GOD'S

MESA
ENGINEERING

CAB
impulse responses

Why use "God's Cab" (v1.3)?

1. It sounds great.
2. It's free.
3. The samples are 100% phase coherent. You can mix any of them together with minimal phase issues.
4. It comes with Axe-FX ready .syx files.
6. It comes with unique IR's that utilize a TS9 (see Tube Screamer section).
7. The impulses were made with great gear by cool audio engineers.
8. We will make more if they are popular.

Signal chain:

Sine sweep (sent from Allen & Heath Zed R-16) --> 6505+ power section (FX return) --> Mesa OS cab --> various microphones --> Allen & Heath Zed R-16 pre-amp --> Voxengo Deconolver software.

How to use Impulse Response (IR files):

Download a plug-in that can emulate a guitar head, or record a guitar head direct in (do NOT plug speaker level outs into your mixer! (Note that a tube amplifier must be plugged into a speaker cabinet at all times, you will need a load box to run it silently).

Here's a plug-in that can emulate a guitar head:

Nick Crow 8505 lead: http://sites.google.com/site/nickcrowlab/

Download something that can load IR files.

Try getting LeCab from LePou's plug-ins. It's got a lot of great features tailored for guitar cab impulses:

LePou Lecab: http://lepouplugins.blogspot.com/

Now open a new FX chain and add **Nick Crow 8505** lead first.
Now add **LePou's Lecab**.
Load a God's Cab IR - Try **57_1_inch_edge_pres_3.wav as a starting point.**

God's Cab Naming Convention:

57_grill_edge_pres_4.wav

57 is the name of the microphone (SM57).
grill is the mic's distance from the grill cloth (grill means it is touching the grill cloth).
pres_4 is the presence setting (higher = brighter).
edge is the position of the microphone on the speaker cone. Edge refers to the edge of the dust cap of the speaker.

SM7B_TS_2_inch_cone_far_pres_3.wav

SM7b is the name of the microphone (Shure SM7b)
TS Means that the Tube Screamer is engaged.
2_inch is the distance of the mic from the grill cloth.
pres_3 is the presence setting (higher = brighter).
cone_far refers to the position of the microphone. cone_near means it is closer to the dust cap of the speaker, where as cone_far means the speaker is another inch further away.

U87_2_feet_pres_3.wav

U87 is the name of the microphone (Neumann U87)
2_feet is the distance of the mic (capsule) from the grill cloth.
pres_3 is what the power amp's presence was set to (higher = brighter).

NT5_stereo_live_room_pres_4.wav

NT5 is the name of the microphone (Rode NT5)
stereo means this is a stereo impulse, as in it has separate left and right channels.
live_room refers to which room the microphones are in. The live_room IRs were taken in a large open room, while another set (dead_room) were taken in a smaller acoustically dampened space.
pres_4 is what the power amp's presence was set to (higher = brighter).

