a License for the Full Version of AAMS.

Passing User Registration, License Codes, Usernames to other users is not recommended and highly Prohibited. Copying Registration, Key Codes or AAMS software directory and files are prohibited. Each single user on a single computer must have a legal copy of AAMS. Therefore for each single computer an Install code is generated by AAMS software and single Registered License Key Code is needed. For each registration for the Full version of AAMS, the user will receive their own legal registration codes. Copying AAMS or User registration is an offence under international Law. We keep track of AAMS registrations and will end registrations when multiple copies of AAMS software with Registrations do appear. We change regularly check and update AAMS software to protect users and ours.

Quick Start Guide

Fully Automatic Mastering (3 Easy Steps)



AAMS Use

The most effective and fast way is using AAMS Full Automatic Mastering, as AAMS is initially intended, in a few easy steps or button clicks. AAMS is defaulted with all options (set on installation) directed to Automatic Mastering, so while you are new to AAMS software, do not change options or functions inside AAMS. Read first how to master fast and easy (next)!

Other ways to use AAMS are Semi-Automatic mastering and Manual Mastering, these can be set in AAMS Options Tab. Later on, in this manual we will discuss AAMS features even more. But right now, let's do what AAMS is intended for initially, Automatic Audio Mastering!

3 Easy steps!



The most common way to use AAMS is with all options (by default set on installation) directed to Full Automatic Mastering.

Step 1: Load a Source File

On the Quick Start Tab click the button 'Auto Master Audio File'. A pop-up window will ask for an Audio File (or *.aam or *.afd file). You can select an Audio file for import now (Wav, Flac, M4a, WMA, MP3, MP2, AAC, APE, OGG, WV.). This Audio file represents your own audio or music material you need to be mastered.

Step 2: Load a Reference File

Then you will be asked to load a Reference *.aam file. The reference files are found in the AAMS Database of more than 200+ Style Presets provided with the AAMS installation (AAMS will redirect you to this directory). The reference file you choose is important, because the reference will reflect the style your music will be mastered against. You can select a reference file out of AAMS Reference Database or create your own references. For starters select a reference file from AAMS Database. If you are a beginner select 'Mastering RMS.aam'.

Step 3 - Wait until AAMS is finished mastering!

That is basically all you have to do, Load a Source Audio File and Load a Reference. Step 3 is only waiting for the end result. The status bar below will show the progression status of AAMS Analysis, calculations and processing. Do not use AAMS until analyzing and processing is finished! After processing is complete, a Stereo file is mastered and written with the extension 'Master_wav' inside the same directory as your own source file is placed. Your audio master from is finished!

Now go to that directory and double click the AAMS mastered file and listen. That is all!



AAMS Mastering Routine

The most common way to use AAMS is with all options (by default set on installation) directed to Full Automatic Mastering (Single Files)

Basically the mentioned 3 steps of Auto Mastering are the main use of AAMS, to make audio mastering easy for all users. For users who like more freedom when mastering, a mix of automatic and manual functions can help you get used to get the desired result. The rest of this manual will explain more professional and edit features of AAMS. How you can use AAMS to master and to have a better mix. How to learn more about mastering and use AAMS as a semi-automatic or manual mastering tool.

You can work automatically or manually with AAMS functions. When used manually AAMS will provide you with suggestions and act as a useful learning tool, but for beginners the completely automatic features might be preferable and the 'Auto Master Audio File' button on the Quick Start Tab is very useful.



Watch these YouTube videos!
They explain AAMS very well:
(Or Google for YouTube and Search for 'AAMS', go to www.curioza.com)

Video 1 - AAMS Basic Example

http://youtu.be/BvDkhX5_0dA

Video 2 - AAMS Advanced Example

<http://youtu.be/sh91NFV-Dz4>

Promotion Video

<http://youtu.be/QufqYGfuohs>

Now you can listen to what you expect!

Find these videos and more about AAMS on:
www.curioza.com

AAMS Audio Formats



How does AAMS use Audio Files?

AAMS can now import and read / write different audio formats. For users who are new, AAMS reads all common audio formats, with 2 channels (stereo), 16 / 24 / 34 and 64 bit and their sample rates. AAMS can read mono files with 1 channel, but these will be converted to 2 channels by import.

The main functions of AAMS is to master you're input audio file, analyze this audio file, read the audio file and write mastered and between versions of the audio file.

(In AAMS V2 the only format was WAV audio files 16 bit / 24 bit or 32 bit at a sample rate of 44.1 KHz and Stereo 2 Channels).

AAMS most important Audio File Formats

Uncompressed audio formats: such as **WAV**, **AIFF**, **AU** (PCM Based).

Formats with lossless compression : such as **FLAC**, **Monkey's Audio**, **WavPack** , **TTA**, ATRAC Advanced Lossless, **Apple Lossless**, **MP4**, **WMA Windows Media Audio Lossless**.

Formats with lossy compression : such as **MP3**, **MP2**, **Ogg**, **Vorbis**, **Musepack**, **AAC**, **ATRAC** and **Windows Media Audio Lossy**.



AAMS Mastering Processing

Using your own music and audio files as Source and a Reference file out of AAMS Database (example).

How does AAMS Auto Audio Mastering System work?

Most likely you will be using an audio sequencer or computer software to create, compose, mix, edit and make your own music. You can import or use any music track as source. As you are using a multitrack software sequencer, you must output your song or audio track to one stereo file (2 channels, 1 left and 1 Right), before mastering. Or you can have recordings you already have on your computer, just like MP3 or WAVE (WAV) files that you need to master. Anyway a finished track that is outputted as stereo will do. This is your Source Material. Inside the AAMS software the Source is always your own audio material that you have imported into AAMS.

Let's say you have your own Source material ready for AAMS Mastering. Let's say this audio material refers to a standard pop song. Then your Source Pop Song needs to be mastered as a Pop Song Track. So you need a Reference Style out of AAMS Reference Database that represents Pop Songs! Lucky for you we have pre-made an AAMS Reference Style Database with 200+ Styles that refers to all kinds of musical styles. And @Pop RMS.aam is one of those database files! So selecting @Pop RMS.aam as a reference against your own source material would be very wise.

1. You have your own Source audio material ready to import into AAMS (Pop Song).
2. You have made a decision on what this source represents (as what style) and you can select @Pop RMS.aam out of the database.
3. You are then ready to start AAMS Mastering!

Step 1 - On the Quick Start Tab click the button 'Auto Master Audio File'. A pop-up window will ask for an audio file. You can select an audio file for your own source material import now. Preferably this is a *.Wav Format 16 Bit Integer 44100Hz Stereo audio file (you can also import *.Wav Format 32 Bit Float 44100Hz Stereo audio file) or any supported audio file.

Step 2 - Then you will be asked to load a Reference *.aam file. The reference files can be found in the AAMS Database of more than 200+ Style Presets provided with the AAMS installation. This reference file you choose for now is '@Pop RMS.aam'.

Step 3 => Wait for AAMS will now finish your master.

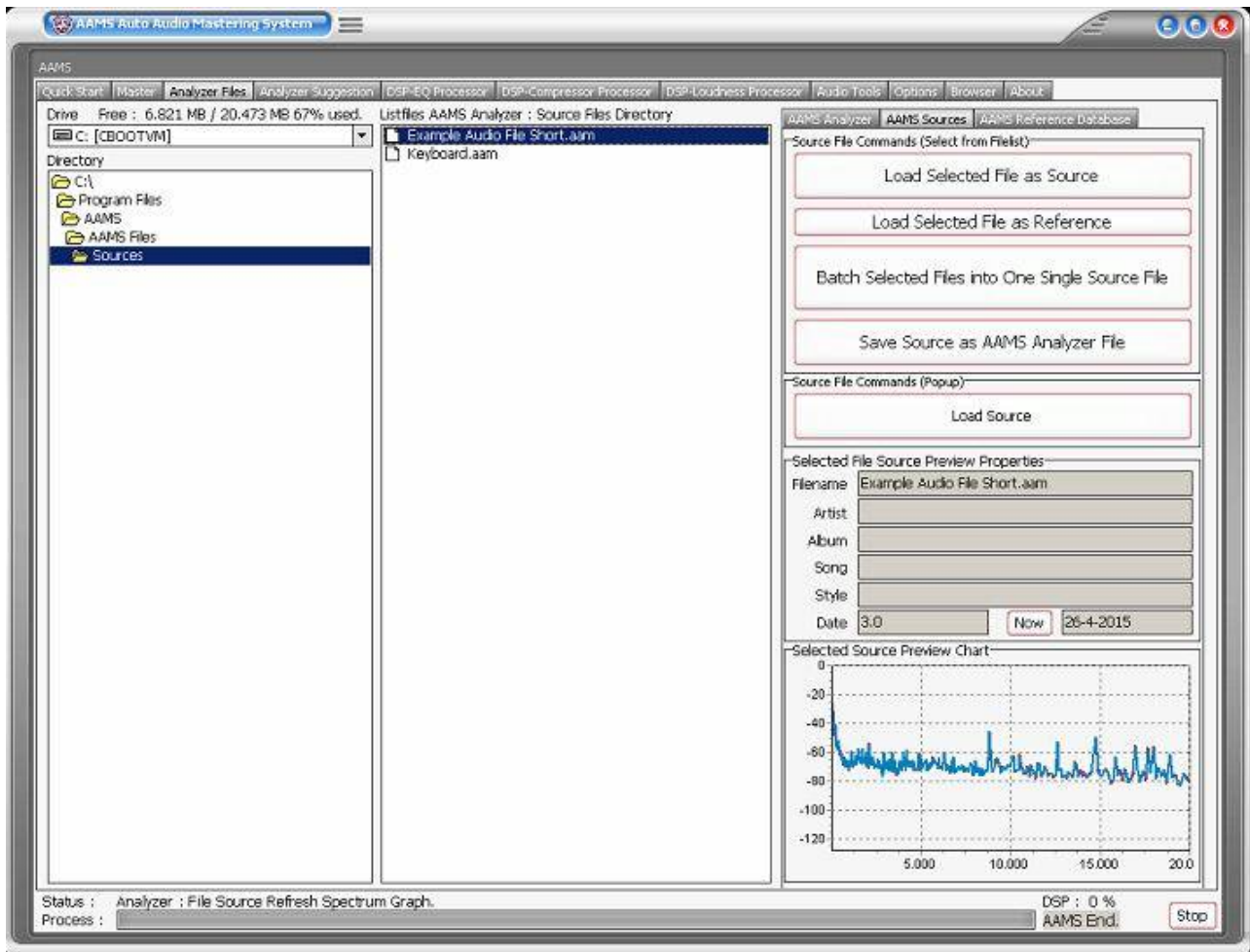
AAMS first will analyze the Source Audio File you have imported. This may take a while and is processor heavy. It is worth to wait, because AAMS Analyzer is one of the finest analyzers around and does a very precise job converting the source file into frequency, eq, compression and loudness analysis of the whole source file. After analyzing is finished, there will be a *.aam file saved next to where your source audio file is placed. This *.aam file represents your source audio file as frequencies and loudness patterns, better known as a frequency spectrum. When analyzing is ready, AAMS will do some heavy calculations to compare the Source and Reference. AAMS will make out of these calculations, presets for EQ, Compression and Loudness. And AAMS will start mastering processing. AAMS will process EQ, Compression and Loudness processing on your imported source audio file (even more functions we do not explain now). When AAMS is finished mastering (this will take some time, you might take a cup of coffee in the meantime) the outputted mastered file is placed next to your source audio file location.

All of this mastering processing is done in one single go on the fly, automatically by AAMS Software. Now you can listen to the mastered audio track and hear the difference AAMS makes.

Now you can listen what you expect!

Source Material

Using your own music and audio files as Source.



Loading a *.aam analyzed AAMS Analyzer File as Source

You should first have a *.aam file previously created with the AAMS Analyzer, this can be done by Importing an Audio file into AAMS. AAMS analyzer will analyze the audio file and create an *.aam file for you. When you load a *.aam file as Source, you will be asked to Load a Reference *.aam file as opposite. The reference files can be found in the AAMS Database of more than 200 Style Presets provided with the AAMS installation. And as a big bonus you can make or create your own reference files! The Reference File process is faster than using a Wav file (and analyze this file takes longer) and you can check the Source against Reference before mastering. A *.aam Source or Reference File has already been analyzed before by AAMS, the results of the analyzed file where saved as *.aam. The status bar below will show the progression status of AAMS Analysis. Do not use AAMS until analyzing is finished.

When AAMS Analyzer is finished, AAMS suggestions are automatically calculated for Equalization, Compression and Loudness. AAMS will proceed with processing the loaded Stereo file by making use of the DSP-EQ, DSP-Compressor and DSP-Loudness Automatic functions. Each time a process is finished you can see this in the Master Tab. Please wait for AAMS to complete the process. After Processing is fully finished, the loaded Stereo file is mastered and written with the extension 'Master_wav' and is placed in the same directory as the original audio file.

Loading an *.afd AAMS Full Data File

The AAMS Full data File is based on a Source and Reference that have been previously selected and saved within AAMS. There is no need to select the Source or Reference because these are saved within the AAMS Full data file. The AAMS Full data file is not so much used as Source or Reference Files, but however the Full Data File is a container to keep Source and Reference together and can be saved for later use.

The status bar below will show the progression status of AAMS Analysis. Do not use AAMS until analyzing is finished. When AAMS Analyzer is finished, AAMS suggestions are automatically calculated for Equalizing, Compression and Loudness. AAMS will proceed with processing the loaded Stereo file by making use of the DSP-EQ, DSP-Compressor and DSP-Loudness Automatic functions. Please wait for AAMS to complete the process. After Processing is fully finished, the loaded Stereo file is mastered and written with the extension 'Master_wav'.

Auto Mastering Progression

Go to the Mastering Tab. When you are finished loading all files the AAMS DSP Processing will start automatically. There must be a Source and Reference loaded or Full Data File is loaded. Depending on the information AAMS has about the audio file that needs processing, AAMS will choose a file or will ask you for the audio file in question (the original audio file you need mastered). You can see which files were loaded in the Mastering Tab and the progression status is shown here. Each time an AAMS DSP process is busy the corresponding process will turn to 'Busy'. Do not use AAMS functions while the 'Busy' signal is Red. The Master Tab will show 'Ready' when a DSP Processor is ready. When the next AAMS DSP Processor is called this will read 'Finished' indicating that the corresponding audio file was created and saved. The DSP-EQ, DSP-Compressor and DSP-Loudness all need to complete their task before the Mastering Tab will show a completed Mastering Job. At the end the last file that has been saved is the DSP-Loudness Audio File that has been created with the filename + '_Master.wav'. This is the Mastered File that AAMS has generated and is ready to listen. Just go to the directory you have placed your audio files in (C:\program files\AAMS\AAMS Files\Sources or C:\program files (x86)\AAMS\AAMS Files\Sources) and double click on the mastered audio file. In completion a Mastering Document was saved in the same directory showing data and results.

Start Manual

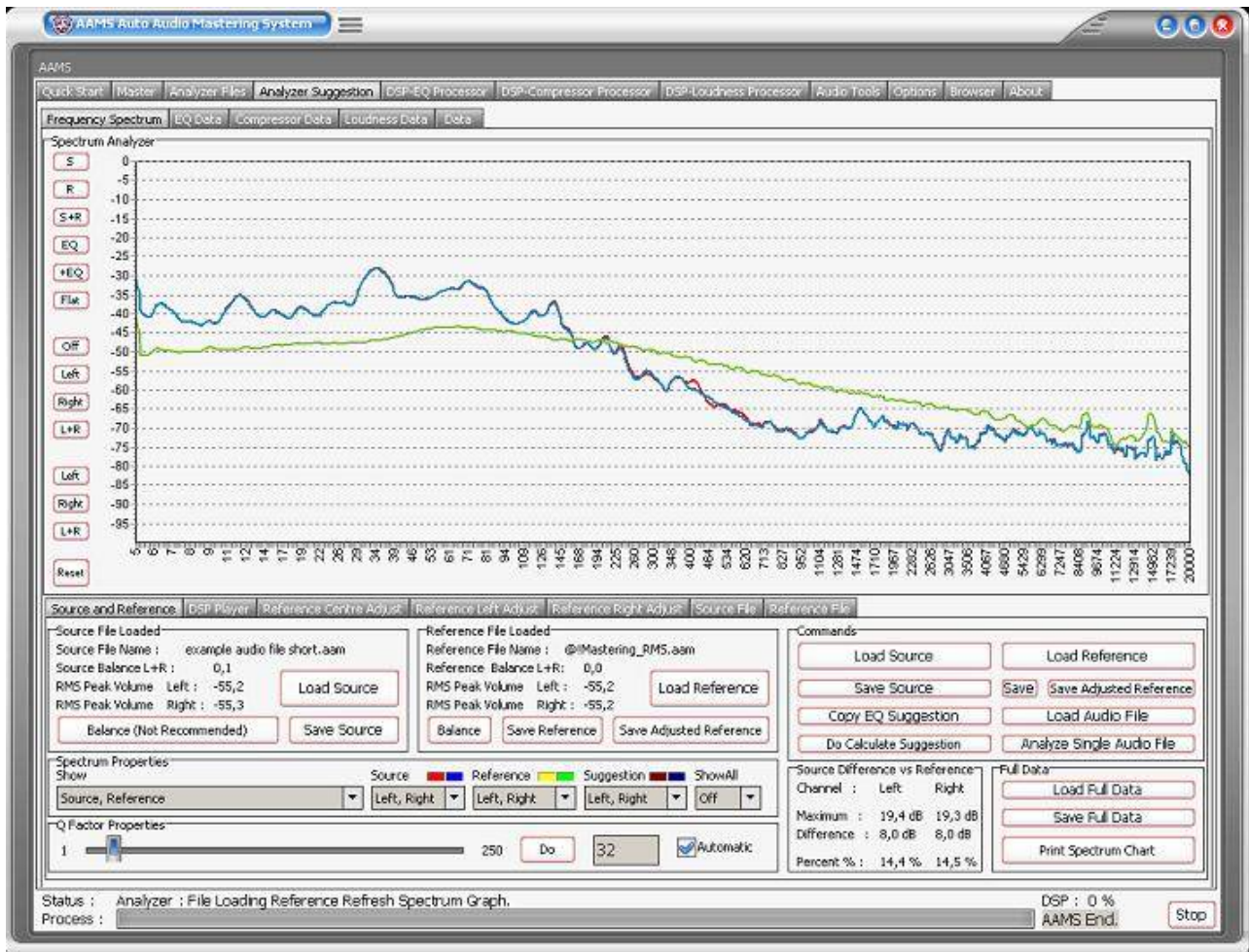


To get a quick idea of what AAMS is about you can follow this example. When AAMS is installed there are several example files copied onto your hard drive into the AAMS Files directory. The default path for AAMS is C:\Program Files\AAMS\. In the directory C:\Program Files\AAMS\AAMS Files\Sources are all the files needed for this example. This is the default directory for source or full data files. You can also store your own audio material as *.wav and *.aam files in this directory.

Load Full Data

On the Quick Start Tab press the button Load Full Data. Go to the directory Sources and select Example.afd. This file is a full data file that contains both Source and Reference data. Load the Example1 file and select Spectrum. The Spectrum shows the Source example file and the House RMS reference file together. When you go to Suggestions you can see the suggestions AAMS is making to bring the Source example in line with the Reference. Look around a little bit inside AAMS and investigate some more. Look at the Suggestion of the Graphic EQ and see what changes are required.

AAMS Analyzer

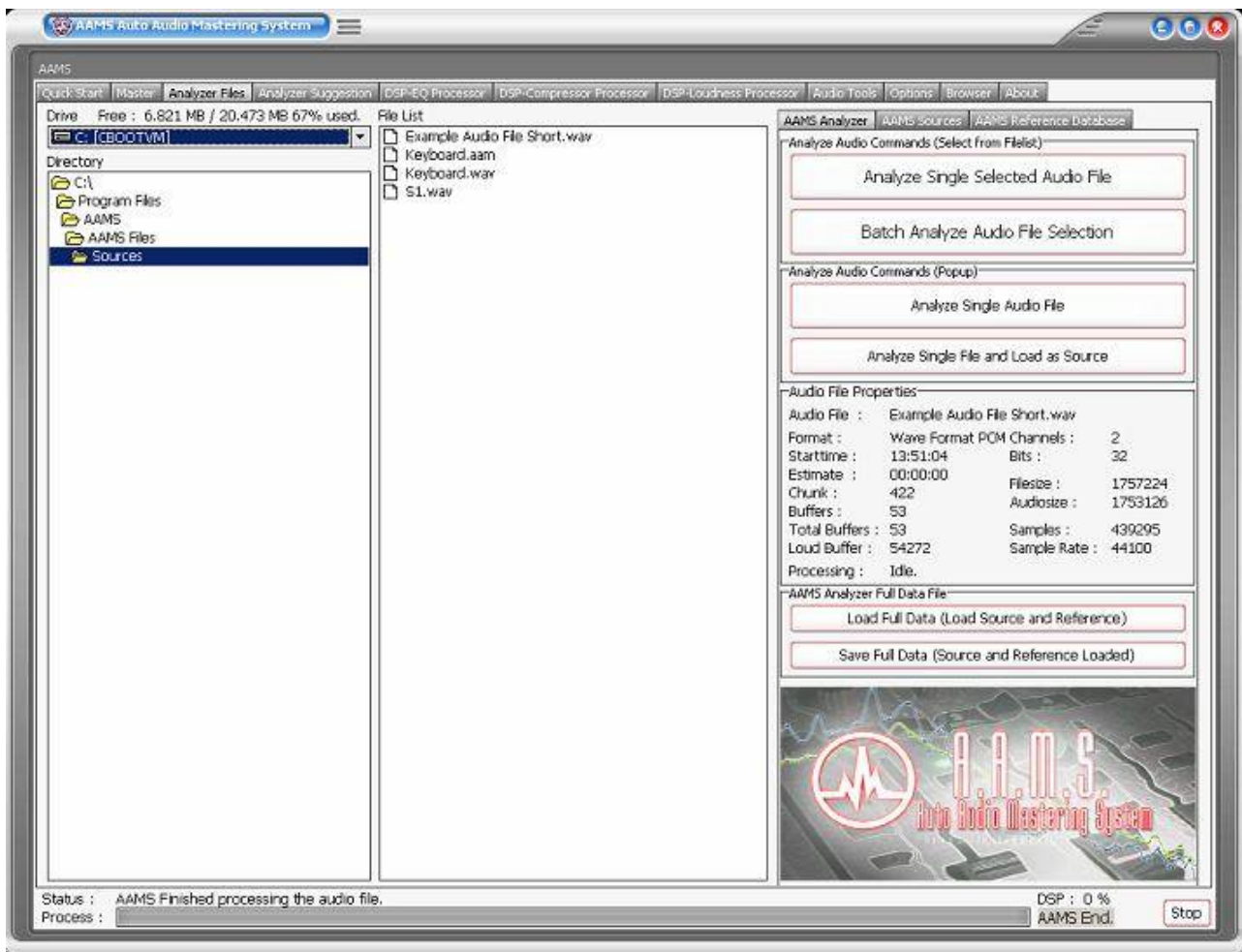


The main function of AAMS Analyzer is to convert the WAV file of Source or Reference material towards a file that AAMS understands as an analyzer file. Named *.aam.

Source Analyzer files reflects mostly your own audio material you have imported into AAMS.

Reference Analyzer files reflects mostly the style parameters as a result, AAMS will compare Source and Reference and the will calculate the suggestions. The suggestions are processed by AAMS automatically towards an end result Mastered Audio file.

AAMS Analyzer is responsible for many tasks that go in front of the audio mastering chain, as well as for in between setting an calculations done for the different processors (DSP-EQ,DSP-Compressor, DSP-Loudness). The first and most important task is to analyze audio files. Spectrum behavior and frequency behavior as well as loudness is measured very accurately and calculated into suggestions. These suggestion or settings for the processors are done by comparing and calculations from source to reference and backwards. The AAMS Mastering system is based on pure calculations and suggestions, meaning source and reference are calculated to be the same, but in its basic function it is not a mere copy between them, but the needed differences that are measured and calculated into suggestions, presets and settings for further processing. So that the best results will count and be kept for audio mastering to be possible.



Importing and analyzing Audio Files

The AAMS Analyzer is specially designed to investigate and search through the audio material and convert it to an AAMS Analyzer File. The time that it takes to analyze your Audio Material will vary depending on the length of the audio material and the processor speed of the computer. AAMS Analyzer is designed to produce the best audio mastering results so there are a lot of calculations taking place and your processor will be pushed. But it's worth the wait for the very accurate analysis AAMS produces.

The first step is to let AAMS Analyze your audio files, recordings, mixes, or masters. Analyzer generates a source data file that can be accessed faster than the original audio file, saving waiting time. The resulting *.aam file is read instantly as a Source or Reference and is stored in the same directory as the original audio file. Analyzing a new audio file is only necessary when you want to create an *.aam file for use within AAMS.

Please note that AAMS Analyzer only accepts Wav and Mp3 files in the following formats: 16/24/32 Bit, Stereo, 44100Hz. AAMS Analyzer converts MP3 files to Wave format 16Bit 44100Hz stereo files before analyzing. When you have converted audio files to the required format and stored in the target directory you can start analyzing your audio material.

Analyzing Audio Stereo Files

On the Quick Start Tab select the button Analyze Audio and Load your audio file. AAMS loads and analyzes the file, a process that can take some time. The remaining time is displayed in the Process text window. While AAMS is analyzing your audio file you can check the progression when you click on the Analyzer Tab, but do not use AAMS until Analyzing has completed processing.

AAMS will display a 'Busy' indicator and the progress bar shows the percentage of processing the Analyzer has completed. You can stop the analysis process with the Stop button but it is not recommended to do so while processing, as any subsequent processing of the file will have to begin again from the start. After AAMS is finished analyzing, a Save Dialog will appear and will ask to save the Analyzed Data to a *.aam source\reference file. Generally the file can be saved in the AAMS\AAMS Files\Sources directory so AAMS can find the files on start up.

Loading AAMS Analyzer Files as Source or Reference

The process of using AAMS often begins with the loading of a Source and Reference. Both Source and Reference files are AAMS Analyzer Files with the extension *.aam. The Source file represents your own audio material. The Source is compared to the Reference and AAMS will calculate suggestions to make the Source sound like the Reference. On the Quick Start Tab you can press Load Source and select your audio file as Source. Most Source AAMS Analyzer Files can be found in AAMS\AAMS Files\Sources directory. The Spectrum display will then show your loaded Source file.

The Reference File is the AAMS Analyzer file that represents the intended outcome. Usually you will want to select an *.aam file from the supplied database of Reference styles. On the Quick Start Tab you can press Load Reference and select your audio file as Reference. Most Reference AAMS Analyzer Files can be found in AAMS\AAMS Files\References directory. This is the directory for the Database of Reference Styles that is already installed alongside with AAMS installation and has over 200 presets to choose from. Now the Spectrum will display your Loaded Source file and Loaded Reference File. AAMS will calculate its suggestions and will display them in the Suggestions Tab.

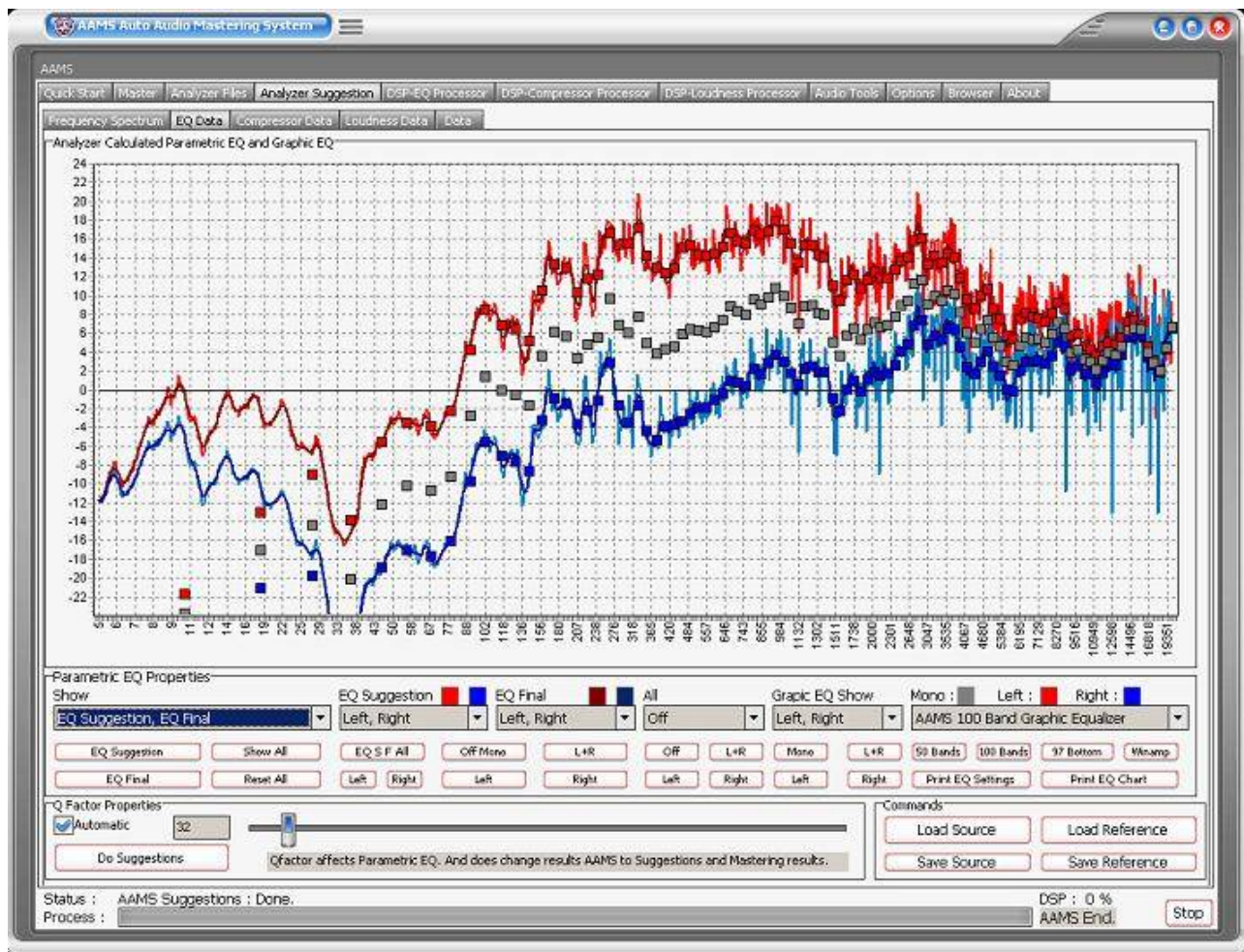
AAMS Spectrum Analyzer Tab

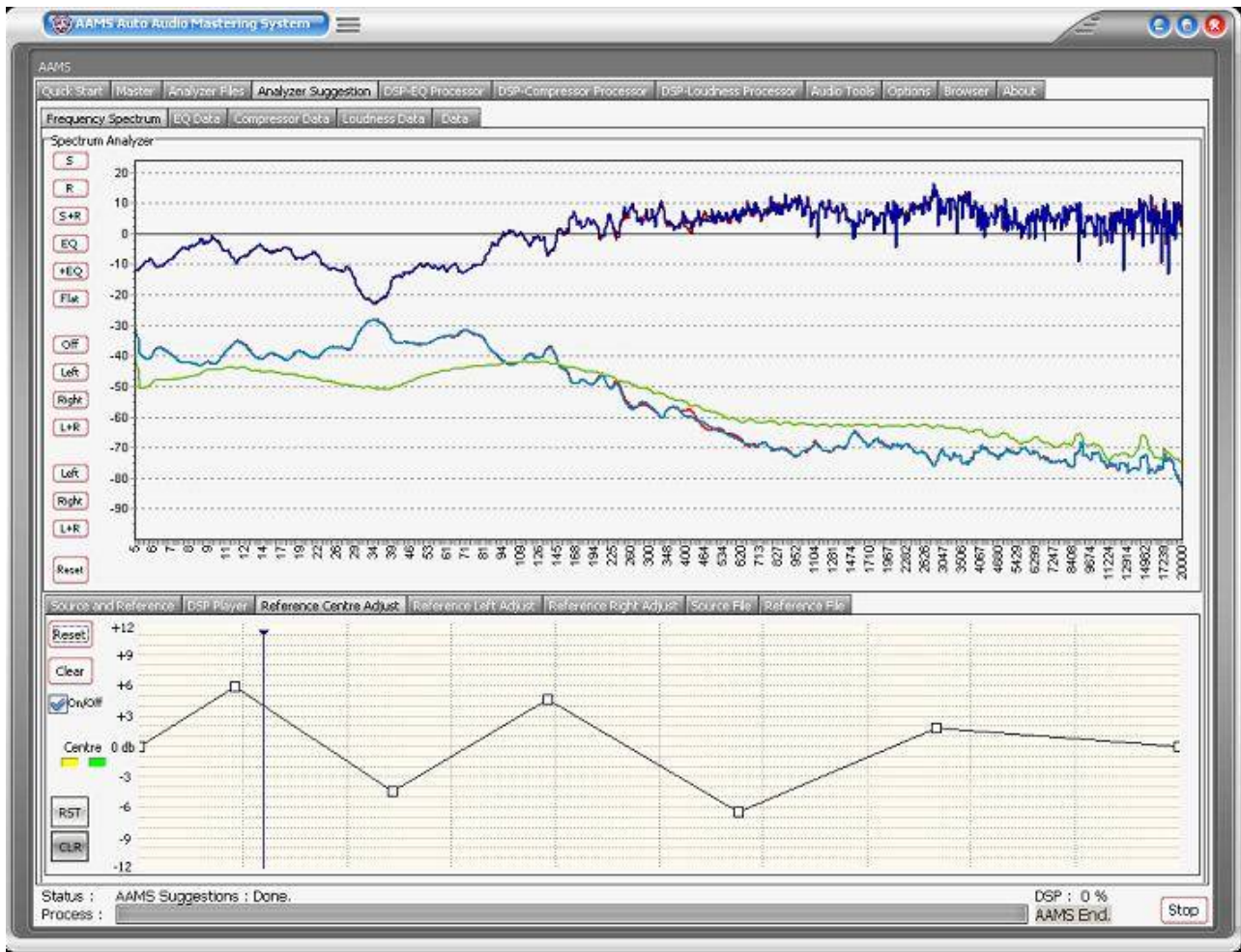
The loaded Source and Reference are displayed here. Under properties the Show function can be changed. Normally Source and Reference are displayed. But however there are more options to display. Source, Reference and 0 dB EQsuggestion. Showing the EQsuggestion can be worth full for users who need to know how the results display in one single chart. Source, Reference 0 dB Flatline. Showing the Reference as a Flatline 0 dB function, makes it easier to see the differences of the Source against the reference. Also the slider (turn of the automatic Qfactor function first) changes the Q factor that is used to display Source and Reference. The will change peak into more flat or more like peak. This Q Factor function does not affect calculations, but changes the displayed chart only.

AAMS Suggestion Tab

The suggestions based on Analyzer results are displayed here. Each time the state of the AAMS program changes due loading a file or user changes, AAMS will recalculate. The outcome of these calculations will display on the Suggestion Tab and related pages described below.

(Below is a heavy user adjusted EQ Data)





Analyzer Spectrum – Reference Adjusting Centre, Left or Right channels

AAMS does calculated suggestions on basis of the loaded Source compared to the Loaded Reference. Therefore if we can adjust the reference we can adjust the outcome (or have influence) on the source results. If quite often happens that AAMS is almost correct, but maybe the Vocals just are mixed a little bit high (harder) then the mix itself. Mostly it is better to fix the mix, by adjusting the mix. But when this cannot be undone or done, you can now correct the Spectrum of the Reference that has been loaded and save edited reference as a new reference for later use. Later on we will address the same procedure on adjusting the DSP-EQ that will work just about the same way. But however adjusting the Spectrum Reference might be a better more compatible way.

Analyzer Spectrum - Reference Centre Adjust

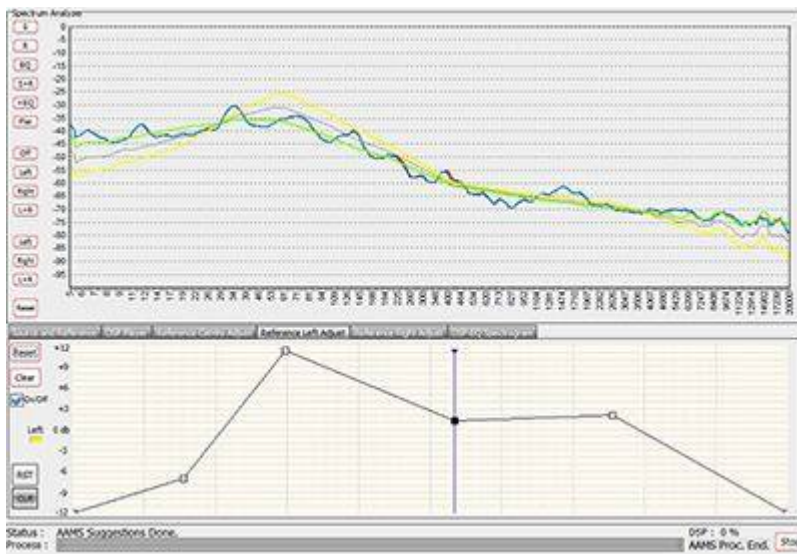


In the above picture the 'Example Audio File.aam' is loaded as Source file and 'Mastering_RMS.aam' as Reference File. You can see the Source File in Red and Blue colored lines and the Reference File in Yellow and Green Lines. Red and Yellow are Left Channels. Blue and Green are Right Channels. Below is the Reference Centre Adjust chart. Basically this chart can be edited and starts with two points that make a flat 0dB line. Because this line now is flat line 0dB, the Reference is not adjusted (yet).



