



Saturation
Native Plug-in Version 2.5
User's Guide



www.ursplugins.com

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Chapter 1: Introduction

Welcome to the URS Saturation plug-in v2.0 from Unique Recording Software, Inc. or URS for short. The URS Saturation plug-in digitally recreates Transformer saturation, Analog Tape Machine Tape Head saturation, Tube, Fet and Discrete Mic Pre Amplifier saturation.



URS Saturation plug-in

The URS Saturation plug-in is easy to use thanks to the engineers at Unique Recording Software who developed a unique (!) software interface making each plug-in simple to learn and operate. Most importantly the URS Saturation plug-in sounds great providing faithful sonic emulations of two of the most unique and uniquely musical Compressors ever developed.

The URS Saturation plug-in is available in packages for Pro Tools Native LE.

- The Native includes RTAS and AudioSuite with support up to 192 kHz sample rates.
- The Native includes Audio Units with support up to 192 kHz sample rates.
- The Native includes VST with support up to 192 kHz sample rates.

The URS Saturation plug-in supports Mono, Stereo and Multi-Mono formats.

System Requirements

- 2.0 of the URS Saturation plug-in supports Macintosh OS X, and WinXP. (Check the URS Web site for the most current support news.)
- URS Saturation plug-in Native plug-in supports any Pro Tools Native LE system capable of running Pro Tools software 5.2.1 or higher including support for Pro Tools 7.x.x and Leopard.
- URS Saturation plug-in requires an iLok Smart key for authorization. If you do not have an iLok, consult your local dealer or online dealer to purchase one.

Chapter 2: Installation, Registration and Authorization

Installing the URS Saturation plug-in involves the following three steps:

1. Installing the plug-in.
2. Registering with Unique Recording Software.
3. Authorizing your plug-in using the authorization code generated by your registration with URS.

Follow the instructions below to complete the installation, registration and authorization process.

Installing

To install the URS Saturation plug-in:

1. Download the installer for your Pro Tools system, computer platform and operating system from the Unique Recording Software web site (www.ursplugins.com) or insert the Classic Compressor Installer disc into your CD-ROM drive.
2. Double-click the installer for the URS plug-in bundle you have purchased. TDM users should install the TDM bundle. LE users should install the Native bundle.
3. Follow the instructions onscreen to install the plug-in. When you are finished, remove the URS disc from your CD-ROM drive.

Registering is required in order to initiate the plug-in authorization process. Registering your plug-in also entitles you to free periodic updates as they become available.

Registering

Register your purchase online at the URS web site. Registering is the best way to protect your investment and to get the most out of your URS software purchase.

To register:

1. Browse to the URS web site at www.ursplugins.com and follow links to register.
2. Complete the registration form supplying all required information including your email address. The invoice or dealer license number is required depending whether you purchased online or through a dealer.
 - If you purchased your URS software from the URS Online Store, provide your invoice number and date of purchase.
 - If you purchased URS software from a dealer, provide the dealer's name, their license number and date of purchase (See the URS Registration Card included with your package). Upon registration, URS will send you an email to the address you provided. This email includes your URS User ID and a temporary password.
3. Upon receipt of the notification email, return to www.ursplugins.com and log in using the provided User ID and temporary password.
4. Follow the instructions onscreen to create a permanent password for yourself. Upon completion, you will be taken to the URS Welcome page.
5. From the URS Welcome page, follow the Download links to get to the download page. On the Downloads page: You will find currently available URS plug-ins, Pace Interlok software extensions (with an installer) and user manual (with demos when available).

If necessary, download the software appropriate for your computer platform, operating system and Pro Tools hardware as well as any Pace extensions required.

Authorizing

After completing the registration process, use iLok.com to update your iLok Smart Key with URS assets (URS transfers *assets* or authorizations to the iLok.com web site when you register your purchase with URS).

Authorizing your software involves the following three steps:

- Registering as a URS Customer to generate your iLok assets.
- Transferring your iLok assets to update your iLok Smart Key from the iLok.com web site.
- Authorizing the installed URS plug-in with your updated Smart Key.

The following section explains each of these steps in detail.

Before you begin:

6. If you have not already done so browse to www.ursplugins.com and follow the links and instructions onscreen to register as a Unique Recording Software customer (see Registering on page 5). URS generates authorization iLok assets for your purchased software upon completion of the registration process.
7. Make sure your iLok Smart key is inserted into an active USB port on your computer.

To transfer your assets to your own iLok:

1. Browse to www.iLok.com.
2. Log in or sign up and create an account if you are new to iLok copy protection. (See your Pro Tools plug-in guides for more information about iLok or go to
3. (www.iLok.com.)
4. Follow the onscreen instructions to transfer your Classic Compressor assets to your iLok Smart Key.

To authorize your plug-in:

1. Make sure you have installed the plug-in and registered with URS and that you have transferred your iLok assets as described in the previous steps.
2. Launch Pro Tools.
3. If prompted, insert your iLok Smart Key into an available USB port. Follow any onscreen instructions to complete the authorization.

Customer Support

Technical support is available online. Please email URS at:

support@ursplugins.com.

Please include your Online Store Invoice number or your URS License number and your telephone number.

