

# R2R

## Reel... too Real

# The Essential Analog Tape Collection

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## Installation

### PC Installation:

Download .zip file. Unzip. Run the PC Installer and choose your Nebulatemprepository as your location. If you wish to install manually, you will find the "Programs" Folder contains n2p files and the "Vectors" folder contains n2v files. Copy these n2p files to your Nebula "Programs" folder and copy these n2v files to your Nebula "Vectors" folder. That's it! The next time you open Nebula you will see a new category titled R2R!

### MAC Users:

To install manually, you will find the "Programs" Folder contains n2p files and the "Vectors" folder contains n2v files. Copy these n2p files to your Nebula "Programs" folder and copy these n2v files to your Nebula "Vectors" folder. That's it! The next time you open Nebula you will see a new category titled R2R!

## The Machines

R2R contains a virtual living museum of reel to reel analog tape recorders ranging from early tube designs to popular consumer favorites, to some of the finest machines ever made!

The following models have been meticulously recreated for digital recording in this collection:

The Studer A800 MKIII - Considered to be one of the finest 24 track machines ever made. This specific machine sampled is in near mint condition, and is responsible for numerous famous recordings. This r2r has been sampled at 15 and 30 IPS using Ampex 499 tape.

The Otari MTR-10 - This is a beautiful sounding 1/4" 2 track mastering r2r sampled at 15 and 30 IPS using Ampex 499 and ATR tapes.

The Studer Revox B77 Pro - This machine has developed its own cult following as one of the most highly sought after sounds. Although created for consumer, semi-pro, and professional use in varying forms, and considering that there is nothing spectacular about the electronics used, this Revox uses some of the best sounding tape heads ever made, and is known to be built like a tank. The result is an unmistakable sound that is sure to quickly become a favorite in your mixes! This machine has been sampled at 7.5 and 15 IPS using Ampex 499 and ATR tape.

The 1950's Wollensak 1515 - This r2r is an early stereo tube design created by Wollensak in partnership with 3M and Revere. The tube preamp and high quality heads have helped to build a reputation for this machine not only as an excellent studio tape effect, but also as a guitar amplifier! This machine has been sampled at 3.75 IPS using several tapes, and the tube preamp and tone control dial have both been sampled independently for use on any track!

The 1950's Lafayette Radio RK-142 - This incredibly rare r2r is a mono tube full track device that runs at 7.5 IPS and uses the full width of tape when recording.

The 1970's Sony TC-640 - This is an excellent consumer solid state r2r sampled using multiple tape formulas at 3.75 and 7.5 IPS.

The 1970's Akai 4000DS MKII - This is among the most popular consumer r2r's ever, and is still a favorite among collectors. It has been sampled at 3.75 and 7.5 IPS using multiple tape formulas.

The TEAC W-6004 Dual Cassette - This is an excellent reproducer/replicator tape deck sampled with Maxell XLII tape.

## The Tapes

The type of tape used can be as distinctive as the machine that is chosen to record with. The tape and recorder are used creatively as a pair, matched for specific results.

The following tapes are included in this collection:

Ampex/Quantegy Grand Master 456  
Ampex 499  
ATR  
Scotch 206  
Scotch 290  
Scotch 111  
Sony PR-150  
Maxell UD-3590  
Maxell UD-XL-3590B  
Maxell XLII

## The Programs

There are a total of 170 Programs in this collection! The main category for this collection is "R2R". By clicking "R2R" once, you will see the entire collection appear. Clicking a second time will bring up a list of the machine models. To select a machine for use, simply click the name of the model you wish to use. Within each model's grouping there is further organization according to the tape speed to be used. For instance, by choosing "OTR" you will select the Otari MTR-10. Under this category you will see "15" and "30" to select the tape speed that is right for your project. The "Revox", "Akai", and "Sony" models designate "Hi" and "Lo" speed settings, representing 7.5 and 3.75 IPS for the "Akai" and "Sony" machines and 7.5 and 15 IPS for the "Revox".

There are also a few 48kHz and 44.1kHz Programs selected under the "Wollensak" and "Sony" models. The Programs are titled according to the device used, tape formula, and tape speed. For instance, a Program may be titled "SONY-111-Fast1" to designate that it is the Sony TC-640, using Scotch 111 tape at a speed of 7.5 IPS.