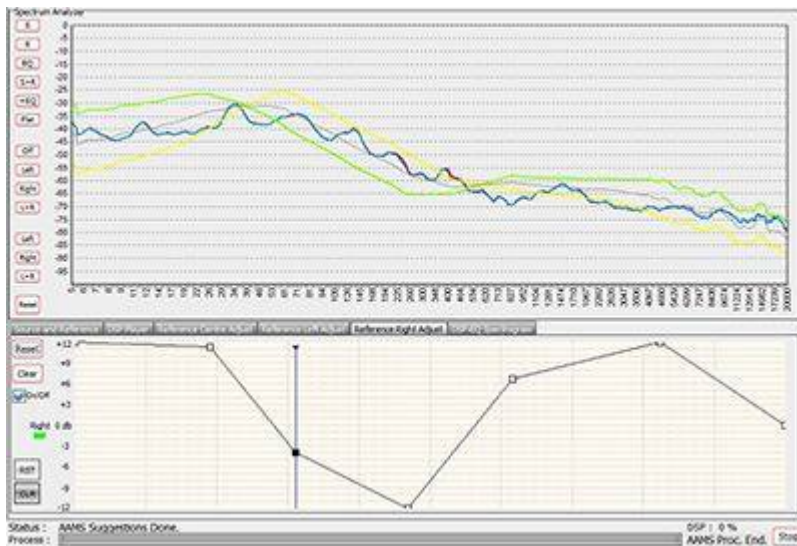
By adjusting the white points with the mouse we can now have control of the Centre Chart. You can see by creating two extra chart points and adjusting all four points, we have made the Reference (Yellow and Green lines) follow the Source lines. This is only to explain how the system works. In reality we will not follow the Source lines in this fashion. But by creating more points you will have more control on the frequency spectrum and the reference. By double clicking inside the chart you can create new points. Points can be dragged up or down, left or right. Upwards will have influence in +dB, downwards will have influence in -dB. Left lowers the frequency and right will raise the frequency. We are now affecting the Centre (Left and Right channels of the Reference). This Centre adjusting is good for overall adjusting the reference. And when you do not want to change the balance, the Centre Adjust chart is a good starting point.

Analyzer Spectrum - Reference Left Adjust



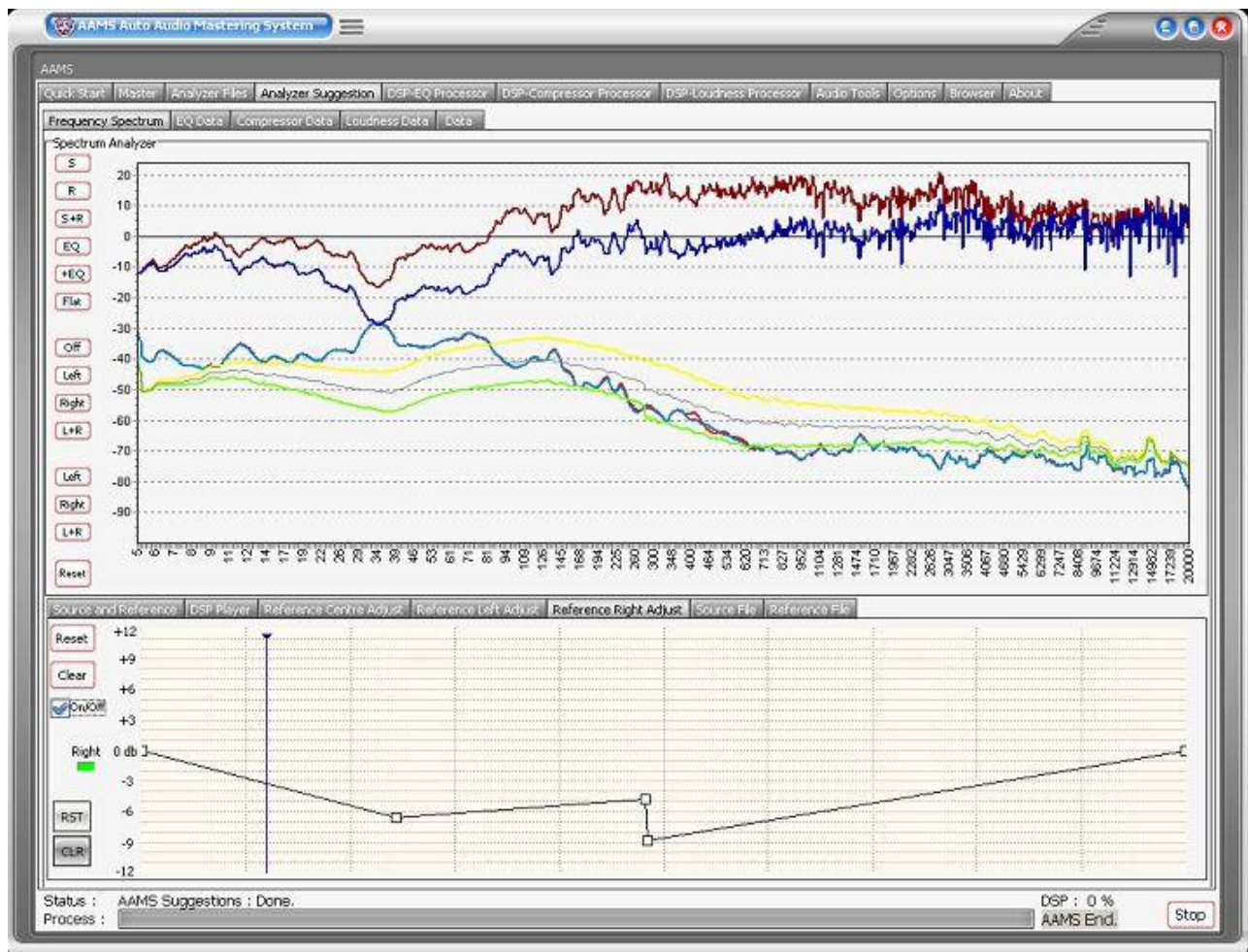
Well basically the same principles for the Left Adjust chart as we did with Centre Adjust. Creating more points and adjusting the Left chart, will only affect the Left Reference channel. Remember it is possible to zoom the Spectrum chart by clicking into the Spectrum and make a square with the mouse. When you need zooming out, just right click again. By adjusting Left or Right reference channels, you can have some good influence on the stereo spread or mono compatibility.

Analyzer Spectrum - Reference Right Adjust



Basically the same principles for the Right Adjust chart as we did with Centre and Left Adjust. You can use CTRL or Shift from the keyboard to guide points with the mouse. With Shift you can only move a point up or down. With CTRL you can only move a point Left or Right. You can also select more points by making a square over the points with the mouse, all points are selected. And move all selected points around. You can also notice each time you do a change inside any of the charts and change the points, AAMS will update calculated suggestions instantly.

Using the Spectrum Reference Player



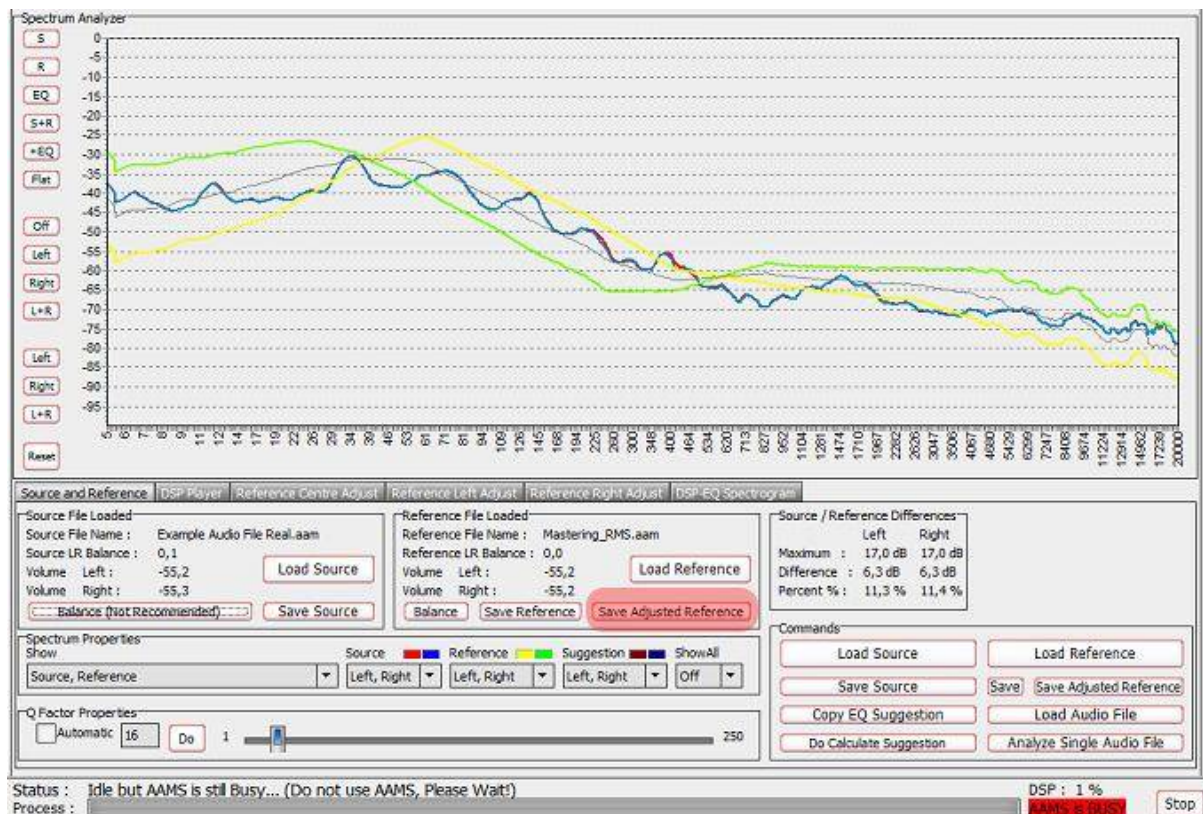
Now it's getting interesting. We have loaded the Source and adjusted the loaded Reference by adjusting the charts. Let's play the sound that will come out on the soundcard and on our speakers or headphones. First we need to load the 'Example Audio.wav' file. Press Play and you will be asked for the audio file. Then AAMS will play the file. While playing you can still adjust the charts and AAMS will update calculations and suggestions. The audio that is being played, is played audio wise with the DSP-EQ Processor.

So be sure not to adjust the DSP-EQ Charts, because this will influence the outcome (we discuss the DSP-EQ Processor later on). Basically you can adjust the Spectrum and Adjust the DSP-EQ, because both work in serial audio pipeline. Again, for Reference adjusting. Be sure you did nothing with the DSP-EQ settings.

Now you have learned that you can be of influence and adjust the Reference Centre, Left and Right.

Therefore you can shape your own sound and use the same adjusted reference for other purposes. The example we have given you is only an example. We would never shape the reference so that it will look like the source, but this was an example how to work with the adjust charts only. But using the reference adjust charts this way, and you raise or lower bass frequencies, this will have effect on the outcome (more or less bass frequencies). In the beginning we said that maybe the voice would stick out of the mix, by adjusting the correct frequencies you might have better results and lower some voice frequencies this way.

A good start is using AAMS database and use RMS database presets. These are general presets. Mostly AAMS does a good job and maybe you must only adjust when this is really needed. Saving the adjusted Reference

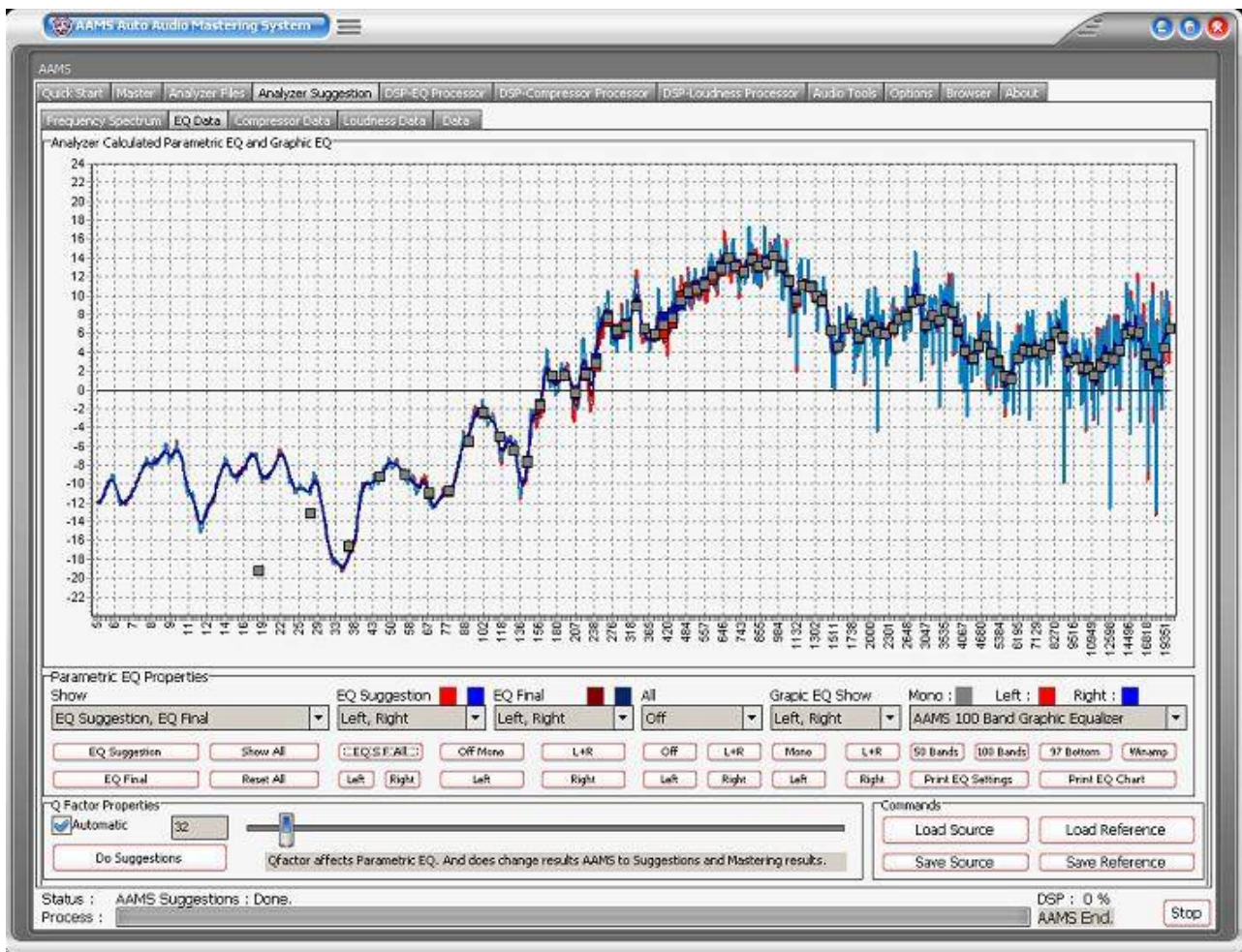


You can save the adjusted reference for later use and therefore have your own preset sound, even the reference can be handy for later use on other tracks. In the above picture you can see two buttons 'save reference' and 'save adjusted reference'. The 'save reference' saves the reference without adjustments. The 'save adjusted reference' saves the reference with adjustments.

The DSP-EQ Graphic Equalizer Processor is used for processing the adjusted sound and can only be adjusted from -12dB to +12dB per EQ band. So in the real world (hearing audio) the lowest possible cutoff is -12dB by the DSP-EQ Equalizer. The highest possible boost per EQ band is +12dB. So even when you use the Spectrum Reference Adjust Charts and DSP-EQ Adjust charts, the possible boost can only be between -12dB and +12dB on the outcome of the DSP-EQ Graphic Equalizer Processor.

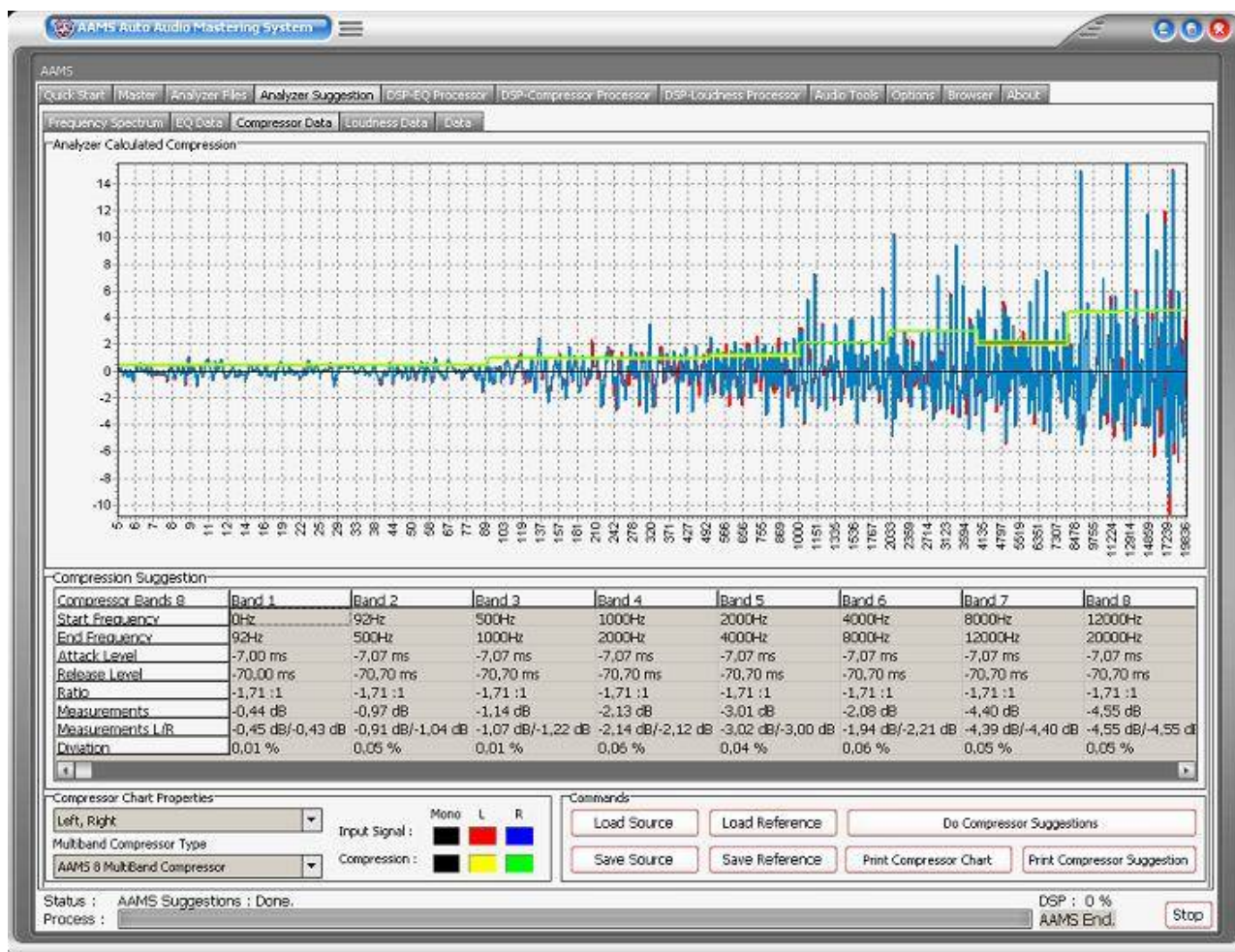
The Parametric EQ Page

This page shows you how to adjust a Parametric EQ accordingly to the analyzer suggestions. How to get a real Equalizer to play these settings is explained later. On the display red lines show Left EQ and blue lines show Right EQ. The darker red and blue lines are Q-factored and smoothed allowing you to set up a parametric EQ accordingly. In the Properties window you can change the display. The calculated Q-factor will automatically change accordingly to what DSP-EQ preset is used. When the option Automatic Q-factor is set to manual (in the options Tab), you can change the Q-factor manually and set up the Parametric EQ-Suggestion for use with your own External Parametric EQ. Users who want to work manually with the q-factor within AAMS must be aware of side effects. When AAMS Parametric EQ Suggestion is switched to manual and you set the Q-factor, this will change the behavior of rest of the automated suggestions, (Graphic EQ, Compressor and DSP-EQ Settings). For this reason it is usually best to use an automatic Q-factor when using the internal AAMS DSP-EQ and DSP-Compressor.



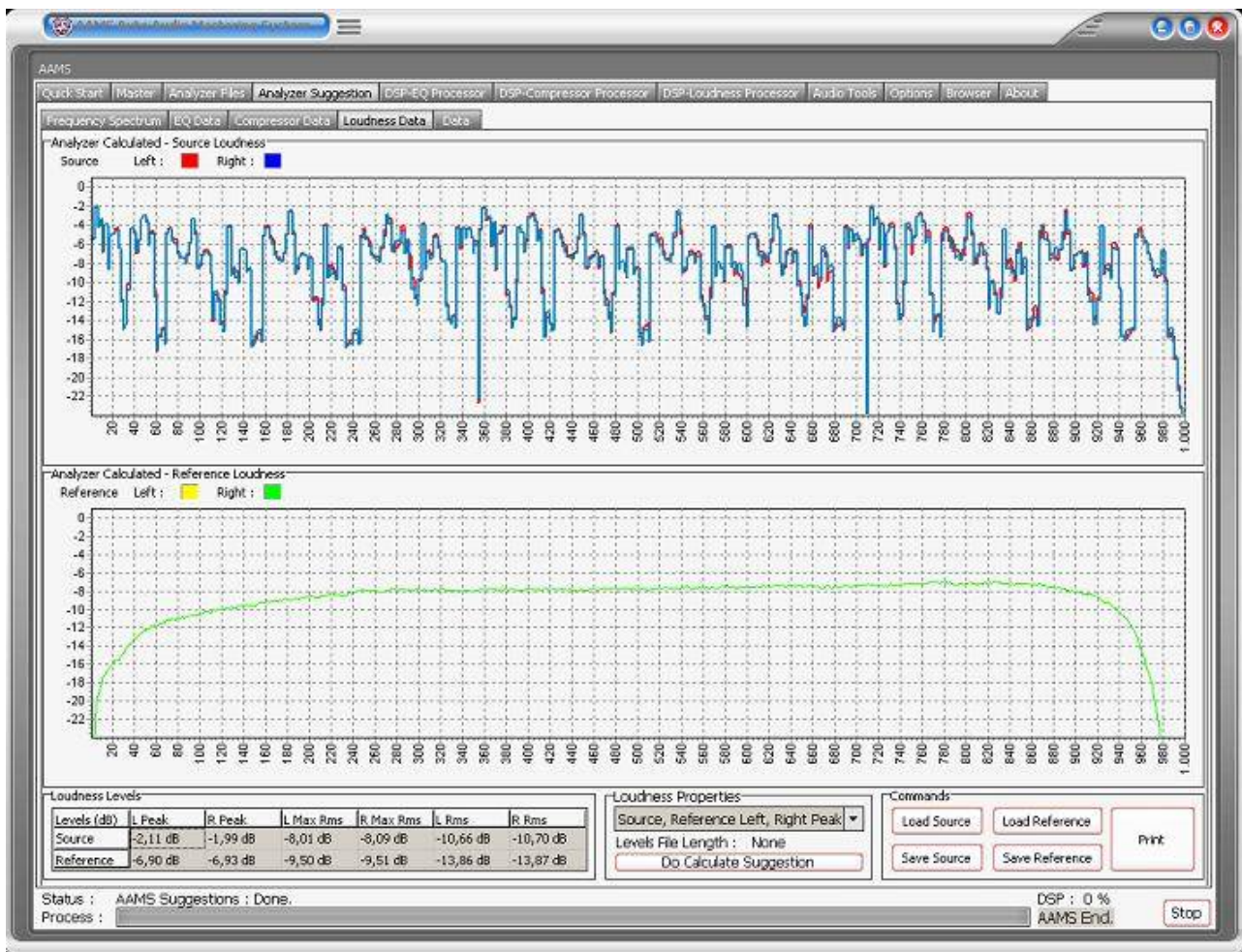
The Graphic EQ Page

This page shows you how to adjust a Graphic Equalizer with several EQ bands that can range from 1 to 100. You can select any of the EQ presets and in the properties window you can pre-select a Graphic Equalizer of your choice. The black lines on the display show Mono EQ, red lines show Left EQ and blue lines show Right EQ. These settings will be directly copied to the DSP-EQ. We will discuss the DSP-EQ processor later on, where you can listen to the outcome of your audio material with the AAMS internal DSP-EQ processor.



The Compressor Page

This page shows you how to adjust a multi-band Compressor according to AAMS calculations. The Average Compression values for each band are displayed in a grid. Average Compression is the value the compressor lowers the gain while the threshold limits the audio gaining that goes through the compressor band. The more the compressor lowers gain in dB per compressor band is the average compression needed. It is not necessary to understand this in detail as AAMS features an internal DSP-Compressor where suggestions are automatically configured. You can also use tools like plugins or outboard equipment to set up your compressor accordingly to AAMS calculated Average Compression settings. Basically the intention is to lower the Compressor's Threshold per Band to get the right amount of gain reduction. The ratio, attack and decay times are suggested, but you can use different settings as long as you refer to the Average Compression AAMS is suggesting per Compressor Band. The red lines and blue lines show Left and Right, the yellow line shows the Average Compression per Band. Following the yellow line and seeing the differences per band can help you see what band needs compression the most and what band does not. The display will show black for Mono settings and red and blue for stereo settings. You can select a compressor in the properties window. The DSP-Compressor is a 1-8 multi band Compressor, more on which flows later.



The Loudness Page

This page shows the overall loudness of the Source and Reference. Red and blue lines show Left and Right from the Source in db. Yellow and green lines Left and Right from the Reference in db. The highest lines show peaks and the lines below show RMS averages. From this you can see if the Source comes close to the Loudness of the Reference. Although it is not necessary to get the Source audio material as loud as the Reference, it is a good visual representation of how even your audio material sounds. The internal DSP-Loudness processor will re-load and scan levels again when an audio file is loaded. The suggestions from the Loudness Suggestion Tab are not copied directly to the DSP-Loudness settings as the DSP-Loudness processor has its own routines for balance and gain. The grid display will show average and peaked level information in db. The loudness shown on this page is from the original analyzed audio file although the DSP-Loudness page will carry out its own analysis procedure and may differ in levels.

Updated Views

The Spectrum, Parametric EQ, Graphic EQ, Compressor and Loudness Tabs are updated automatically when a new Source or Reference is loaded or changes are made. This automatic updating will ensure the information is re-calculated every time a change occurs and avoids the need to manually request an update.

Zoom In and Out

You can zoom into the grid display to examine the suggested changes by holding the mouse button down and moving the rectangle shown to the part you want to zoom into, while dragging the box in reverse will zoom out to the maximum view size.

Example



Example 1

Here is another example you can work through. When AAMS is installed there are several example files copied onto your hard drive into the AAMS Files directory. The default path for AAMS is C:\Program Files\AAMS\AAMS Files\Sources are all the files needed for this example. This is the default directory for source or full data files. You can also store your own audio material as *.wav and *.aam files in this directory.

Load Full Data

On the Quick Start Tab press the button Load Full Data. Go to the directory Sources and select Example.afd. This file is a full data file that contains both Source and Reference data. Load the Example1 file and select Spectrum. The Spectrum shows the Source example file and the House RMS reference file together. When you go to Suggestions you can see what AAMS suggestions are calculated automatically for bringing the Source example in line with the Reference. Look around a little bit inside AAMS and investigate some more. Look at the Suggestion of the Graphic EQ and see what changes are required.

Playing and Equalizing with AAMS internal DSP-EQ processor

Go to the DSP-EQ tab and press Play or Load Audio File and Example1.wav file and to load it into the DSP-EQ Player. Listen to the whole file and let the overflow control lower the gain so that no signals go over 0dB. You can adjust the separate DSP-EQ faders and change the sound for Left and Right DSP-EQ levels. Each time you choose a new Reference the sound of the DSP-EQ is adjusted by the AAMS suggestions. Reset the volume by setting it to 0dB on the Volume Fader or use the 0dB button. Since it is recommended that you use the AAMS suggestions, press the 'Copy EQ Suggestion' button to set up the DSP-EQ to match AAMS Suggestions again. Listen through the whole file and let the overflow control lower the gain so that no signals go over 0dB. When you are satisfied with the results press 'Stop' on the player. Then press 'Record' and the DSP-EQ will process the loaded audio file and create a new file with the same name and extension '_EQ.wav'.

The Example1_EQ.wav file was previously processed by the DSP-EQ. Go to the DSP-Compressor tab and press the button Play or Load Audio File and select the Example1_EQ.wav file. The DSP-Compressor Player will play the Example1_EQ.wav audio file. By default the AGC is turned on and is hunting for the right kind of levels to match AAMS Compressor Suggestions. You can see if all goes well as a line of green LED's appear in the AGC Control panel properties window. Listen to the whole file and let the AGC complete the task. Take a look at the AGC Chart or AGC Data. You can adjust the separate DSP-Compressor faders and change the sound for Left and Right DSP-Compressor levels. Each time you choose a new Reference the sound of the DSP-Compressor is adjusted by the AAMS suggestions. Since it is recommended that you use the AAMS suggestions, press the 'Copy Compressor Suggestion' button to set up the DSP-Compressor to match AAMS Suggestions again. Listen through the whole file and let the overflow control lower the gain, so that no signals go over 0dB When the DSP-Compressor player reaches the end (99%) of the audio file, the AGC Control is automatically turned off and the suggestions for Multi-Band Threshold levels are automatically copied to the Threshold Faders (or when you are satisfied with the results, press 'Stop' on the player and copy the suggestions for the Multi-Band Threshold levels with the 'Set Target Threshold' button). Check that the AGC is turned off then press 'Record' on the player and the DSP-Compressor will process the loaded audio file and create a new file with the same name and extension '_C.wav'.

Playing and Balancing / Gaining Loudness with AAMS internal DSP-Loudness processor

The Example1_EQ_C.wav file was previously processed by the DSP-EQ. Go to the DSP-Loudness tab and press Play or Load Audio File and select the Example1_EQ_C.wav file. The DSP-Loudness processor will quickly scan the audio file's levels and display the results in the chart and in dB above the chart. The DSP-Loudness Player will play the Example1_EQ_C.wav audio file. The suggestion for Balance and Gaining Loudness are also shown. Click on 'Copy Balance Suggestion' and the Balance Fader is raised by the amount AAMS is suggesting. Click on 'Copy Gain Suggestion' and the Loudness Gain Fader is raised by the amount AAMS is suggesting. The audio signal is now balanced and Gained, It is likely that you will hear the increase in volume and hear that the audio signal is balanced. The Amount of Gaining is calculated by the preset that has been set up in the Settings Tab. When you select Maximal Loudness presets, the DSP-Loudness processor will try to match to the highest possible gain in volume. When you select Average Loudness presets, the DSP-Loudness processor will try to match to the average possible gain in volume. When you select Minimal Loudness presets, the DSP-Loudness processor will try to match to the minimal possible gain in volume. Read the DSP-Loudness section for more info about setup options. The RMS Limiter, Peak Limiter and Brick wall limiter are all turned off or on according to the selected Setup. You can experiment with the settings, although it is recommended that you use the AAMS suggestions. Click on 'Copy Balance Suggestion' and the Balance Fader is raised by the amount AAMS is suggesting. Click on 'Copy Gain Suggestion' and the Loudness Gain Fader is raised by the amount AAMS is suggesting. To maintain the AAMS Suggestion for DSP-Loudness, listen to the whole file (or when satisfied with the results press 'Stop' on the player) and let the overflow control lower the gain so that no signals go over 0dB Then press 'Record' on the player and the DSP-Loudness processor will process the loaded audio file and create a new file with the same name and extension '_L.wav'. This is called a 1 Stage Function because you have now carried out Balancing and Gaining in one single process.

For manual adjusting and listening to the DSP-Loudness Player this single stage process is recommended. There is also a two-stage function that is explained in the DSP-Loudness section and is more effective and accurate. This means Balancing and Loudness Gain are done in two stages, first Balancing and then Gaining. The balanced processed file will have the same name as the original audio file and extension '_B.wav'. The loudness (gain) processed file will have the same name as the original audio file and extension '_L.wav'. For now you should have a file called 'Example1_EQ_C_L.wav' created and this file represents your mastered audio file. You can rename or copy the file to Example1_Master.wav' to make clear this is the last file with the end result. Now your mastering job is finished.

File extensions

A DSP-EQ processed file has the extension '_EQ.wav'.

A DSP-Compressor processed file has the extension '_C.wav'.

A DSP-Loudness Balanced processed file has the extension '_B.wav'.

A DSP-Loudness Gain processed file has the extension '_L.wav'.

Each time you make use of any DSP Processor the extension is added again, so you can have files like 'Example1_EQ_EQ_C_B_B_L.wav'. The extensions will show how many times each DSP processor has been used. You can rename or copy the file to Example1_Master.wav' to make clear this is the last file with the end result.

Also files written by AAMS can have names like _Source.wav and _16bit.wav or _32bit.wav. Depending on the settings made in AAMS options.

AAMS Mastering Routine

You can work automatically or manually with AAMS functions. When used manually AAMS will provide you with suggestions and act as a useful learning tool, but for beginners the completely automatic features might be preferable and the 'Auto Master Audio File' button on the Quick Start Tab is very useful. For users who like more freedom when mastering, a mix of automatic and manual functions can be used to get the desired result.



Full Automatic Mastering

On the Quick Start Tab click the button 'Auto Master Audio File'. The mastering process of this 'On the Fly' button is quite simple, although you still have to understand the basics of AAMS. We recommend that you read the full manual and make yourself familiar with the AAMS program. A pop-up window will ask for an audiophile or *.aam or *.afd file. You can select a *.wav file for import now or change the file type below to *.AAM or *.AFD. As AAMS does need some input before the automatic mastering process starts, you are asked to input a file. This file will represent the Source. This function will ask you first for the Source material and you can load 3 different file extensions into AAMS:

1. A Audio Format Stereo audio file.
2. A Source *.aam analyzed AAMS file.
3. An AAMS Full data File.

Loading a wav Format 16/24/32 Bit 44100Hz Stereo file as Source

Wav Format is basically AAMS main working file(s) system.

AAMS is based on 32Bit Float Wav and 16 Bit Float Wav file system.

You can also preload many other audio formats, but these will be converted to wav by AAMS.

When you load a Wav Format 16/24/32 Bit 44100Hz Stereo file you will be asked to load a Reference *.aam file. The reference files can be found in the AAMS Database of more than 200+ Style Presets provided with the AAMS installation. The reference file you choose is important so be sure of which preset you want to use before proceeding. Then AAMS Analyzer will analyze the loaded Wav Format 16/24/32 Bit 44100Hz Stereo file and create an *.aam file with the same name. The status bar below will show the progression status of AAMS Analysis. Do not use AAMS until analyzing is finished. When AAMS Analyzer is finished, AAMS suggestions are automatically calculated for Equalization, Compression and Loudness. AAMS will proceed with processing the loaded Wav Format 16/24/32 Bit 44100Hz Stereo file by making use of the DSP-EQ, DSP-Compressor and DSP-Loudness Automatic functions. Each time a process is finished you can see this in the Master Tab. Please wait for AAMS to complete the process. After processing is complete, the loaded Wav Format 16/24/32 Bit 44100Hz Stereo file is mastered and written with the extension 'Master_wav'.

Loading a *.aam analyzed AAMS Analyzer File as Source

Before selecting the 'Auto Master Audio File' button, you should first have a *.aam file previously created with the AAMS Analyzer. When you load a *.aam file as Source, you will be asked to Load a Reference *.aam file. The reference files can be found in the AAMS Database of more than 200 Style Presets provided with the AAMS installation. This process is faster than using a Wav file and you can check the Source and Reference before mastering. The status bar below will show the progression status of AAMS Analysis. Do not use AAMS until analyzing is finished. When AAMS Analyzer is finished, AAMS suggestions are automatically calculated for Equalization, Compression and Loudness. AAMS will proceed with processing the loaded Wav Format 16/24/32 Bit 44100Hz Stereo file by making use of the DSP-EQ, DSP-Compressor and DSP-Loudness Automatic functions. Each time a process is finished you can see this in the Master Tab. Please wait for AAMS to complete the process. After Processing is fully finished, the loaded Wav Format 16/24/32 Bit 44100 Hz Stereo file is mastered and written with the extension 'Master_wav'.

Loading an *.afd AAMS Full Data File

The AAMS Full data File is based on a Source and Reference that have been previously selected and saved within AAMS. There is no need to select the Source or Reference because these are saved within the AAMS Full data file. The status bar below will show the progression status of AAMS Analysis. Do not use AAMS until analyzing is finished. When AAMS Analyzer is finished, AAMS suggestions are automatically calculated for Equalizing, Compression and Loudness. AAMS will proceed with processing the loaded Wav Format 16/24/32 Bit 44100Hz Stereo file by making use of the DSP-EQ, DSP-Compressor and DSP-Loudness Automatic functions. Please wait for AAMS to complete the process. After Processing is fully finished, the loaded Wav Format 16/24/32 Bit 44100 Hz Stereo file is mastered and written with the extension 'Master_wav'.