Microphone Positions:
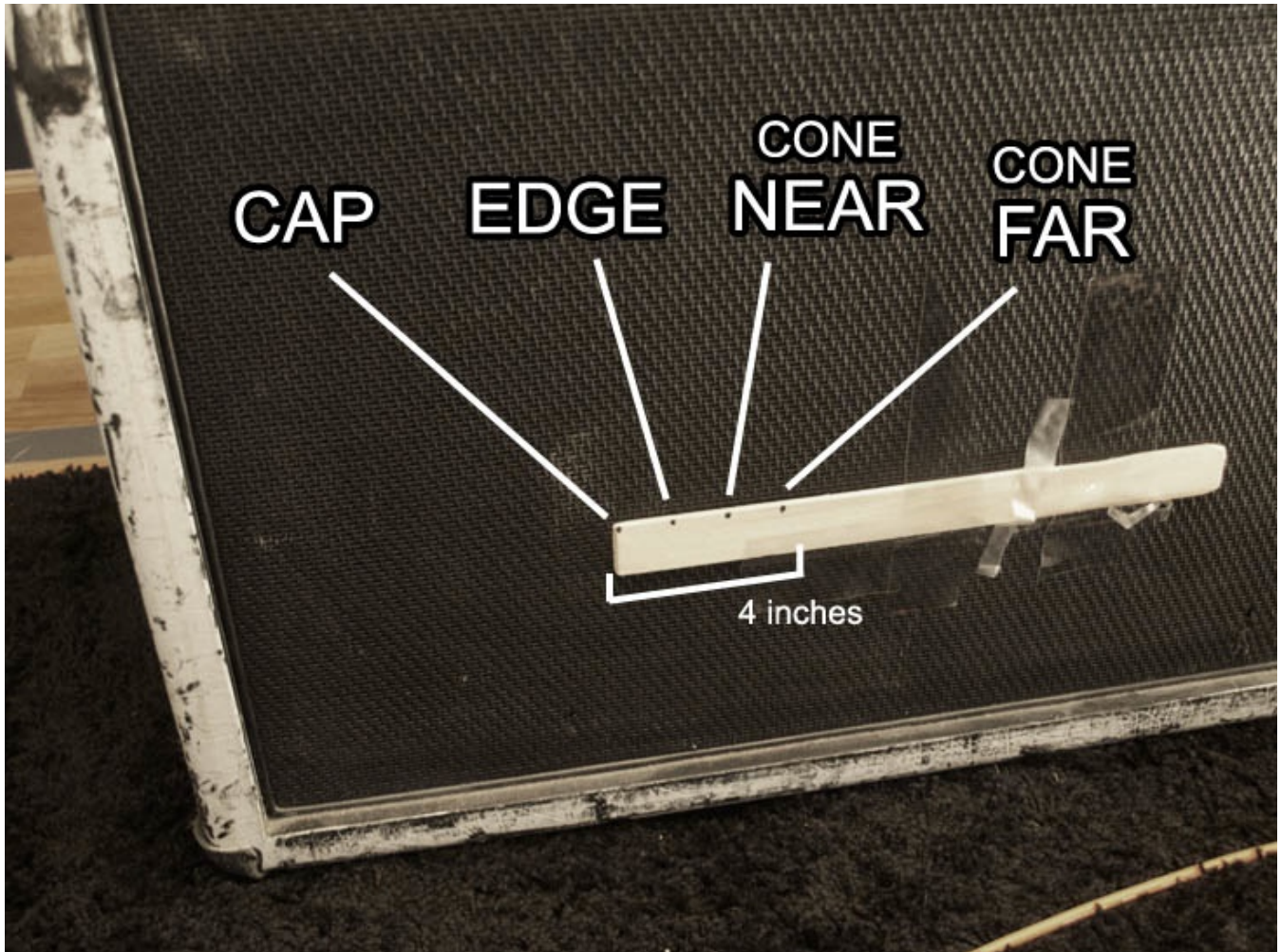
Tube Screamer:

The IR's with **TS_** prefix are impulses that have been run through a Tube Screamer pedal (TS9). It is essentially acting as an EQ to boost mid-range frequencies, as the "Drive" knob of the pedal is in the off position. The Tube Screamer is engaged prior to the impulse reaching the power amp.

The Tube Screamer pedal impulses have a mid-range bump. Guitars are a mid-range instrument, and utilizing these impulses will often help guitar tracks sit properly in a mix. The TS9 was set to drive 0, tone 12 o' clock, level 12 o' clock.