Downloads of the latest s of URS software as well as manuals and other resources are also available at the URS web site (www.ursplugins.com).

Chapter 3: URS Saturation plug-in

The URS Saturation plug-in supports all Native sample rates up to 192 kHz and can be used on mono and stereo audio tracks, aux inputs and master faders.



The URS Saturation Plug-in

To insert a URS plug-in on a track:

1. Create an audio track, aux input or master fader.
2. Choose URS Saturation plug-in from the track Insert selector (see your Pro Tools guides for more information if you are unfamiliar with inserting plug-ins).
3. To adjust the plug-in, see the next sections.

Using the AudioSuite involves selecting the material to process, adjusting the AudioSuite URS Saturation plug-in then processing. See your Pro Tools documentation for AudioSuite instructions.

About the URS Saturation plug-in

The URS Saturation plug-in is easy to operate. It digitally recreates vintage tape machine tape head saturation, transformer, tube and discrete pre amplifier harmonics, saturation and soft clipping.

Getting the right amount of saturation with the URS Saturation plug-in is fast! The URS Saturation plug-in series provide the engineer with an easy way to control the right amount of saturation for quick on track enhancement and gain level adjustment.

What the URS Saturation plug-in is not

The URS Saturation plug-in is not a guitar distortion box. Do not expect to use the URS saturation plug-in to simulate the multiple pre amp stages of guitar amps. You would not use a guitar distortion box on vocals, horns, strings and drums. The URS Saturation plug-in is not a Analog Tape Machine simulator and does not recreate Tape compression

What the URS Saturation plug-in is

The URS Saturation plug-in adds much desired harmonics, saturation and soft clipping to tracks already recorded in your DAW. All of the algorithms produce different amounts of odd and even harmonics giving each algorithm it's unique sound.. See the figures starting on page 11.

Using the URS Saturation plug-in

Here are some good tips for using the URS Saturation plug-in.

1. Insert the URS Saturation plug-in on an instrument or vocal track. . Do not solo the track! Set the Mix Blend control to Wet and adjust the amount of Drive to bring the track more forward in the Mix. Adding saturation in solo may fool you into thinking that the harmonics you are adding are too much.
2. Insert the URS Saturation plug-in on an instrument buss (Drums) or Mix Buss. Set the Drive control to 10%-35%, Set the Mix Blend control to Dry and bring up the Mix Blend control to add harmonics to the unaltered source material. Keep in mind that at higher Drive levels the saturation starts to soft clip. This will affect the transients of the original source material. Using the Mix Blend control you can retain the original transients and add additional rich harmonics.

URS Saturation plug-in Specifications

Specifications

- 64 bit floating double precision processing
- 192k sample rate supported
- Nine Digitally recreated vintage algorithms
- Input Level Control
- Mix Blend Control – Wet / Dry
- Output Level Control
- Drive 0-100%
- In / Out Bypass switch
- Phase Reverse switch
- Plasma Style Input and Output VU Meters

Adjusting Input Gain

To adjust Input Gain:

1. Click and drag on the Input gain knob as needed to raise or lower the input gain.
2. Click on the Numeric Window and use the QWERTY keyboard's up and down arrow keys or enter the value from the keyboard. The Numeric Window is located above the slider (0db) as shown in the illustration below.



Click and drag on the Input knob to adjust Input Level setting

Setting the amount Saturation Drive

To adjust the amount Saturation Drive:

1. Click and drag on the Saturation's Drive knob as needed to raise or lower the desired amount.
2. Click on the Numeric Window and use the QWERTY keyboard's up and down arrow keys or enter the value from the keyboard. The Numeric Window is located above the Saturation's Drive knob as shown in the illustration below.



Saturation's Drive knob

To adjust Output Gain:

3. Click and drag on the Output gain knob as needed to raise or lower the output gain.
4. Click on the Numeric Window and use the QWERTY keyboard's up and down arrow keys or enter the value from the keyboard. The Numeric Window is located above the slider (0db) as shown in the illustration below.



Bypassing the Saturation

To bypass the Saturation:

The Saturation's IN button is located under the Input knob

Click the Saturation's IN button to toggle bypass state. When IN button is in (processing), the LED is lit. The IN LED is dark when bypassed and the Bypass switch lights.



Saturation Bypass Button

Reversing the phase of Saturation

To reverse the phase of Saturation:

The Saturation's Phase button is located under the Output knob.

Click the Saturation's Phase button to toggle bypass state. When IN button is in (processing), the LED is lit. The IN LED is dark when bypassed and the Bypass switch lights.

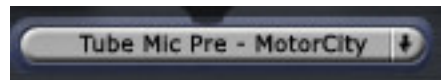


Saturation Phase Button

Selecting the Saturation model

To select the Saturation model:

1. Click on the Saturation's Drop Down Button, A pop up window will appear and you can directly select from the current models available by clicking again on the model's title in the list.
2. Click on the Saturation's Drop Down Button down arrow to advance to the next model down on the list.
3. Hold Shift + Click on the Saturation's Drop Down Button down arrow to advance to the next model up on the list.