Auto Mastering Progression

Go to the Mastering Tab. When you are finished loading all files the DSP Processing will start automatically. There must be a Source and Reference loaded. Depending on the information AAMS has about the audio file that needs processing, AAMS will choose a file or will ask you for the audio file in question. You can see which files were loaded in the Mastering Tab and the progression status is shown here. Each time a DSP process is busy the corresponding process will turn to 'Busy'. Do not use AAMS functions while the 'Busy' signal is Red. The Master Tab will show 'Ready' when a DSP Processor is ready. When the next DSP Processor is called this will read 'Finished' indicating that the corresponding audio file was created and saved. The DSP-EQ, DSP-Compressor and DSP-Loudness all need to complete their task before the Mastering Tab will show a completed Mastering Job. At the end the last file that has been saved is the DSP-Loudness Audio File that has been created with the filename + '_EQ_C_B_L.wav'. This is the Mastered File.

Rules

There are some rules that apply when mastering. The DSP-Compressor's AGC Control needs some time to find the correct compression levels. Audio files that are short (less than two minutes or so) can make the AGC Control of the DSP-Compressor unsteady and it might take some more time to get all the Green LED's to light up. With files that are larger than two minutes this is not likely to occur as the AGC Control has more time to investigate and hunt down the correct levels. You can make the audio file longer than two minutes by using an audio editor to duplicate the data several times so that the track repeats itself. As most tracks are longer than two minutes this will not be a problem as long as the AGC Control finds the correct levels. You can always check the saved mastering document and see if the DSP-Compressor AGC has found the correct levels.

Processing Busy/Stop

It is always preferable to wait until AAMS is no longer 'Busy' and the mastering process is finished. You can view other Tabs while AAMS is busy, but if you need to click on AAMS functions while the mastering process is busy, press Stop first. This will halt the mastering process and ensure you that DSP Processed files are not fully written and prevent broken or incomplete files.

Processing Speed

The total duration of the mastering process can vary depending on the processor speed of your PC. In addition the DSP-Compressor takes more time to process when more Multi-Bands are set up. For slower computers we recommend setting the Multi-Bands in the Setup Tab of the DSP-Compressor lower (4 Multi-Bands or lower). Do this before you start Mastering? We also recommend that you Play an audio file first with the DSP-Compressor and see if your computer can handle the calculations and speed of AAMS. If not, set the Multi-Bands to lower values.

Audio Mastering

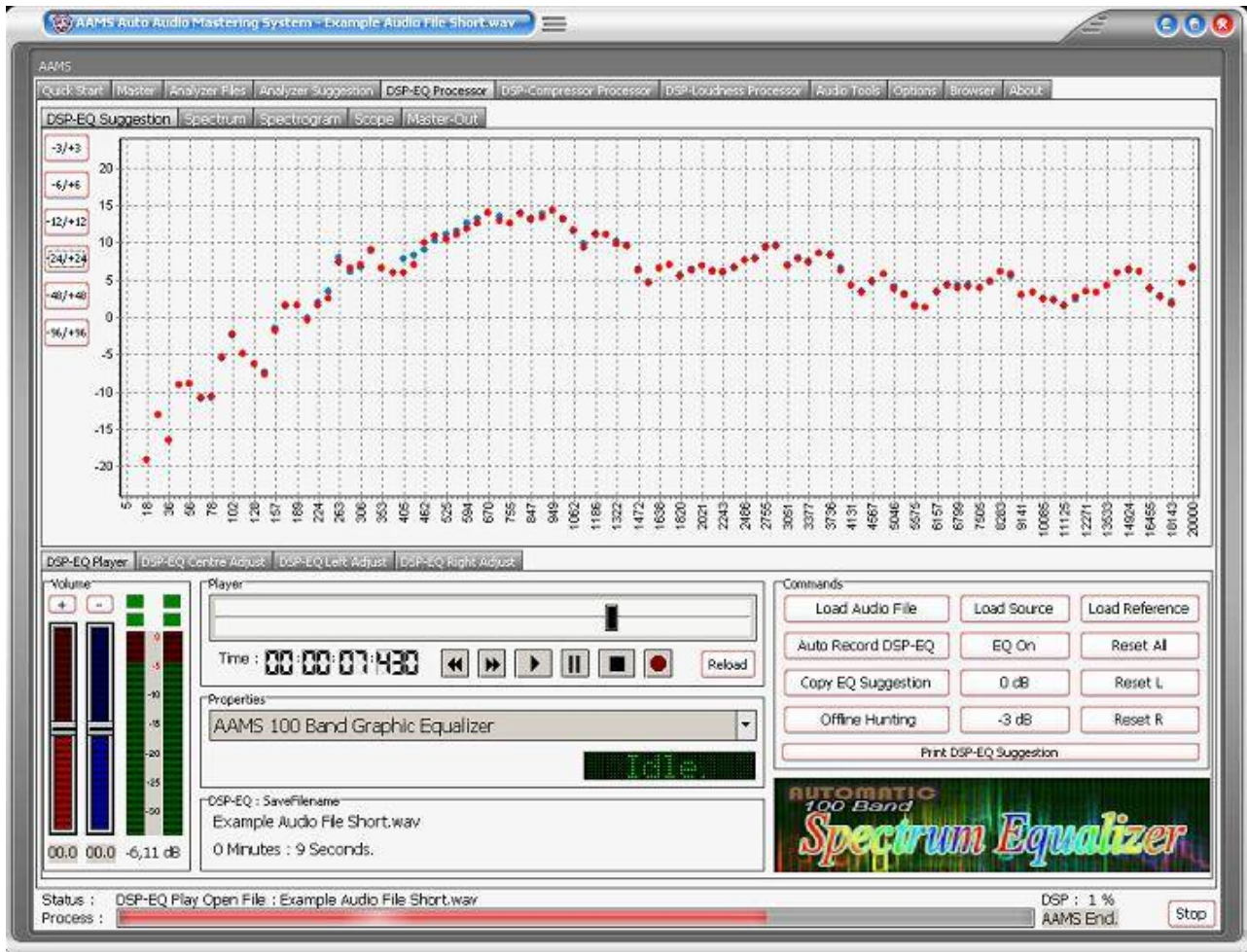
Mastering is a form of audio post-production and is the process of preparing and transferring recorded audio from a source containing the final mix to a master recording.

Manual or Automatic Mastering

You can choose Automatic Mastering any time, but there is a lot to learn from the AAMS program so we do recommend reading the manual before starting. Using the above examples can be very helpful in getting familiar with AAMS Functions. Although Automatic Mastering is an option, you might have special interests in mastering and your own ideas that will need some Manual Mastering or Half Manual/Automatic mastering. Read and understand as much you can about mastering, from this manual and FAQ. You can also read

about Mastering on some great sites and forums on the Internet. AAMS is not only an Automatic Mastering tool - it can have a great impact on how you Mix and Master and you can learn a lot from AAMS Suggestions. All the suggestions and spectrum displays will show useful information, and sometimes you can adjust the Mix before Mastering. This will correct the Mix and will give an even better Master that needs fewer corrections and your Mix will sound better adjusted while you play or mix it. The longer you use AAMS the more you will find out, so do not try to rush it. As mastering is a complex matter, it is better to be educated about mastering and the AAMS program.

AAMS DSP Equalizer



Equalizer

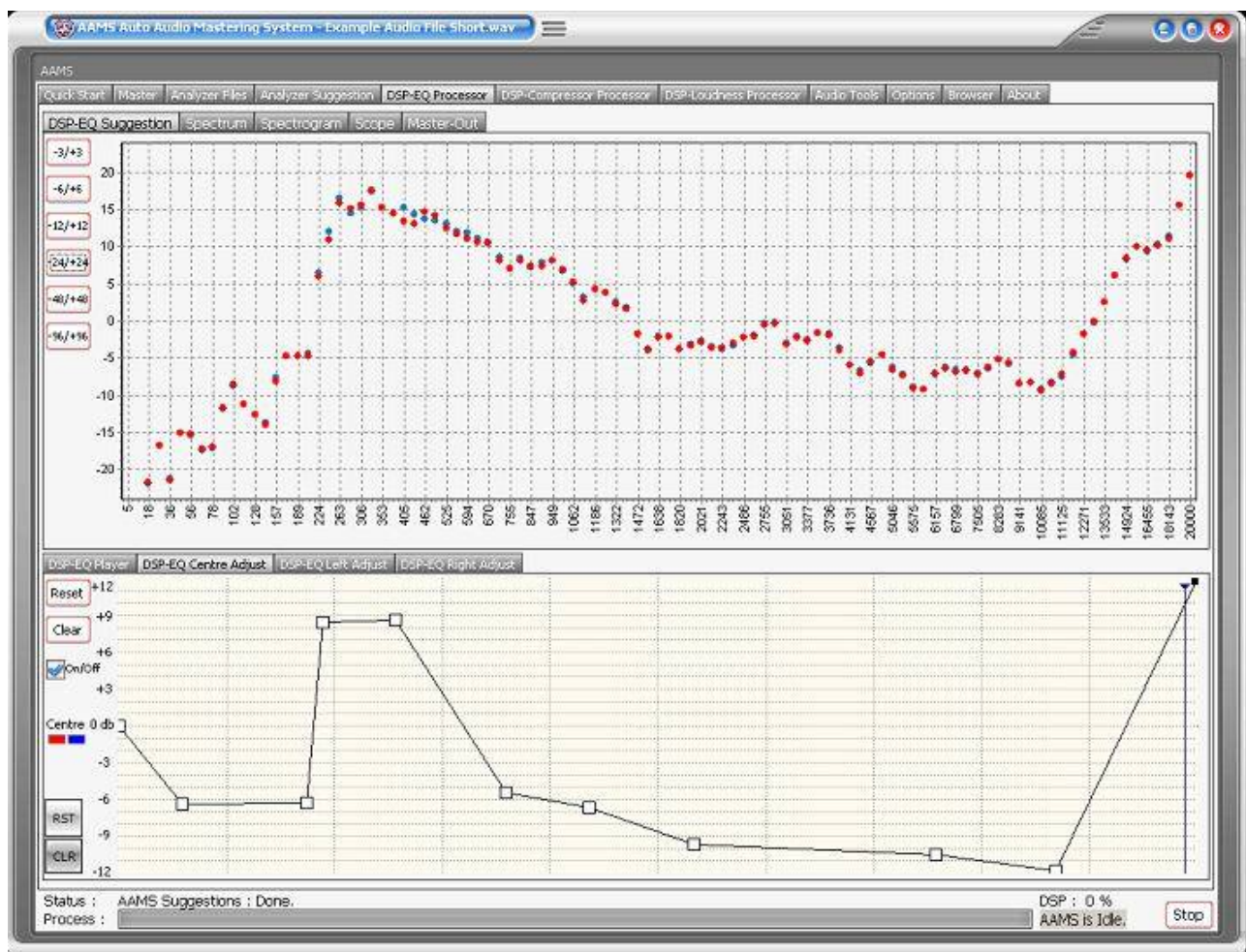
An Equalizer is usually adjustable and is chiefly intended for adjusting or compensating for an unequal frequency response in an audio signal.

The AAMS internal DSP-EQ Player / Processor explained

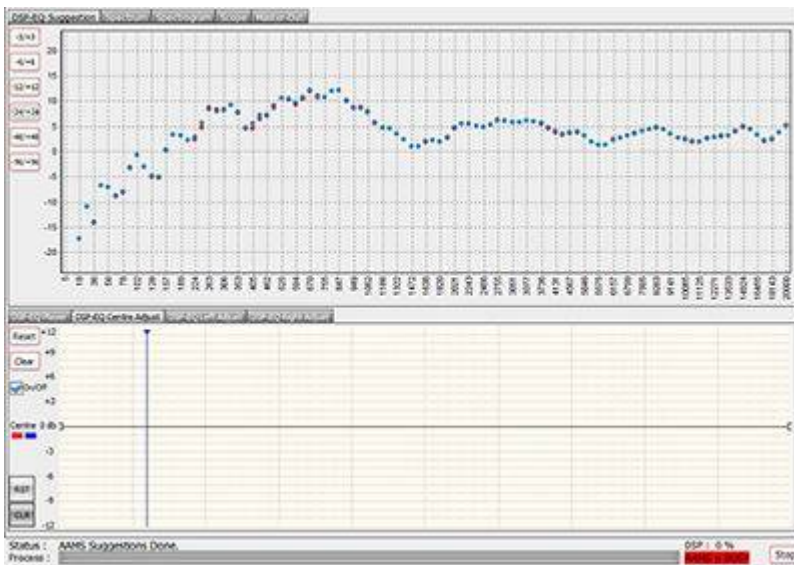
The functions and processing of the DSP-EQ is not only doing EQ-ing, but in corporation with AAMS Analyzer will process first Spectrum and EQ results by calculations and processing made internally. Mid and Side processing (m/s) is being applied as well as normal EQ processing. The possible 100 band EQ is defining a more spectrum wise way of using EQ. AAMS automatic suggestions will tell DSP-EQ how to behave. So that the best balance and spectrum is possible, AAMS will compare source and reference, making decisions what frequencies to adjust to have the same sound. This is not a copy of the reference, the source and reference are compared by AAMS Analyzer to get the best sound without just copying from the reference spectrum. AAMS calculates for the best possible settings. The DSP-EQ takes these settings and will EQ spectrum the audio. Also DSP-EQ is accurate meaning straight and each Frequency Band is

steep. Next to each other they can form a 100 band EQ, and apply as much differences as possible, because of the higher band count. With the user functions to adjust source to reference and adjust the EQ, the user can make little corrections if needed.

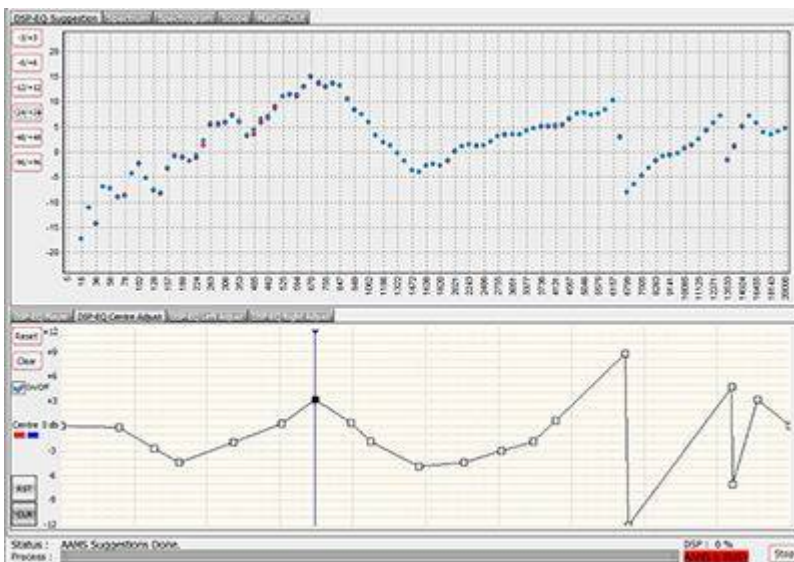
Select the DSP-EQ Tab, this represents a Graphic Equalizer that can have a single EQ band or up to 100 EQ Bands. The DSP-EQ also functions as a player for your audio material, just press Load Audio File or press Play and a window will pop up asking for a *.wav file to play. Press Stop to stop the player and press Pause to pause playing. On top of the faders is the Equalizer frequency band, lowering the faders below will change the gain of the EQ Frequency band in db. The first row of red Faders are adjusting all Left EQ frequencies and the second row of blue Faders are adjusting all Right EQ Frequencies. You can move the faders up or down and set all faders to 0dB with Zero All Faders, Zero Left, and Zero Right. If you already have loaded a Source and Reference, AAMS has calculated suggestions for the DSP-EQ and they can be copied with Copy EQ Suggestion. In this way you won't have to set up the DSP-EQ yourself as AAMS does all the hard manual work for you automatically. Now you can listen to the differences that AAMS suggests. You can always turn OFF the EQ to hear the original audio material. You can also use Zero All Faders and Copy EQ suggestion to A/B your audio material.



DSP-EQ Adjusting



Basically the functions explained in the Spectrum Reference Adjust Centre, Left and Right apply here also. You can adjust DSP-EQ suggestion calculated by AAMS analyzer and edit the Graphic EQ settings in the same kind of way you learned before. The difference with DSP-EQ is, you cannot save the DSP-EQ even if you adjust it and close AAMS. AAMS startup will override DSP-EQ manual settings by making new suggested calculations. So DSP-EQ adjustments are for editing the sound especially for one single track. This is because the source each time is different. But however DSP-EQ adjusting might be only for single instances and Spectrum Reference adjusting is especially for re-using the adjusted reference. The combination of both can really help you getting the sound you need.

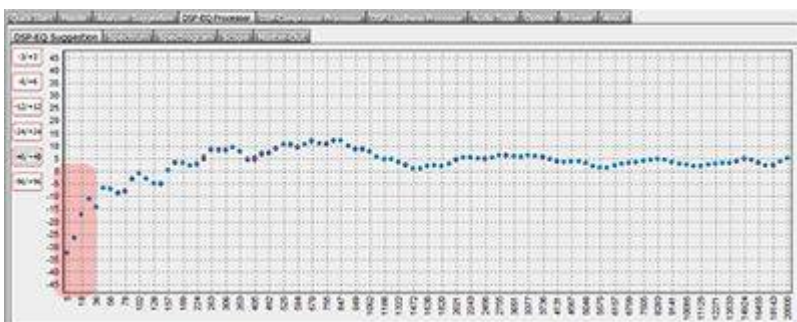


You can see the more points you create the more control you have. The Reset button on the left side will reset all points to zero 0dB. The Clear button will clear all points, leaving two points and the 0dB flat line in return. The ON/OFF will turn the Centre Adjust ON or OFF.

The RST button will reset all charts (Centre, Left and Right).
The CLR button will clear all charts (Centre, Left and Right).
DSP-EQ - Low Cutoff Filter



Under AAMS options and DSP-EQ section there is an option to select a low cutoff filter. With AAMS installation the Low Cutoff Filter is set from 5 to 30 Hz. This will help cutoff unneeded and unwanted bass frequencies. In testing AAMS we find that a cutoff below 30 Hz will never hurt audio or bass frequencies. You can turn off this feature when you play on really big bottom end speakers that play below 30 Hz. A Warning here is... Does your music contain <30 Hz frequencies? The answer is NO.



You can see in Red where the cutoff has been applied to, from 30 Hz down to 5 Hz. Each minus in Hz is -1db lowered. This can result at real low levels for 5 Hz. It is a steep cutoff.

The DSP-EQ Graphic Equalizer Processor is used for processing the adjusted sound and can only be adjusted from -12dB to +12dB per EQ band. So in the real world (hearing audio) the lowest possible cutoff is -12dB by the DSP-EQ Equalizer. The highest possible boost per EQ band is +12dB. So even when you use the Spectrum Reference Adjust Charts and DSP-EQ Adjust charts, the possible boost can only be between -12dB and +12dB on the outcome of the DSP-EQ Graphic Equalizer Processor.

Playing and Equalizing with AAMS internal DSP-EQ processor

The file Example1.aam file is the Source file and is located in the same directory as Example1.afd. The Example1.aam file was created by AAMS analysis of the Example1.wav file located in the same directory. The Example1.wav file can be listened to using the DSP-EQ Player.

Go to the DSP-EQ tab and press the button Play or Load Audio File and select the Example1.wav file. AAMS has already copied the Graphic EQ Suggestion into the faders of the DSP-EQ, so there is no need to set up the DSP-EQ. You can adjust the DSP-EQ Bands later on, if needed. What you hear now is the audio file playing with the DSP-EQ turned ON and the AAMS Suggestions applied. If you want to hear how the original audio material sounds like, you can Zero All Faders or Turn OFF the EQ. If you want to hear the suggestion again, turn ON the EQ and press Copy EQ Suggestion.

DSP-EQ Real-time Views

The Real-time DSP views are preset in the DSP-EQ Tabs. When an audio file is loaded and playing these views will display and update the Spectrum, Spectrogram, Scope and Master-Out. All views as well as all level meters are updated with their own overflow LED's. When the signal is distorted by passing the highest possible maximum sound level an overflow LED will turn red. The overflow LED will return to green if all levels are returning to normal. The Hold LED's will stay red until they are reset which can be done manually with a click of the mouse.

DSP Overflow

When audio becomes too loud for the AAMS internal DSP-Processor an overflow is registered by one of the LED's. AAMS will correct such overflows automatically when the player is playing, lowering the volume faders step by step. This is called AGC (Automatic Gain Control) and the DSP-EQ, DSP-Compressor and DSP-Loudness all use the AGC automatically to reduce the volume to a level that does not contain overflows. In this way you can be assured that levels will stay below 0dB and will not distort your sound. The Automatic Overflow feature can be turned off in the Options Tab, but this is not recommended.

DSP-EQ

All processing is done by AAMS V3 internal DSP-Processor, by the player and DSP pipeline processing. The DSP-EQ is quite an improvement of AAMS V3 and will allow you to hear your audio material directly inside AAMS without the use of other programs, you can also edit the DSP-EQ Bands Centre, Left and Right. Changing the Reference will update all settings and you can hear differences directly, choosing a reference to match the sound you want to hear. A good starting point is loading References from the Reference Database's 200+ Styles. If in doubt, choose the style closest to your music and play that one first. Initially the Example file is intended to explain how AAMS works. The same example will be used to complete a full mastering job later on, but for now take the time to get familiar AAMS features and have some fun with it.

DSP-EQ Centre Adjust

To have influence on the outcome of DSP-EQ Calculations between Source and Reference (Analyzer Suggestions) the DSP-EQ Centre Adjust presents an adjustable envelope chart for all DSP-EQ Bands to be edited upwards or downwards. By clicking into the envelope chart new envelope points are created and can be adjusted. The Left and Right EQ Bands (Centre) will be adjusted accordingly. The DSP-EQ Chart will be adjusted each time you change the envelope. For users who want to adjust the DSP-EQ Bands without changing the Reference, this can be a handy tool. You can of course load a corresponding audio file into the DSP-EQ Player and listen directly to the changes in audio sound. You can reset the Envelope pressing the Reset Button. Or clear the envelope by pressing the Clear Button.

DSP-EQ Left Adjust

To have influence on the outcome of DSP-EQ Calculations between Source and Reference (Analyzer Suggestions) the DSP-EQ Left Adjust presents an adjustable envelope chart for all Left DSP-EQ Bands to be edited upwards or downwards. By clicking into the envelope chart new envelope points are created and can be adjusted. The Right EQ Bands will be adjusted accordingly. The DSP-EQ Chart will be adjusted each time you change the envelope. For users who want to adjust the DSP-EQ Bands without changing the Reference, this can be a handy tool. You can of course load a corresponding audio file into the DSP-EQ Player and listen directly to the changes in audio sound. You can reset the Envelope pressing the Reset Button. Or clear the envelope by pressing the Clear Button.

DSP-EQ Right Adjust

To have influence on the outcome of DSP-EQ Calculations between Source and Reference (Analyzer Suggestions) the DSP-EQ Centre Adjust presents an adjustable envelope chart for all Right DSP-EQ Bands to be edited upwards or downwards. By clicking into the envelope chart new envelope points are created and can be adjusted. The Right EQ Bands will be adjusted accordingly. The DSP-EQ Chart will be adjusted each time you change the envelope. For users who want to adjust the DSP-EQ Bands without changing the Reference, this can be a handy tool. You can of course load a corresponding audio file into the DSP-EQ Player and listen directly to the changes in audio sound. You can reset the Envelope pressing the Reset Button. Or clear the envelope by pressing the Clear Button.

Auto Record DSP-EQ

This function is fully automatic. It has 2 Stage processing, first Hunting down the audio file for the suggested volume settings. This will prevent overflows that go over 0dB keeping the signal below 0dB while playing. The second stage is recording the audio file with the DSP-EQ. There is no need to set up the DSP-EQ manually as all settings are taken care of automatically as long as a valid Source and Reference are loaded into AAMS. The recorded audio file has the same name as the original audio file with the addition of the extension '_EQ.wav'.

The Faders

In the DSP-EQ tab, the faders are represented in Red and Blue for Left and Right. Only 25 faders are presented at a time. Because AAMS can handle up to 100 EQ bands at a time, you can select a higher or lower Fader Page with the buttons 1-25, 26-50, 51-75 and 76-100. Now you can reach the full length of all faders of the DSP-EQ, from lower to higher frequencies. A single Fader will represent its gain in dB and can slide from +12dB to -12dB.

The Volume Faders and Level Meters

When the DSP-EQ is playing and equalizing the volume faders are automatically lowered when an overload is present on the master-out. To be sure that there are no overloads you should listen to the whole audio material until the end, then the volume faders are set just right and the master-out will not go over 0dB. You can turn off this function in the Options Tab. The 0 button will set the volume faders back to the 0 position, the -3 button will set the volume to -3dB. The + and - buttons raise or lower the gain with increments of 0.1dB at a time.

Overflow LED's

The overflow LED's turn from green to red when an overflow is present in one of AAMS DSP processors. You can press each LED and the Overflow Hold LED's turn green again. An overflow is basically a digital domain term, when a signal goes over the 0dB limit an overflow is present. Recording in the digital domain with signals over +0dB will result in damaged audio with distortion therefore it is better to adjust the volume (gain) to a lower level. You can also adjust the faders of the Equalizer to compensate for overflows but this is quite tedious.

Recording the DSP-EQ

After you are satisfied, you can process the audio material with the Record button. The Record button processes the audio and saves it as a new audio *.wav file. The Example file Example1.wav would be saved as Example1_EQ.wav.

Settings

The DSP-EQ can handle from 1 to 100 Band Graphic EQ settings. The Default is 50 Band Graphic EQ which is a very good setting for all applications. Whenever you need a bit more detail, you can use the 100 Band Graphic EQ setting. Although the 100 Band Graphic EQ will give more detail this will affect processing speed. As a general rule using more EQ Bands can bring phasing into the sound. This will depend on frequency overflow in the audio material and the way a Graphic EQ does its job. Whenever you hear Phasing starting to begin, switchback to a lower DSP-EQ Setting. Most likely Phasing sometimes will only happen using the 100 Band EQ Setting. However 95% of all audio material does not introduce Phasing when using the 100 Band EQ Settings. Better be on the safe side and in general a 50 or 32 Band Graphic EQ is a very good default.

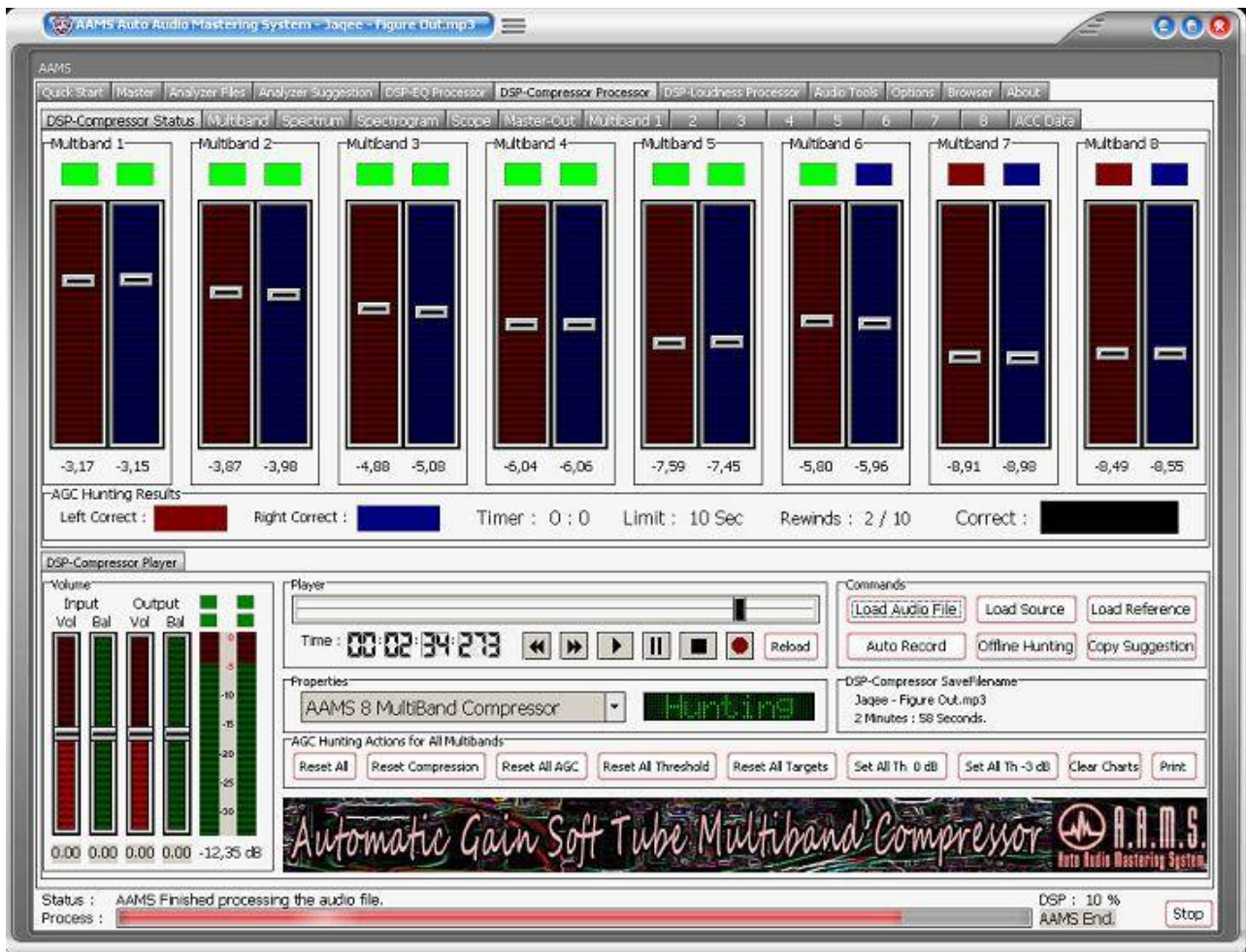
Manual and Automatic Mode

Because AAMS is usually set up for Automatic Mastering at installation, if you wish to work manually with the AAMS Processors it is recommended that you use the Record button of each processor. Also for configuring AAMS Options for working in manual mode, there are some settings on the Options Preferences Tab. For all Automatic Mastering purposes, switch back to Automatic Mode in Options Preferences Tab.

Specifications

The internal DSP-EQ has a natural sounding algorithm that equalizes in an exact linear manner with no resonance peaks. The frequency range is 5Hz-22050Hz. The amount of Graphic Equalizer Bands range from 1 band to 100 with 'Natural' and 'Steep' filters. Depending on the amount of EQ-Bands and the Frequency range calculated by AAMS Suggestions, the frequency range 0-5 Hz or 20000-22050 Hz is rolled-off and all Factory Presets have a Roll-On and Roll-Off Frequency range. Gain ranges from -12dB to +12dB, and can be set in fractions of 0.1dB. The Q-factor of each filter is displayed for convenience and changes depending on the amount of Graphic Equalizer filters that are in use. Designed to operate at sampling rates ranging from 44.1 KHz to 192 KHz, although the Sample rate is normally 44.1 KHz, depending on the Audio File outputted by the Player. The Internal DSP-Processing can handle 16/24/32 Bit calculations while the rest of the programming handles 64-bit code. The DSP-EQ allows comparison of the AAMS EQ Suggestions and the Original Audio.

AAMS DSP Compressor



AAMS DSP- Multiband Compressor

- ☐ Multibands
- ☐ Soft tube behavior
- ☐ Fully Automatic Compressor

Multiband compressor with automatic gain or limiter functions, 8 multibands possible.
Soft tube behavior, not curved but also not straight lined soft tube compressor for each band.
Automatic hunting function for calculation of threshold levels per band and automatic gaining functions.

AAMS Compressors are setup by AAMS Analyzer calculations in suggestions, these are applied by the automatic DSP-Compressor processing on the audio.

A compressor reduces the dynamic range of an audio signal if its amplitude exceeds a specified threshold. The amount of gain reduction is determined by Attack, Delay, Threshold and Ratio settings. A Multiband Compressor has more Bands and each frequency Range (Band) can be separately compressed. A Single Band Compressor has basically no use for Mastering purposes, instead a Multiband Compressor can be highly recommended for Mastering Purposes.

AAMS Compressor and multibands are based on compressor functions as for mastering is known. The main function is balancing the audio track after DSP-EQ has done its spectral functions. The DSP-Compressor is

based on spectrum frequency as well as on dynamics and dynamic balancing. Mostly complex to setup by user or manual compressors. Maybe also because compressor as a subject is less easy to understand and maintained as EQ does. Compression in mastering is more subtle. It tries to EQ a bit and Loudness a bit. The DSP-EQ in front and the DSP-Loudness afterwards, they are good friends in AAMS Mastering chain.

The AAMS internal DSP-Compressor Player / Processor explained

Select the DSP-Compressor Tab. This represents a Multi-Band Compressor that can have a single band compressor simulated toward 8 Multi-Bands. The DSP-Compressor functions as a player for your audio material, just press Load Audio File or press Play and a window will pop up asking for a *.wav file to play. Press Stop to stop the player and press Pause to pause playing. If you have already loaded a Source and Reference, AAMS has calculated suggestions for the DSP-Compressor and they can be copied with Copy EQ Suggestion. In this way you won't have to set up the DSP-Compressor yourself as AAMS does all the hard manual work for you automatically. You can also use Zero All Faders and Copy EQ suggestion to A/B your audio material.

The DSP-Compressor

Depending on the Setup chosen from the Settings Tab, a single band compressor up to an eight band Multi-Band compressor can be simulated. Each Multi-Band compressor has its own settings for Threshold, Attack, Decay, Ratio and Window. The Threshold fader of each Multi-Band can be set manually and when you click on the value below the Threshold Fader it will reset to 0dB. The DSP-Compressor has got a natural sound and is there to compress the Multi-Band as natural as possible, meaning there are no extra functions like EQ or Exciters used.

Auto Record DSP-Compressor

This function is fully automatic and has two processing stages. The first searches the audio file for the suggested compressor settings. The second stage recordings the audio file with the correct threshold settings found by the AGC. There is no need to set up the DSP-Compressor manually as all settings are taken care of automatically as long as a valid Source and Reference are loaded into AAMS. The recorded audio file has the same name as the original audio file with the addition of the extension '_C.wav'.

Offline AGC Hunting

This function is the first stage and scans the audio file for the correct AGC settings as suggested by AAMS calculations. The outcome is shown by the 'Suggested Threshold Targets' and is automatically copied to the threshold faders of each Multi-Band. After this function you can press Record to proceed to the Second stage.

The Faders

The threshold fader for left and right can be set manually or by choosing a setup. When you click on the value below the fader will reset to 0dB. The Attack, Delay, Ratio and Window settings are preset by the Setup you have chosen but can be changed manually.

The AGC Control

AGC Control is the automatic feature that runs the DSP-Compressor. When the AGC is turned ON, the DSP-Compressor will automatically hunt the audio that is being played or processed for the correct levels. These levels are based on the Compressor Suggestion AAMS has calculated. When the AGC is turned On the DSP-Compressor is hunting for these levels and the AGC Graph and AGC Data displays the results while the audio file is being played or processed. In the AGC Data grid you can see all levels and the suggestion in db. The 1-8 LED's below show the correct found levels when they turn to Green, indicating the

Multi-Band Left or Right threshold level has been found by the AGC. It is possible that Green LED's turn off and on for a while as the AGC is waiting for the audio signal to be corrected. When all Left and Right LED's are green a timer will run and after some time the AGC Correct LED will also show green meaning all Multi-Bands are now ok and all correct Multi-Band threshold levels have been found based on the AAMS Compressor suggestion. The suggested Threshold level of every Multi-Band is shown as 'Threshold Suggestion Left' and 'Threshold Suggestion Right'. It is best to turn AGC ON when playing and let the AGC Control hunt down the right threshold levels, playing through the whole file. Then turn the AGC off and set 'All targets threshold' and Record the Audio File (when you press the Record button the AGC is automatically turned to off).

The AGC Chart

The AGC Chart shows the selected Multi-Band and shows the real time audio compressed signal in red and blue lines for Left and Right. The maroon and dark blue lines are the AC controls signal that will try to stay close to the yellow and green Suggestion lines. The nearer that the maroon and dark blue lines come to the yellow and green Suggestion lines, the better the result. The AC will compensate with the Left and Right threshold faders of each Multi-Band and will show the 'Suggested Threshold' as a result while playing the audio signal. You can reset the AC chart and found levels with the buttons besides the chart.

The AC Data

The AC Data grid will show all data that has been measured for each Multi-Band, including the suggestions for each Multi-Band as calculated by AAMS. When the AC is "Hunting" a correct threshold level is not found yet. When the AC is "Ok" the AC has found correct levels. The LED's below the AC will turn to green for each found Multi-Band level that is correct.

Filters

Each set up of the DSP-Compressor consists of one or several Multi-Bands each with a specific frequency range. The frequency ranges for each Multi-Band are shown in the Filters Chart.