The Machines are designated as follows:

STU - Studer A800 MKIII  
OTR - Otari MTR-10  
REV - Studer Revox B77  
SNY - Sony TC-640  
AKI - Akai 4000DS MKII  
WOL - Wollensak 1515  
LFT - Lafayette RK-142  
TEC - TEAC W-6004

## Suggested Use

It is impossible for a single plug-in to recreate an accurate example of analog tape with only one generalized set of features. Every tape speed, calibration, media, bias, tape head, cal. eq standard, and brand produces a unique result of harmonics, frequencies, and optimized interaction with material. This is perhaps what makes this release a landmark, in that you have an entire library of stock tape and machines for immediate use in production!

Remember that there are no 'right and wrong' uses for these programs. Use them how they sound good to you!

The general rule for use of this collection is that each program has been pre-formatted to operate properly at the settings that are pre-loaded. They are edited to cover a range of +3dB additional input gain and as much as +20dB "Drive" gain. Adding more than these settings may produce a level of overload that goes beyond the accurate reading of that program. Reducing input gain and "Drive" will also reduce the amount of harmonics distortion for cleaner processing.

### Mastering:

The Studer programs set to 30 IPS are all suitable for mastering purposes.

The Studer programs set to 15 IPS at -10dB are also pleasing for some mastering scenarios with a subtle sought after low end bump and sweetening in the highs.

The Otari programs set to 30 IPS are also excellent for mastering.

### High Fidelity Mixing:

The Revox Programs are all very friendly for processing a wide range of tracks. Experiment to taste.

The Studer 15 IPS and 30 IPS are excellent for high quality mixing applications as well.

Also, the Otari at 15 IPS is a wonderful character-rich machine for mixing.

### Medium Fidelity Mixing:

The Revox and Studer machines are once again excellent for processing experimental tracks and using increased drive settings where desired.

The Sony, Akai, and Teac programs are excellent for electric guitar, strings, keyboards, vocals, and content that leans towards the mid-range frequencies.

### Low Fidelity Mixing:

The Sony, Akai, Teac, Lafayette, and Wollensak machines are all excellent for use as special effect processing like telephone voice, adding complex harmonics to instruments, overlapping sounds and changing the sound of effects like reverb and delay units. These can be equally useful for high quality tracks that rely heavily on mid range frequencies, and can also be useful in place of equalization where high frequencies are applied to other tracks; the high frequencies can be reduced on tracks using these programs without the need for high shelf eq.

Although the majority of these programs are created at 96kHz, the different machines reduce high end to varying degrees. The Studer, Otari, and Revox affecting ultra-high frequency response the least. Even though these machines do have their natural limits, they are not eliminating content in this extended range!

### Creating Custom Presets:

Due to the nature of sampling hardware for the Nebula engine, it is extremely important that each Program be edited to perform within the same range of limitations as the actual tape machines. The interesting thing is that just like the real devices, there are certain circumstances where Programs can be pushed hard to achieve more overdrive, more natural harmonics, and just the right "glue" that makes a track sound its best. I highly recommend getting to know your favorite programs for different instruments, music styles, mix scenarios. Just like the real machines, there is an amazing range of sonic control that you now possess within the Nebula plug-in, and each device has wonderful subtle abilities and a lot of obvious ones as well! Once you get to know the devices well, you can experiment with 'hitting things hard to tape'. There are situations where you can, for instance, hit a drum loop at an increased volume giving the effect of pumping and extending the low end while bringing the natural mid range harmonics upwards towards the highs, making for a bigger sound stage. This is just one of the many scenarios that this collection can be used. My recommendation for this process is to use the music track at no more than -5dB when experimenting with adjusting a Program's input gain. This allows the Program to continue processing a cleaner input signal while increasing the tape machine's own drive characteristics.

To experiment with this, load a Program, click "Edit", go to the "Glob" Page, and while a track is playing adjust the input gain option in the window to 'increase the input drive, while lowering the output gain setting. If the result sounds fake, makes a ringing sound, or sounds digital, then you have exceeded the natural range of the machine for that incoming signal. However, if you notice something like a drum loop getting bigger and 'pumping' or even sounding more extended, then you are experiencing the right effect! You can save this response as a new Program by going to "Edit" once more and changing the Program name and selecting "Save As". I recommend using a new name like the machine and the instrument you use it for.

Enjoy R2R... "Reel Too REAL" !