Saturation's Drive Algorithm Drop Down Button

Blending the Saturation

Use the Mix Control to Blend the desired amount of Saturation:

The Saturation's Mix Blend Control is located under the Drive Algorithm Drop Down Button.

The Mix Blend Control saves you from using a separate parallel track or a separate send for blending saturation effects with your source tracks and/or Mix Buss.

Click the Saturation's Mix Control Slider knob to adjust the ratio of your original untouched source material with the saturated signal. Dry is the untouched source signal. Wet is the Saturated signal.

At 100% Wet the Mix Blend Control is not in circuit.

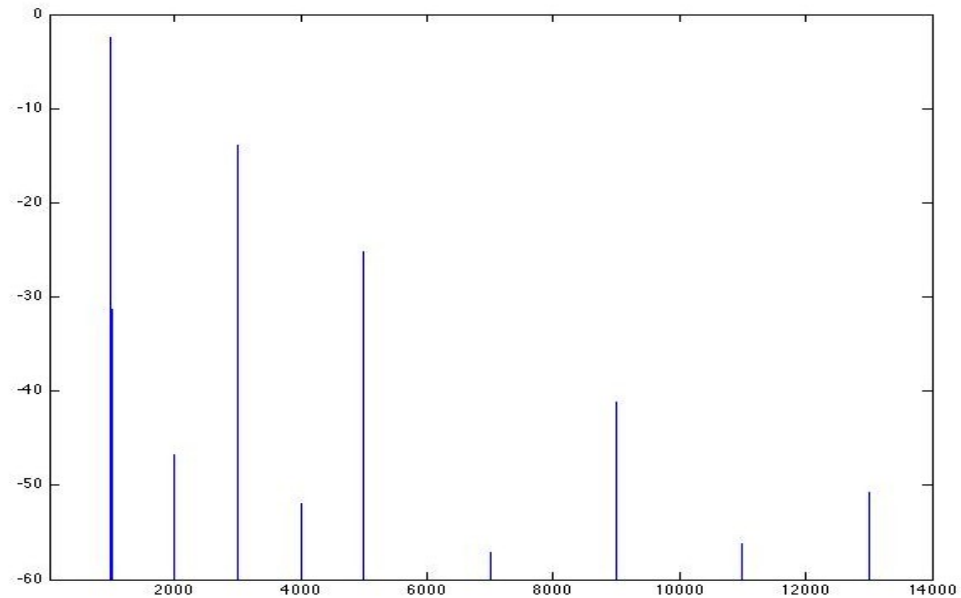


Saturation's Mix Blend Slider

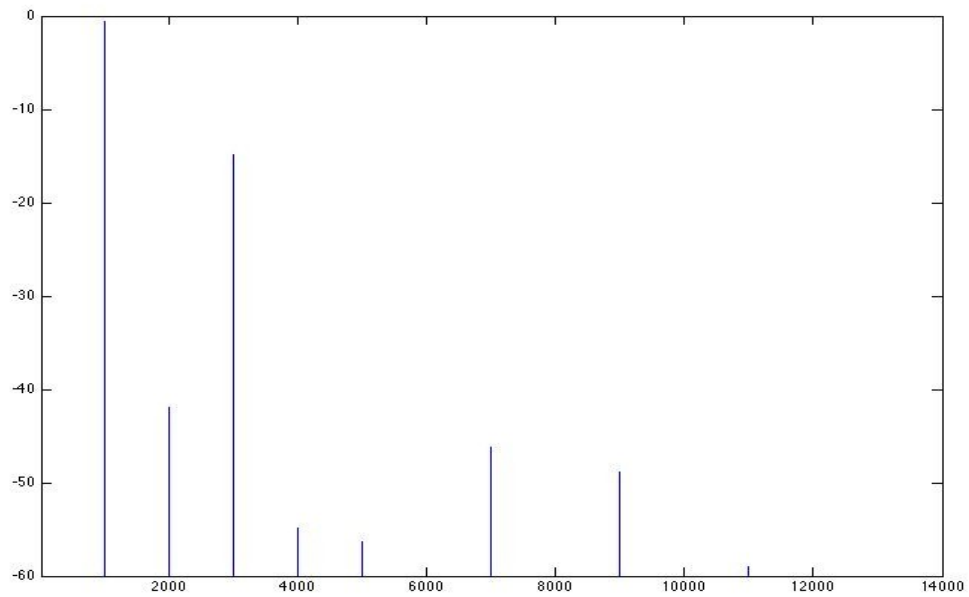
The Saturation Algorithms

Mono Tape Head Saturation – 15ips and 30ips

Digitally recreates classic Mono Tape Machine Tape Head saturation. This type of saturation particularly affects higher frequency transients and is most noticeable on drums and percussive instruments. The harmonic structure plots below show the differences between 15ips and 30ips.