Settings

Here you can set up a DSP-Compressor from several useful presets. The AAMS 1-8 Multi-Band Compressor settings are suitable for most purposes. The AAMS 1-8 Low Band Multi-Band Compressor settings are for lower quality recordings like MP3 and Tape Copies and these settings will concentrate more on the lower rather than high frequencies. Furthermore there are some settings that will help you work with plugins using the correct settings. In a normal situation a 4 Band Multi-Band Compressor is the default setting. Changing to an 8 Multi-Band Compressor will affect processor speed and will improve quality a little more. Use the 8 Multi-Band Compressor when you think you need the extra Multi-Bands, otherwise the 4 Band Multi-Band Compressor setting is default. Selecting a Preset will change the setup of the DSP-Compressor and when audio is being played the player will stopped...

The Volume Faders and Level Meters

When the DSP-Compressor is playing the volume faders are automatically lowered when an overload is present on the master-out. To be sure that there are no overloads you should listen to the whole audio material until the end, then the volume faders are set just right and the master-out will not go over 0dB. You can turn off this function in the Options Tab.

Overflow LED's

The overflow LED's turn from green to red when an overflow is present in one of AAMS DSP processors. You can press each LED and the Overflow Hold LED's turn to green again. An overflow is basically a digital domain term when a signal goes over the 0dB limit. Recording in the digital domain with signals over +0dB will result in damaged, distorted audio. So it is better to adjust the volume (gain) to a lower level. You can also adjust the faders of the Equalizer to compensate for overflows, but this is quite tedious.

Recording the DSP-Compressor

After you are satisfied with the results you can process the audio material with the Record button. The Record button processes the audio and saves it as a new audio *.wav file. The Example file Example1.wav would be saved as Example1_C.wav.

General Rules

The default 4 Band Compressor setting is the basic set up for compression. This will give good results on all kinds of processor speeds and available memory. When you are using a modern computer you can switch to the 6 or 8 Multi-Band Compressor for some slightly better results. 8 Multi-Bands almost halves the speed of operation, so switch back to a 6 or 4 Band Multi-Band Compressor if you experience problems. For best results it is also important that all AC LED's are green, confirming that good compression levels have been found. When using Automatic Mastering there is a Mastering Document saved alongside the Mastered Audio file, here you can check that the right levels are found (AC Correct).

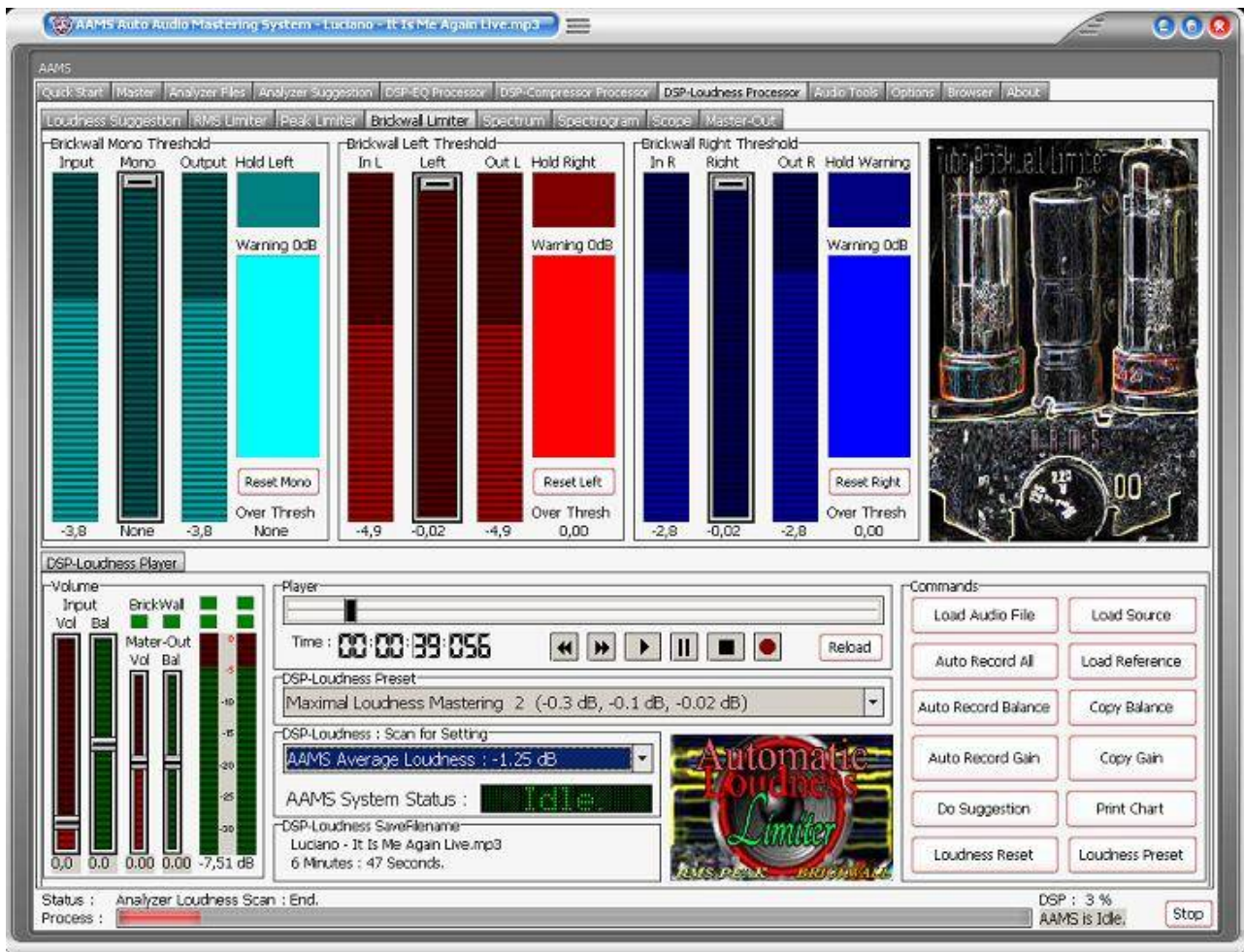
Manual and Automatic Mode

Because AAMS is set up for Automatic Mastering by default, when working manually with AAMS Processors it is recommended that you use the Record button of each processor. Also for configuring AAMS Options for working in manual mode, there are some settings on the Options Preferences Tab. For all Automatic Mastering purposes, switch back to Automatic Mode in Options Preferences Tab.

Specifications

The internal DSP-Compressor has a natural sounding algorithm that provides linear compression. The DSP-Compressor AC Control can handle AAMS Compressor Suggestions automatically or manually. The frequency range is 5Hz to 22050 Hz. Compressor Bands range from 1 to 8 depending on the Factory Preset in use. The frequency range 0-5 Hz or 20000-22050 Hz is rolled-off and all Factory Presets have a Roll-On and Roll-Off Frequency range. The application is designed to operate at sampling rates ranging from 44.1 kHz to 192 kHz. The Sample rate is normally 44.1 kHz depending on the Audio File output by the Player. The Internal DSP-Processing can handle 16/24/32 Bit calculations while the rest of the programming handles 64 bit code.

AAMS DSP Loudness



Loudness and Limiters

Loudness is the quality of a sound that is the primary psychological correlate of physical intensity. Loudness, a subjective measure, is often confused with objective measures of sound intensity such as decibels. Filters attempt to adjust intensity measurements to correspond to loudness as perceived by the average human. However, true perceived loudness varies from person to person and cannot be measured this way. Loudness is also affected by parameters other than intensity, including: frequency and duration.

A Peak or RMS Limiter is a circuit that allows signals below a set value to pass unaffected and compresses the peaks of stronger signals that exceed this set value.

A Brick wall Limiter is a circuit that allows signals below a set value to pass unaffected and cutoff the peaks of stronger signals that exceed this set value and to avoid clipping at 0db or above 0db.

The AAMS internal DSP-Loudness Processor explained

AAMS loudness is based on AAMS Analyzer suggestions and a pre-setup desired level.

Select the DSP-Loudness Tab and Select Loudness. The DSP-Loudness Player and Processor contain a Balancing Tool, Loudness Maximizer, RMS Limiter, Peak Limiter and Brick wall Limiter in one. Also the loudness DSP has analog properties, meaning the compressor curves are soft and round. Main functions of the DSP-Loudness processor is RMS Audio Scanning, Peak Audio Scanning, Balance Search that balances Left and Right of the whole track. A Gain processor, that functions on AAMS Peak RMS based system or the user can change to RMS more Dynamic based system. In whole the DSP-Loudness Mastering routine that does DSP-Loudness functions automatically or user based.

The DSP-Loudness also functions as a player for your audio material. Simply press Load Audio File or press Play and a window will pop up asking for a *.wav file.

Press Stop to stop the player and press Pause to pause playing.

There are two Loudness systems to choose AAMS Loudness or RMS Dynamic Loudness

AAMS Sub Zero 0: +6.00 dB
AAMS Sub Zero 1: +5.75 dB
AAMS Sub Zero 2: +5.50 dB
AAMS Sub Zero 3: +5.25 dB
AAMS Sub Zero 4: +5.00 dB
AAMS Sub Zero 5: +4.75 dB
AAMS Sub Zero 6: +4.50 dB
AAMS Sub Zero 7: +4.25 dB
AAMS Loudness War I 1: +4.00 dB
AAMS Loudness War I 2: +3.75 dB
AAMS Loudness War I 3: +3.50 dB
AAMS Loudness War I 4: +3.25 dB
AAMS Loudness War II 1: +3.00 dB
AAMS Loudness War II 2: +2.75 dB
AAMS Loudness War II 3: +2.50 dB
AAMS Loudness War II 4: +2.25 dB
AAMS Increased 1: +2.00 dB
AAMS Increased 2: +1.75 dB
AAMS Increased 3: +1.50 dB
AAMS Increased 4: +1.25 dB
AAMS over the Top 1: +1.00 dB
AAMS Over the Top 2: +0.75 dB
AAMS Over the Top 3: +0.50 dB
AAMS Over the Top 4: +0.25 dB
AAMS Ultra Hard Loudness: 0.00 dB
AAMS Hard Loudness: -0.25 dB
AAMS Super Strong Loudness: -0.50 dB
AAMS Strong Loudness: -0.75 dB
AAMS Good Loudness: -1.00 dB
AAMS Average Loudness: -1.25 dB - Normal levels AAMS target setting
AAMS Medium Loudness 1: -1.50 dB
AAMS Medium Loudness 2: -1.75 dB
AAMS Soft Low ends 1: -2.00 dB
AAMS Soft Loudness 2: -2.25 dB
AAMS Uttara Soft Loudness 1: -2.50 dB
AAMS sutra Soft Loudness 2: -2.75 dB
AAMS Headroom Loudness 1: - 3.00 dB
AAMS Headroom Loudness 2: - 3.25 dB
AAMS Headroom Loudness 3: - 3.50 dB
AAMS Headroom Loudness 4: - 3.75 dB

AAMS Minimal Loudness 1: - 4.00 dB
AAMS Minimal Loudness 2: - 4.25 dB
AAMS Minimal Loudness 3: - 4.50 dB
AAMS Minimal Loudness 4: - 4.75 dB
AAMS Minimal Loudness 5: - 5.00 dB
AAMS Minimal Loudness 6: - 5.25 dB
AAMS Minimal Loudness 7: - 5.50 dB
AAMS Minimal Loudness 8: - 5.75 dB
AAMS Minimal Loudness 9: - 6.00 dB

RMS Range Ultra Stupid: 0 dB
RMS Range Ultra Stupid: -2 dB
RMS Range Ultra Stupid: -3 dB
RMS Range Ultra Hard: -4 dB
RMS Range Ultra Hard: -5 dB
RMS Range Ultra: -6 dB
RMS Range Ultra: -7 dB
RMS Range Loud: -8 dB
RMS Range Loud: -9 dB
RMS Range Normal: -10 dB – Normal levels target setting
RMS Range Normal: -11 dB
RMS Range Normal: -12 dB
RMS Range Normal: -13 dB
RMS Range Normal: -14 dB
RMS Range Normal: -15 dB
RMS Range Normal: -16 dB
RMS Range Low: -17 dB
RMS Range Low: -18 dB
RMS Range Low: -19 dB
RMS Range Low: -20 dB

Dbfs Range Ultra Stupid: 0 dB
Dbfs Range Ultra Stupid: -2 dB
Dbfs Range Ultra Stupid: -3 dB
Dbfs Range Ultra Hard: -4 dB
Dbfs Range Ultra Hard: -5 dB
Dbfs Range Ultra: -6 dB
Dbfs Range Ultra: -7 dB
Dbfs Range Loud: -8 dB
Dbfs Range Loud: -9 dB
Dbfs Range Normal: -10 dB – Normal levels target setting
Dbfs Range Normal: -11 dB
Dbfs Range Normal: -12 dB
Dbfs Range Normal: -13 dB
Dbfs Range Normal: -14 dB
Dbfs Range Normal: -15 dB
Dbfs Range Normal: -16 dB
Dbfs Range Low: -17 dB
Dbfs Range Low: -18 dB
Dbfs Range Low: -19 dB
Dbfs Range Low: -20 dB

The AAMS Loudness system is based on a percentage of peaks and RMS levels or RMS/Peak Levels. The AAMS system will do a more peak based search of the audio and also scans for RMS levels. But however AAMS system will calculate and process audio as being more careful to avoid distortion levels. This means that for most it will bring your audio input to appropriate levels. Not doing the Loudness War, but being careful and still have a loud sound. AAMS DSP-Loudness process will anticipate troubles and avoids them. Still Loudness that is applied to much, will still have distortion or overflows. So limiters and calculations in processing are used in the AAMS Loudness Based system option. When needed this system can do full album mastering based on AAMS System of transferring loudness levels. Also on its main settings Single Audio Mastering can be an advantage over the RMS Dynamic Levels system.

The RMS Dynamic Level system is based on more know RMS and Peak scanning methods. If you are into RMS levels, there is much to say about it. Because it is the main system used by everyone into the discussion of the loudness war. So read about that on the internet if you are unknown. The main function is RMS and Dynamics / some say Dynamic Range. Why use a Loudness Processor and what is it doing? Well the user can setup a desired RMS level for the whole track. The peaks will be calculated and shaved off the whole track, so that the RMS Level is what is needed as loudness or RMS levels for the whole track. Basically the user setup is for RMS Levels, and the Limiters or Calculations a computer can do to process the audio that loud. For different genres there are RMS levels appropriate. So the user can make up the RMS, and does not really care about peaks that will be hurt. RMS Levels are nowadays convenient method to get the loudness desired. With shaving the peaks and making things louder, comes at a price. Distortion and Overflows. We hope that the Limiters and internal processing will do not do too much damage. If the user sets the RMS Levels too high (-6dB to 0db!) be sure of artifacts inside the audio. You can select RMS levels and Dbfs levels. For single files and genres of music, when mastering to a certain level is needed. Dbfs system is the same as RMS system but it relies on other measurement system called dbfs. Both RMS and dbfs systems are good when you are wanting to do things manually and adjust the loudness. When mastering or even after mastering. You can hunt down your appropriate levels and setup AAMS DSP-Loudness to follow.

That must be digital distortion? Both systems AAMS system and the RMS System are not opponents, but friends!

Chart - Display Levels

When an audio file is loaded into the player the file will be automatically scanned for its levels. These levels are shown on the chart and above the chart are the Peak / RMS levels. After scanning is finished the suggestions for Balancing and Gaining are shown below the chart. The basic intention of the DSP-Loudness is to balance then add gain to the audio file. The Balance suggestion shows a value in dB, a minus - value is balanced to the Left and a plus + value is balanced to the Right. You can set the Balance Faders (There are three in total connected to each other) with the mouse. You can reset the Balance Faders by clicking on the value below the fader and the fader will reset to 0dB. The red LED's for Balance and Gain will show up when suggestions matching the Audio File are correct.

The main Automatic functions

AAMS possible Mastering Limiter settings.

Maximal Loudness Mastering 2 (-0.3 dB, -0.1 dB, -0.02 dB) – Default.

Average Loudness Mastering 1 (-1 dB, -0.3 dB, -0.05 dB)

Average Loudness Mastering 2 (-0.3 dB, -0.1 dB, -0.02 dB)

Minimal Loudness Mastering 1 (-0.3 dB, -0.1 dB, -0.05 dB)

Minimal Loudness Mastering 2 (-0.3 dB, -0.1 dB, -0.02 dB)

Maximal Loudness 0 (All Limiters Off)

Maximal Loudness 1 (Brick wall Limiter -0.05 dB)

Maximal Loudness 2 (Peak -0.3 dB, Brick wall -0.05 dB)

Maximal Loudness 3 (Rams -1 dB, Brick wall Limiter -0.05 dB)

Maximal Loudness 4 (Rams -1 dB, Peak -0.3 dB, Brick wall -0.05 dB)

Average Loudness 0 (All Limiters Of)

Average Loudness 1 (Brick wall -0.05 dB)

Average Loudness 2 (Peak -0.3 dB, Brick wall -0.05 dB)

Average Loudness 3 (Rams -1 dB, Brick wall -0.05 dB)

Average Loudness 4 (Rams -1 dB, Peak -0.3 dB, Brick wall -0.05 dB)

Minimum Loudness 0 (All Limiters Of)

Minimum Loudness 1 (Brick wall -0.05 dB)

Minimum Loudness 2 (Peak -0.3 dB, Brick wall Limiter -0.05 dB)

Minimum Loudness 3 (Rams -1 dB, Brick wall -0.05 dB)

Auto Record Loudness - This function will automatically process Balance and Gaining onto the audio file you load into the DSP-Loudness player/processor. A balanced audio file with the extension '_B.wav' and a gain processed audio file with the extension '_L.wav' will be created. All you have to do is wait until processing is finished. This function is fully automatic, just choose an audio file and AAMS will do the balancing and gaining for you. There is no need to set up the DSP-Loudness functions before using this function as all calculations are done automatically. This function is a two-stage process with Balancing as the first stage and gaining the second stage.

Auto Record Balance

This function is the first stage of the DSP-Loudness processor and balances the audio file you loaded into the Player/Processor. A recorded and processed file with the extension '_B.wav' will be created as the balanced audio file. This function is fully automatic, just choose an audio file and AAMS will do the balancing. There is no need to set up the DSP-Loudness functions before using this function as all calculations are done automatically.

Auto Record Gain

This function is the second stage of the DSP-Loudness processor and gains the audio file you loaded into the Player/Processor. A recorded and processed file with the extension '_L.wav' will be created as the gained audio file. This function is fully automatic, just choose an audio file and AAMS will automatically do the Loudness Gaining. There is no need to set up the DSP-Loudness functions before using this function as all calculations are done automatically.

1 or 2 Stages?

You can use 1 or 2 Stage functions with AAMS. A 1 Stage manual job involves playing the audio file with the Player and setting up Balance and Gain, ensuring that the signal does not go over 0dB, and then record the results. A 1 Stage processing job is less accurate than the 2 Stage type. A 2 Stage Processing job is more accurate and means you Balance the Audio File First, record it, and then do Stage 1.

The internal Processing Route

The routing of the DSP-Processor is as follows. The Audio is processed by the Loudness part of the DSP-Loudness processor. The Loudness Tab shows Balancing Faders and Loudness Gain Volume faders. The RMS Limiter is there to compress/limit the audio signal when necessary. The RMS limiter is based on an RMS compressor and has as large a ratio range as possible. The Peak Limiter limits some the highest peaks and can be set towards Brick walling or the more moderate Peak Limiting. Finally the Brick wall Limiter limits any signals below 0dB or lower. All Limiters can be turned off or on by depending on what set up from the Setting Tab you have chosen.

The Setups

The Settings Tab will show the DSP-Loudness setup and you can choose any of the listed DSP-Loudness settings. The Maximal Setups are for Maximal Loudness and will try to get the loudest sound possible and is the default preset. The Average Setups are for Average Loudness and will try to get the best sound possible. The Minimal Setups are for Minimal Loudness and will try to get the sound towards a minimal level. This is useful for compiling CD's or multiple tracks and saves some loudness space for later use. The values for the RMS Limiter, Peak Limiter and Brick wall limiter are also listed. When a Limiter is not shown in the chosen setup this means that it is not required in the current configuration. When an Audio File is loaded into the DSP-Loudness processor / Player, the levels in the file are scanned. You can change the Scan Level in the Settings Tab, which will raise or decrease the Loudness Level that is being scanned for (and are subsequently used in the suggestions. When the correct level is reached for the Maximal 0dB Setup the Suggestion Correct LED's will show Green. When the correct level is reached, for the other Setups the Suggestion Correct LED's will show Green or Yellow. The Yellow Led indicates that the Used Setup highest level has not been reached yet as only the Maximal 0dB Setup will do this. You can use the Average and Minimal Setups for a single stage pass. When you apply the Average and Minimal Setups more than once the Yellow LED will stay and will turn green only when it reaches the Maximum Setup Loudness Levels.

When you use the Average or Minimal DSP-Loudness Setups the first pass of DSP-Loudness Processing is sufficient, so making multiple passes is not recommended. You can always use more Loudness Gaining to make it louder although this is also not recommended. When you use the Maximal DSP-Loudness Setup, the first pass will gain the loudness directly to the Maximal and then the Green Led will show-up. On start up the Average 1 Setup is the default to ensure a good Average Loudness. When you change the DSP-Compressor Setup to Maximal, be aware that some distortion in the audio signal cannot be prevented. Only use the Maximal Setup when you are certain of it and the intended result. If you are unsure, a good start is the Average Setups of the DSP-Compressor.

Loudness

The Balance Fader can be set manually and clicking on the value below the fader will reset it to 0dB. When you use 'Copy Balance Suggestion' the suggested Balance is copied to the Balance Fader. The Gain fader can be set manually and clicking on the value below the Gain Fader will reset it to 0dB. When you use 'Copy Gain Suggestion' the suggested gain is copied to the Gain fader. The buttons 'DSP-Loudness Preset' and 'DSP-Loudness Reset' are setting or resetting the chosen Setup, which is useful for comparing its effect.

RMS Limiter

The threshold fader for left and right can be set manually or by choosing a setup and when you click on the value below the fader it will reset to 0dB. The Attack, Delay, Ratio and Window settings are preset by the Setup you have chosen but can be changed manually. The RMS Limiter is not as fast in correcting the audio signal as the Peak Limiter is. Most of the times when threshold levels for left and right are low, the RMS Limiter will only work on loud parts of the audio signal, making it slightly lower when needed. The RMS Limiter will pass signals higher than 0dB to the Peak Limiter and is only meant for moderately correcting the audio signal.

The Peak Limiter

The threshold fader for left and right can be set manually or by choosing a setup and when you click on the value below the fader it will reset to 0dB. The Attack, Delay, Ratio and Window settings are preset by the Setup you have chosen but can be changed manually. The Peak Limiter is very fast in correcting the audio signal and can also be used as a Brick wall Limiter when the attack time is set to ≤ 1 ms. The Peak Limiter will adjust every signal that goes above the threshold level with the ratio chosen. A ratio of 50:1 will compress/limit the audio signal a lot more than the RMS Limiter will ever do. The Peak Limiter is meant to 'Scrape off' some of the loudest peaks of the audio signal.

The Brick wall Limiter

The threshold fader for left / right and mono can be set manually or by choosing a setup and when you click on the value below the fader it will reset to 0dB. Every audio signal that goes over the Threshold Level will be cut off immediately. A Threshold Level of -0.05 dB will cut off all audio signals before it rises above 0dB. The LED's indicate only if the Brick wall limiter is correcting the audio signal, and are not the same as an overflow. The LED's can be reset by clicking the corresponding button.

The Volume Faders and Level Meters

When the DSP-Loudness is playing and Gaining / limiting the volume faders are automatically lowered when an overload is present on the master-out. To be sure that there are no overloads you should listen to the whole file until the end, then the volume faders are set just right and the master-out will not go over 0dB. You can turn off this function in the Options Tab.

Overflow LED's

The overflow LED's turn from green to red when an overflow is present in one of AAMS DSP processors. Press each LED and the Overflow Hold LED's turn green again. An overflow is basically a digital domain term. When a signal goes over the 0dB limit an overflow is present. Recording in the digital domain with signals over +0dB will result in distorted audio, so it is better to adjust the volume (gain) to a lower level. You can also adjust the faders of the Equalizer to compensate for overflows, but this is quite tedious.

Recording DSP-Loudness

When you are satisfied with the results you can process the audio material with the Record button. The Record button processes the audio and saves it as a new audio *.wav file. The Example file Example1.wav would be saved as Example1_L.wav.

Manual and Automatic Mode

Because AAMS is set up for Automatic Mastering by default, when working manually with AAMS Processors it is recommended that you use the Record button of each processor. Also when configuring AAMS Options for working in manual mode there are some settings on the Options Preferences Tab. For all Automatic Mastering purposes, switch back to Automatic Mode in Options Preferences Tab.

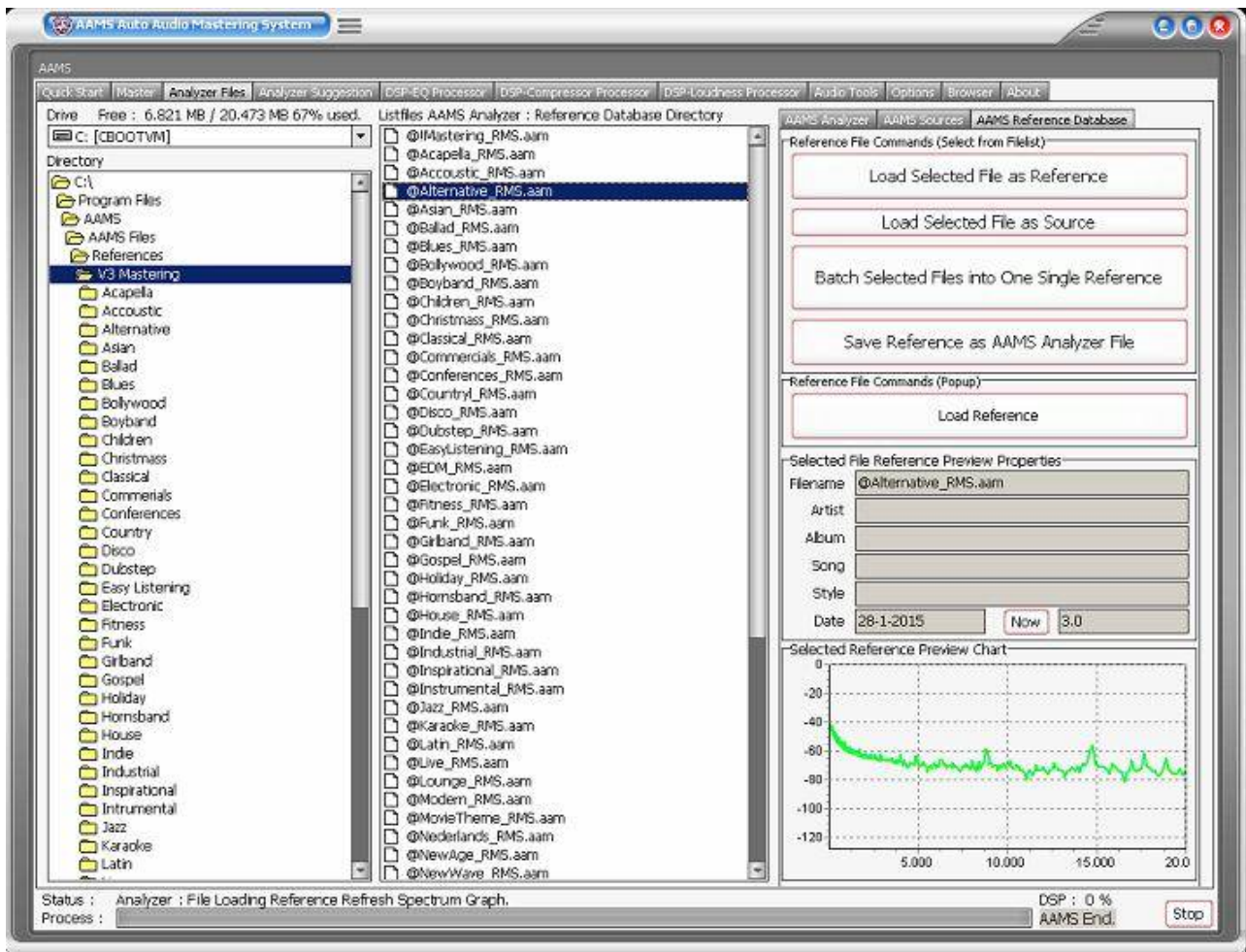
General Rules

DSP-Loudness Processor settings define how loud the end result will be. By default the Loudness Scan setting is 'Average', which is quite a conservative setting. Usually you can master multiple tracks (for example for an album of tracks) with the 'Average' Setting and this will give good results on all kinds of tracks. Whenever you need some more loudness power, set the DSP-Loudness Settings higher.

Specifications

The internal DSP-Loudness has a natural sounding algorithm to produce exact, linear Loudness Gain with no resonance peaks. The DSP-Loudness processor has several main functions, Balancing, Loudness, RMS Limiter, Peak Limiter, Brick wall Limiter. The frequency range is 5Hz to 22050 Hz. The frequency ranges 0-5 Hz and 20000-22050 Hz are rolled-off and all Factory Presets have a Roll-On and Roll-Off Frequency range. The amount of gain ranges from - 80dB to +9dB, and can be set in fractions of 0.1dB. Designed to operate at sampling rates ranging from 44.1 KHz to 192 KHz, the Sample rate is normally 44.1 KHz depending on the Audio File output by the Player. The Internal DSP-Processing can handle 16/24/32 Bit calculations while the rest of the programming handles 64 bit code.

AAMS Reference Style Database



The Reference Style Database

The main function of the Reference Style Database is to give the user a readymade preset database of musical styles to compare and choose from. These Retrenches are specially crafted analysis made by interpreting musical styles and contain spectrum and loudness functions that AAMS Software can understand. As a Source is an *.aam file. A Reference is also an *.aam file (mostly a '@' is used in the filename for references). The Style or Reference Database is installed with AAMS, usually in C:\Program Files\AAMS\AAMS Files\References or C:\Program Files (x86)\AAMS\AAMS Files\References. Inside this directory are all RMS files and they are suitable for most mastering purposes. The full database is in the following directory C:\Program Files\AAMS\AAMS Files\References\Reference Database.

The AAMS Reference Database Files

- 0 @Master RMS - Use this preset for all overall mastering purposes
- 1 @Acapella Female.aam - Vocals only for general female vocal tracks
- 2 @Acapella House Female.aam - Vocals only for House music female vocal tracks
- 3 @Acapella House Male.aam - Vocals only for House Male vocal tracks
- 4 @Acapella Male.aam - Vocals Only for general male vocal tracks
- 5 @Acapella Ragga Male.aam - Vocals only for reggae ragga vocal tracks
- 6 @Acapella Rap.aam - Vocals (male and female) for rap vocal tracks
- 7 @Acapella RMS.aam – Acapella RMS
- 8 @Blues Male.aam - General male blues
- 9 @Blues RMS.aam - Blues RMS
- 10 @Blues Slow.aam - Mainly slower blues tempo
- 11 @Boyband Male.aam – General music like boybands with multiple male vocals
- 12 @Boyband RMS.aam - Boyband RMS
- 13 @Boyband Slow.aam - Slower tempo multiple male vocals
- 14 @Christmas Modern Female.aam - Modern female vocals on Christmas music
- 15 @Christmas Modern Male.aam - Modern male vocals on Christmas music
- 16 @Christmas Old.aam - Old style male / female vocals on Christmas music
- 17 @Christmas RMS.aam - Christmas RMS
- 18 @Classic Classical Music.aam - Full orchestras and Classical music styles
- 19 @Classic Movie Theme.aam – Movie, Film and Video with orchestral music
- 20 @Classic Orchestra Plays Modern Music.aam - Modern full orchestral music
- 21 @Classic RMS.aam - Classical RMS
- 22 @Country Female.aam - Female vocals on Country music
- 23 @Country Male.aam - Male vocals on Country music
- 24 @Country RMS.aam – Country RMS
- 25 @Country the Slow King.aam - Slower male vocals on Country music
- 26 @Country the Slow Queen. Aam - Slower female vocals on Country music
- 27 @Disco Female.aam - Female vocals on disco music
- 28 @Disco Male.aam - Male vocals on disco music
- 29 @Disco RMS.aam – Disco RMS
- 30 @Electronic Industrial Slow.aam - Slower electronic and synth music
- 31 @Electronic Industrial.aam - Electronic music
- 32 @Electronic Pop Female.aam - Female vocals on electronic pop music
- 33 @Electronic Pop Instrumental.aam – Instrumental Electronic pop music
- 34 @Electronic RMS.aam – Electronic RMS
- 35 @Electronic Rock.aam - Electronic rock music
- 36 @Funk Pop.aam - Funk Pop music
- 37 @Funk RMS.aam – Funk RMS
- 38 @Funk Slow.aam - Slower tempo funk music
- 39 @Girlband RMS.aam - Girlband RMS
- 40 @Girlband.aam - Multiple female vocals on modern music
- 41 @HornsBands RMS.aam – Horns bands RMS
- 42 @HornsBands.aam - Brass- and horn band music
- 43 @House All.aam - House music
- 44 @House Female.aam - Female vocals on House music
- 45 @House Hardcore Female.aam - Female vocals on Hardcore House music
- 46 @House Hardcore Male.aam - Male vocals on Hardcore House music
- 47 @House Male.aam - Male vocals on House music
- 48 @House Rave.aam - House Rave music
- 49 @House RMS.aam – House RMS
- 50 @House Trance.aam - House Trance music
- 51 @Lounge RMS.aam – Lounge RMS
- 52 @Lounge.aam - Lounge music
- 53 @Master.aam - General Master preset from older library
- 54 @Modern RMS.aam - Modern RMS
- 55 @Modern.aam - General modern music preset
- 56 @Nederlands RMS.aam - Nederlands RMS

57 @Nederlands.aam - Dutch language male / female / instrumental music
 58 @New Wave Female.aam - Female vocals on new wave music
 59 @New Wave Guitars Band Instrumental.aam – Guitar bands on new wave music
 60 @New Wave Male Slow.aam - Slower tempo male new wave music
 61 @New Wave Male.aam - Male vocals on new wave music
 62 @new wave RMS.aam - New Wave RMS.
 63 @Pop Female.aam - Female vocals on pop music
 64 @Pop Male.aam - Male vocals on pop music
 65 @Pop RMS.aam - Pop Male RMS
 66 @Rap Disco Male.aam - Male Rap vocals on Disco-Rap music
 67 @Rap Female.aam - Female vocals on Rap music
 68 @Rap Hardstyle.aam - Hardstyle-Rap music
 69 @Rap Old Skool.aam – Old School Rap music
 70 @Rap Pop Soul.aam - Male / female / instrumental vocals on soulful Pop-Rap music
 71 @Rap RMS.aam - Rap White Boys RMS
 72 @Rap Slow Female.aam – Female vocals on slower tempo Rap music
 73 @Rap Slow Male.aam - Male vocals on slower tempo Rap music
 74 @Rap Smooth Rnb.aam - Male / female / instrumental on Rap (smooth RNB) music
 75 @Rap White Boys.aam - White male vocals on Rap music
 76 @Reference ALL database preset 1.aam - General preset for all music
 77 @Reggae Dub.aam - Reggae Dub music
 78 @Reggae Female.aam - Female vocals on Reggae music
 79 @Reggae Male.aam - Male vocals on Reggae music
 80 @Reggae RMS.aam - Reggae Male RMS
 81 @RMSall.aam - RMSall, General preset for all music
 82 @Rnb Female.aam - Female vocals on overall RNB music
 83 @Rnb Male.aam - Male vocals on overall RNB music
 84 @Rnb RMS.aam - RNB White Boy RMS
 85 @Rnb White Boy.aam - White male vocals on RNB music
 86 @Rock 1950 - 1960.aam – 50's Rock music
 87 @Rock 1960 - 1970.aam – 60's Rock music
 88 @Rock Easy Female.aam - Female vocals on Easy Rock music
 89 @Rock Easy Male.aam – Male vocals on Easy Rock music
 90 @Rock Female.aam – Female vocals on Rock music
 91 @Rock Instrumental.aam - Instrumental Rock music
 92 @Rock Metal Hard.aam - Hard Metal Rock music
 93 @Rock Metal Medium.aam - Metal Rock music
 94 @Rock Metal Slow.aam - Slower tempo Metal Rock music
 95 @Rock Pop.aam – Pop - Rock music
 96 @Rock RMS.aam - Rock Voodoo RMS
 97 @Rock Trash Punk.aam - Punk-Trash Rock music
 98 @Rock Voodoo Slow.aam - Slower tempo Voodoo Rock music
 99 @Rock Voodoo.aam – Voodoo Rock music
 101 @Slow Female.aam - Female vocals on slower music (ballads etc.)
 101 @Slow Male.aam - Male vocals on slower music (ballads etc.)
 102 @Slow RMS.aam - Slow Male RMS
 103 @Soul Female.aam - Female vocals on Soul music
 104 @Soul Mood Male.aam - Male vocals on slower moody Soul music
 105 @Soul Motown Female Slow.aam - Female vocals on slower tempo Motown music
 106 @Soul Motown Female.aam - Female vocals on Motown Soul music
 107 @Soul Motown Male Slow.aam – Male vocals on slower tempo Motown Soul music
 108 @Soul Motown Male.aam - Male vocals on Motown Soul music
 109 @Soul Pop Female.aam - Female vocals on Pop-Soul music
 110 @Soul Pop Male.aam - Male vocals on Soul-Pop music
 111 @Soul RMS.aam - Soul RMS
 112 @Soul White Boy.aam - White male vocals on Soul music
 113 @Soul White Girl Soul.aam - White female vocals on Soul music
 114 @Spanish Female.aam - Female vocals on Spanish music
 115 @Spanish International Love.aam - International Spanish love songs
 116 @Spanish Male Slow.aam - Male vocals on overall slower tempo Spanish music

117 @Spanish Male.aam – Male vocals on Spanish music
118 @Spanish RMS.aam - Spanish RMS
119 @World Male Slow.aam - Male vocals on slower tempo World music
120 @World Male.aam - Male vocals on World music
121 @World RMS.aam - World Male RMS
122 @Christmass.aam – Updated Christmas RMS
123 @DutchRapNL.aam – Dutch Rap based Tracks Songs
124 @DutchSinterklaasNL.aam – Dutch Santa Claus Songs
125 @Movie Theme RMS.aam – Movie Related Songs
126 @Opera.aam – Opera RMS
127 @StandupComedy.aam – Vocals and Public RMS
128 @Vegas RMS.aam – Vegas Songs Tracks RMS

Single Audio Tracks

200 @BassRMS.aam
201 @DrumsRMS.aam
202 @GuitarAccousticRMS.aam
203 @GuitarElectricRMS.aam
204 @PianoRMS.aam
205 @SynthRMS.aam
206 @VocalRMS.aam

The database was rewritten 1-01-2015.