Without Tube Screamer:
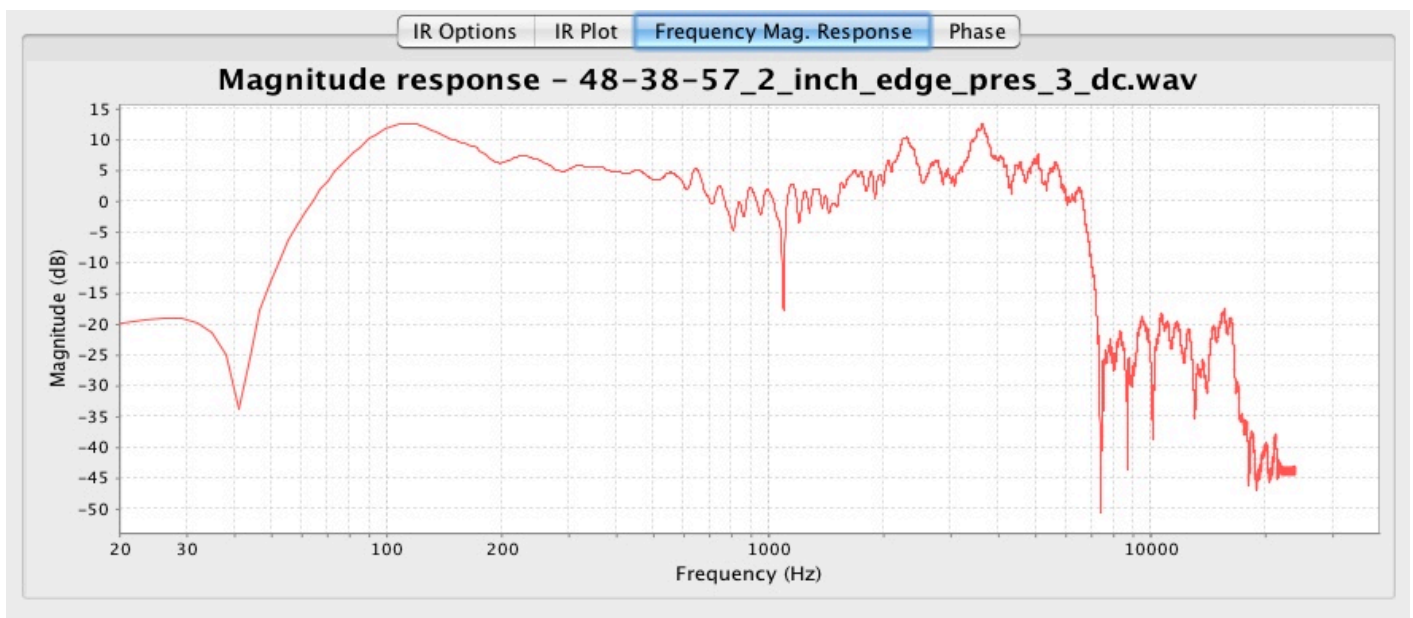
With TS:
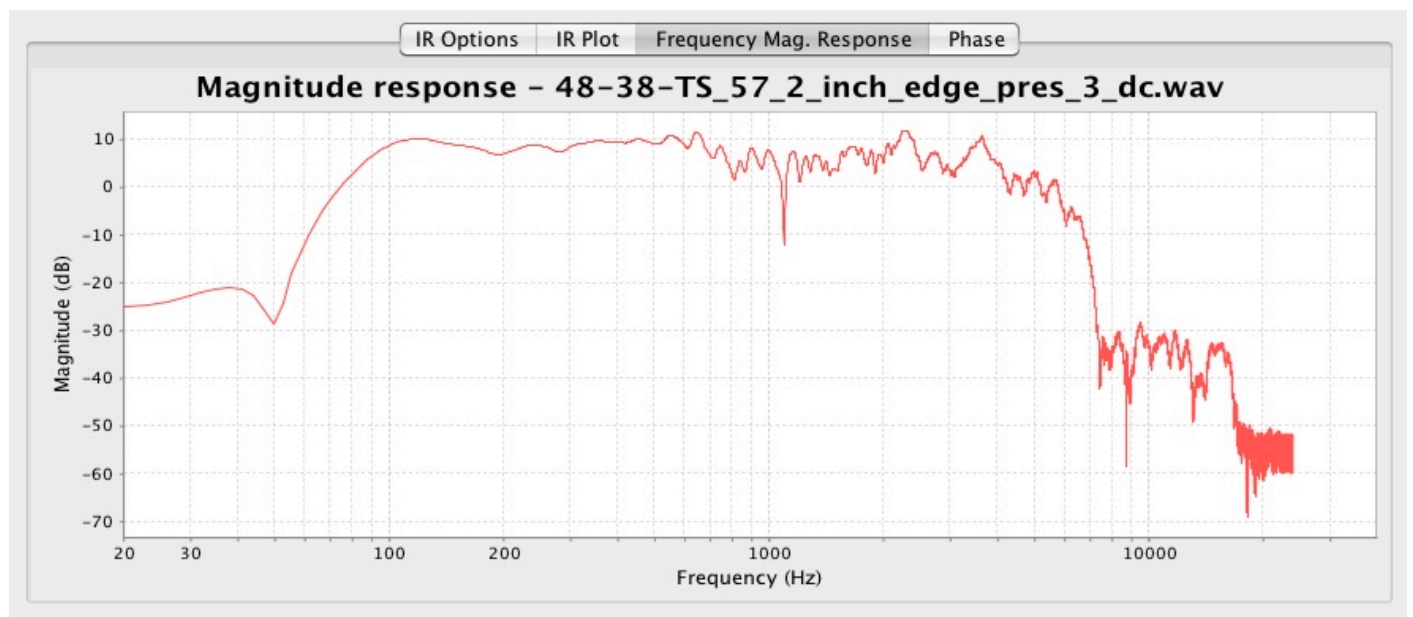
U87 Room Impulses:

Two room impulses (as well as three original room IRs from 1.0 in the Legacy_IRs folder) have been included in God's Cab. Blend these impulses into your tone to add a sense of size and space.

These impulses are up to 8192 samples long, however the AXE-FX .syx impulses have been truncated to 1024 (maximum size for Axe-FX IRs). The room impulses will be less realistic when used on an Axe-FX because the reverb tails will be greatly shortened.

NT5 Impulses:

Stereo NT5 IRs have been included to give the cab a sense of three dimensional space. These can be used to add an additional level of realism and interest to guitar tracks. These impulses can benefit from a stereo enhancer (plug-in), if a wider room is required. Also note that using either a left or right NT5 IR can make for a great mono room mic.

The dead room NT5 IRs were recorded in a small acoustically treated space. The live room NT5 IRs are in a large untreated room.

These impulses are 2048 samples long, however the AXE-FX .syx IR's have been truncated to 1024. The result will likely make the room impulses less realistic on the Axe-FX because the reverb tail will be greatly shortened.