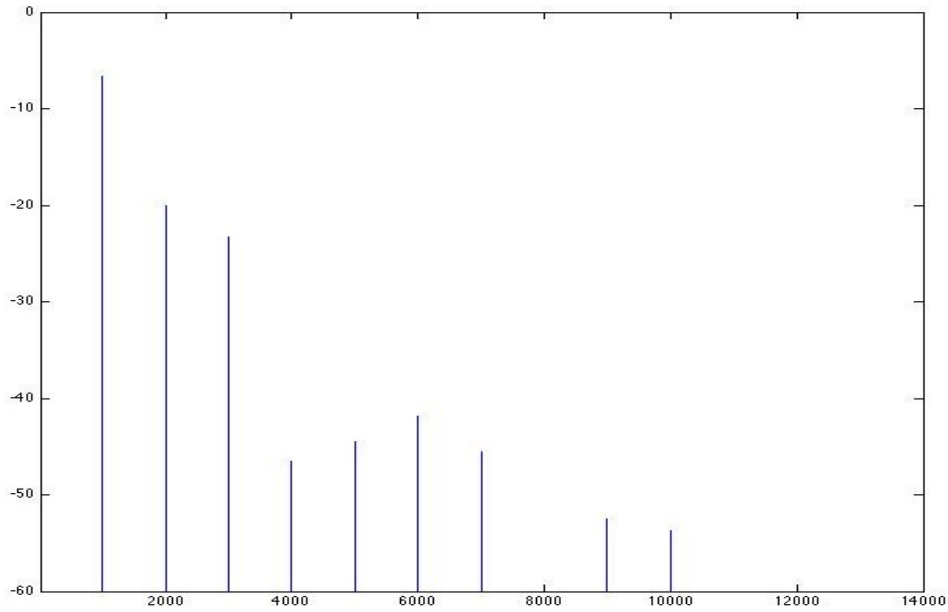
Mono Tape Head 15ips odd-ordered harmonics - spectral graphs for a 1k sine tone



Mono Tape Head 30ips odd-ordered harmonics - spectral graphs for a 1k sine tone

Class A Tube Mic Pre – Tape Machine

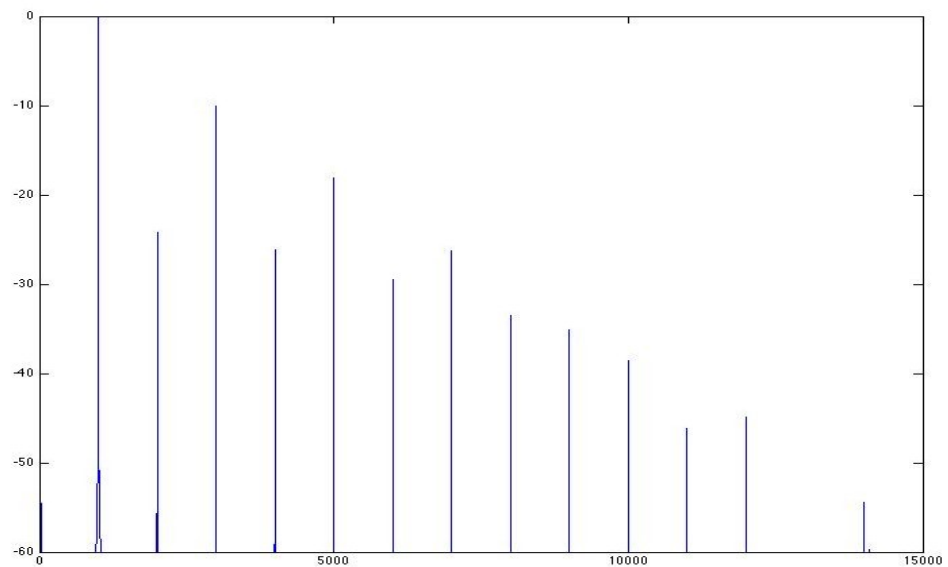
Digitally recreates a Tube Mic Pre included in early American Mono Analog Tape Recorders similar to those used by Elvis. These Mic Pre amplifiers were popular from the early 1950's through the 1960's and are still popular today. Today the original Tape Machine transports are trashed only to keep the Tube Mic Pre electronics.



Class A Tube Mic Pre - Tape Deck odd-ordered harmonics - spectral graphs for a 1k sine tone

Class A Tube Mic Pre – 1951

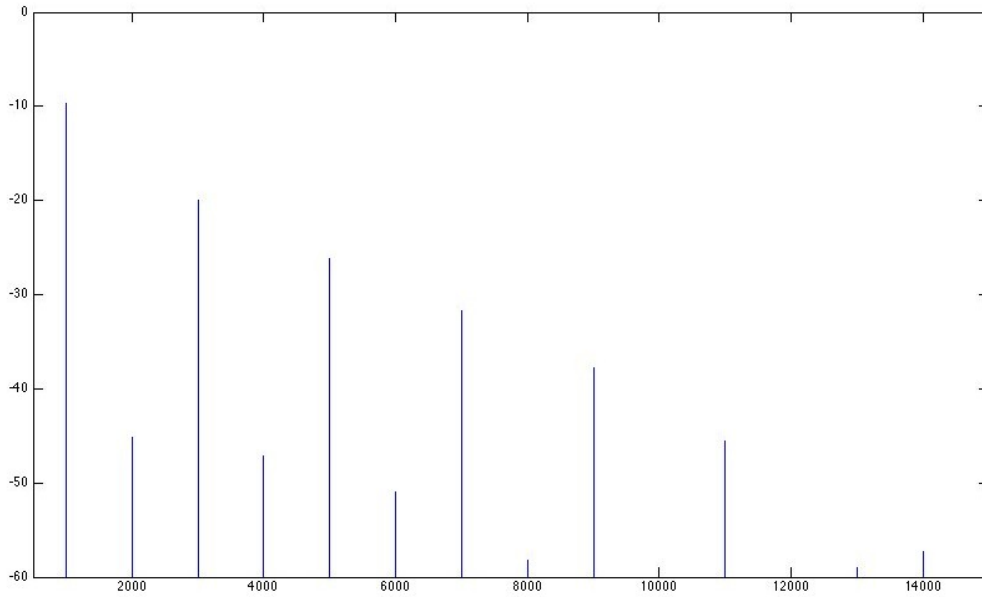
Digitally recreates an American Tube Mic Pre amplifier that was made by the same company that became famous for their Program Equalizers. These Mic Pre were popular from the early 1950's through the 1960's. Today these Tube Mic Pres are still popular for their warm sound.