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Sincerely,

Denis van der Velde
AAMS Author

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Creating your own References



AAMS Analyzer

When you import audio into AAMS, the analyzer will inspect and analyze the audio imported. Then this will be saved as a Source or Reference file (*.aam). These *.aam files are important for later use.

AAMS Reference Database has been created in a special way.

All AAMS Reference Database files were created outside the AAMS software program in a special designed way. This cannot be recreated inside the AAMS program by AAMS users.

Creating Your Own Source Files or Reference Files

However you can create your own reference files for creating your own sound with AAMS.

As standard any file processed by AAMS Analyzer will be saved as a Source file (*.aam). Therefore these can also be used as Reference File. A Reference file out of the AAMS Database of References are always named with a beginning '@'. Therefore any source analyzed file can be renamed with an extra '@' and put into the AAMS Database of References Directory.

You should realize any audio material can be imported and turned into a Source file. Then renamed with '@' to make it a reference file. Any Source or Reference file can be used for processing with AAMS. So if you want to mimic commercial recordings? Import them into AAMS and analyze them, save then as Source or Reference for later use.

Can you make a collection of audio files and turn them into a reference file?

Yes!

You can import single audio files into AAMS, create a Source or Reference file by using the Analyzer.

So if you import for instance a collection of the same audio files (for instance a commercial album by any artist) and you import these as single files and analyze them, you will have a collection of *.aam files.

When you use the Source Batch or Reference Batch function, you can turn the collection of single *.aam files into one single *.aam file! This way you can represent a single *.aam file as a collection or album or style. By batching multiple *.aam files into a single *.aam file, you can do more and have your own sound or copy a sound from other sources (audio material) and make them your own reference.

The creating process of Batching Multiple Sources or References is highly effective to come closer to any style or sound you want.

RMS Files in the Database

RMS files in the AAMS Reference Database are mainly a good way to start off with AAMS mastering. RMS files are built by using Batches of analyzed files. You can make your own RMS files or Style by using the Batch functions inside AAMS, and therefore are a good starting point for creating your own styles or sound. Some users might think it is a form of 'copying' or 'stealing' a style or mix or master from others. This is not exactly the case with AAMS. AAMS internal functions and suggestions are not based on the *.aam files or the difference between source and reference. If AAMS would only copy a sound from Reference to Source, AAMS would make a mess out of your inputted music. Therefore AAMS Suggestions and Processing are based on the difference between inputted Source and Reference, but does not exactly transfer a blind copy! AAMS internal functions and processing / suggestions are based on many years of user experience in mastering audio and AAMS is programmed to have best results based on more precise calculations. A human might have hearing and will thrust on that. AAMS trusts on Hearing (Analyzing) and many more precise calculations. A human could not be so precise. Therefor it is highly possible to have 'your own sound' by creation of your own References!

Users can contribute



Users can contribute their Mastered Audio Files.

When you have mastered an audio file with AAMS and you do want to contribute to make AAMS better. Be sure you send in your unmastered audio file (Source) and the Mastered Audio Files. Prepare both audio files as MP3 with at least a minimum of 192Kbs. You can also send the Analyzed Source File *.aam. If you can, ZIP all files into a single *.zip. You can send your Files to d.vdvelde@chello.nl Make sure you also write down some text to explain your contribution.

Users can contribute their Analyzed Sources or References

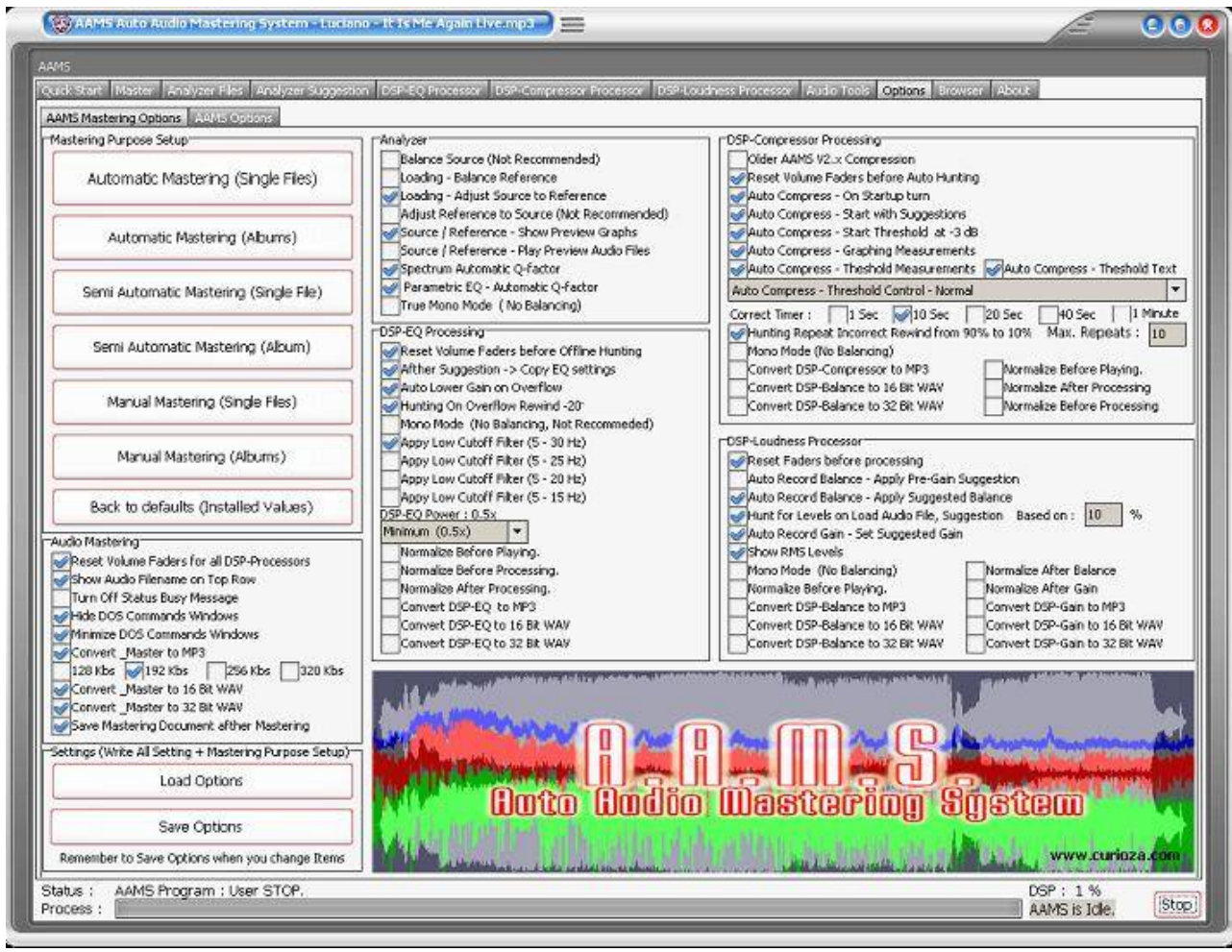
You can also send the Analyzed Source File *.aam. This can be worth to add to the AAMS Reference database. Also we can research these files to make AAMS work even more accurate. If you can, ZIP all files into a single *.zip. You can send your Files to d.vdvelde@chello.nl Make sure you also write down some text to explain your contribution.

Users can contribute to make AAMS better

You can send an email to d.vdvelde@chello.nl For recommendations, Advise, ideas or anything that can help. We're always improving AAMS and our other products. Each release we not only fix bugs and add requested features, But we also incorporate your feedback to make our software easier to use. The easier AAMS is to use, the more productive you'll be.

Thank You!

Denis van der Velde
AAMS Author



Semi-Automatic Mastering

Although AAMS is intended for Automatic Mastering by default, AAMS can be setup in different ways. This is explained in the Options.

The difference between Semi-Automatic mastering and Manual Mastering is that AAMS behaves without lesser automatic suggestions and processing.

AAMS will do suggestions based on the Source and Reference you input.

You load the Source and Reference separately into AAMS.

Then you use AAMS DSP-EQ, load the audio file and test results.

Adjusting the suggested EQ-Settings yourself until you have a good sound, this is hearing and listening.

Then you 'Auto Record' the audio.

Loading back the processed DSP-EQ file into DSP-Compressor.

The same goes for DSP-Compressor, although AAMS at start will generate suggestions, adjusting DSP-Compressor settings will adjust to your needs.

Then you 'Auto Record' the audio.

Loading back the processed DSP-Compressor file into DSP-Loudness.

The same goes for DSP-Loudness, although AAMS at start will generate suggestions, adjusting DSP-Loudness settings will adjust to your needs. Then you 'Auto Record' the audio (auto record balance and auto record loudness). The end result will be a semi-automatic master.

Manual Mastering

It is basically the same procedure as with semi-automatic mastering, except AAMS will not preload any suggestions into DSP-EQ or DSP-Compressor or DSP-Loudness. This is DIY! Of course AAMS will provide you still with Charts and Suggestions, but does not apply them to the chain of processing. This manual mastering is completely doing it yourself (DIY!).

AAMS Tools Tab



AAMS Tools Tab

Mostly understand AAMS will work best with WAV 16 Bit Stereo 44.1 KHz Files.
You can import MP3 and WAV files. When AAMS has a problem with these files, use the tools tab.
Or convert your files with a convertor program / software, audio editor of your choose.

Normalize Audio File

Normalize an audio file to 0dB.
Select the file format, click on Normalize Audio File.
Select the input audio file that will be normalized.
Select the output audio file that will be saved.

Convert MP3 Audio File

Convert an audio file to Wav.
Select the file format, click on Convert MP3 Audio File.
Select the input MP3 file that will be converted.
Select the output audio file that will be saved.

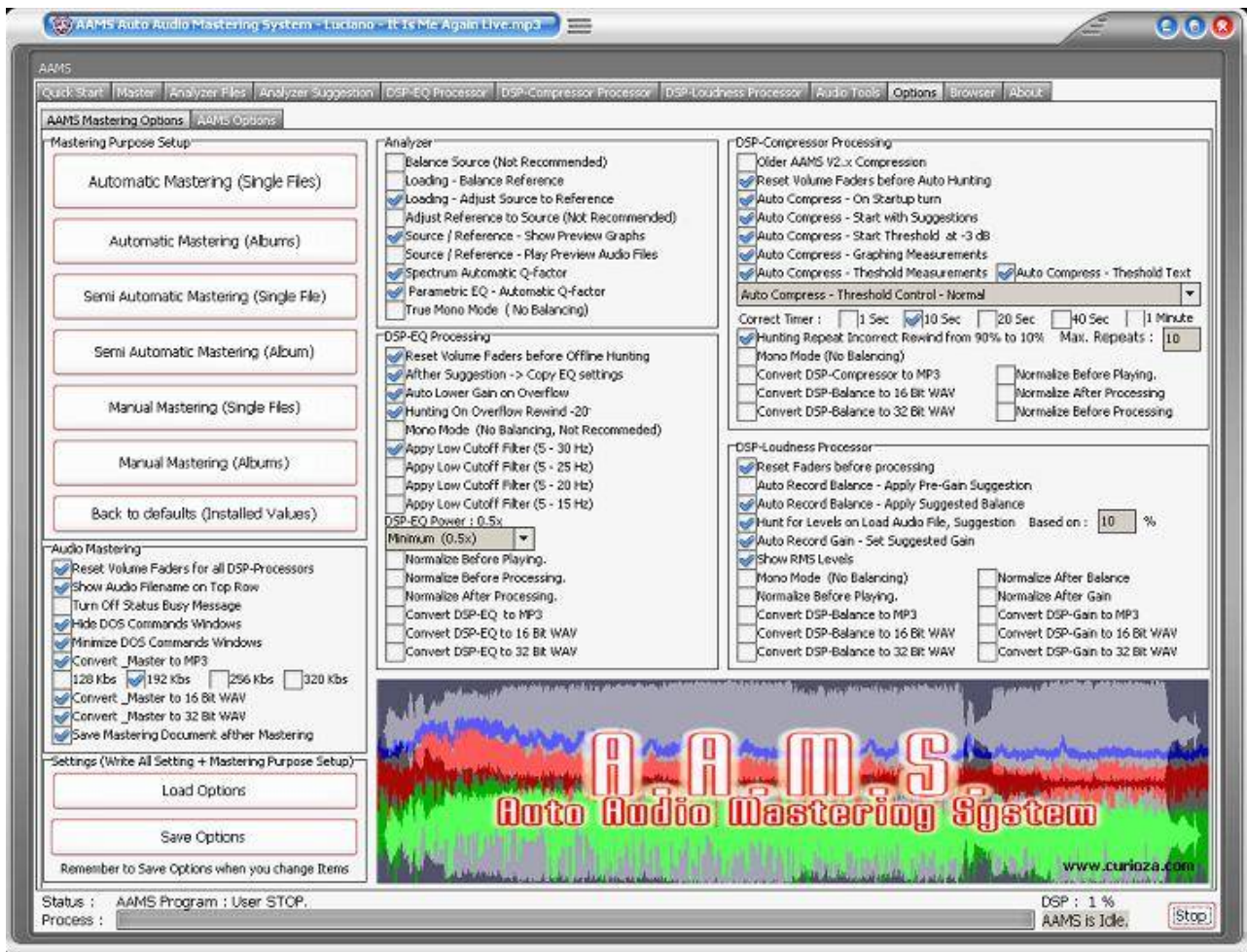
Convert Wav to MP3 Audio File

Converts Wave Format files to MP3 audio files.
Select the file format, click on Convert Wav Audio File.
Select the input Wav file that will be converted.
Select the output audio file that will be saved.

Wav Bitrate Converter

Select the file format, click on Convert Wav Audio File.
Select the input Wav file that will be converted.
Select the output audio file that will be saved.

Options Tab



The Options Tab

Please be careful when changing AAMS options and read the information below first.

You can change the behavior of AAMS when changing the options and these are saved every time you exit AAMS.

The options are reloaded every time you start AAMS.

The EQ Bands, Multi-Bands and Loudness settings for DSP-EQ, DSP-Compressor and DSP-Loudness are also saved and reloaded every time you start AAMS.

You can also re-set the options to default using AAMS Options - Back to Defaults - Initialize Options.

You can always re-install AAMS and have the default settings restored, simply re-install AAMS over the old directory.

Options: AAMS

The Program path, Program name and Windows Path list directories that cannot be changed.

Startup - Create Desktop Icon

Creates an icon for AAMS on your desktop.
This icon is also created at installation Start up –

Create Startup Icon

Creates an icon for AAMS in the Start Menu.
This icon is created at installation.

Soundcard Device ID

Windows Soundcard Device for AAMS Audio Output.

Refresh

Refreshes AAMS Calculations.
Most of the time AAMS does all calculations automatically but you can use this button to refresh all displays if a problem occurs.

Stop All Processing

Stops AAMS.
If AAMS is 'busy' you can stop processing with this function.

Load Options

Loads options settings from disk.
Reloads the AAMS.INA file and restores the options.
This feature can be used when you need to reset AAMS options.

Save Options

Saves options settings to disk.
Saves all options in the AAMS.INA file.
This feature must be used when you changed any option as mentioned above.
You can restore AAMS defaults in the preferences tab.

Back To Defaults

Initialize Options to default settings.

Options: Preferences Tab

Analyzer - Analyzing Best

With this setting AAMS does take longer to Analyze, but this is the most accurate setting and is very precise.

Analyzer - Analyzing Fast

With this setting AAMS takes less time to Analyze but it is less accurate and not recommended.

Source/Reference - Show Preview Graphs and Preview Audio

Shows chart in Analyzer Tab, Source and Reference Tabs.

Source/Reference - Play Preview Audio Files

Plays a selected file in the Analyzer Tab.

Suggestions - Loading Analyzer Files, Adjust Source to Reference

Source is adjusted before AAMS calculates the suggestions.

Suggestions - Loading Analyzer Files, Adjust Reference to Source

Reference is adjusted (Not Recommended) before AAMS calculates the suggestions.

Suggestions - Loading Analyzer Files, Balance Source (Not Recommended)

Balances the Source before AAMS Calculates the suggestions.

Suggestions - Loading Analyzer Files, Balance Reference

Balances the Reference before AAMS Calculates the suggestions.

Suggestions - Spectrum - Automatic Q-Factor

The Q-Factor is automatically set by AAMS Suggestions. Turn this OFF to input your own Qfactor.

Suggestions - Suggestion Parametric EQ - Automatic Q-Factor

The Q-Factor of the Parametric EQ is automatically set. Turn this OFF to input your own Qfactor.

DSP-Processing - Show Audio Filename on Top Row

Shows the filename top of the window form.

Master - Delete all files except Original Audio File and _Master.

Deletes all files not used for mastering, but if you need these intermediate files left on your hard drive uncheck this option.

Save Mastering Document after mastering is done

Saves a document besides the _Master End File.

Settings, Save Options

Saves all options in the AAMS.INA file.

This feature must be used when you changed any option as mentioned above.
You can restore AAMS defaults in the preferences tab.

Settings, Load Options

Reloads the AAMS.INA file and restores the options.
This feature can be used when you need to reset AAMS options.

Options: DSP-EQ

After Suggestion -> Copy EQ Settings

After AAMS Suggestions are calculated or refreshed the EQ-Suggestions are automatically copied. Disable this option if you want to listen to the original audio material first.

By default ON.

This feature will reset all DSP-EQ faders to original AAMS positions.

Then the faders are set to AAMS Suggestions that are pre-calculated from the Analyzer outcome.

When manual mastering or setting are applied by using AAMS manually, turn OFF.

Auto Lower Gain on Overflow.

AAMS DSP-EQ will automatically lower the gain if the signal becomes too loud > -0.1dB.

By default ON.

This feature will reduce the level when clipping occurs.

This is automatically done by AAMS processing (hunting and processing EQ).

Basically no need to turn OFF, only turn OFF when you know what you are doing.

Reset Volume Faders before Offline Hunting

By default ON.

This feature will reset all DSP-EQ faders to original AAMS positions.

When manual mastering or setting are applied by using AAMS manually, turn OFF.

DSP-EQ Power

This feature will set the DSP-EQ power.

Normal setting is 1x.

Changing can apply more or less power to EQ processing.

Basically AAMS is based on 1x EQ power, leave this setting.

Experiment only when you need to.

Normalize after post processing

By default ON.

This feature normalizes the audio file after DSP-EQ processing.

Before entering the next stage DSP-Compression, the audio is raised to best levels.

Basically no need to turn OFF.

Only turn OFF when you know what you are doing.

Settings, Save Options

Saves all options in the AAMS.INA file.

This feature must be used when you changed any option as mentioned above.

You can restore AAMS defaults in the preferences tab.

Settings, Load Options

Reloads the AAMS.INA file and restores the options.

This feature can be used when you need to reset AAMS options.

Options: DSP-Compressor

AC - On Startup turn AC On

The DSP-Compressor will turn the AC On automatically when you play or process a file.

AC - Start with Suggestion Value

The DSP-Compressor will start with AAMS Suggestions settings that are copied automatically.

AC - Start Faders at -3dB

The DSP-Compressor starts all Multi-Band Thresholds at -3dB.

AC Threshold Control is a setting to make the AC behave differently (Not Recommended).

AC Timer Clearance Time

The time it takes for all Multi-Bands of the DSP-Compressor to secure the AC.

AC Graphing Measurements

Shows measurements in AC Graph.

Reset Volume Faders before Auto Hunting

By default ON.

This feature resets all compressor faders to original AAMS settings.

Only turn OFF when you do not need auto mastering and using manual user preset controls.

Auto Compress - On Startup

By default ON.

This feature will turn ON the auto compression DSP features at startup.

Only turn OFF when you do not need auto mastering and using a manual user pre-setting.

Auto Compress - Start Threshold at -3db

By default ON.

This feature will start the automatic compression setting of the threshold at -3db.

This is a better setting than 0db initial fader setting.

The initial -3db setting will be corrected when the automatic compression feature is ON.

Recommended to stay ON.

Auto Compress - Graphing Measurements

By default OFF.

This will show the AGC (auto gain control) in the graphs of the DSP-Compressor.

Mono Mode

By default OFF.

Only turn ON when you are sure the audio file is a two mono channel stereo audio file.

Auto Compress - Threshold Control - Normal

This will change the Threshold Correction while DSP-Compression is done.

This feature can make Threshold correction faster or slower by setting.

Correct Time

For the DSP-Compressor to check the compression is correctly done, a timer is placed. This timer (each multiband has its own timer) controls and checks for correct compression. When correct compression is found, a green light will turn on for each multiband. When all multibands are found correct by AAMS, the ALL light will turn on. For each channel Left and Right there can be maximum 8 multibands. So actually for correct compression to be found by AAMS, 16 lights will need to turn ON for 8 multibands. The standard chosen multibands by AAMS is 4 multibands. The user can change multibands in the DSP-Compressor tab. The timer can be set to 1 second to 1 minute. The longer you set the timer, the longer it takes for AAMS to find correct levels for compression for each multiband.

AGC Hunting Value

The AGC Automatic Gain control by AAMS, is set by a value of 1410. This value represents a boundary / border for AAMS AGC Hunting. Above this value for each multiband hunting for a correct compression setting, AAMS will see this as incorrect and keeps on hunting. Under this value for each multiband hunting for a correct compression setting, AAMS will keep the settings found. Do not experiment when you are not knowing what you are doing.

AGC Correct Value

The AGC Automatic Gain control by AAMS, is set by a value of 0707. This value represents a boundary / border for AAMS AGC Hunting. Above this value for each multiband hunting for a correct compression setting, AAMS will see this as incorrect and does not save values for compression. Under this value for each multiband hunting for a correct compression setting, AAMS will keep the settings found and saves them. Do not experiment when you are not knowing what you are doing.

Normalize

By default OFF.
This will normalize the outcome after compression has been applied by AAMS DSP-Compressor. This feature is mainly not needed, because when DSP-Loudness is used next by AAMS, the will be corrected by DSP-Loudness processing.

Settings, Save Options

Saves all options in the AAMS.INA file.
This feature must be used when you changed any option as mentioned above.
You can restore AAMS defaults in the preferences tab.

Settings, Load Options

Reloads the AAMS.INA file and restores the options.
This feature can be used when you need to reset AAMS options.

Options: DSP-Loudness

Hunt For Levels on Audio File

Scans the loaded Audio File for its levels (DPS-Loudness Suggestions will not work when this feature is turned off).

By default ON.

This feature scans the audio file for Loudness levels before loading the file.

Set to ON, when you need full automatic mastering.

Set to OFF, when you need manual mastering.

Reset Faders before processing

By default ON.

This feature ensures all faders are reset to original default position for DSP-Loudness.

Set to ON, when you need full automatic mastering by AAMS.

Set to OFF, when you are manual mastering.

Auto Record Balance - Apply Suggested Balance

By default ON.

This feature applies the automatic calculated suggested balancing by AAMS.

This will balance your track (audio master) and will have a good effect on the listener's left and right perception while hearing the audio master.

The balancing is done before loudness is applied.

Turn this feature OFF when you need no balancing done by AAMS and keep your track as balanced as original.

Auto Record Balance - Apply Pre-Gain Suggestion

By default OFF.

When turned ON, before using loudness AAMS will apply pre-gain from its suggested calculations.

This can improve Loudness by using pre-gain, but also raises levels, so more clipping could occur.

Only use this feature when your original track is very soft.

Else, leave it OFF.

Auto Record Gain - Set Suggested Gain

By default ON.

This feature applies the Loudness.

When turned OFF, no Loudness will be applied.

Keep in mind the DSP-Loudness will be functioning, so when turned OFF only the limiters will work.

Show RMS Levels

By default ON.

This feature will show RMS levels in the chart.

By turning OFF it will not.

Mono Mode (No Balancing)

By default OFF.

When turned ON, ensures Stereo tracks that are actually two mono channels to stay correct as original.

AAMS by default does not read or open mono files.

But it is possible to fake AAMS by inserting two mono files into one stereo file.

Only turn this feature ON, if you are sure your original file is completely mono.

You can also turn OFF, when you completely do not want any Balancing to be done by AAMS.

Scan - Loudness Calculation based on 10% (default).

This feature is hard to explain, because its AAMS internal processing for hunting the correct Loudness levels to be found and corrected for end mastered file.

This value can be raised or lowered by users to experiment.

Else when not sure, leave 10% as a value here.

Normalize Balance

By default off.

This feature is mainly not needed to turn ON.

Only turn ON for a normalize pre-balance.

This will make the audio file before Balancing more loudly.

Normalize Gain

By default off.

This feature is mainly not needed to turn ON.

Only turn ON for a normalize pre-gain.

This will make the audio file before Loudness more louder.

Settings, Save Options

Saves all options in the AAMS.INA file.

This feature must be used when you changed any option as mentioned above.

You can restore AAMS defaults in the preferences tab.

Settings, Load Options

Reloads the AAMS.INA file and restores the options.

This feature can be used when you need to reset AAMS options.

Options: Master

Reset Volume Faders for all DSP-Processors

By default ON.

This feature ensures by start of processing that all faders are reset to initial values.

If you touched the faders, they will be reset before starting processing.

You can turn this feature OFF when you are using manual mastering.

Apply Little Fade In On Mastered Files

By default ON.

This feature applies a small fade on the start of the mastered audio file.

This ensures user edited audio files to start with volume 0% and fades to 100%.

This will prevent a click in hearable audio at start of your audio track.

Apply Little Fade Out On Mastered Files

By default ON.

This feature applies a small fade on the start of the mastered audio file.

This ensures user edited audio files to start with volume 0% and fades to 100%.

This will prevent a click in hearable audio at start of your audio track.

Delete All Files except Original Audio File and Master

By default ON.

This feature will delete all AAMS processing files while mastering for the end result.

When you want to hear or keep AAMS in between processing files and do some manual editing, turn this feature OFF.

Save Mastering Document after Mastering is done

By default ON.

This feature will create a full mastering document (*.doc) in the directory where AAMS is processing your audio files.

This document can tell you all settings AAMS used while mastering your track.

The document is saved alongside your original file in the same directory.

This document can be used for learning and mixing / mastering purposes.

Also this document tells you the mastering end results for all DSP processing Features of AAMS.

When not needed, you can turn this feature OFF.

Create MP3 or WAV Mastered File

By default OFF.

When you need and MP3 file created by AAMS of the end master result, turn ON ' Convert _Master to MP3'.

Then choose the Bitrate of your MP3 file (128 kbs to 320 kbs), by turning the appropriate setting ON.

For WAV format choose 16 or 32 bit.

Settings, Save Options

Saves all options in the AAMS.INA file.

This feature must be used when you changed any option as mentioned above.

You can restore AAMS defaults in the preferences tab.

Settings, Load Options

Reloads the AAMS.INA file and restores the options.

This feature can be used when you need to reset AAMS options.

Options: System

Memory Scan

For debugging purposes, the author or software support can ask you to turn on this option. Mainly the user does not have to turn on this feature when not asked for. This feature measures memory and file handles while aams is processing. The log file will be save to disk, for later use by software support or debugging purposes.

Check Windows Version

Allows the Windows Version number to show.
This feature is for the user and debugging purposes.

Check OS Version

Allows the OS Operating System Version number to show.
This feature is for the user and debugging purposes.

Options: Mastering Purpose Setup

There are 7 buttons to choose from, AAMS will setup itself to according settings. Instead of fiddling with AAMS separate options, you can choose AAMS Settings for Mastering Purposes directly by clicking on one of these 7 buttons and saving the options. By default AAMS is setup for Automatic Mastering (without any user interference or control over AAMS suggestions or processing).

Back to defaults (Installed Values)

Will turn the whole AAMS Options towards original basic settings.

The basic settings are for Auto Mastering Features.

Use ' Back to defaults' when you are not sure anymore and you changed settings in AAMS options.

AAMS will return to original settings.

Use Save Options to write the options file and you are back to AAMS defaults at each startup of AAMS.

Automatic Mastering (Albums)

This button will setup AAMS for full automatic mastering as intended, but however when you need the same processing to be done by AAMS on a set of audio files that have the same purpose (they are forming an Album), use this setting.

Use Save Options to write these options settings.

Automatic Mastering (Single File)

This button will setup AAMS for full automatic mastering as intended, use this setting for each audio file to be correct for full best sound.

Use Save Options to write these options settings.

Semi-Automatic Mastering (Album)

This button will setup AAMS for semi-automatic mastering.

When you need the same processing to be done by AAMS on a set of audio files that have the same purpose (they are forming an Album), use this setting.

Use Save Options to write these options settings.

Semi-Automatic Mastering (Single File)

This button will setup AAMS for semi-automatic mastering, use this setting for each audio file to be correct for full best sound.

Use Save Options to write these options settings.

Manual Mastering (Album)

This button will setup AAMS for manual mastering.

When you need the same processing to be done by AAMS on a set of audio files that have the same purpose (they are forming an Album), use this setting.

Use Save Options to write these options settings.

Manual Mastering (Single File)

This button will setup AAMS for manual mastering, use this setting for each audio file to be correct for full best sound.

Use Save Options to write these options settings.

AAMS Audio Formats Explained



AAMS can now import and read / write different audio formats. For users who are new, AAMS reads all common audio formats, with 1 or 2 channels (stereo), 16 / 24 / 34 and 64 bit and their sample rates.

The main functions of AAMS is to master you're input audio file, analyze this audio file, read the audio file and write mastered and between versions of the audio file.

Uncompressed audio formats: such as **WAV**, **AIFF**, **AU** (PCM Based).

Formats with lossless compression : such as **FLAC**, **Monkey's Audio**, **WavPack** , **TTA**, **ATRAC** Advanced Lossless, **Apple Lossless**, **MP4**, **WMA** **Windows Media Audio Lossless**.

Formats with lossy compression : such as **MP3**, **MP2**, **Ogg**, **Vorbis**, **Musepack**, **AAC**, **ATRAC** and **Windows Media Audio Lossy**.



AAMS can read / import the following Audio File Formats (not all are tested):

.aiff, .flac, .mp2, .mp3, .mp4, .m4a, .ogg, .voc, .vorbis, .w64, .wav, .waveaudio, .wavpcm, .wv.

The list below showcases audio formats that are able to encode audio and compress it in a lossless way ensuring your music is perfectly preserved in digital form.



WAV (Waveform Audio Format)

The WAV format is thought of as the ideal choice when choosing a digital audio system for preserving your audio CDs, but still remains a lossless option. However, the files produced will be larger than the other formats in this article because there isn't any compression involved. That said, if storage space isn't an issue then the WAV format has some clear advantages. It has widespread support with both hardware and software. Much lower CPU processing time is required when converting to other formats because WAV files are already uncompressed -- they don't need to be uncompressed before conversion. You can also directly manipulating WAV files (using audio editing software for instance) without having to wait for a de-compression/re-compression cycle in order to update your changes. Short for Waveform Audio Format, it is normally used in an uncompressed format on the Microsoft Windows platform. This raw audio format, which was developed jointly by IBM and Microsoft, stores audio data in blocks. On the digital music scene, its usefulness has diminished over time with the development of better lossless audio formats, such as FLAC and Apple lossless. It is a standard that will probably be used for some time yet due to its widespread use in professional music recording and is still a very popular format for audio/video applications. The file extension associated is: *.WAV



FLAC (Free Lossless Audio Codec)

The FLAC format (short for Free Lossless Audio Codec) is probably the most popular lossless encoding system which is becoming more widely supported on hardware devices such as MP3 players, smartphones, tablets, and home entertainment systems. It is developed by the non-profit Xiph.Org Foundation and is also open source. Music stored in this format is typically reduced between 30 to 50% of its original size. Common routes to rip audio CDs to FLAC include software media players (like Winamp for Windows) or dedicated utilities Max for example is a good one for Mac OS X.



ALAC (Apple Lossless Audio Codec)

Apple initially developed their ALAC format as a proprietary project, but since 2011 has made it open source. Audio is encoded using a lossless algorithm which is stored in an MP4 container. Incidentally, ALAC files have the same .m4a file extension as AAC, so this naming convention can lead to confusion. ALAC isn't as popular as FLAC, but could be the ideal choice if your preferred software media player is iTunes and you use Apple hardware such as the iPhone, iPod, iPad, etc.



Monkey's Audio

The Monkey's Audio format isn't as well supported as other competing lossless systems such as FLAC and ALAC, but on average has better compression resulting in smaller file sizes. It isn't an open source project, but is still free to use. Files that are encoded in the Monkey's Audio format have the humorous .ape extension! Methods used to rip CDs to Ape files include: downloading the Windows program from the official Monkey's Audio website, or using standalone CD ripping software that outputs to this format. Even though most software media players don't have out-of-the-box support for playing files in the Monkey's Audio format, there is a good selection of plug-ins now available for: Windows Media Player, Foobar2000, Winamp, Media Player Classic, and others.



WMA Lossless

Windows Media Audio Lossless. WMA Lossless which is developed by Microsoft is a propriety format that can be used to rip your original music CDs without any loss of audio definition. Depending on various factors, a typical audio CD will be compressed between 206 - 411 MB using a spread of bit rates in the range of 470 - 940 kbps. The resultant file that is produced confusingly has the .WMA extension which is identical to files that are also in the standard (lossy) WMA format. WMA Lossless is probably the least well supported of the formats in this top list, but could still be the one you choose especially if you use Windows Media Player and have a hardware device that supports it such as a Windows phone for example.

Uncompressed Formats



WAV and AIFF: Both WAV and AIFF are uncompressed formats, which means they are exact copies of the original source audio. The two formats are essentially the same quality; they just store the data a bit differently. AIFF is made by Apple, so you may see it a bit more often in Apple products, but WAV is pretty much universal. However, since they're uncompressed, they take up a lot of unnecessary space. Unless you're editing the audio, you don't need to store the audio in these formats.

Lossless Formats

FLAC: The Free Lossless Audio Codec (FLAC) is the most popular lossless format, making it a good choice if you want to store your music in lossless. Unlike WAV and AIFF, it's been compressed, so it takes up a lot less space. However, it's still a lossless format, which means the audio quality is still the same as the original source, so it's much better for listening than WAV and AIFF. It's also free and open source, which is handy if you're into that sort of thing.

Apple Lossless: Also known as ALAC, Apple Lossless is similar to FLAC. It's a compressed lossless file, although it's made by Apple. Its compression isn't quite as efficient as FLAC, so your files may be a bit bigger, but it's fully supported by iTunes and iOS (while FLAC is not). Thus, you'd want to use this if you use iTunes and iOS as your primary music listening software.



Lossy Formats

APE: APE is a very highly compressed lossless file, meaning you'll get the most space savings. Its audio quality is the same as FLAC, ALAC, and other lossless files, but it isn't compatible with nearly as many players. They also work your processor harder to decode, since they're so highly compressed. Generally, I wouldn't recommend using this unless you're much starved for space and have a player that supports it.

For regular listening, it's more likely that you'll be using a lossy format. They save a ton of space, leaving you with more room for songs on your portable player, and—if they're high enough bitrate—they'll be indistinguishable from the original source. Here are the formats you'll probably run into:



MP3

MPEG Audio Layer III, or MP3 for short, is the most common lossy format around. So much so that it's become synonymous with downloaded music. MP3 isn't the most efficient format of them all, but it's definitely the well-supported, making it our #1 choice for lossy audio. You really can't go wrong with MP3.

AAC

Advanced Audio Coding, also known as AAC, is similar to MP3, although it's a bit more efficient. That means that you can have files that take up less space, but with the same sound quality as MP3. And, with Apple's iTunes making AAC so popular, it's almost as widely compatible with MP3. I've only ever had one device that couldn't play AACs properly, and that was a few years ago, so it's pretty hard to go wrong with AAC either.



Ogg Vorbis

The Vorbis format, often known as Ogg Vorbis due to its use of the Ogg container, is a free and open source alternative to MP3 and AAC. Its main draw is that it isn't restricted by patents, but that doesn't affect you as a user—in fact, despite its open nature and similar quality, it's much less popular than MP3 and AAC, meaning fewer players are going to support it. As such, we don't really recommend it unless you feel very strongly about open source.