Presence & Resonance settings:

The presence #'s in the IR names (1 2 3 4 5) are equivalent to the **6505+'s presence knob** set at:

1 = 2
2 = 8
3 = 9
4 = 9 1/2
5 = 10

The **6505+'s resonance knob** was set at 7 for the regular IRs, and 8 for the Tube Screamer (TS) IRs.

Microphones:

57 = Shure SM57: With its bright, clean sound and contoured frequency response, the SM57 is ideal for live sound reinforcement and recording.

The SM57 has an extremely effective cardioid pickup pattern that isolates the main sound source while minimizing background noise. In the studio, it is excellent for recording drums, guitar, and woodwinds. - shure.com

SM7 = Shure SM7b: The SM7B dynamic microphone has a smooth, flat, wide-range frequency response appropriate for music and speech in all professional audio applications. It features excellent shielding against electromagnetic hum generated by computer monitors, neon lights, and other electrical devices. - shure.com

U87 = Neumann U87 Ai (below): The U 87 is probably the best known and most widely used Neumann studio microphone. It is equipped with a large dual-diaphragm capsule with three directional patterns: omnidirectional, cardioid and figure-8. - Neumann.com

C414 = AKG C414 XLS (above): AKG's legendary C 414 needs no introduction – it is a tool found in most recording studios and has been used on thousands of hit records; it's been on stage with artists of every musical genre and is also used by leading broadcast facilities the world over. - AKG.com

NT5 = Rode NT5: Intended for recording acoustic instruments, drum overheads, cymbals and live performances, the compact externally polarized mic employs a 1/2" capsule, an active J-FET impedance converter with bipolar output buffer. - RodeMic.com

MD421 = Sennheiser MD421-II:
The MD 421 II is one of the best known microphones in the world. Its excellent sound qualities enable it to cope with the most diverse recording conditions and broadcasting applications. - sennheiser.com

Sampling Rates:

The samples were recorded at 24 bit 44100 then converted to 48000 and 96000. There is negligible benefit to using the higher sample rate IR's. The varied sample rates are packaged for convenience.
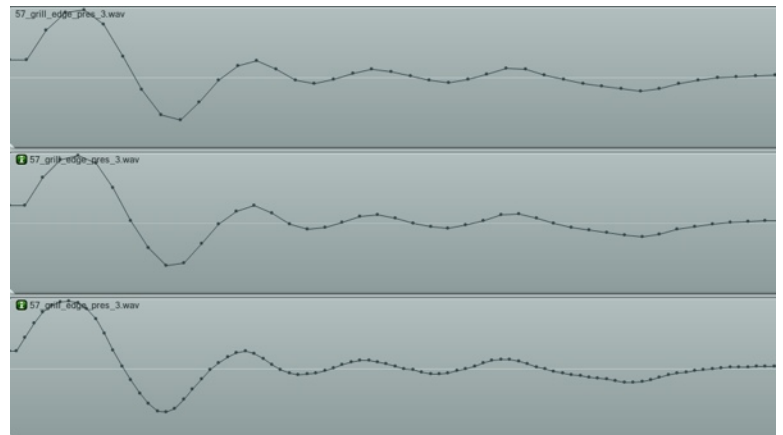
Technical Details:

- Samples cut to 1024 sample length (except rooms and distance mics may be up to 8192 samples long. ALL Axe-FX.syx are truncated to 1024, even rooms, etc.).
- 12 second pink noise impulse utilized for cabinet IRs.
- 30 second sine sweep utilized for room and distance (1 foot, 2 foot, etc) IRs.
- Tube Screamer TS9 set to drive 0, tone 12 o' clock, level 12 o' clock.
- 6505+ power section with JJ 6L6 tubes.
- Pink noise impulse was sent to power section (FX return) at -28 dBFS.
- Zed Dice (in Zed R-16) A/D D/A converter: 113 db D/A, 118 db A/D.
- Cab is a Mesa Oversized Rectifier.
- Speakers are Celestion V30.
- Deconvolved with Voxengo Deconvolver.
- Sample rates adjusted with Voxengo R8Brain.

Version History

1.0
- Initial release

1.1
- Shure SM7b Microphone IRs added

1.2
- Neumann U87 IRs added
- AKG C414 XLS IRs added
- Rode NT5 IRs added
- M3 and C02 IRs moved to "Legacy_IRs" folder.

1.3
- Sennheiser MD421 IRs added

Thank you!

Thank you for trying God's Cab! If you have any comments or questions feel free to e-mail info@signalsaudio.com.

If you really like these IRs and want to donate, simply open the "**please_donate.html**" file included in this package. You can also manually PayPal to alex@signalsaudio.com.

Cheers,

Taylor and Alex