Class A Tube Mic Pre - 1951 odd-ordered harmonics - spectral graphs for a 1k sine tone

Class A Tube Mic Pre – MotorCity

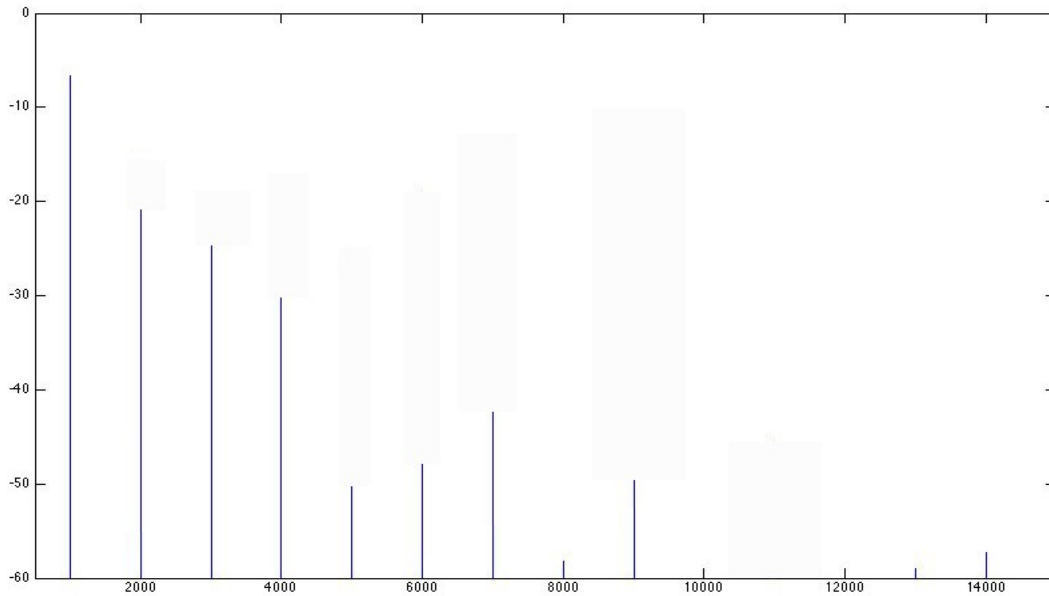
Digitally recreates an American Class A Tube Mic Pre that was popular in the late 1950's into the 1960's. Recording consoles from this era were custom configured with plug-in tube mic pre amplifier modules. This type of Tube Mic Pre was used by the engineers at Motown. This type of tube mic pre adds rich harmonics and saturation that can be heard on all of the instruments and vocals from that era.



Class A Tube Mic Pre – MotorCity odd-ordered harmonics - spectral graphs for a 1k sine tone

Class A Tube Mic Pre – German

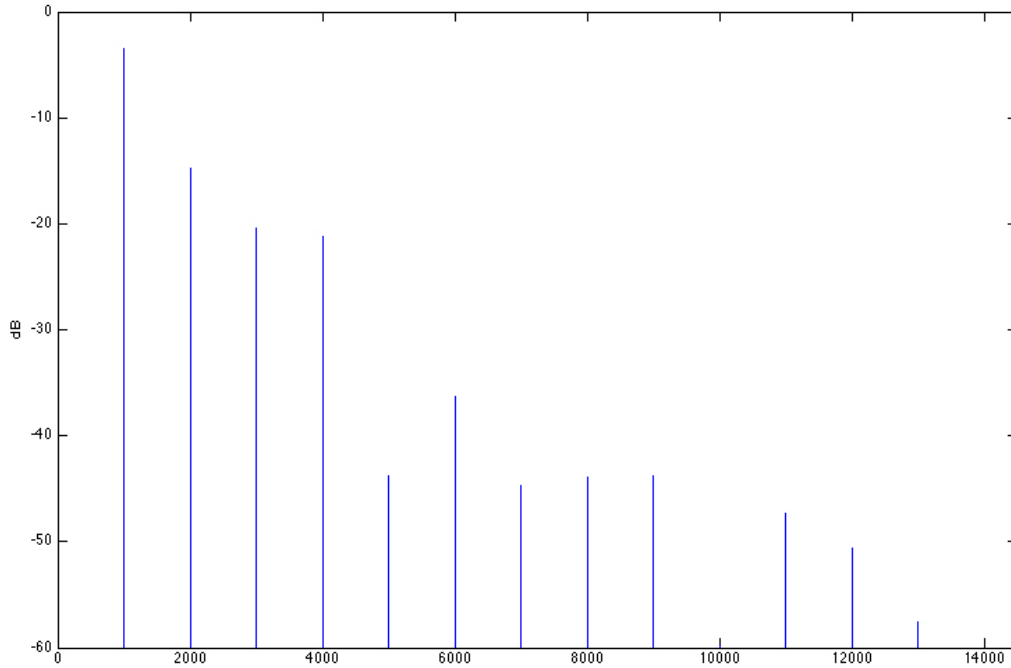
Digitally recreates a Dual Pentode German tube mic pre amplifier that was popular in European recording studios during 1960's Beatles era. This type of tube pre amplifiers are coveted for their odd-ordered harmonics, unique distortion, presence and authority in the treble ranges.