WMA

Windows Media Audio is Microsoft's own proprietary format, similar to MP3 or AAC. It doesn't really offer any advantages over the other formats, and it's also not as well supported. There's very little reason to rip your CDs into this format.



All (not AAMS related) Audio Formats in Alphabetical Order

3gp = multimedia container format can contain proprietary formats as AMR, AMR-WB or AMR-WB+, but also some open formats.

act = ACT is a lossy ADPCM 8 Kbit/s compressed audio format recorded by most Chinese MP3 and MP4 players with a recording function, and voice recorders.

Aiff = Apple standard audio file format used by Apple. It could be considered the Apple equivalent of wav.

Aac the Advanced Audio Coding format is based on the MPEG-2 and MPEG-4 standards. Are usually ADTS or ADIF containers amr AMR-NB audio, used primarily for speech?

Au = Sun Microsystems the standard audio file format used by Sun, UNIX and Java. The audio in au files can be PCM or compressed with the μ -law, a-law or G729 codecs.

Awb = AMR-WB audio, used primarily for speech, same as the ITU-T's G.722.2 specification.

Dct = NCH Software. A variable codec format designed for dictation. It has dictation header information and can be encrypted (as may be required by medical confidentiality laws). A proprietary format of NCH Software.

Dss = Olympus. Files are an Olympus proprietary format. It is a fairly old and poor codec. Gsm or mp3 are generally preferred where the recorder allows. It allows additional data to be held in the file header.

Dvf = A Sony proprietary format for compressed voice files; commonly used by Sony dictation recorders.

Flac = File format for the Free Lossless Audio Codec, a lossless compression codec.

Gsm = Designed for telephony use in Europe. Is a very practical format for telephone quality voice? It makes a good compromise between file size and quality. Note that wav files can also be encoded with the gsm codec.

Iklax = an iKlax Media proprietary format, the iKlax format is a multi-track digital audio format allowing various actions on musical data, for instance on mixing and volumes arrangements.

ivs = 3D Solar UK Ltd. A proprietary version with Digital Rights Management developed by 3D Solar UK Ltd for use in music downloaded from their Tronme Music Store and interactive music and video player.

m4a = an audio only MPEG4 file. Used by Apple for unprotected music downloaded from their iTunes Music Store. Audio within the m4a file is typically encoded with AAC, although lossless ALAC may also be used.

m4p = Apple. A version of AAC with proprietary Digital Rights Management developed by Apple for use in music downloaded from their iTunes Music Store.

Mmf = Samsung. A Samsung audio format that is used in ringtones.

mp3 = MPEG Layer III Audio. Is the most common sound file format used today?

Mpc = Musepack or MPC. Formerly known as MPEGplus, MPEG+ or MP+. Is an open source lossy audio codec, specifically optimized for transparent compression of stereo audio at bitrates of 160–180 Kbits?

Msv = Sony. A Sony proprietary format for Memory Stick compressed voice files.

Ogg / oga = Xiph.Org Foundation. A free, open source container format supporting a variety of formats, the most popular of which is the audio format Vorbis. Vorbis offers compression similar to MP3 but is less popular.

Opus = Internet Engineering Task Force. A lossy audio compression format developed by the Internet Engineering Task Force (IETF) and made especially suitable for interactive real-time applications over the Internet. As an open format standardized through RFC 6716, a reference implementation is provided under the 3-clause BSD license.

Ra/rm = RealNetworks. A RealAudio format designed for streaming audio over the Internet. The ra format allows files to be stored in a self-contained fashion on a computer, with all of the audio data contained inside the file itself.

Raw = a raw file can contain audio in any format but is usually used with PCM audio data. It is rarely used except for technical tests.

Sln = S Linear format used by Asterisk.

Tta = The True Audio, real-time lossless audio codec.

Vox = the vox format most commonly uses the Dialogic ADPCM (Adaptive Differential Pulse Code Modulation) codec. Similar to other ADPCM formats, it compresses to 4-bits. Vox format files are similar to wave files except that the vox files contain no information about the file itself so the codec sample rate and number of channels must first be specified in order to play a vox file.

wav = Standard audio file container format used mainly in Windows PCs. Commonly used for storing uncompressed (PCM), CD-quality sound files, which means that they can be large in size—around 10 MB per minute. Wave files can also contain data encoded with a variety of (lossy) codecs to reduce the file size (for example the GSM or MP3 formats). Wav files use a RIFF structure.

WMA = Microsoft. Windows Media Audio format, created by Microsoft. Designed with Digital Rights Management (DRM) abilities for copy protection.

WV = Format for wavpack file.

Updates Version History



AAMS Auto Audio Mastering System - Version Revisions

AAMS Auto Audio Mastering System - Version Revisions

AAMS 3.0 – Rev 003

- DSP-EQ Better align to Reference, Updated.
- DSP-EQ to AAMS Factor Suggestions, Updated.
- DSP-Compressor Better align to Reference, Updated.
- Registration Updates, Solved.
- Registration Shutdown, Restart, Updated.
- Freeware and Licensed Versions, Restrictions Updated.
- Error 183, Updated Solutions.
- Windows Help on About tab, New.
- Freeware and Licensed Version, About Tab, Updated.
- Shutdown, Adjusted, Updated.

AAMS 3.0 – Rev 002

- Directory Issues, Solved.
- Registration Shutdown, Restart, Updated.

AAMS 3.0 – Rev 001

- Main Page Changes, New.
- Reference Style Database, Completely New Database, Updated.
- Status and Processing Bar, Updated.
- Master Batch, Updated.
- Mastering Document Updated.
- Q Factor Analyzer Spectrum now is adjustable
- Q Factor Analyzer Parametric EQ is adjustable
- Spectrum Properties, Source, Flatten 0dB Reference
- Spectrum Properties, Source, Flatten 0dB EQ Suggestion
- Analyzer Changed window.
- Analyzer Changed Stop behavior.
- Analyzer, WAV, Flac, Ogg, MP2, MP3, WMA, Apple, Aac, Ape, Added.
- Analyzer, divided into two sections Tabs, Updated.
- Analyzer, Tab directory maps Analyzer, Updated.
- Analyzer, properties, Updated.
- Analyzer, Tab Audio File Properties, Updated.
- Analyzer, Tab directory maps Source, Updated.

- Analyzer, Tab directory maps Reference Database, Updated.
- Analyzer, Suggestion, Spectrum Analyzer, Updated.
- Analyzer, Source and Reference, Updated.
- Analyzer, DSP-Player, Added.
- Analyzer, Updated Q factor properties.
- Analyzer, Save Adjusted Reference, Added.
- Analyzer, Reference Centre Adjust, Added.
- Analyzer, Reference Left Adjust, Added.
- Analyzer, Reference Right Adjust, Added.
- Analyzer, Reading Long audio files.
- Source Files, Tag naming, Updated.
- Reference Files, Tag naming, Updated.
- Frequency Spectrum, Updated.
- EQ Data, Updated.
- Compressor Data, Updated.
- Loudness Data, Updated.
- Grid Data, Updated.
- Printing Document Properties, Updated.
- DSP-EQ, Updated.
- DSP-EQ, Player, Updated.
- DSP-EQ, Reading Long audio files.
- DSP-EQ, Centre Adjust, Added.
- DSP-EQ, Left Adjust, Added.
- DSP-EQ, Right Adjust, Added.
- DSP-EQ, EQ bands Suggestions, Changed.
- DSP-EQ, Soft Behavior, Changed.
- DSP-EQ, Settings, Added and Changed.
- DSP-Compressor, Status Tab, Added.
- DSP-Compressor, Player Updated.
- DSP-Compressor, Reading Long audio files.
- DSP-Compressor, Multiband Tab, Updated.
- DSP-Compressor, Multiband Charts, Updated.
- DSP-Compressor, AGC Data Tab, Updated.
- DSP-Compressor, Filter Calculations, Changed.
- DSP-Compressor, Soft Behavior, Changed.
- DSP-Loudness, Player, Updated.
- DSP-Loudness, Reading Long audio files.
- DSP-Loudness, Scan for setting, Changed and Updated.
- DSP-Loudness, AAMS Scanning system, Updated.
- DSP-Loudness, RMS Scanning system, added.
- DSP-Loudness, Dbfs Scanning system, added.
- DSP-Loudness, RMS Limiter, Updated.
- DSP-Loudness, Peak Limiter, Updated.
- DSP-Loudness, Brick wall Limiter, Updated.
- DSP-Loudness, Soft Behavior, Changed.
- Audio Tools, Convert to WAV from more formats, Added.
- Audio Tools, WAV, Flac, Ogg, MP2, MP3, WMA, Apple, Aac, Ape, Added.
- Audio Tools, Convert to Bits and Format, Changed.
- Audio Tools, Convert to Sample rate, changed.
- Audio Tools, Channels, Added.
- Audio Tools, Normalize, Added.
- Audio Tools, Convert WAV to MP3, Added.
- Options Tab, Fully Changed, Updated.
- Internet Browser, Added.
- Registration system, Added.
- License System, Added.
- AAMS Status, Updated and Changed.
- AAMS Reference Database, Updated.
- AAMS Version History, Updated.
- AAMS VMWare Policy, Updated.

- AAMS User Policy, Updated.
- AAMS End User License, Changed and Updated.

AAMS V2.5 - Rev 006

- Microsoft Changed Windows Rules, Fixed.
- Version History, Added.
- WAV Files
The WAV Files for AAMS need to be 16 Bit Integer or 32 Bit Float.
The Frequency is 44.1 KHZ only.
The WAV Files need to be correctly written (logic for instance does not).
So if you have error messages, use AAMS Tools tab to convert your WAV files to the correct format.
Or use a program alike Wavelab (Audio Editor) to save a WAV File in the correct format.
You can also use Format Factory Converter that is a free tool.
Also be sure the maximum playtime of the WAV Files cannot be longer than 10-15 minutes...

AAMS V2.5 - Rev 005

- Microsoft Changed Windows Rules, Fixed.
- Added More Documentation inside AAMS.

AAMS V2.5 - Rev 004

- Windows 8.1, Security problem, Fixed.

AAMS V2.5 - Rev 003

- Windows 7 64 Bit problem, Fixed.

AAMS V2.5 - Rev 002

- Windows 7 64 Bit problem, Fixed.

AAMS V2.5 - Rev 001

- Windows 7 64 Bit problem, Fixed.
- Registration System, Removed.
- Donate ware pages, Added.
- AAMS, Graphics Interface, Added.
- Master Batch, Moved Status Window, Fixed.
- DSP Compressor, AGC Time, Fixed.
- Tools, Sample Cutter Fader, Added.
- Reference Database, added more styles.
- Reference Database, added more single track styles.
- Improved Speed and Accuracy.
- Busy Processing Hangs, Fixed.

AAMS V2.2 - Rev 002

- DSP-EQ, added 61 Band Graphic EQ Preset, Added.
- DSP-Compressor, High Band Pending, Fixed.
- DSP-Compressor, Grid, Fixed.
- Processing, Error, Fixed.
- Options, DSP-EQ, Power Settings, Added.

- Options, DSP-Compressor, AGC Hunting Value, Added.
- Options, DSP-Compressor, AGC Correct Value, Added.

AAMS V2.1 Rev 005

- Removed Company name Message from Startup, Fixed.
- Improved Batching Multiple Analyzed Files, Fixed.
- Improved System Processing Messages, Fixed.
- Master, MP3 Save Indicated, Added.
- Master Batch, Did Not Continue, Fixed.
- DSP-Compressor, Status Hunting / Recording, Added.
- DSP-Loudness, RMS Buffer Counter, Added.
- DSP-Loudness, Status Balancing / Loudness, Added.
- Options, Turn Off Status Busy Message, Added.

AAMS V2.1 - Rev 004

- Program Messages, Improved, Fixed.
- Registration Error, Fixed.
- Quick Start, Wizard renamed Wizard, Fixed.
- Master, Updated Layout, Added.
- Master, Master to MP3, Added.
- Master, Add Multiple Files, Fixed.
- Mastering Document, EQ Calculation, Fixed.
- Analyzer, MP3 Import, Added.
- DSP, Updated Faders, Added.
- DSP-EQ, Tab Routing, Changes.
- DSP-EQ, Menu, Save Firium Preset, Added.
- DSP-Compressor, AC Accuracy Improved, Fixed.
- DSP-Compressor, AC Results Colors, Fixed.
- DSP-Compressor, AC Grid, Fixed.
- DSP-Compressor, AC Calculations, Fixed.
- DSP-Compressor, AC Charts, Changes.
- DSP-Compressor, Balance-Out Level, Fixed.
- DSP-Compressor, Compressor Status, Added.
- DSP-Compressor, Master-Out Level, Fixed.
- DSP-Compressor, Tab Routing, Changes.
- DSP-Compressor, Updates, Fixed.
- DSP-Loudness, Balance wrong value, Fixed.
- DSP-Loudness, Tab Routing, Changes.
- DSP-Loudness, Updates, Fixed.
- Tools, Normalize Wav File, Added.
- Tools, Convert Wav To Mp3, Added.
- Options, DSP-EQ Normalize, Added.
- Options, DSP-Compressor Normalize, Added.
- Options, DSP-Loudness Balance Normalize, Added.
- Options, DSP-Loudness Record Normalize, Added.
- Options, True Mono Mode (Keep Original Stereo Field), Fixed.
- Options, Memory Scan, Shows File Lengths and (RAM) in use, Added.
- Options, Layout, Fixed.
- Options, Little Fade In, Added.
- Options, Little Fade Out, Added.

AAMS V2.1 - Rev 003

- Installer, Smaller Size, Fixed.
- Audio Routine, Bits, Fixed.
- Analyzer File, Version 1.5, Added.
- File Save Routine, Screen Update, Fixed.

- DSP-Compressor, AGC Improved, Fixed.
- DSP-Compressor, AGC Correct, Document Info, Added.
- DSP-Compressor, Record AGC Correct, Added.
- DSP-Loudness, Auto Record DSP-Loudness, Fixed.
- Options, Memory Status, Added.
- Memory Status, Warning Message, Added.
- Memory Status, Low Memory Message, Added.
- Trial, Startup Message, Added.
- About, Version, Fixed.

AAMS V2.1 - Rev 002

- Analyzer, Measurements, Screen Update, Fixed.
- Memory, Longer Files, Fixed.
- Normalization, Removed, Fixed.
- DSP-EQ, Hunting, Reduced Overflow Steps, Fixed.
- DSP-Loudness, Scan, Memory Doubled, Fixed.

AAMS V2.1 - Rev 001

- Screen Refresh, Fixed.
- Master, Master file, Fixed.
- Analyzer, File not found error -6, Fixed.
- Analyzer, Saving, Fixed.
- Source, Directory Switching, Fixed.
- Reference, Directory Switching, Fixed.
- Reference Database, House DJ, Added.
- Reference Database, House Easy, Added.
- Reference Database, House RMS, Added.
- Spectrum, Edit Source and Reference Analyzer File, Fixed.
- Compressor Suggestions, Multi-Bands, Fixed.
- Normalization Routine, Fixed.
- DSP-Compressor, C4 Setting, Fixed.
- DSP-Compressor, Hunting Resolution, Fixed.
- DSP-Loudness Gain, Fixed.
- DSP-Loudness Setup, Loudness Scan, more loudness settings, added.
- Options, Defaults, Fixed.
- Options, Soundcard ID, Fixed.
- Options, Soundcard, Reset, Added.
- Options, Show Preview Graphs, Fixed.
- Options, Preferences, True Mono Mode, Added.
- Options, Preferences, Automatic Mastering (Albums), Added.
- Options, Preferences, Automatic Mastering (Single Files), Added.
- Options, Preferences, Semi-Automatic Mastering (Albums), Added.
- Options, Preferences, Semi-Automatic Mastering (Single Files), Added.
- Options, Preferences, Manual Mastering (Albums), Added.
- Options, Preferences, Manual Mastering (Single Files), Added.
- Options, DSP-EQ Power Setting, Added.
- Options, DSP-EQ, Mono Mode, Added.
- Options, DSP-Compressor, Mono Mode, Added.
- Options, DSP-Loudness, Mono Mode, Added.

AAMS V2.1 - Rev 000

- Quick Start, Wizard Auto Master Audio File, Added.
- Master, Single Master, Full Data File Loading, Fixed.
- Master Tab, Processing Info, Added.
- Master, End Clear Processing, Fixed.
- Master, End Filename, Fixed.
- Master, Normalize not working, Fixed.

- Master, Timer 'Running' Label, Added.
- Master Batch, Timer 'Running' Label, Added.
- Spectrum, Measurements, Added
- Analyzer, Improved Speed, Fixed.
- Analyzer, Batch Calculations, Fixed.
- Analyzer, Wave Format Info, Added.
- Analyzer, Max Chunks, Fixed.
- Analyzer, Remaining Time, Fixed.
- Analyzer, Import 8/16/20/24 (Integer) and 32 Bit Wav (Float) Files, Added.
- Analyzer, Shows Filename, Fixed.
- Analyzer, Remaining Time, Fixed.
- Spectrum, Edit Reference Parametric EQ, Added.
- DSP-Player, Playtime LED's, added.
- DSP-Player, Playtime Reset, Fixed.
- DSP-Processing, Memory Data, Added.
- DSP-Processing, Float Data, Added.
- DSP-Processing, Preload, Added.
- DSP-Processing, Loading 8/16/20/24 (Integer) and 32 Bit Wav (Float) Files, Added.
- DSP-EQ, Label 'Zero' changed to 'Reset', Fixed.
- DSP-Loudness, Scan, Fixed.
- Tools, Tab, Added.
- Tools, Normalize not working, Fixed.
- Tools, Convert Wav File, Added.
- Tools, Mp3 Convert 8/16/20/24 (Integer) and 32 Bit Wav (Float) Files, Added.
- Manual, Document Saving Messages, Fixed.
- AAMS Program, Optimized Screen Refresh, Fixed.
- AAMS Program, Exit Error, Fixed
- AAMS Program, More Visible Charts, Fixed.
- AAMS Program, Header Audio Filename, Fixed
- AAMS Program, Memory Leaking, Fixed.
- Options, DSP-Loudness, Normalize After Balancing, Added.
- Options, DSP-Loudness, Normalize After Loudness, Added.
- Options, Master Fader Reset, Added.
- Options, DSP-EQ Fader Reset, Added.
- Options, DSP-Compressor Fader Reset, Added.
- Options, DSP-Loudness Fader Reset, Added.
- Reference Style Database, Easy Listening, Added.
- Reference Style Database, Opera, Added.
- Reference Style Database, Vegas, Added.

AAMS V2.0 - Rev 006

- Status, Improved Messages.
- Master, Mastering Document, Added.
- Master Batch, Timer Turn Off, Fixed.
- Master Batch, Items, Fixed.
- Master Batch, Add Multiple Items, Added.
- Reference Database, @House Trance, Added.
- Reference Database, @Rock Slow, Added.
- Suggestions, Compressor, Shows correct Multi-Band Frequencies, Fixed.
- Suggestions, Loudness, Corrected Values, Fixed.
- DSP-Processing, Removed unnecessary audio files, Fixed.
- DSP-Compressor, Low band Compressors, added.
- DSP-Loudness, Gain, Fixed.
- Options, Save Mastering Document after Mastering is done, Added.
- Options, DSP-Loudness Balance - Apply Pre-Gain Suggestion.
- About, Info, Scroller in Program Messages, Added.
- Manual Documentation, file 'AAMS Manual.Doc', Added.
- Manual Documentation, tab 'Doc', Added.

AAMS V2.0 - Rev 005

- Analyzing, Remaining Time, Fixed.
- Analyzer Tab, Shows Audio File Name, Added.
- Analyzer Import, Can handle MP3 Audio Files, Added.
- Analyzer Import, Analyze Audio and Load as Source, Fixed.
- Analyzer Import, Missing Dll File Error, Fixed.
- Measurements, Floating Point Error, Fixed.
- Suggestions, Print Graphic Equalizer Suggestion, Added.
- Suggestions, Print Compressor Suggestion, Added.
- Suggestions, Print Compressor Calculations, Added.
- Suggestions, Print Mastering Document, Added.
- Suggestions, Compressor Bands Display, Fixed.
- DSP-Processing, Set back to zero, Fixed.
- DSP-Processing, Normalize after Mastering, Added.
- DSP-EQ, Normalize Audio File Option, Added.
- DSP-EQ, Shows correct Faders Selection, Fixed.
- DSP-Compressor, Normalize Audio File Option, Added.
- DSP-Compressor, Floating Point Error, Fixed.
- DSP-Compressor, AGC Display, Fixed.
- DSP-Compressor, AGC Hunting, Fixed.
- DSP-Compressor, AGC Hunting starts with Suggestion Value, Added Option.
- DSP-Compressor, AGC Timer Reset, Fixed.
- DSP-Compressor, AGC Led colors Reset, Fixed.
- DSP-Compressor, AGC Recording Reset, Fixed.
- DSP-Compressor, Option AGC start at -3 dB, Added.
- DSP-Loudness, Normalize Audio File Option, Added.
- DSP-Loudness, Auto Record Gain, Fixed.
- DSP-Loudness, Brick wall LED's Visible in Player, Added.
- DSP-Loudness, Balance Suggestion Text, Fixed.
- DSP-Loudness, Peak Limiter, Window, Fixed.
- Master, Error 105, Fixed.
- Options, Load and Save, Added.
- Manual, Specifications for DSP-EQ, DSP-Compressor and DSP-Loudness, Added.

AAMS V2.0 - Rev 004

- Example Audio File.afd, Fixed.
- Options, Warning Fast Analyze not recommended, Added.

AANS V2.0 - Rev 003

- Improved AGC Automatic Hunting, Fixed.
- Selecting Multi-Bands offsets running AGC, Fixed.
- Improved Loudness Calculations, Fixed.
- Loudness Calculations based on Peaks, Added Option.

AAMS V2.0 - Rev 002

- Show Audio Filename on Top Row, Added Option.
- Compressor Suggestion, Visible Items, Fixed.
- Busy Text moved to Process Info Line, Added.
- Using Stop on Auto Mastering, Fixed.
- Mastering Batch of Audio Files, Added Function.
- Mastering Audio Filename, last file is called '_Master.wav', Fixed.
- Mastering, Delete all unwanted Audio Files, Added Option.
- Mastering, Inserting Empty or Not Existing File, Fixed.
- DSP, Floating Point Error, Fixed.
- DSP, Repositioning Error, Fixed.
- DSP-Compressor, AGC Graph Reset, Fixed.

- DSP-Compressor, AGC Grid 'Hunting', Fixed.
- DSP-Loudness, Balance Suggestion, Fixed.
- DSP-Loudness, Gain Suggestion, Fixed.
- Startup Registration Form, did not show, Fixed.
- List All System Codec's, Removed from startup, Added Button.
- Floating Point Error at start up, Fixed.
- Removed unnecessary code at start up, Fixed.

AAMS V2.0 - Rev 001

- DSP-Loudness Record does not load file, Fixed.
- AGC Graph resets when processing, fixed.
- Using Tabs while processing, fixed.
- DSP-Compressor Offline Update Bug, Fixed.
- Registration Issue Solved
- Manual Update

AAMS V2.0 Rev 000 - Revisions.

- Full Mastering Option, added.
- DSP-EQ, Bug Fixes.
- DSP-Compressor, added.
- DSP-Loudness, added.

AAMS V1.5 Rev 007 - Bug Fixes

- Analyze Audio and Load as Source button, was misspelled, fixed.
- Save as Firium Preset, did not load the correct equalizer settings before saving, Fixed.
- Save as Firium Preset, naming of save file, fixed.
- Compressor Selection, fixed
- Suggestion Parametric EQ - Qfactor automatic or manual (see options), fixed.
- Player Timeline, added.
- Normalize Audio File, added.
- Odd Player Floating Point error, Fixed.
- Compressor Selection, Fixed.
- Registration did not complete, Fixed.
- Save as Firium Preset, did sometimes create flat EQ presets, fixed.
- Save as Firium Preset, malfunction in preset values, fixed.
- Soundcard, can now be selected in Options.
- Program Info, added on about tab.
- Installed Codec's, added on about tab.
- Fast Analyze Failed on startup, fixed.
- Track RMS Detection keeps running, fixed.

AAMS V1.5

- Internal DSP processing with its own Audio Player.
- DSP-EQ an Equalizer with 1 to 100 EQ bands.
- Faster Analyzing
- More accurate and faster internal calculations.
- AAMS executable is now a single file without dll's needed.
- AAMS is much more stable.
- Improved performance and stability
- Precise Analyzing, improved 3x.
- More presets
- Little bug fixes.

You can use any soundcard that works with your system to listen and process audio material. The DSP-EQ copies the suggestions directly, so there is no need to set up the EQ manually.

The DSP-EQ can simulate different EQ settings and process audio files.

Now you can hear what you expect!

What's new in AAMS V1.1?

- AAMS Unpacker and Setup changed so that there should be no more re-booting on older windows systems
- AAMS works now in all screen-resolutions and sizes.
- Removed problem while importing audio and windows multitasking
- Bug removed while closing AAMS.
- Bug removed while cancelling creating user EQ-preset.
- Removed Menu option to Exit in the main menu.
- Removed in Options Tab 'Average' and 'Fast but Inaccurate'.
- Added 'Exit AAMS Application? Yes/No' message while exiting (X).
- Restricted the input of all manual Q-Smooth factors. (5 Hz - 20000 Hz).
- Removed Options Program Path Directory.
- Removed options Program Path File Box.
- Introducing Q-Smooth in EQpreset Tab.
- Introducing Q-Smooth automatic and manual modes in options.
- 'Import Audio and Load as Source' Button Added on Quick Start Tab.
- 'Convert MP3 to WAV' added to menu 'File'.
- QSmooth factor for EQ-Final and EQ-Preset are displayed in the Process Tab.
- Qsmooth factors can be manually input by user, just uncheck the option in the Options Tab.
- Introducing an EQ-preset for Win Amp 10 Band EQ.
- Changed the Multi-Band Tab for 1/ 2/ 3 / 4 and 5 Band Multi-Band Compressor views.
- Added Option to predefine amount of Multi-Bands
- 'Please Wait' message deleted and replaced by the 'Please Wait'/'Finished' Alert box below.
- 'Options Reset To Default' button added in options tab.
- Loading Reference as Source Button Loaded wrong file.
- AAMS Analyzer Files are now saved in new V1.3 format, old formats can still be imported.
- AAMS Full Data Files are now saved in new V1.1 format, old formats can still be imported.
- Average Compression Levels in Grid-displays are now shown in White Colors inside the grid.
- Loudness settings are shown in white colors inside the grid.
- Loudness Grid Shows Average RMS levels to aim for.
- Textbox in Multi-Band Tab changed to Grid.
- Introducing a new early warning system for Equalization and Compression settings. In the Options Tab, the warning system can be turned on and off and Values in DB's can be configured. Whenever a warning is given, you might consider choosing another reference preset style or you might re-consider your imported mix. The Warning System prevents users using heavy settings.
- EQ Suggestion/EQ Final and Multi-Band Compression Displays added a straight RED line when a warning is given.
- Added in Process Tab under Multi-Band, Attack/Release and Ratio settings.
- Added settings marked with a '*' are option to be used, adjust them how you like best.
- Removed inactive variables.
- Removed a little bug, when in the Database Tab, Using Reference Batch.
- Improved calculation system for automatic Smooth-Q in EQpreset.
- Improved calculation system for automatic Smooth-Q in (User) EQpreset.
- Improved accuracy for Firium Preset Save.

Whenever you experience download or installation problems, AAMS is not running as expected or you are experiencing errors or malfunctions please consider downloading the newest version revision of AAMS by downloading AAMS again straight from our website (www.curioza.com).

AAMS is updated on a regular basis and we are working continuously to get better revisions out in the open. When you are downloading from another site (shareware websites) you might get an older version of AAMS.zip. The newest version is always available from www.curioza.com, even though the download name might read AAMS V3, there are revisions on a regular basis. Whenever you have problems please download

from our site a new AAMS.zip and install this. If you have still problems send us an email and we will check it out.

Limited Freeware vs Full Version



You must register for AAMS Full Version. The AAMS software program, website and this manual gives information how to do so. AAMS Limited Freeware Version can be freely used. This program is Free Distributable, i.e. you can evaluate this functional Limited Freeware Version. Distribution of AAMS installer and AAMS software can be done on a freeware basis, take into account that asking money or payments for the AAMS software is prohibited and not legal. AAMS is distributed on NON-COMMERIAL basis, so if you paid money for AAMS, ask your money back from the distributor. When you commercially distribute AAMS Software or AAMS Coding or AAMS Install files or any reference that suggests commercial use to make money out of AAMS, you must stop your activities!

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When you are using this software for a longer time or using this software for commercial use, to earn money, you must think about giving a part of it to the author and register AAMS for a Full Version License.

Thank You!

Denis van der Velde
Sined Supplies Inc.

**AAMS V3 Registered and Licensed Version Features,
the main differences between AAMS Freeware and AAMS Registered versions.**

Freeware : Mastering single audio files < 25 minutes with standard settings.

The user can analyze and master single audio files only each time.

The user can choose a reference file out of the Reference database Only.

For most users this might be enough, simple one button mastering for free.

Registered : Full AAMS Software Version for registered and Licensed Users (www.curioza.com -> menu / Registration Page).

The freedom to create your own audio style (reference) out of analyzing a single file or multiple files.

For users who like more control over the reference or create / adjust a reference out of the AAMS database.

Spectrum Reference Adjustments possible for Mono, Left and Right spectrum of a loaded reference and saving a new reference.

Or analyze commercial audio and create a reference accordingly.

Therefore having full control over Creating your own style reference and creating your own sound!

Batch Mastering multiple files or albums, first each files with their own reference.

Batch Mastering multiple files or albums, with a user made album reference (option).

DSP-EQ processing up to 100 Bands and full control to adjust each EQ band.

DSP-Compressor up to 8 Multibands.

DSP-Loudness (Balance and Loudness), with AAMS measuring system or dBFS measuring system.

Able to Automatic Master, Semi-Automatic Master and Manual Mastering!

Importing Audio Files into AAMS or Master Audio Files With AAMS.

Freeware : Wav, Mp3.

Registered : Wav, Wavpack, Vorbis Ogg, MP2, MP3, WMA, Apple M4a, Monkey Audio, AAC.

Maximum File Duration or Maximum Playtime of Audio File Imported.

Freeware : Restricted to 25 Minutes.

Registered : Over 1 Hour Playtime Tested.

Master Batch Audio Files, master multiple audio files at a single go.

Freeware : Not Featured.

Registered : Featured.

Master Batch Analyze Files, create a new reference (or source) out of multiple analyzer files.

This is a good function for creating your own style reference!

Freeware : Not Featured.

Registered : Featured.

Reference Adjust, adjust the loaded reference file according to user EQ Spectrum changes, save user created reference.

Adjustments possible 5Khz to 20 KHz, -12dB to +12dB in the spectrum reference range by editing envelopes for Mono, Left and Right spectrum

Freeware : Not Featured.

Registered : Featured.

Batch Multiple Reference(s) into One.

This is a good function for creating your own style reference!

Freeware : Not Featured.

Registered : Featured.

Auto Mastering (Albums), Semi Mastering (Single), Semi Mastering (Albums), Manual Mastering (Single), Manual Mastering (Albums).

Feature to change AAMS behavior directly (options) for Single Audio or Albums of Audio.

Freeware : Not Featured.

Registered : Featured.

DSP-EQ, the equalizer is most important to change audio and spectrum (balance and volume EQ).

With more accuracy more details will arise.

Freeware : 50 Band Equalizer Only.

Registered : 100 Band Equalizer Maximum, 5 to 100 Equalizer setups possible.

DSP-Compressor, second in line the multiband compressor.

With more accuracy more details will arise.

Freeware : 4 Band Multiband Compressor Only.

Registered : 8 band Multiband Compressor Maximum, 1 to 8 Multibands setups possible.

DSP-Loudness, with two measuring and correction systems.

AAMS measuring system and dBFS measuring system.

Freeware : AAMS measuring system only.

Registered : Both systems and with lots of tweaking possible.

Mastering outcome audio files and in between files.

Meaning AAMS creates in between mastering files for each process AAMS Mastering, DSP-EQ, DSP-Compressor, DSP-Loudness

Freeware : AAMS will only save the mastered outcome files as WAV16, WAV32 and MP3(192).

Registered : Setups possible for AAMS Mastering, DSP-EQ, DSP-Compressor, DSP-Loudness audio files to be saved (options).

Printing Documents in text and as charts (charts featured inside AAMS).

Freeware : Restricted.

Registered : All charts possible can be printed as Text and as a Chart.

AAMS Versions 3 (Professional Registered), AAMS V3 Freeware and AAMS V2 Comparison List /chart.

Features	AAMS V3 Profession (Registered)	AAMS V3 Freeware
Import Audio	Wav, Wavpack, Vorbis Ogg, MP2, MP3, WMA, Apple M4a, Monkey Audio, AAC.	Wav, MP3.
File Duration	Over 1 Hour of Playtime Tested.	Restricted to under 25 Minutes.
Internal Processing	64Bit.	64Bit.
Audio Processing	64Bit Float to 32Bit Float.	32Bit Float.
Master Single Audio File	Featured.	Featured.
Master Batch Multiple	Featured.	Not Featured
Analyze Single File	Featured.	Featured.
Batch Analyze Multiple	Featured.	Not Featured.
Load Full Data File	Featured.	Not Featured.
Save Full Data File	Featured.	Not Featured.
Source Analyzer	Over 1 Hour of Playtime Tested.	Restricted to under 25 Minutes.
Batch Source(s) into One	Single Source File of Multiples.	Not Featured.
Reference Analyzer	Over 1 Hour of Playtime Tested.	Restricted to under 25 Minutes.
Reference Adjust Centre	5Khz to 20 KHz, -12dB to +12dB	Not featured.
Reference Adjust Left	5Khz to 20 KHz, -12dB to +12dB	Not featured.
Reference Adjust Right	5Khz to 20 KHz, -12dB to +12dB	Not featured.
Reference Adjust Save	Saving Adjusted Preset to new Reference (User Reference).	Not featured.
Batch Reference(s) into One	Single Reference File of Multiples.	Not Featured.
Auto Mastering (Single)	Featured.	Featured.
Auto Mastering (Albums)	Featured.	Not Featured.
Semi Mastering (Single)	Featured.	Not Featured.
Semi Mastering (Albums)	Featured.	Not Featured.
Manual Mastering (Single)	Featured.	Not Featured.
Manual Mastering (Albums)	Featured.	Not Featured.
DSP-EQ	50 Band Adjustable Equalizer.	50 Band Equalizer.
DSP-EQ	100 Band Adjustable Equalizer.	Not Featured.
DSP-EQ Adjust Centre	5Khz to 20 KHz, -12dB to +12d	Not Featured.
DSP-EQ Adjust Left	5Khz to 20 KHz, -12dB to +12d	Not Featured.
DSP-EQ Adjust Right	5Khz to 20 KHz, -12dB to +12d	Not Featured.
DSP-EQ Power Adjust	Featured.	Not Featured.
DSP-EQ Manual Hunting	Featured.	Not Featured.
DSP-EQ Manual Record	Featured.	Not Featured.
DSP-EQ Manual Hunting	Featured.	Not Featured.
DSP-EQ Manual Record	Featured.	Not Featured.
Convert DSP-EQ to MP3	Featured.	Not Featured.
Convert DSP-EQ to WAV16	Featured.	Not Featured.
Convert DSP-EQ to WAV32f	Featured.	Not Featured.
DSP-Compressor	4 Multiband Tube Compressor.	4 Multiband Compressor.
DSP-Compressor	1 to 8 Multiband Tube Compressor.	Not Featured.
DSP-Compressor Manual Hunting	Featured.	Not Featured.
DSP-Compressor Manual Record	Featured.	Not Featured.
Convert DSP-Compr. to MP3	Featured.	Not Featured.

Convert DSP-Compr. to WAV16	Featured.	Not Featured.
Convert DSP-Compr. to WAV32f	Featured.	Not Featured.
DSP-Loudness Manual Balance	Featured.	Not Featured.
DSP-Loudness Manual Record	Featured.	Not Featured.
Convert DSP-Loudness to MP3	Featured.	Not Featured.
Convert DSP-Loudness to WAV16	Featured.	Not Featured.
Convert DSP-Loudness to WAV32f	Featured.	Not Featured.
Convert Master to MP3	Featured.	Featured.
Convert Master to WAV16	Featured.	Featured.
Convert Master to WAV32f	Featured.	Not Featured.
Show Status Messages (List	Featured.	Not Featured.
Print Spectrum Analyzer	Featured.	Not Featured.
Print EQ Settings	Featured.	Not Featured.
Print EQ Chart	Featured.	Not Featured.
Print DSP-EQ Suggestion	Featured.	Not Featured.
Print Compressor Suggestion	Featured.	Not Featured.
Print Compressor Calculations	Featured.	Not Featured.
Print Compressor Chart	Featured.	Not Featured.
Print Loudness Settings	Featured.	Not Featured.
Print Loudness Chart	Featured.	Not Featured.
Print DSP-Loudness Sugg.	Featured.	Not Featured.
Print AAMS Effectiveness	Featured.	Not Featured.
Print Mastering Document	Featured.	Not Featured.
Print All Charts	Featured.	Not Featured.

