

# Dolby Atmos COMPOSER

## Manual

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Approved for



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# 1

### WHAT IS THE DOLBY ATMOS COMPOSER?

The Dolby Atmos Composer is perfect solution for your Dolby Atmos production. It is easy to use and works in any DAW capable of loading VST3, AU or AAX plugins and it comes in two flavors.

The full version of the Dolby Atmos Composer is for professionals in any field of production offering all the bells and whistles to create perfectly fine tuned Dolby Atmos mixes.

The Essential version of the Composer is for everyone giving, as the name implies, access to the essential settings to create Dolby Atmos master files and it is optimized for music production.

Check out the comparison table on page 4.

Apart from the Dolby Atmos Composer plugin another plugin called Dolby Atmos Beam will be installed. The Beam plugin is a sophisticated 3D panner and sends audio and positional meta data from anywhere in your session to the Composer and thereby circumvent any possible routing restriction in the mixing engine of your DAW.

## TRIAL AND ACTIVATION

After successful installation, open the Dolby Atmos Composer in your host and a window will open automatically, showing you the about screen and the possibility to start your 14 day trial period or to activate the plugin.

To start your trial period just click the "Try" button. The trial period starts with the first click on this button.

After purchasing the Dolby Atmos Composer you will receive a serial number via email. To activate the plugin just copy the serial number, paste it into the grey field and hit "Activate". The window will close automatically and the plugin is activated. A purchased serial number allows activation on two computers.

Activation cannot be done through the Beam plugin.

If for some reason starting your trial or activation does not work please check out the Spacelab tutorial about activation for trouble shooting. The activation processes of Spacelab and the Dolby Atmos Composer are identical. If the solutions provided there don't work please contact our customer support.



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### TUTORIALS

Instead of writing a manual which is miles long we decided to explain everything about Dolby Atmos Composer in video tutorial series. There is a total of 7 tutorials and if you want to jump right in without going too deep at the beginning, just watch the one called "Jump Start".

All tutorials can be found on our youtube channel at:

<https://www.youtube.com/channel/UC7ZgC1zLrJ5hRnsJCgpCquA>

The topics of the tutorials are:

1. How to start mixing in Dolby Atmos?
2. What is Dolby Atmos?
3. Jumpstart
4. Setup, Routing and Monitoring
5. Configuring, Export and Import
6. Dolby Atmos Beam
7. Delay Compensation in Pro Tools

## DIFFERENCES FULL VERSION vs. ESSENTIAL VERSION

Dolby Atmos Composer	Full Version	Essential Version
Supported Sample Rates	48 kHz, 96 kHz	48 kHz
Individual Composite per Instance	yes	no
Channel Description	yes	no
Channel Groups	yes	no
Downmix & Trim Settings	yes	no
Simultaneous Monitoring and Export of Speakers & Headphones Output	yes	no
Frame Rate & Timecode Start	yes	no
Integrated Loudness Measurement	yes	no

Dolby Atmos Beam	Full Version	Essential Version
Top Panner & Side Panner	yes	no
Manual LFE Channel Selection	yes	no
Individual Composite Selection	yes	no
Pan Mode Selection	yes	no



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### SYSTEM REQUIREMENTS

Plugin Formats:	VST3, AU, AAX
Supported Operating Systems:	macOS 10.14 through 14 Windows 7 through 11
CPU:	Intel min. 2 GHz, x64 with at least SSE3 support, or Apple Silicon M1 or higher
Display/Graphics:	min. 1440 x 900 px, OpenGL 3.3 or newer
Memory:	min. 2 GB RAM

**IMPORTANT:** In Reaper you have to switch off Anticipative FX processing. This option can be found in Preferences ->Audio->Buffering.

**IMPORTANT:** In Logic Pro it is highly recommended to switch off „Only load plug-ins needed for project playback“. This option can be found in File->Project Settings->General.