Class A Tube Mic Pre -German odd-ordered harmonics - spectral graphs for a 1k sine tone

Class A Discrete Mic Pre Amplifier - British

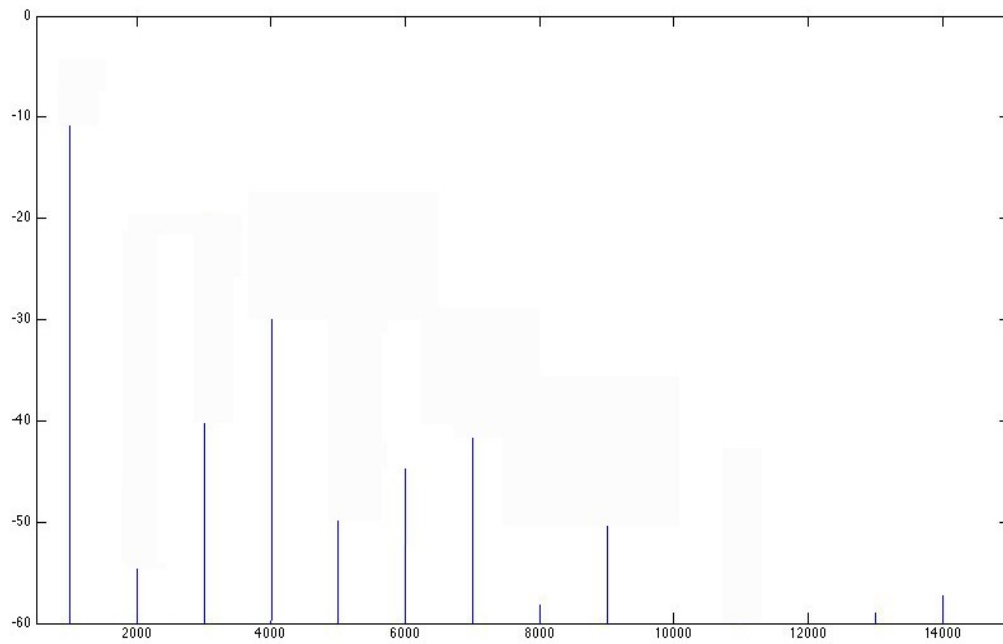
This algorithm digitally recreates the sought after classic British all discrete pre amp saturation. The added even-ordered harmonics makes the edge that is desired in both Rock and R&B music.



Class A Discrete Mic Pre - British even-ordered harmonics - spectral graphs for a 1k sine tone

JFet Mic Pre Amplifier - Modern

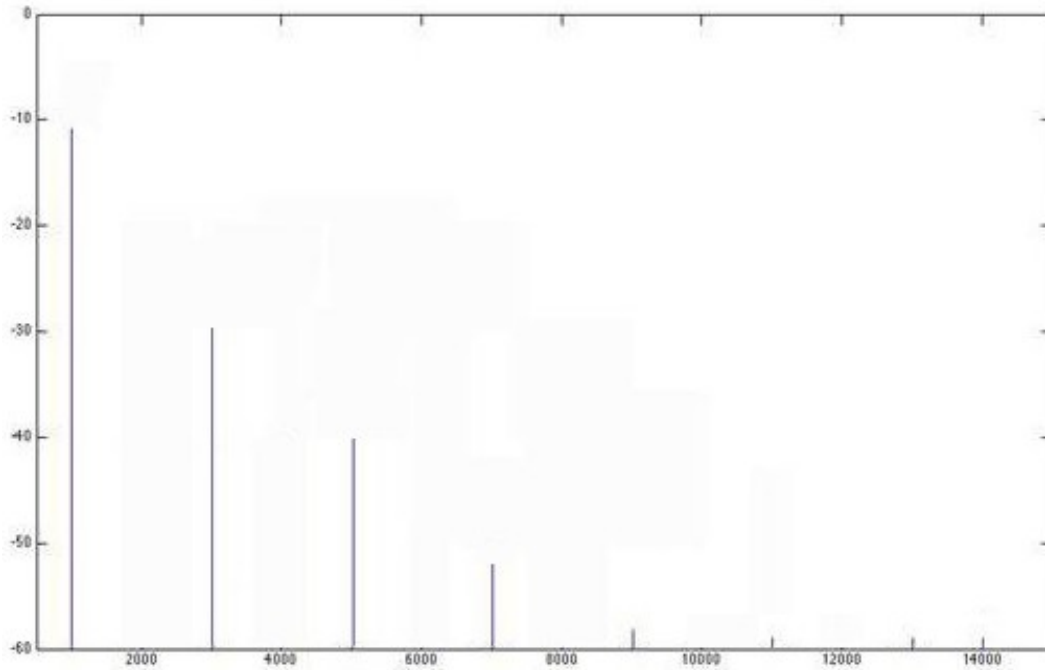
This algorithm digitally recreates a modern JFet pre amplifier which comes closest to any discrete tube saturation ambience device. Although similar it has its own unique even-ordered harmonic structure and sound.