HELP! - Errors and Windows Problems

AAMS Auto Audio Mastering System - Windows 32 Bits Software Program

AAMS will run on all Windows Versions 32 Bits or 64 Bits.

On Windows 64 Bit machine run AAMS as 32bit Compatible Program.

When you have a 64 Bits Windows Version and AAMS will not run,
the documentation below will help to solve.

(1)

By installing AAMS and running AAMS you need Administrator Rights.

At least enough windows rights to Install and Run AAMS.

Sometimes a logged in Windows User does not have these rights.

Be sure to be the Administrator of your computer.

(2)

Turn Off - UAC - User Account Control.

(3)

When AAMS does not run or install.

Run AAMS or AAMS installer in Compatibility mode.

Windows 7 Compatibility mode for Windows 8+

Windows XP mode SP3 for Windows 7+

(4)

Some Windows version do not have XP mode.

Windows 7 Home Premium - does not have XP mode.

You need to upgrade your windows 7 version to have XP mode.

Windows Administrator

The administrator account is a hidden, disabled and built-in account with Windows 8/7/Vista/xp.

But a user can enable this account for some special actions.

Such as troubleshooting, installing software or some special networking tasks.

By default, most of the user accounts are a part/member of the Administrator account.

Others are standard accounts without being any part of an administrator account.

Windows disabled this account to prevent malicious programs and harmful activities on the system.

So any special task of system needs administrative privilege.

And the annoying UAC (User Account Control) bar will pop up for the users.

This instructable will show you how to enable Administrator account in three easy ways.

Choose only one method from below to activate administrator account.

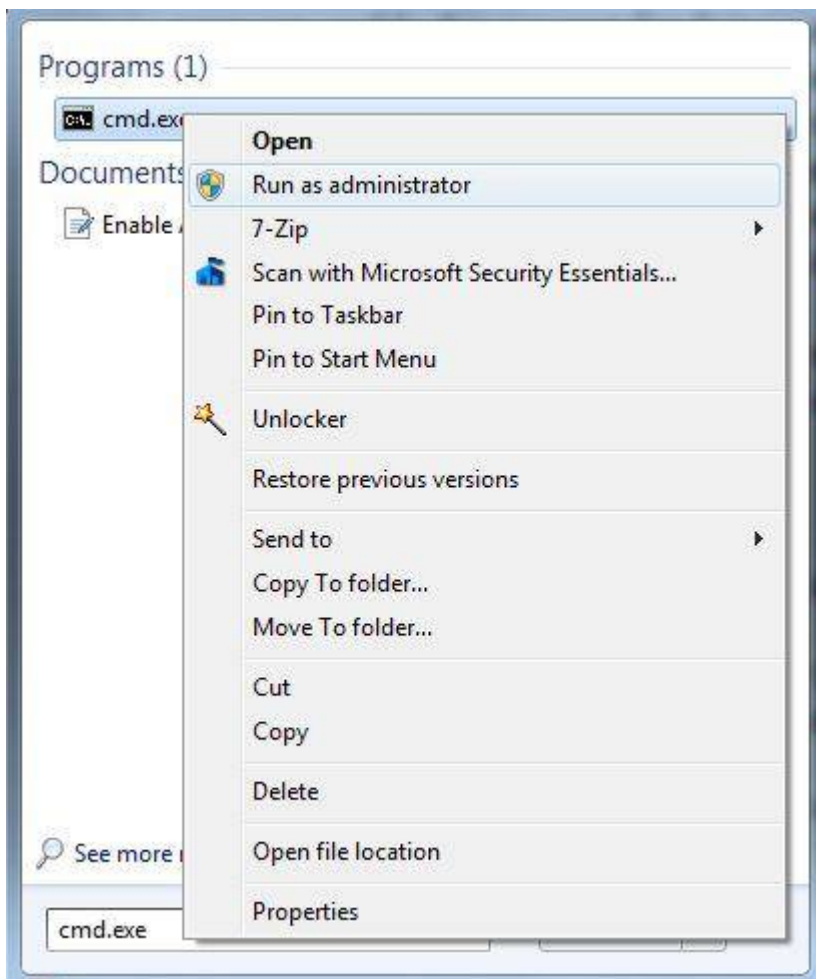
(1)

Search 'cmd.exe' in start menu and run 'cmd.exe' as administrator.

To enable Administrator account Type: 'net user administrator /active: yes'

Hit enter and the command should execute successfully.

Command line to disable this account: 'net user administrator /active: no'



(2)

Go to control panel navigate to Administrative tools and computer management.

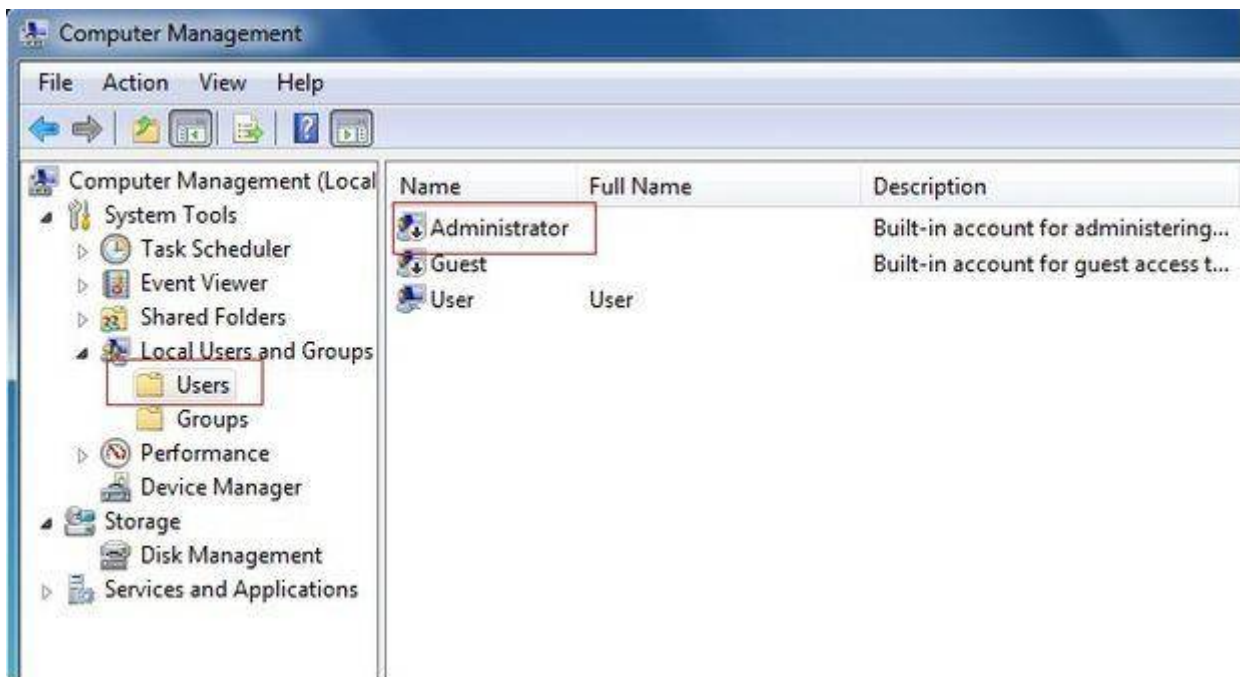
Expand the Local users and Groups arrow and select Users.

Then, From the right pane, double-click on the Administrator.

Un-check the "Account is disabled" and it should look like below.

OK it and your settings will be saved.

From here you can also disable the Administrator or other account.



(3)

Type secpol.msc in start menu and run it as administrator.

From this Local Security Policies, expand the security options under the Local Policies.

Find "Account: Administrator account status" from the right pane.

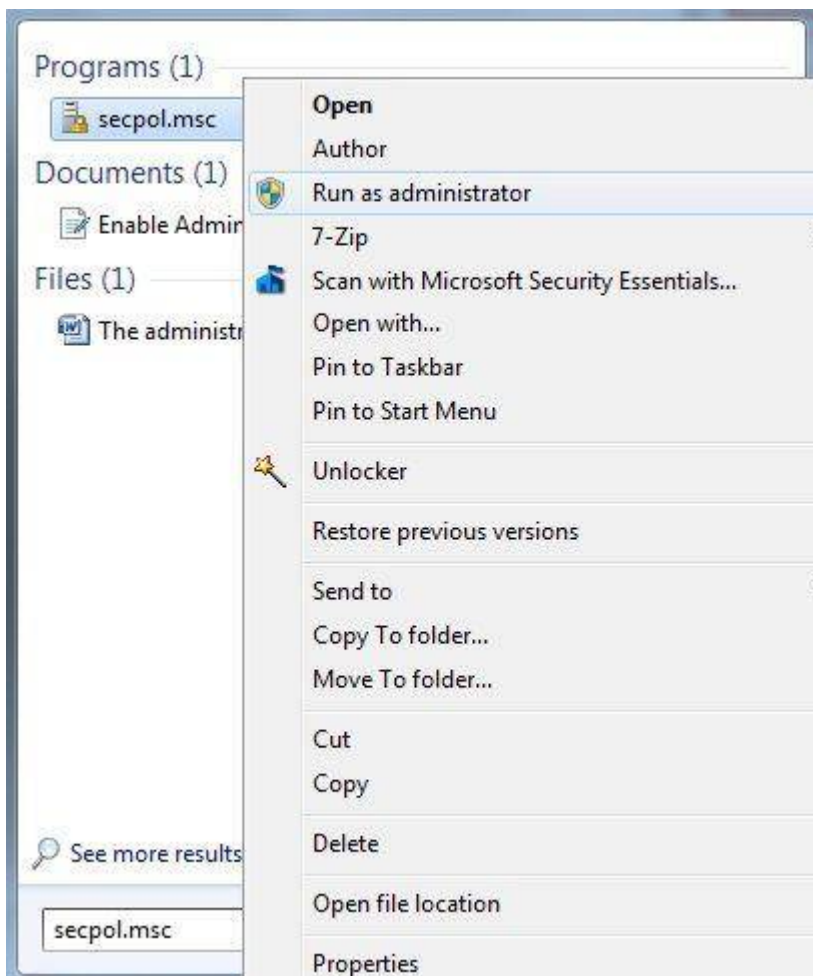
Open the "Account: Administrator account status" and choose Enabled to enable it.

You can also disable it from here.

After completing any of above processes, reboot your PC or log off.

Now you will see a new account "Administrator" which has no password by default.

Log in to this account and enjoy the real administrator power of your PC.



What is program compatibility?

Program compatibility is a mode in Windows that lets you run programs written for earlier versions of Windows.

Most programs written for Windows Vista also work in Windows 7, but some older programs might run poorly or not run at all.

If an older program doesn't run correctly, try the Program Compatibility troubleshooter.

It can automatically detect and fix common problems that prevent older programs from installing or running correctly.

Open the Program Compatibility troubleshooter by clicking the Start button Picture of the Start button.

Then clicking Control Panel. In the search box, type troubleshooter, and then click Troubleshooting.

Under Programs, click Run programs made for previous versions of Windows.

Disable UAC on Windows 7

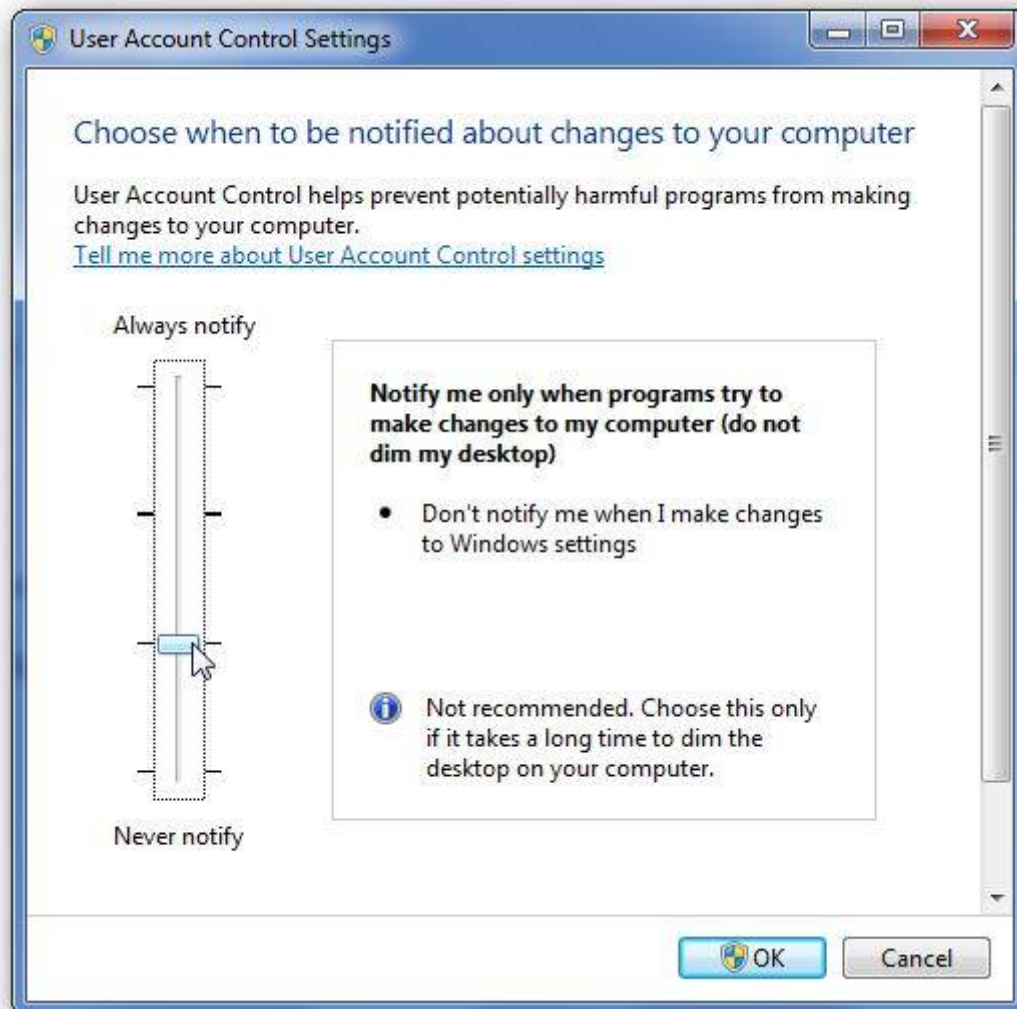
Just type UAC into the start menu or Control Panel search box.

Windows 7 makes it much easier to deal with UAC settings.

In fact you don't have to completely disable UAC if you don't want to.

You can simply drag the slider up or down, depending on how often you want to be alerted.

If you drag it all the way down to the bottom, you'll have disabled it entirely, this is the most common setting.



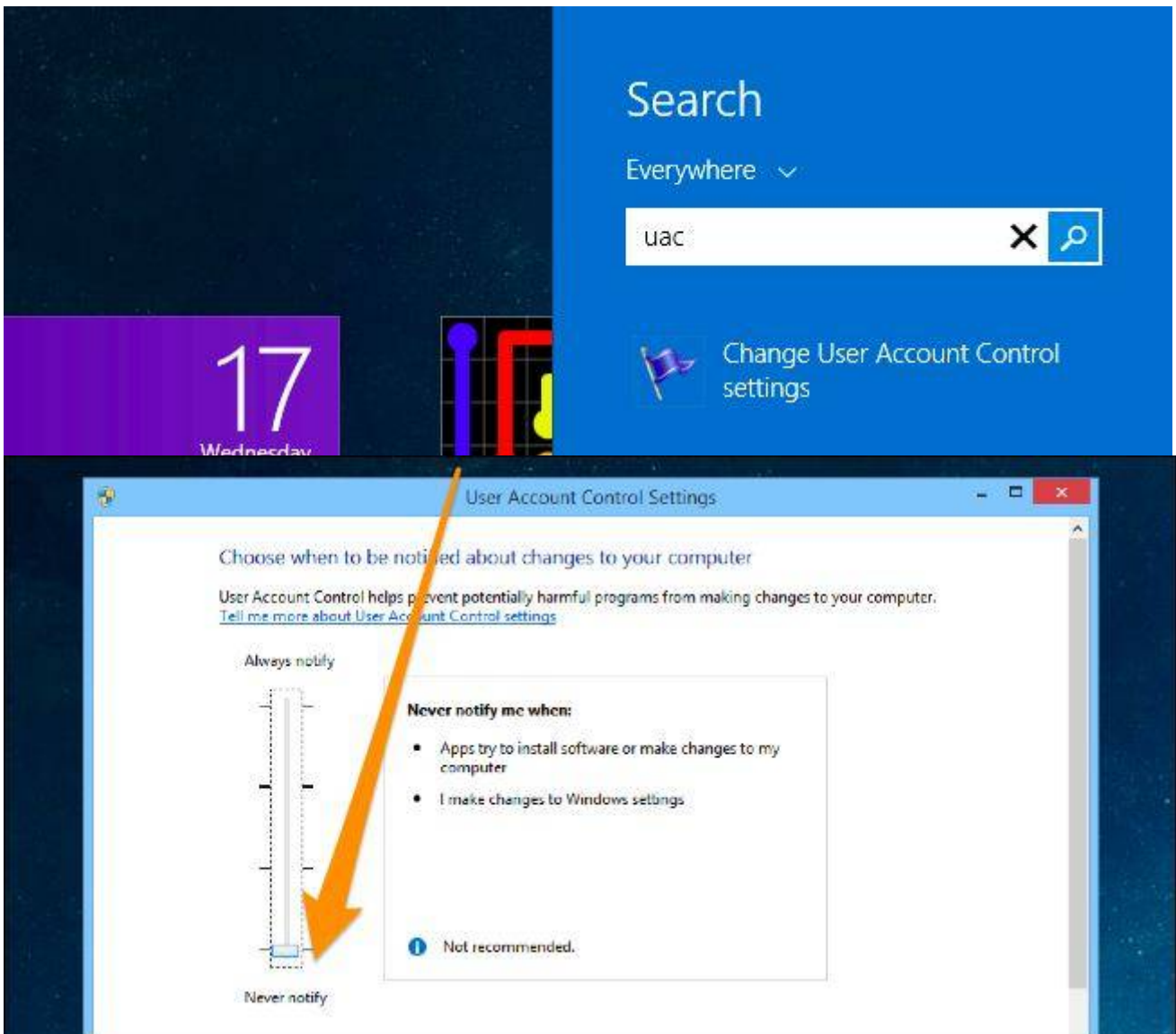
Disable UAC on Windows 8 or 8.1

Open up the Start screen, search for UAC.

You should see an option for User Account Control settings.

If you don't, you'll need to change to search through your Settings first, but then you should see it.

And then you can drag the slider all the way to the bottom, the same as for the other versions of Windows.



WOW64 is the x86 emulator that allows 32-bit Windows-based applications to run seamlessly on 64-bit Windows.

WOW64 is provided with the operating system and does not have to be explicitly enabled. For more information, see WOW64 Implementation Details.

The system isolates 32-bit applications from 64-bit applications, which includes preventing file and registry collisions.

Console, GUI, and service applications are supported.

The system provides interoperability across the 32/64 boundary for scenarios such as cut

and paste and COM.

However, 32-bit processes cannot load 64-bit DLLs for execution, and 64-bit processes cannot load 32-bit DLLs for execution.

This restriction does not apply to DLLs loaded as data files or image resource files.

A 32-bit application can detect whether it is running under WOW64 by calling the `IsWow64Process` function.

The application can obtain additional information about the processor by using the `GetNativeSystemInfo` function.

Note that 64-bit Windows does not support running 16-bit Windows-based applications.

The primary reason is that handles have 32 significant bits on 64-bit Windows.

Therefore, handles cannot be truncated and passed to 16-bit applications without loss of data.

Attempts to launch 16-bit applications fail with the following error:

`ERROR_BAD_EXE_FORMAT`.

Under Windows 64-bit, 32-bit applications run on top of an emulation of a 32-bit operating system that is called Windows 32-bit on Windows 64-bit.

WOW64 for short. WOW64 intercepts all operating system calls made by a 32-bit application.

For each operating system call made, WOW64 generates native 64-bit system calls.

Converting 32-bit data structures into 64-bit aligned structures.

The appropriate native 64-bit system call is passed to the operating system kernel.

Like 32-bit applications, WOW64 runs in user mode so any errors that occur in translating an operating system call will only occur at that level.

The 64-bit operating system kernel cannot be affected.

Since WOW64 runs in user mode, all 32-bit application code must also run in user mode.

This explains why 32-bit kernel mode device drivers and applications that rely on them, will not work under Windows 64-bit.

The WOW64 emulator consists of the following DLLs, the only 64-bit DLLS that can be loaded into a 32-bit process:

`Wow64.dll` – the core emulation infrastructure and the links to the `Ntoskrnl.exe` entry-point functions.

`Wow64Win.dll` – the links to the `Win32k.sys` entry-point functions.

`Wow64Cpu.dll` – switches the processor from 32-bit to 64-bit mode.

Ntdll.dll – 64-bit version.

In addition to handling operating system calls, the WOW64 interface needs to ensure that files and registry settings for 32-bit applications are kept apart from those for 64-bit applications.

To achieve this two mechanisms are used, File and Registry Redirection and Key Reflection.

Redirection maintains logical views of the data as if it were in 32-bit Windows and maps it to the correct physical location.

Reflection ensures that 32-bit and 64-bit settings will be consistent where that is required.

File redirection ensures that there are separate folders for program and operating system files for 32- and 64-bit applications.

32-bit applications files are installed into C:\Program Files(x86)

32-bit system files are installed into C:\WINDOWS\SysWOW64

For 64-bit applications, files are installed to: C:\Program Files // C:\WINDOWS\SYSTEM32

WOW64 has several limitations

Some but not all 64-bit features are available to 32-bit applications

WOW64 provides 32-bit applications with access to some features of 64-bit systems.

For example, applications can have more memory up to 4GB with the correct setting.

Other features are more limited due to overheads and restrictions.

For example, 64-bit Windows will support logical 64 processors but 32-bit applications are restricted to the usual 32 logical processors.

Code Injection cannot mix between 32-bit and 64-bit

Under 64-bit Windows it is not possible to inject 32-bit code into a 64-bit process.

Nor is it possible to inject 64-bit code into a 32-bit process.

Applications that rely on code injection to add functionality to existing applications will usually not work.

This explains why most 32-bit shell extensions do not work under Windows 64-bit.

The majority of shell extensions rely on code injection to add themselves to Windows Explorer.

WOW64 does not support 16-bit installers

WOW64 provides support for Microsoft's 16-bit installer - by substituting a compatible 32-bit installer - but does not extend this support to third-party products.

Further options for running 32-bit applications with Windows 64-bit

Windows Virtual PC is free software that provides an environment that will support legacy hardware and software that will not work under Windows 7.

Guest operating systems (OS) can run in a virtual machine which means they are not aware that they are running under another operating system.

The system requirements and features vary significantly between versions of Virtual PC and versions of Windows so check before you try Virtual PC.

The latest version is, perhaps, the most limited with no support for operating systems before the current supported version of Windows XP which is Service Pack 3.

Windows XP Mode (XPM)

Windows XP Mode is a specific implementation of Windows Virtual PC that comes with a pre-installed, licensed copy of Windows XP Professional with Service Pack 3.

It is only available with the Enterprise, Ultimate and Professional editions of Windows 7 64-bit so you are expected to upgrade to these versions if you want it.

Many who have used XPM advise that it should be used as a last resort.

It will provide legacy support if you have no other options but, compared to other virtualization products, performance is disappointing and the default configuration raises a number of security issues.

Dual boot Windows

You can install more than one version of Windows on the same computer by dual booting. For the purposes of this article.

You would install a 32-bit version and a 64-bit version alongside each other.

Each operating system is installed into its own disk partition.

A boot manager is installed on the default partition to ensure that you can choose which operating system you want to use at startup.

Although you cannot use both operating systems at the same time it is a useful option because the entire computer is dedicated to the running operating system.

Compared with virtual machines, there are no issues of compatibility and much less

complexity in both installation and operation.

You can also retain the ability to run 16-bit applications under the 32-bit version of Windows.

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AAMS Uninstallation



Referring to the License Agreement AAMS is Limited Freeware.
When you do not use AAMS any more please remove AAMS.

Uninstallation

Use AAMS Installer to uninstall.

Or remove the program directory c:\program files\AAMS (c:\program files (x86)).
Remove all Icons on the desktop and start menu.

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AAMS F.A.Q.



Does AAMS really master audio automatically and how is this done?

Yes, AAMS Auto Audio Mastering System is a program designed for audio mastering. AAMS internal analyzer will first read and analyze your mix, song or track and output a Source file. This Source file will represent your own audio material. When you load the Source back into AAMS and choose a matching Reference from the database of 200+ available style presets, AAMS will automatically generate suggestions for mastering your audio material. These are displayed in charts and information screens for the user to check what AAMS is suggesting. The internal DSP-Processing consists of a variable 1-100 Band Equalizer, 1-8 Multi-Band Compressor and a Loudness Maximizer. These three modules will balance, EQ and Compress your audio material automatically when chosen and carefully make it loud as possible without losing quality. AAMS can process a single master or even multiple masters automatically. A Master Audio file will be written to your hard disk and you can listen to this Audio file directly.

Does AAMS master accurately and is it easy to learn?

Great mastered mixes sound much better, but it's hard to master with speakers and listening environments that don't represent a good flat frequency spectrum. AAMS takes the mastering out of your hands and lets you do it in a few simple, fast and easy steps with no fiddling around. AAMS does this by matching your audio material with the provided Reference Styles. AAMS works automatically and all mastering functions can be done with a minimum of effort. The learning curve of AAMS is such that you can be creating great masters faster and more accurately than before. AAMS does not simply assist you when mastering, it will work out and calculate all necessary changes using internal Audio functions and DSP-Processing, writing the results as a complete master audio file. AAMS provides a convenient way to get you going and making a good sounding master from your mix. Download a free 21-day fully working trial version of AAMS and see for yourself.

What is the main file format for loading audio into AAMS?

The main file format is Wave Format 16 bit Integer, 24 Bit or 32 Bit Float Bit 44.100hz Stereo. Although AAMS can convert MP3 Files to Wave Format for import, we recommend using Wave format files.

How does AAMS analyze audio material?

When an audio file is imported into AAMS; The AAMS Spectrum Analyzer analyzes the audio file in chunks of audio and can handle any frequency from 5 Hz to 22,5Khz. The Frequency spectrum is set up in logarithmic order, so that the bottom end frequencies have a more detailed spectrum and builds upwards to the high frequencies. This makes it easier for the user and AAMS to recognize if the bottom end frequencies are correctly matched or see the whole spectrum or equalization points. The Bottom End is usually not heard on small monitoring speaker systems and most household stereo equipment. Sometimes there is a lack of highs and some speakers produce some distortion. The spectrum range from 0Hz to 50Hz is often not heard correctly on most speakers, but AAMS Analyzer effectively calculates the spectrum and its EQ so that it can calculate the differences consistently and accurately. AAMS calculates the whole frequency

spectrum from 5 Hz to 22,5Khz for the analyzed audio. This is separated in left and right signals so that if there was a balancing problem this is also resolved within the calculations. A parametric equalizer suggestion is calculated and from that comes the EQ Final section and EQ Preset (Graphic EQ) setup from user defaults. They represent a parametric equalizer and a graphical equalizer. After this the Multi-Band Compression is calculated so that the user is informed about compression bands and how to reduce peaks and how to get your tracks more even. The loudness display will make it easy to see if the overall volume is loud enough to match a level that is as loud as possible.

How does the AAMS Analyzer work?

The AAMS Analyzer is what makes the difference in AAMS because it is not just a spectrum analyzer but AAMS is programmed in a way that makes the mastering process easy and carries out calculations beyond the normal spectral views. AAMS also provides information about Multi-Band Compression settings and Loudness. AAMS shows you how to setup the mastering chain and gives detailed information allowing you to do the job in a minimal amount of time and with great accuracy. When you load an audio file into AAMS it will investigate and hunt down frequency information and save it to disk. AAMS will then do some heavy calculations and create a new Source Preset. When you load a Source preset and a Reference preset AAMS automatically calculates equalization, Multi-Band compression and loudness settings.

Does AAMS tell me what I have been doing right or wrong in my mix or already made masters?

The AAMS Analyzer function can handle any mixed or mastered audio file in the correct format. It displays the frequency spectrum or EQ data against a reference style of your choice, effectively showing you what you are doing right or wrong. As there is basically no difference between a source preset or reference preset, you can make either of them yourself or load a reference from the prepared reference style database. After choosing a source and a reference, AAMS will show you the complete bottom end 0-120hz, Low Mids 120-2Khz, Mids 2Khz-10Khz And High Frequencies 10Khz -20Khz. With AAMS you won't have to bother with equalization settings yourself as AAMS calculates an equalization preset for you that is very precise and accurate.

What are the requirement specifications for AAMS?

AAMS is a processor and memory hungry application. AAMS runs best on a fast computer with lots of memory. The AAMS Analyzer will take some time to analyze an audio file. With the recommended setup it will take about 3 to 10 Minutes before AAMS Analyzer finishes. AAMS also uses memory to store the audio file that is processed and the amount of memory needed depends on the length and size of the loaded audio file. The DSP-Processors need less time and less memory, but having a fast processor and free memory will mean that Windows uses the swap file less and uses RAM memory instead. Please be patient and wait for AAMS to complete processing and you will end up with a good sounding master.

Recommended Setup

Processor - Pentium 4
Processor Speed - 3 GHz
Ram Memory - 1 Gbyte
Hard Disk Space - 1 GB

Minimal Setup

Processor - Pentium 3
Processor Speed – 1.2 GHz
Ram Memory - 1024 Mbyte
Hard Disk Space - 500Mb

What about single audio tracks?

AAMS can import and analyze single audio tracks in the same way as full mixes or any other audio material. All you have to do is choose a reference style that fits the source audio track well. Either you can take a look in the reference style database or generate a new reference preset. Let's say you'd like to equalize a guitar-instrumental track with AAMS but you don't find a good reference style preset in the database. You can generate a new reference style preset by importing more guitar-instrumental audio tracks. Use a number of recordings that best match the intended result as the source material and import them into AAMS. Now AAMS will average the references and you can save a new preset that you can now use as a new reference style. When you load up your newly made reference against the source, AAMS will calculate the differences. This is basically called matching, but AAMS can take this quite a bit further, as we introduce Batch Matching.

What is a Batch?

A batch is a selection of audio files. When you want to make a new reference style you can select any audio material and place them in a single directory. You can now let AAMS carry out the analysis. AAMS will analyze each file separately and save a reference preset accordingly in the directory next to the audio material. When the analysis is finished, you can generate a new reference style by selecting all analyzed references and batch them into one single preset. The Batch function creates an average of all reference presets in the list. When you save this new reference style preset in the database directory the new style can now be used against your source audio material. This way you can make new matching style presets for every source. These functions create endless possibilities to add new styles into the database and when spread across the users of AAMS will be included into the general internet database of AAMS and subsequent versions of AAMS. In this way we hope to encourage users to send in their own presets and make the database bigger and better with every new release of AAMS.

What steps does AAMS mastering follow?

AAMS gives EQ Suggestions and EQ presets for parametric and graphical equalizers, shows Multi-Band Compression levels and Signal level RMS over time in its displays. AAMS provides a route to a finished master and gives detailed information about setting up a mastering chain without having to fiddle around - Let AAMS do the job for you.

How can I setup my equipment for use with AAMS?

The recommended Effect chaining is as follows:

1. Equalizer
2. Multi-Band Compression
3. Loudness Maximizing

When you use a hardware Equalizer or any VST/DirectX plugin/RTAS/AudioUnit, the routing or chaining is always subject to change as each user can decide what equipment to use alongside AAMS. Actually AAMS does not make use of a soundcard, so the soundcard on your system is free to do the mastering process in any given Audio Editor / Sequencer / Plugin or Hardware that can handle these effects. AAMS just helps you to work much faster and more accurately.

What can I do to check my Master?

If you just mastered a track and want to compare it with the original, you can analyze the master again. You can check your Master against any Reference. You can see in the EQ preset what EQ differences there are and you can also make a new Reference while you are mastering your track. Right after the Equalization and Multi-Band Compression processing is applied on your Mix, save the results. When you analyze and compare this to your Master you can see the differences in EQ. For instance when I was using Izotope

Ozone's Loudness Maximizer, there was a distinct peak at 160Hz +4/+6db when I was boosting the Master. For other processing like Reverb or Delay (if you use them while mastering your track) it's best to make a comparison like this. You must load the Master as Source and compare it to a Reference of choice. Then you can see in the EQ-preset Tab of AAMS what differences there are in EQ. As a final last mastering step you could correct using the EQ-Preset and Equalize your Master again, then normalize this to 0db and this would be your Final Master. The final sound is what is important and correcting the EQ of your Master is usually more important than loudness. Comparing is a good thing to do and is the main function of AAMS. But remember to be aware of what Source and Reference you are comparing. When you swap source and reference, you might decide on the wrong EQ settings and your Master will sound worse. You have to understand what you are doing, play around with it and learn for it. Then you can decide that comparing your Master is a good idea and you can add it to your mastering routine. In particular, if you are using other plugins or outboard equipment like Delay, Reverb or anything that can change the EQ Frequency Spectrum of your Master, comparing and correcting is a very good thing to do.

What can I do to check my mix before mastering?

A 'mix' is exactly that, all tracks mixed together. It doesn't really matter what levels there are on the master-fader vu-meter, as long as your mix stays below 0db. A mistake would be trying to make the mix as loud as possible at this stage. Mixing means managing all instruments and vocals and it is more important to get all tracks sound good together instead of making all tracks as loud as possible. Don't try to overload your mix and keep the master fader at 0db. Don't touch the master fader and instead correct levels by using the track faders. A good reference point is the bass drum (if there is one in your mix). It's good to start looking at the bass drum on the master fader VU meter. Set the peaks of the bass drum at about -6 to -10 maximum peak while your soloing the bass drum (so the only thing you should hear over the master-fader is the bass drum). The -6 to -10db space that is left should be sufficient to leave enough room for all other tracks and avoid hitting 0db on the master fader. When mixing tracks try to set them lower than the bass drum track and make sure you don't go over 0db on the master fader. Another thing to keep in mind is balancing the mix. You can use panning on all tracks to make a nice wide mix and most stereo mixes use this kind of panning. Check the levels on the master fader and keep them balanced (left and right signals should be balanced). If you output or render your mix check that it stays just below 0db to -6db or so. There are some other things to keep in mind after the mix is done. Don't use reverb while you are mastering, you can also step back to the mix and use reverb or delay inside the mix and render it again. Any effect like chorus, flanger or other type of effect plugin should remain inside 'the mix. When it is not possible to change the mix you can use effects/plugins inside the mastering chain but remember that then the spectrum will change and you need to create a new import file for AAMS to "see" the new spectrum. It's better to try to make your mix as balanced as you can, using all kind of effects inside the mix to make it better sounding. Make all tracks work well together, keep the levels good and concentrate on making the music / mix. The mastering is just to make the mix louder so it comes to 'commercial levels',

How loud must music sound? (Loudness War)

For most types of music the level in RMS should be about 10-12db and for softer music 15db RMS or so. The "Loudness Race" for the loudest sound is going on for many years now and some music goes as loud as -4db RMS or -6db RMS, but this is still not the case for most music. So how do we see 'how far we can go' with our own songs and music material? Using a Loudness Maximizer in an Audio Editor will give a clear indication in a waveform view and when using more Loudness the Average RMS should rise towards -10db or before the Waveform starts to clip. With a reading of -10db RMS most music material looks like it has been clipped and in an Audio Editor this is indicated by straight cut-offs at the 0db line. Although this may sound good at -10db RMS, there is a consideration to deal with here. First of all, most Loudness Maximizers change your Equalization a bit and although this is not much, it might be enough to make a difference. For example, Izotope's Loudness Maximizer, boosting at -6db to get to -10db RMS, shows an Equalization difference of +2db in the 160Hz range which is quite a lot (read about Comparing elsewhere in this FAQ). Although the rest of the spectrum seems quite unharmed, when you try boosting +2db at the 160Hz range inside your mix it makes a difference. So with most Loudness Maximizers boosting to the loudest possible sound is making slight changes to the frequency spectrum (Equalization) and therefore changes how your music sounds. Can we measure this behavior? Yes, first take an audio track and start mastering it until you are done with the Multi-Band Compression, then save it as 'Compressed Master.wav' or similar. Then continue with mastering using the Loudness Maximizer and finish up mastering, saving the results as

'Loudness Master.wav' or similar. Now you can first import your 'Compressed Master.wav' into AAMS as a Reference. Then import the 'Loudness Master.wav' file as a Source. Now you can see in the Spectrum Tab or EQ-Preset Tab what differences there are when using a Loudness Maximizer. When you want to subtract that EQ-preset load the 'Loudness Master.wav' as Reference and 'Compressed Master.wav' as Source and you can see what you need to Equalize to make your 'Loudness Master.wav' sound the same as 'Compressed Master.wav'. Use an Equalizer and the EQ-Preset will show what you need to do. You can now use some Equalization and then Normalize to 0db and finish off a master without the differences in Equalization behavior caused by a Loudness Maximizer. Though this is a more complex method in finishing a master, it is recommended that you try this and see for yourself if it suits your needs. You can also use AAMS to measure other plugin or equipment behavior. When using a Loudness Maximizer it is recommended that you do not use too much loudness. When you see in an Audio Editor that your waveform view is reaching or hitting the 0db line and the RMS reads about -10db, you might just consider reducing the Loudness and move the Threshold down a bit. As long as you're not clipping your Audio Material to the 0db Line, there should be less Equalization differences being applied to the Audio Material. It is usually best to aim at -10 to -12db RMS, but you need to play around with the Threshold of the Loudness Maximizer, measuring and correcting the Loudness Maximizers behavior.