## ADDITIONAL INFORMATION

**IMPORTANT:** The Dolby Atmos Composer plug-in only works correctly and connects with the instances of Dolby Atmos Beam and Spacelab when one instance of it is running at a time! You cannot run more than one instance of the Dolby Atmos Composer simultaneously, not in different sessions nor in different DAWs! Some DAWs, such as Logic Pro, need to be restarted when switching to another session, because just closing the session does not seem to terminate the old instance of the Composer completely.

1. The folders for storing your personalized HRTFs are the following:

Mac: /Library/Application Support/Fiedler Audio/Atmos Composer/PHRTF

Win: C:\Program Files\Common Files\Fiedler Audio\Atmos Composer\PHRTF

2. The following list contains the Azimuth and Elevation values for the speakers found in the composite formats of the Dolby Atmos Beam and the Dolby Atmos Composer.

Speaker	Azimuth	Elevation
L / R	30° / -30°	0°
C	0°	0°
LS / RS	110° / -110°	0°
LSS / RSS	90° / -90°	0°
LRS / RRS	135° / -135°	0°
LW / RW	45° / -45°	0°
LTF / RTF	45° / -45°	45°
LTM / RTM	90° / -90°	45°
LTR / RTR	135° / -135°	45°





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## ADDITIONAL INFORMATION

### 3. Description of 5.1 and 5.1.x downmix options

#### - Standard (Lo/Ro) - default:

Downmixes to 7.1 and then to 5.1 using the coefficients:

$$* L_s = 0 \text{ dB} \times L_{ss} + 0 \text{ dB} \times L_{rs}$$

$$* R_s = 0 \text{ dB} \times R_{ss} + 0 \text{ dB} \times R_{rs}$$

#### - Dolby Pro Logic IIx:

Downmixes to 7.1 and then to 5.1 using the coefficients:

$$* L_s = L_{ss} + (-1.2 \text{ dB} \times L_{rs}) + (-6.2 \text{ dB} \times R_{rs})$$

$$* R_s = R_{ss} + (-6.2 \text{ dB} \times L_{rs}) + (-1.2 \text{ dB} \times R_{rs})$$

#### - Direct Render with room balance:

Renders from Dolby Atmos to 5.1 directly applying an updated Dolby rendering algorithm that reduces the comb filter effects associated with phantom imaging of objects positioned halfway between the front and rear of the room. Room balance refers to how the Renderer deals with content that is panned between the midpoint and rear of the room. With this setting, the content is presented at a constant level in the surround speakers between the rear and midpoint of the room, avoiding any need for phantom imaging until it is in the front half of the room.

#### - Direct render:

Renders from Dolby Atmos to 5.1 directly accurately re-creating the sound field at the central listening position using phantom imaging between the surround speakers and front speakers.

## ADDITIONAL INFORMATION

### 4. Description of the 5.1 to 2.0 downmix options

The coefficients for the two-channel downmixes from 5.1.x are:

#### - LoRo:

$$* L_o = L + (-3 \text{ dB} \times C) + (-3 \text{ dB} \times L_s)$$

$$* R_o = R + (-3 \text{ dB} \times C) + (-3 \text{ dB} \times R_s)$$

#### - Lt/Rt (Pro Logic II) and Lt/Rt (Pro Logic II) w/Phase 90:

$$* L_t = L + (-3 \text{ dB} \times C) - (-1.2 \text{ dB} \times L_s) - (-6.2 \text{ dB} \times R_s)$$

$$* R_t = R + (-3 \text{ dB} \times C) + (-6.2 \text{ dB} \times L_s) + (-1.2 \text{ dB} \times R_s)$$

The phase 90 filter used provides the all-pass 90-degree phase-shift filtering for the Ls/Rs feeds into the downmix, which reduces undesirable signal cancellation, improves imaging, and enables proper matrix decoding. It is strongly recommended to use the 90-degree phase shift for any Lt/Rt downmixes.