JFet Mic Pre - Modern even-ordered harmonics - spectral graphs for a 1k sine tone

Transformer American

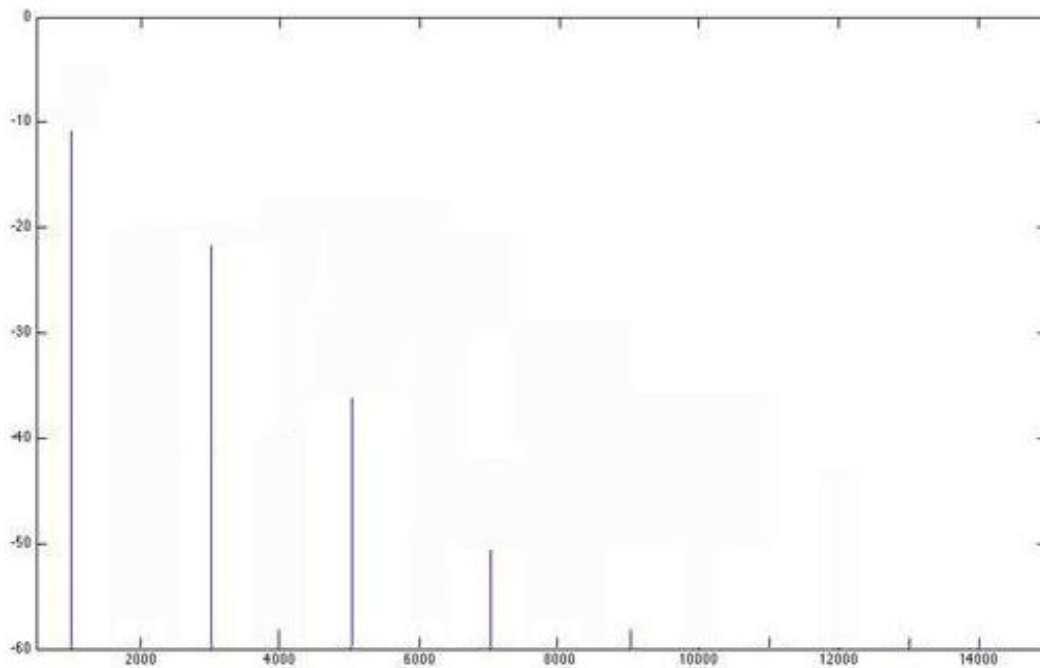
The Transformer American algorithm digitally recreates a Vintage American transformer used in high end recording consoles, tape machines and outboard gear. Try the Transformer American algorithm as a transient tamer. The Transformer American algorithm can be a great tool to fix poorly recorded clicky Bass and Snare Drums.



Transformer American – non linear transformer core saturation- spectral graphs for a 1k sine tone

Transformer British

The Transformer British algorithm digitally recreates a Vintage British transformer used in high end recording consoles, tape machines and outboard gear. Try the Transformer British algorithm as a vocal smoother. The Transformer British algorithm can be a great tool to warm brittle digital tracks.



Transformer British – non linear transformer core saturation- spectral graphs for a 1k sine tone

Using the Input and Output Plasma VU Meters

The Plasma Style VU Meters allow the user to compare input to output levels without having to leave the plug-in window. Gain staging in a DAW is critical and not overloading the track(s) is essential.



The URS Saturation Plasma Input and Output Meters

Clearing the Plasma Gain Clipping indicator

The Plasma Meters include a Red Gain Clipping indicator.

To clear the Plasma Gain Clip Indicators

- Click once on the Red gain clip indicator to clear its status.
- Operation Tip! - Hold the Option key and click on either Gain Clip Indicator to clear both.

Chapter 4: Operational Tips

This chapter provides additional information for the URS Saturation plug-in and the URS Compressor / Limiter / Side Chain Filter and includes control surface support and operational tips to help you get the most out of the Classic Compressor.

ICON, ProControl, Control|24 and Other Control Surfaces

The Classic Compressor fully supports Digidesign ICON, ProControl, Control|24, Command 8 and other supported control surfaces. For example, on ProControl the URS plug-in supports the DYN functions to select compressor as dynamics inserts on tracks, etc.