<http://dr.loudness-war.info/>

What is the difference between a Graphic EQ and Parametric EQ?

The difference is that the Graphic EQ (EQ-Preset) is automatically calculated by AAMS and you don't need to adjust the Q-Smooth in AAMS or the Q-Factor of your Graphic EQ. When you use a Graphic Equalizer with 31 Bands or 50 Bands, you will notice that it is much easier and faster to setup. While a Parametric EQ (EQ Final) is difficult to setup, you need a corresponding Q-Factor and most users will have problems doing this correctly so the outcome is less accurate. When in doubt, it is strongly recommended that you use a Graphic Equalizer.

Can I use Cubase / Sonar / Logic or a sequencer to master my mix?

It's much easier to master audio outside these apps, using Wavelab, Soundforge or similar audio editor. When you use a midi/audio sequencer to master, you are not in control of some necessary mastering steps. Yes, you could use a Graphic Equalizer / Multi-Band Compression and Loudness inside a sequencer. But you do not have the same degree of control as when you are using an audio editor. You cannot normalize or check if your output goes above 0db and that might cause unwanted effects. As you place effects as a serial chain on the master-out bus, you should check levels in between the effects that you use. Check levels by turning Mastering Effects on and off and see if the audio still plays correctly. We do recommend using a real standalone audio editor like Wavelab or Soundforge instead of mastering inside a sequencer.

When do I need to reconsider my mix?

You can't polish a turd.

There are a few points to consider when revisiting a mix. The first thing is when an EQ-Preset results in several EQ points going over +10db or -10db. You could still master this way but it's better to adjust your mix and then return to AAMS. It's quite common to overdo bottom end frequencies and most of the time AAMS EQ-preset will show a major cut in this section. You should consider doing another mix and cutting out some bass and bass drums or single tracks that are heavy on the lower frequencies. When you mix, take the bass and bass drum as they come, but lower some of the bottom end frequencies on other instruments or vocals, which should help to give a better and confident bottom end. Just keep checking with AAMS how far you can go. Next the average compression levels should not exceed -4 / -5db or +4 / +5db. This is quite a heavy setting for compressors and you should do some additional compression inside your mix. When you listen to your mix and single tracks, after a while you should hear what tracks or instruments need more compression and you will learn a great deal by returning to AAMS and checking again. The loudness of your tracks should not exceed 0db peak level as this will give strange clipping effects. When you do a good job on Equalization and Compression it's easy to get the right level for Loudness between -10db and -12db RMS. There is a warning system built into AAMS that you can switch it on in the Options Tab. Then AAMS will

check your imported track and warn you to consider redoing your mix. Furthermore, Mastering a Mix (while the mix is unfinished) can also be useful, as AAMS will help you with suggestions. You can hear what instruments or tracks stand out of the mix and what instruments are too soft. You can also listen to your panning and maybe hear better what you have to do to finish off your mix.

Can I adjust the mix if I think I could be better?

Yes, after Equalization and/or Multi-Band Compression you can adjust your master. I would use a parametric EQ and sweep around a little bit. If you like a touch more bass or highs you can adjust them afterwards. AAMS is doing an average on your mix to master it, so some users like to compensate for their own speaker-systems or their own hearing. You can use AAMS to adjust your mix towards a commercial sound and then adjust it with a slight touch. Sometimes the Loudness Maximizer of choice is introducing some EQ side effects in the Mids and Highs that you may want to compensate for. Most of the time AAMS settings are spot on but some Plugins introduce Analog Style EQ and introduce some sound changes. The Elemental Audio Systems - Firium plugin is a Natural EQ and that is about the best you can get. It's a decent plugin that won't introduce side effects from using the EQ. Some Plugins have an Analog Style EQ that alters the sound with Tube effects or Analog Style (Tape) EQ, especially when you go heavy on the settings on those Plugins. This will corrupt the suggestion that AAMS has given and result in a different result. Most Graphic Equalizers are naturally programmed and it is best to use the settings and suggestions AAMS is giving. Most parametric Equalizers have some special sound curve like Tape or Tube effects, so you should generally try to use Plugins and Equalizers that give a natural sound.

What Plugins do you recommend?

Needless to say AAMS internal DSP-Processing functions are specially designed to make this job automatic and easy. AAMS can create a fully mastered track from start to end and you can listen to it directly. If however you want to use other plugins, a mastering equalizer should have a lot of frequency bands (a Graphic Equalizer with at least 31 EQ bands is recommended). The more EQ bands the better the results are. An equalizer with a lot of frequency bands is produced by Elemental Audio Systems - Firium (Stereo 50 Band EQ) and is highly recommended for use with AAMS. With AAMS you can export Firium settings and load them into Firium directly, but any parametric or graphic equalizer plugin would be sufficient. A Graphic Equalizer is faster and easier to setup while a Parametric Equalizer is more difficult and less accurate. A Multi-Band Compressor should have at least 3 Multi-Bands, but 4 or even 5 Multi-Bands are recommended. The AAMS DSP-Compressor has a maximum of 8 Multi-Bands but these are hard to find as a plugin. For Multi-Band compression the Waves C4 / Waves LinMB and Izotope Ozone Multi-Band Compressor are great tools. They give peaked compression gain reduction information per Multi-Band, which is a great way to check the average compression settings AAMS is suggesting. But there are many other good Multi-Band compressors around. For making the overall volume in RMS loud enough we recommend Izotope Ozone Loudness Maximizer, WAVES L1/L2/L3 Ultra mixers or any other good working Maximizer, gain or limiter plugin.

Does AAMS automatically balance (pan) the audio material?

Yes, but maybe not in the way you might expect as AAMS refers to the reference file for panning. This makes an overall panning justification. So yes, AAMS balances overall panning so that the outcome will not have a left or right bias. Even if some tracks inside the mix are panned left and right completely, this will not be affected by AAMS mastering. But the justification of the calculations inside AAMS will re-direct the whole audio as one. This does not mean that the averages of the balance are zero panned as AAMS will match the panning of the reference, so you get the same spectral panning. If the Reference is recorded unbalanced the outcome will be unbalanced in the same way. Let's say the balance of the reference is copied onto the source audio material. The only way to not compensate for panning differences in equalization is to use the Mono button on the EQ preset window. Doing so means that an average of left and right is displayed in Mono, and panning is not compensated for. When Stereo EQ is used there will always be a balanced outcome, allowing AAMS to recognize spectral panning. How about frequencies that are panned left and right? Again, these reflect the frequency balance of the reference chosen. If the reference is balanced in a certain way, the outcome will be balanced accordingly. A Reference Style that consists of multiple audio

recordings is preferable since the higher the count of batched audio Reference files, the better the general balancing outcome. That is why we suggest that a minimum of between 4 and 8 recordings are needed to make a new Reference Style. When audio is taken from multiple commercial recordings like commercial CDs, the balancing is basically true to zero.

Does AAMS do automatic harmonic balancing?

AAMS works to modify the source to the reference styles and harmonic balancing is also applied when the reference style preset comes from enough different recordings. The AAMS calculation system applies average controls on the audio source material that refer to the reference style preset. It balances the frequency spectrum and will balance panning and harmonic equalization. The success rate is theoretically 100%, but is affected by the use of equalization and in particular the amount of frequency EQ bands applied by the user's setup. When the reference is based on enough audio material clips, the more accurate the style becomes.

Can AAMS handle a compilation for a full album?

It does not matter much how many tracks or what you have on a full album, AAMS will match your tracks to a reference. So when you choose a style from the reference database each track is mastered against it. Master every track how you want, as you would do with a single track. Usually this is enough to make the full album sound good. But you could take it one step further and create an average of all tracks using the batch source function. When you have multiple songs ready for an album and you want them all sound the same, it's possible to analyze the complete set of songs in AAMS and make a new averaged Source Preset from all of them. The Source Batch will calculate and compile the full album with all tracks into a new single Source Preset. When loaded with AAMS this works the same way as any other source preset and AAMS will calculate the overall difference of the full album. Use the mastering preset given by AAMS on all tracks and re-master them to get a nice overall sound on your full album.

How was the pre-made Reference Styles Database created?

The downloadable version of AAMS Auto Audio Mastering System has no basic differences, is not stripped down and contains the complete style database of 200+ reference presets. Therefore the user can make a new Reference Preset in exactly the same way as most AAMS Reference Styles have been made. When enough audio is collected, presets are made with the audio batch Analyzer to import incoming audio in a single batch. When choosing audio material or recordings/songs for a style it's important to choose at least 5 to 8 recordings of between 3 and 8 minutes in length. The more recordings you put in, the better results AAMS will produce, creating a very accurate Reference preset. The collected files for the new Style can be batched as a new Source Preset or Reference Preset. Use the batch functions and start the batch, when AAMS finishes batching it will let you save it under a new name. Due to the amount of audio material being processed, AAMS will take some time to finish. Options are available to speed up the process and make de analysis faster, but less accurate as a result. It's recommended that the default option is the best balance of speed and accuracy. It's possible to do 1 to 1 analysis that takes the most time but is highly accurate. Processing time can take from several seconds to several hours depending on the amount of audio material in the collection. There is no user input needed for processing, so be patient, have a good cup of coffee. At the end of processing you can save a new Reference Preset (a reference style). You can load the preset back into AAMS and use it over and over again. AAMS will load its own preset much faster (within a few seconds), making it fast and easy to check and try settings with presets. It's also possible to batch Source Presets and Reference Presets together and join them into a new preset. This is how the overall RMS.aam Preset came about and is the result all of all 200+ styles batched together with AAMS. The batching system offers simple but limitless use of presets and gives every user the chance to make presets themselves, based on any preset from the Styles Database or from any other AAMS preset. New presets will be shared on the web site and will be redistributed with newer versions of AAMS. AAMS is programmed as an open database for the users, so they can expand the styles database and generate new presets of their own and or share them.

Can AAMS be used to check equipment behavior?

Yes. Let's say you are running a hardware loudness Maximizer or plugin to affect your mastering routing. Does this deliver the required rise in volume without adding artifacts in the equalizer spectrum? Does your equipment deliver the goods as is expected? Or does it introduce differences or artifacts in the equalization spectrum that you did not expect or hear? If you want to check this, let AAMS analyze the audio material you are testing without the effect, so a clean version will display as source. Then apply the effect on the audio material and let AAMS analyze this and import it as reference. Now you can see the differences that are introduced by the effect or equipment you used. The spectrum display and equalizer suggestions will accurately calculate and display the difference between all kinds of audio and equipment. AAMS is a great testing tool for all kinds of audio. Comparing differences between source and reference is about 100% effective and a clear way to view audio behavior between source and reference.

Can the Equalization preset (EQ-Preset) be changed?

The output for equalization presets can be changed into any configurable equalizer settings, so if you have an equalizer or plugin with non-standard equalizer settings or parameters AAMS can be configured to match. When you create a new equalizer preset you can first set the total number of equalization bands. Then you will be asked to fill in each equalizer band. Just copy the parameters from the equalizer you want to use. You can choose any frequency for each band between 5 Hz and 20 KHz in 0.1Hz steps. If you only want to equalize the bottom end of you audio material, you can set up frequencies from 5 Hz to 120 Hz in steps of 0.1 Hz to a total of 99 bands. This is a feature not found on any other equalizer or plugin. AAMS also comes with useful equalizer presets, so there is no need to program a 'bottom end equalizer with 50 or 100 bands, just load a suitable equalizer preset from the AAMS EQ database. Users can load or save their own presets and edit all existing presets. EQ presets can be shared with other users and are released with every new version of AAMS. The equalizer inside AAMS is a useful tool to have fun with equalization and allows you to try professional techniques that can't be done with other equalizer or mastering systems. The main point is that AAMS is highly configurable in many ways, even if you are an experienced engineer there are lots of new roads to do things. If you are inexperienced about analyzing, equalization, Multi-Band or mastering, the main aim of AAMS is to automatically carry out audio tasks that would have to be done manually in the past. Load a preset and AAMS will use this automatically until you change it. If you close AAMS and start it up the next day, your settings are saved and loaded back. And there is the option to save full data. So you can keep track of your projects and save all data.

How accurately does AAMS master?

It's always difficult to say how audio material must sound, with some listeners preferring more high frequencies and some more bass frequencies. Because AAMS matches a source and a reference, the sound relies on the chosen Reference. That is why AAMS includes a database of 200+ pre-made styles to help you define your sound. AAMS is unsurpassed as the best matching tool available today. In every aspect AAMS will effectively work with greater than 97% accuracy. AAMS corrections are calculated at between 0.1-0.3 dB RMS differences at any given frequency. In fact when the Q. factor is changed to 1000 or higher the overall effectiveness reaches an almost perfect 0.1 dB, almost 100% effective. The only reason why AAMS is not 100% effective is because the effectiveness value is rounded off. In calculating frequencies and differences the AAMS calculation system code is 100% effective, but is hindered by rounding errors when rounding off values to a certain decimal point. This rounding off is a phenomenon that is not solved in computer-processed languages. This means in theory AAMS coding is 100% correct about calculating differences between source and reference. The figures are found in the Multi-Bands Display grid called 'Leff' and 'Reff'. For each band the effectiveness in dB is shown in the grid. This means overall equalization displaying and calculations are near to 100% perfect. You can easily see this is the case in the Multi-Band Graphic Display when the overall frequency range seems to be nearly balanced at the 0dB line. The Multi-Band Spectrum is horizontal and not angled like the Spectrum Display. In transferring differences in equalization spectrums from source to reference, AAMS is a very accurate matching tool. You can also do some nice comparisons with AAMS, as it's all about sources, references and comparing the differences.

Can I change the Options and Q-factor?

When you first start using AAMS it is recommended that you don't change options, it's best to read and understand more about how AAMS works with a couple of mixes or masters before changing options. When you fiddle around with the Smooth-Q factors you should really know what you are doing. For example, some users have used the EQ-Preset for parametric EQ when the EQ-Preset is really meant for Graphic EQ. Some users have tried the Waves Q10 plugin and made an Equalizer preset for it, but this won't work if you don't know how. It's better to use the EQ-Final on parametric EQ's and the EQ-preset on Graphic EQ's. Another thing to avoid is turning off the Automatic Adjust Deviation in the options. This means that the EQ settings will jump and AAMS will not consider Gain Adjustments any more. This would mean that your Equalizer Setup and Compression setup must adjust for any deviation in Gain when that is meant for Loudness. The best thing to do is leave the Q-factor and Options alone until you know what you're doing.

What should I do when AAMS is buggy?

When AAMS is Analyzing and the red 'Please Wait' sign is on it is best not to use your computer for other tasks. AAMS is doing some heavy calculations and it's recommended that you leave AAMS and your computer alone while processing take place. This is especially the case if you have been experiencing problems when using AAMS.

Can you give a few good reasons for buying AAMS?

0. AAMS is very easy to use, once you know how AAMS works.

1. AMS Auto Audio Mastering System is a self-contained package that will master your music automatically. The automatic mastering functions of AAMS will result in a completely mastered audio file with the help of internal AAMS Analyzer and DSP-Processing functions. It is possible to master a single audio file or even multiple audio files on the fly. Also it is possible to do semi-automatic mastering, making the user a part of the mastering process. AAMS aim is to do mastering automatically with the best sound possible for making your music sound good on all audio systems.

2. AAMS is a fully featured Analyzer specially designed for automatic audio mastering, resulting in a great sounding master. AAMS Auto Audio Mastering System can be used on single tracks or mixes, used to re-master or master the overall sound on a full album. As a matching system it is very effective, automatic and fast. Save Time and get a great sound! AAMS Analyzer is specially built to do mastering and analyzing in the best way possible. It may be slower than some other programs, but it is more accurate and serves as a highly detailed spectrum Analyzer.

3. AAMS system allows you to do mastering in a fast and accurate manner. The ease of use will be great if you are looking for a fast way to do Equalization, Multi-Band Compression and Loudness Maximizing, making your audio sound as good and loud as commercial releases. The main feature of AAMS is to provide fast, easy and accurate mastering. It requires minimal user input but creates maximum quality output.

4. AAMS allows the user to use their own equipment in the form of hardware or software, although AAMS can do this automatically and internally. It allows users to check, view and correct audio using their own equipment and progressively learn to use it better. Any hardware equipment or DirectX/VST/Rtas/AudioUnit software plugin can be used with a sequencer or audio editor alongside AAMS. It's the perfect studio companion for you!

5. AAMS allows the user to see differences in the different suggestion displays and automatically calculates the required changes with a minimal amount of time needed and no fiddling around. Spending too much time listening to equalizers and fiddling with Multi-Band compression settings? AAMS makes this mastering process automatic, without fiddling around or the need to have access to speaker systems or environments specially designed for mastering.

6. AAMS provides a database of over 200 musical preset styles. These Reference Styles are an accurate way to do fast and easy mastering based on numerous musical styles. The user can also create new reference styles or modify those provided in the database at installation.

7. AAMS will match the Source to the Reference with near 100% accuracy, especially where problem areas exist, like the 'bottom end' or 'highs' that cannot be heard on most common speaker systems, or any frequency that seems out of place. AAMS calculates the whole frequency spectrum from 5 Hz to 22,5Khz and aims for full mastering sound compensation. The lows, Mids and highs are cleared of any annoyances; the whole frequency spectrum is flattened out and gets a much better performance on most common speaker systems. Make your audio sound best on all musical systems! AAMS is the best tool for mastering a great overall sound, accurately and in the fastest time. Whenever you need to make your sound better, AAMS is the most accurate choice, with ease of use and spot on performance.

8. For users who are inexperienced with mastering and who would like to concentrate more on the mix, instead of being busy with mastering, AAMS provides a fast, accurate way to master. The more experienced users will also get more information from AAMS that they were looking for as AAMS is very detailed. AAMS presents every aspect of the mastering process and keeps user input as simple as possible. But AAMS does more than aid mastering, as it includes a lot of new features not found in any other mastering systems. AAMS accurately calculates differences between Source and Reference audio material when testing equipment behavior. So when working with AAMS you might find out that it lets you do much more than mastering alone, for example, getting the sound right on single tracks within your mix. Anyone who needs to understand the basics about equalizing, Multi-Band compression and changing volume levels will learn from this innovative application. When using AAMS you will learn more about mixing and mastering as you progress using the information AAMS is providing.

9. Whenever you need a fast and accurate mastering matching system, whenever need to analyze your audio material, whenever you need ease of use without fiddling around and spending time on listening, whenever you need to be freed of the horrors of mastering and concentrate on mixing, whenever you experienced or not, whenever you need to work with your own equipment or software sequencers and Plugins. AAMS is a new innovative way to get you there fast, accurately and automatically. Let AAMS do the work for you!

AAMS the innovative way towards Automatic Audio Mastering!

If you have more questions, send us an email;

email@curioza.com

<mailto:email@curioza.com>

Words from the Author



For all users who want to know the background to of the creation of AAMS Auto Audio Mastering System, here are some words about the author.

The programming of AAMS Started in mid-2004, at which time I had done enough manual mastering to see that some aspects could be automated. At first the AAMS V0.5 Beta program was simply creating suggestions for EQ, Multi-Band Compression and Loudness. This information was displayed and could be used to set up external equipment like plugins or outboard gear. This was time saving and made the mastering process more visible. Then in AAMS V0.97 I added the routine for saving a Firium Preset based on the Graphic EQ Suggestions that would help setting up Firium EQ without having to do this manually (which that was time consuming). I could listen each time AAMS calculated suggestions and confirm that it really did speed up the mastering process. After adding some more routines, testing and bug testing the small Reference database with 100+ presets to use and scan for a good sound. AAMS V1.0 was released on 01/01/2005 and soon a user base was established. The best thing about releasing AAMS V1.0 to the public, was that more users where giving information back on their feelings about the program. After some time and changing some functions to be more defined, AAMS V1.1 was released. This version was quite stable and gave good information to users in its suggestions. The information back from users confirmed that the suggestions where quite good and helped most users very well. Although AAMS V1.1 needed some work to understand most users where very pleased with AAMS results. Most complaints about AAMS V1.1 were that the calculations were not very fast and the application needed some guidance when installing. So for AAMS V1.5 I had to speed up the programs calculations and change the AAMS V1.1 platform. This meant full recoding and programming. For the requested use of DSP it was also necessary to increase the speed and the way AAMS V1.1 operated. After some DSP-EQ coding and reprogramming, AAMS V1.5 was released with its own internal Player and DSP-EQ. Now it was possible to listen and play AAMS Suggestions through a windows soundcard that helps scanning for a good sound. The DSP-EQ had a natural sound and worked correctly for most users, so the programming for DSP-Compressor and DSP-Loudness could continue.

Now days AAMS V3 has got its own internal Mastering Rig! With the combination of DSP-EQ, DSP-Compressor, DSP-Loudness you can complete a quality mastering job within AAMS with ease. I have a good understanding of mastering and AAMS contains those ideas. AAMS users also have a lot to say and have good ideas, so if you have something to add your ideas will be listened to.

I do hope you have as much fun as me using the AAMS Program. We do make a lot of work making AAMS a good and steady mastering alternative and I know AAMS can make a good sounding master. So please donate for this software when you are using AAMS and like it! We can use the donations for future updates and for keeping AAMS alive. Also we will use the donations for creating more software tools in future SSI releases. Register AAMS V3 for Full Version.

Thank You!

Denis van der Velde
AAMS Author



AAMS Website: www.curioza.com

SSI Website: www.sined.nl
Email: email@curioza.com
Sales: sales@curioza.com

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Believers and non-believers

Some music makers, mixing their own tracks into a stereo file, will always depend on a good hearing and good use of processors to make their mix into a good sounding master.

Therefore AAMS does not replace a professional mastering engineer, but however AAMS does contribute towards learning and results in a good mastered sound when you apply these rules;

You can't polish a turd. Meaning if you mix lacks a good sound and is not mixed well enough, do not expect a mastering engineer or AAMS to make your sound better. AAMS does in most cases a good job.

If not? Refer back to your mix, when mastering results in bad results or you expected better results. Mainly then AAMS can be a good learning tool, by mastering your mix down into a mastered audio file. At least you can hear the differences and find out where your mix needs improvement. It is always better to take care of separate mix tracks, resulting in a better overall sound. AAMS is based on that the user can expect what aams is going to do, so maybe understanding better what can be done inside a mix, and what can be done at the mastering stage. I would say Mixing is not about Mastering, vice versa.

For instance when you hear less or more bass frequencies, do you expect AAMS to correct them perfectly? Well, AAMS does improve them. But when you are not happy with the amount of bass, you could adjust the Base drum and Bass inside your mix more and return back to AAMS, and see and hear the results. In some cases a professional mastering engineer will reject your mix down and will warn you for end results. Using AAMS as a learning tool for Mixing and Mastering, will improve your mixing skills and your sound.

Some believe that only hearing, is the only way to master. That is old fashion true. But however, in most cases hearing is distorted by misuse of equipment, mistakes, and the room where you listen. Fatigue hearing is the most common distortion in mixing and mastering. When your ears are hearing the same music over and over, you will get distracted and will have to rest and come back another day, with clean ears! This is time consuming. Mastering manually is always time consuming. I say a master in 10 minutes can only be done by AAMS, or by manual results with a very good created mix down. The AAMS path is that audio files can be mastered inside 10 minutes by AAMS. So that is a timesaver, and the user can concentrate on the mix. If this is mixing again, or using aams to have the best sound possible?

Even when you have the Best sound on one speaker system, why is it possible when you listen on another system the sound can still be bad or worse? Well, some mix or master with headphones. Some mix and master with expensive speaker systems, enclosed or open rooms. Some are hearing bass frequencies better than others, some hear treble frequencies better than others. Still, when you switch speakers or the user, the same master will sound differently. The difference inside a car and household rooms can affect hearing the same sound. AAMS is mastering equally for all sound systems to have the best possible sound quality on all sound systems.

AAMS does the same job, each time you use AAMS, the results are the same way, each time you can expect what aams does. AAMS has no distortions as fatigue or room environments or bad hearing. AAMS is purely based on precise calculations and you can expect what is coming out, is just the same. Each time. In the longer run you will expect what your sound will be, running it through AAMS. Because you can depend on AAMS doing the same job, over and over.

Do you believe this or not?

Fiddling with knobs, listening for the right sound in all rooms or speaker systems, taking more time and still thinking you did not get it exactly right, this can be all over with thrusting AAMS to make a good master out of a good mix.

In most cases Mastering is a byproduct. You have mixed your track or album, and you need it out to the public fast.

Finally it is your choice!

Do you spend money on AAMS or a real professional mastering engineer? For users who want to be in the creative music and mixing process, AAMS is a real solution with easy and costs far less money and will have a change of making your mix into a good sounding master, easy.

And off course, never will you hear a real mastering engineer say 'use AAMS instead'. Because they need your money and workload.

What are you going to do?

The music buss collapsed by free music. The money to be made is not the same as 10 years ago. The equipment is not the same.

At least you can now save money for mastering your 'free' music. And thrust me AAMS does a really good job. I say 70.7% at least and more. Just concentrate on making good music and mixing it good! AAMS will do a great job then for you....

Still it is up to you. We intent to make AAMS to create the best sound possible on all systems. If you do not thrust this statement, you can still try AAMS Limited Free Version and listen how your mix will sound. Or if you do not have any thrust, let your masters be done by a real mastering engineer or mastering website and still compare that with AAMS results? Who is the better?

And if you are a real doing it yourself person?

AAMS is a great learning tool also!

Need easy mastering? Use AAMS!

We thrust in it!

Now you can listen what you expect!



User Recommendations



5 Star Award - The best results without a hassle!

This software is fantastic. It allows the automatic mastering of your music against the analysis of other tracks. Take your best song and master everything with the same feel (audio spectrum). OK, for your final CD, you may want to spend time in the studio, BUT before and even after, you may want to use this software. It does what only the best studio wizards are able to attain with many grand of equipment (and plug-ins).

"Best \$112 I ever spent". Give it some time to analyze a CD that has dynamics, stereo field & other sonic characteristics you want, then use that reference on your own songs, the results are stunning. If you understand mastering enough to tweak the settings it's even better.

I bought this before the price was reduced to \$65, and I still don't regret it. No problems installing it or running it. The UI is a bit weird so getting a good reference master set up takes some time, but once that's done it's pretty much 3 mouse clicks. The presets aren't that great (at least they weren't in the version I bought in 2008, they might be better now), but anyway, I definitely recommend creating your own reference master by letting it analyze some songs that have sonic characteristics (dynamics, stereo field, tone, etc.) similar to what you want your songs to sound like. I've tried a few cheap mastering services, and I can get better results myself with a multiband compressor and parametric EQ. If you only have a song or two to be mastered and you don't quite get what mastering is or what it's for, one of those services might still be your best bet. But if you do understand mastering (even if, like me, you're not particularly good at it), and you're going to be mastering more than a few songs, then AAMS can be an indispensable part of the toolkit. It takes 100% of the tedium out of the process (if you've ever used a multiband compressor but you aren't a professional mastering engineer, you probably know what I mean). First time I used it I was mixing a cheap demo for a band, asked 'em what bands they thought had killer production, they gave me a CD with the desired amount of thump and presence, I let AAMS analyze it, used that as the reference master, played them the result and they were like "demo my a**", that's a finished product". Obviously, if you're starting with a crappy mix there's only so much it can do (you can't polish a turd), but AAMS can make a good mix sound phenomenal.

Easy to use (just read the Help)... Does exactly what it's supposed to do - analyze a given track for its audio levels, EQ frequencies, etc., then make a reference file or "template" of it for later use.

THE BEST AUDIO MASTERING, THE BEST PROJECT RESULTS, THERE BATCH MASTERING FEATURES, CONVERTER. Machines designed BASIC TECHNIQUES TO THE PROFESSIONAL AUDIO PROCESSING, AUDIO PROBLEMS UNDERSTANDING, MAKE MORE REAL MUSIC, LOUD, WANTED audiophile, THANK'S ...

I have the experience of listening to a very real and alive but it is difficult to express in words, sounds that came out in the form of a natural, clear and loud ...AAMS may be able to do experiments more natural audio, clear and loud.

Hey guys,

recently I discovered AAMS (Auto Audio Mastering System).

This standalone software-tool claims to be able to master a wave-file with a single click (based on a reference).

I tested it out (you can get a 21-days free trial at <http://www.curioza.com>)

and it works extremely well! It can lift your track, correct some eq-mistakes you made or add depth and body to a source.

And... It's verrrrry cheap! Check www.curioza.com for more info and the free trial....

Our band tried it out for our demo recordings, we also had a guy to master for us for free because he wanted to use some tracks for advertising his new studio and two of us tried our own hand at "mastering" so we had plenty of versions of the same songs to choose from.
In the end the AAMS seemed to make "neat" masters, not much wrong but actually a bit boring to listen to, too bland if you will.

Our own masters were sometimes worse and sometimes better than the AAMS stuff. The guy who mastered for free did the best job, but only after his third attempt.
All in all, I thought the AAMS might make a decent learning tool because you could change all of the settings yourself. That way you could look at what the AAMS was going to do, and preview it, and then change the settings of the EQ, compression, stereo width and so on. It was interesting to hear the effects of changes I made myself. I wouldn't use it on any serious recordings.
Van Speijk

Actually think it's does a fairly decent job. The only problem with it is finding the right reference track. We use it in our studio for our "budget" low cost recording to keep the cost down for our customers and so far people have been very happy with the results. Engineers are going to hate it that's for sure, well most will. Personally it save a lot of time in our studio as we have a lot of clients that come in record a few songs to backing tracks and don't have a lot of money to pay me by the hour to master them properly, so this is a great alternative option to a) save our clients' money b) allows us to take on clients on a tight budget and c) doesn't cost a huge amount of money to buy. Finally, as you can load it up with wavs and let it get on with it you can get on and do other things making it a very useful tool in our busy environment.
P.s. One more thing to mention. If you master a track yourself ,using Wavelab or whatever you use ,that's going on a certain album you can create a reference track from that and then use AAMS to master the rest of the album using that reference track and for that is works very well.
David

I am certainly no Mastering Engineer, but I have been involved in tracking and mixing for the last 18 years, and a musician for over 40 years. Presently, I, and my fellow musician friends just record for fun as a hobby. Although my long-time friend and musician and I are working on a CD of some of the old cover songs we did in the 60's and 70's for posterity's sake.
Out of interest I downloaded this AAMS software (I haven't purchased yet) and have been running a couple of mixed cover songs I have completed through this software. I used an original copy of the song as a reference and was surprised at the results. To my ears it sounded pretty well balanced and good enough for our project.
My point is, everyone on these Forums are recording music for many different reasons, some professional, some semi pro, and some just as a hobby. Of course a professional mastering engineer could do better, but for those of us who cannot afford, or justify the cost of a Pro these programs do provide a decent service. And, we can learn a lot about the mastering process. What can be wrong with that?
Just got this for 95 bucks and used it on a new track. I really only registered on this site to remark about it. It's awesome! Would it be better to send your material out to a pro mastering house? Probably, that's where real mastering happens. BUT, if you are going to track and master your own stuff at home - get this. Learn it and use it!

Anthony Vincent Says:

It takes time to get a good master even with some of the best plugins
And monitors. AAMS will give you a great starting point,
And is well worth the money for those on a budget or musicians
Do not have the time for mastering...
In my opinion AAMS is very good A+.
A few people on the net have made the comment on the length
Of time it takes to run the auto feature. Well, 10 to 15 min is nothing
Compared to the amount of time it would have taken to do a
Mastered version of a song at the same quality AAMS software produces.
Unless you're some kind of mastering wizard you can't compare.
What impressed me the most was how the auto feature applies compression.
Either way if you like it or believe it or not AAMS is a great software

Rich Says:

AAMS is not ready to replace our highly skilled mastering engineers. It (or any similar product) probably never will be. But it has a value. I've used it, and had some success with it. I even think it did a Better job of mastering my band's album than our mastering Engineer's first attempt (we were getting the album mastered at Around the time I was trying AAMS out).

Ali Says:

Mix reviews, guess every one into different style of sound, I been mixing and mastering for few years now, used tools like oZone, T-racks, and also individual vst such as waves, one thing I came across Was that the quality of a mix is very important for AAMS to work, When you use a reference file or load one form "e.g. a Roadrunner CD." When you mastering manually you can hear frequencies And just cut me or raise them, however let's be logical AAMS just applies the reference setting from your source file to your mix.... With my experience it works very well when applied to a mix with Perfect levels on each track....

Polysix Says:

Anyway to AAMS. Having tried it on a 'decent' mix (corrected in harbal) It did quite well, I'd say it actually surpassed myself 'pretend mastered' Master from Wavelab in overall depth and involvement. However it wasn't perfect and did sound a tad overdone in some areas. Surely spending more time with the tool and disabling/toning down those Components would help. I do like your advice on choosing the best mix for the album As the reference (either AAMS or manual) as I'd not read that before! And sure sometimes I have mixes that sound much better overall than others.

Brandon Drury Says:

AAMS works but it only improves on what you put it. Fair enough, but if it ONLY IMPROVES than why do they give you so many different preset/impulse thingies. If none of them have the ability to make a mix worse, I question their ability to make a mix better. Does that make sense?

AAMS does a great job. If you are not a trained engineer, no matter if you use ozone and work a couple of days in one track, AAMS will ever deliver you a better master. Will AAMS deliver a pro master? No. Will it be a great master? Possibly no. Will it be a good alternative if I don't have money or don't want to spend money in a pro master by now? Hell yes. In the end of the day, the question is a balance between what you can do/ how much money you have/ how much time you have.

We all know that mastering is an all important part of the music audio process. An audio engineer buddy of mine suggested piping my video audio through a program called "Auto Audio Mastering System" or AAMS. (<http://www.curioza.com/j/>) provided him with a 48/16 stereo wave file for processing. The program material was primarily speech, music and ambient sound. Within the program, you can choose from dozens of presets. The program will then process your audio to these prescribed specs. We discussed how this process in "no way" takes the place of a talented mastering engineer. He uses it on audio projects that will probably never make it that far. The results were surprisingly good. The finished audio had a smooth, professional sound. Not just compression or limiting, but a combination of equalization, compression and balance that I thought greatly improved the audio. This is a standalone program, not real time processing, such as a plugin would provide. It took about 4 times the audio length to process.

I also use AAMS & think it is well worth the price. I mainly use it for its readouts on all the various EQ & compression settings, and then go back & make adjustment based on that...AND you get 21 days to try it out...cannot beat that! There is a standalone program that I like to use a lot, I am not good at the final stages of mastering the finished product, and this program takes a lot of the guess work out, as it is fully automated.

Deeply intrigued, I snagged this program for Vista (running on my Parallels) and am considering doing some

tests with it to see if this is actually an improvement over whatever mastering chain I am currently running. I can't imagine the results are going to be all that great -- I jumped on the Dynasone bandwagon ten years ago with the mindset that having a processor do "automated mastering" for me would be better than if I just attempted to do it on my own -- but this actually sounds like there's a lot more involved under the hood. Also, it actually details its analysis of your incoming music with a text file, in case you want to apply its settings to your own plugs and just master your material without it. At the very least, it might improve my film stuff, where I'm on a tight deadline and can't afford to tweak a mastering chain. Anyway, I thought I'd share:

This is very good, very professional results, way better than my own attempts at mastering. Makes my tracks sound very polished and sweet. It is very easy to use, click one button to load your file and the reference file and a few minutes later, the mastered track pops out

Haven't used Har-Bal. I do own AAMS and what it does is almost magic. It simplifies the mastering process to an almost child-like level (in auto). The reference files are ok...I'm having success with the rock reference. The ability to create your own reference files from your favorite CD is very cool. I'm sure in the future I will learn to master manually. For now, I'm saving cash and have a finished, polished product that actually sounds good.

Just had a go of this and it seems to do a better job than I was able to do with my waves plugins. But I don't know much about mastering myself. So a good tool for those that don't if you want a quick master for playing.

"WORKS WONDERS" by [dawondatwinz](#)

Pros: I was not sure if this would work, but this program has truly taken our quality to another level.

Cons: To be honest, for what it can do I don't think I'd change a thing except maybe make the process faster. (But it is very quick already)

By [peter polan](#)

Pros: THE BEST AUDIO MASTERING,THE BEST PROJECT RESULTS,THERE BATCH MASTERING FEATURES,CONVERTER.Machines designed BASIC TECHNIQUES TO THE PROFESSIONAL AUDIO PROCESSING,AUDIO PROBLEMS UNDERSTANDING, MAKE MORE REAL MUSIC,LOUD, WANTED audiophile, THANK'S ...

Cons: difficult to use, a long time process, there is no batch converter feature, the old view, there is no burn features, no dsp jazz and acoustic.

Summary: I have the experience of listening to a very real and alive but it is difficult to express in words, sounds that came out in the form of a natural, clear and loud ...AAMS may be able to do experiments more natural audio, clear and loud.

"It's good" by [tru2life69](#)

Pros: makes your music a lot better

Fantastic bit of kit for the money.

Look forward to any future updates or products.

Cheers from UK

Blane

Pros: I was not sure if this would work, but this program has truly taken our quality to another level.

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5 Star Awards!