In addition, ProControl maps each plug-in toggle switch to the BYPASS/IN/ø switch (in the DSP Edit/Assign area).

The following tables show the control surface labels used to indicate each COMPRESSOR parameter. Use the associated knob or fader (if your controller supports plug-in Flip mode) to adjust each parameter.

URS Compressor Control Surface Abbreviations

Control Surface	URS Saturation
Lvl	Input Level
Gan	Ouput Level
Drv	Drive
Mod	Model Select
In	In/Out switch
Pha	Phase
byPas	ByPass

Operational Tips

RTAS, Audio Units and VST supported

If you have the Native version, you can use RTAS, Audio Units and VST.

We Do Not recommend using our Native plug-in for live tracking due to the nature of Native latency.

Using Multi-Mono Mode for RTAS

If you want to add saturation to a stereo track, master fader or 5.1 Master fader with one set of compressor controls left and right or more:

1. Select the insert point on your Stereo fader, Master fader or 5.1 Master fader.
2. From the plug-in window open the Multi-Mono Mode plug-in list.
3. Select either the URS Saturation plug-in or the URS Compressor/Limiter.

(Multichannel tracks greater than stereo (LCR to 7.1) Pro Tools HD or MIX.)

Use the Link controls for ganged control of all channels (see your Pro Tools manuals for plug-in linking).

Version Number

URS Saturation plug-in version number

To find out which version number you have installed, click on the URS logo in the upper right hand corner of the plug-in and the version number will be displayed. Click again to hide the version number.



URS Logo

Mouse Scroll Wheel Support

The URS Saturation include Mouse Scroll Wheel Support for Mac OSX Panther, Tiger and Leopard

Our new Wheel Mouse Scroll Wheel Support for Mac OSX requires no clicking.

You simply place the mouse cursor over the knob and without clicking just move the mouse scroll wheel to adjust the knob.

You can use your Mouse Scroll Wheel to control the Compressor's knobs, buttons and/or Numeric Windows. Each click of the wheel mouse scroll wheel moves the knob or slider .1db. Holding the option key will enable a 10x multiplier.

Unique Recording Software

www.ursplugins.com

URS Quick Start Guide

Here's what you'll need to do to get up and running fast.

1. An iLok and iLok.com user account.
2. Create a URS user ID to Login to the URS web site.
3. Register your product on the URS web site to automatically transfer your license asset(s) to your iLok.com user account.
4. Transfer your URS license asset(s) from your ilok.com user account to your iLok.
5. Install the Pace Interlok Extensions and Reboot your computer.
6. Install the URS software.

<p>1. An iLok and iLok.com user account is required.</p> <p>Create an iLok.com User ID at www.iLok.com and Synchronize your iLok with iLok.com. More info at www.ursplugins.com/ilokID.html</p> <p>You can purchase an iLok from your Dealer or from the Digidesign Online Web store.</p>	
<p>2. Create a URS user ID to Login to our web site. Please register at www.ursplugins.com/reg.html</p>	
<p>3. Register your product on the URS web site to automatically transfer your license asset(s) to your iLok.com user account. Please Login at www.ursplugins.com/login.html</p> <p>Dealer purchased Retail Box At the URS Welcome page select "Register Products". Enter the License # found on the enclosed License Card. Your License Asset(s) will automatically be delivered to your iLok.com account. More info at www.ursplugins.com/register.html</p> <p>URS Online Store purchased Electronic License(s) including Rental Licenses At the URS Welcome page select "Register Products". Enter your Order # from your Online Store receipt. Your License Asset(s) will automatically be delivered to your iLok.com account. More info at www.ursplugins.com/register.html</p> <p>Demo Users At the URS Welcome page select "Request Demo Licenses". Select the products to demo and hit Request. Your Demo License Asset(s) will automatically be delivered to your iLok.com account.</p>	
<p>4. Transfer your URS license asset(s) from your ilok.com user account to your iLok Login at www.iLok.com and transfer your license asset(s) to your iLok. Please see www.ursplugins.com/iloktransfer.html</p>	
<p>5. Install the Pace Interlok Extension Drivers from http://www.paceap.com/dldrvr.html The Pace Interlok Extension Drivers are required for your computer to identify your iLok. A reboot is recommended.</p>	
<p>6. The most current s of our software are found on the URS Downloads page. Please Login at www.ursplugins.com/login.html and from the Welcome page select Downloads. If you want to install the Classic Console EQ Bundle or specific plug-in(s)? Download the Everything EQ Bundle, select "Custom Install" And de-select the URS plug-ins you do not want to install.</p> <p>If you have TDM licenses Please download and install the TDM s They are located on the Downloads page in the section with the white background like this.</p> <p>If you have NATIVE licenses Please download and install the Native s They are located on the Downloads page in the section with the gray background like this.</p> <p>If you have DEMO or RENTAL licenses Please download and install the Demo/Rental s They are located on the Downloads page in the section with the blue background like this.</p>	
<p>7. To Upgrade your software and the Pace Interlok Extensions to the latest . Please see www.ursplugins.com/upgrade.html</p>	

Note - If you are having difficulties, please fill out a support request form at :
www.ursplugins.com/supportrequest.html