odd5

stochastic control synthesis

USER MANUAL

INTRODUCTION

Odds is a stochastic control synthesis plugin for KORG **prologue**, **minilogue xd** and **NTS-1**. It starts with a hybrid engine that features dual oscillators with a wide variety of sources – including virtual analog, FM, phase distortion, waveshaping, ring modulation, cross modulation, and lo-fi – all of them running at double the system sample rate for highest possible quality. Together with a state-variable filter, **Odds** offers a total of 80 different configurations, covering a huge spectrum of sounds. But the "stochastic control" part is what takes this plugin to an entirely new level: for every note played, **Odds** has variable trigger probability, selectable pitch transpose randomization patterns, plus further independent randomization of up to 4 additional synth engine parameters. These advanced features make it possible to create extremely complex, never-repeating melodic and tonal variations even out of the most basic note sequences. Add to this a highly flexible modulation generator with a multitude of envelope and LFO shapes – and, right within your existing device, you have the synthesis power and sophistication that can rival a small modular system.

HIGHLIGHTS

- Bespoke dual-oscillator engine with multiple sound source types: virtual analog, FM, phase distortion, waveshaping, ring modulation, cross modulation, bit reduction, as well as hybrid (80 variations in total)
- Adjustable note trigger probability
- Individual randomization of pitch transposition, sound generator tone, modulation depth/speed, output level
- Waveform generators run at 96 kHz sample rate with an anti-aliasing filter for superior quality
- Built-in -12 dB/octave multi-mode state variable filter
- Flexible modulation generator with 24 modes: exponential envelopes, linear envelopes, multi-waveform LFO (triangle, saw, square, pulse, trapezoid, peak), sample & hold, and random triangle
- Built-in lag filters for noise-free, ultra-smooth parameter adjustment and modulation

COMPATIBILITY

- KORG **prologue**
- KORG **minilogue xd**
- KORG **NTS-1**

PACKAGE CONTENTS

- **Odds** plugin in **prologue**, **minilogue xd**, and **NTS-1** formats
- 40 presets for **prologue**, 35 presets for **minilogue xd**, and 35 presets for **NTS-1** (in the form of preset tables)
- User Manual PDF
- Preset Tables PDF
- Multi Engine Preset Converter utility

BEFORE YOU START

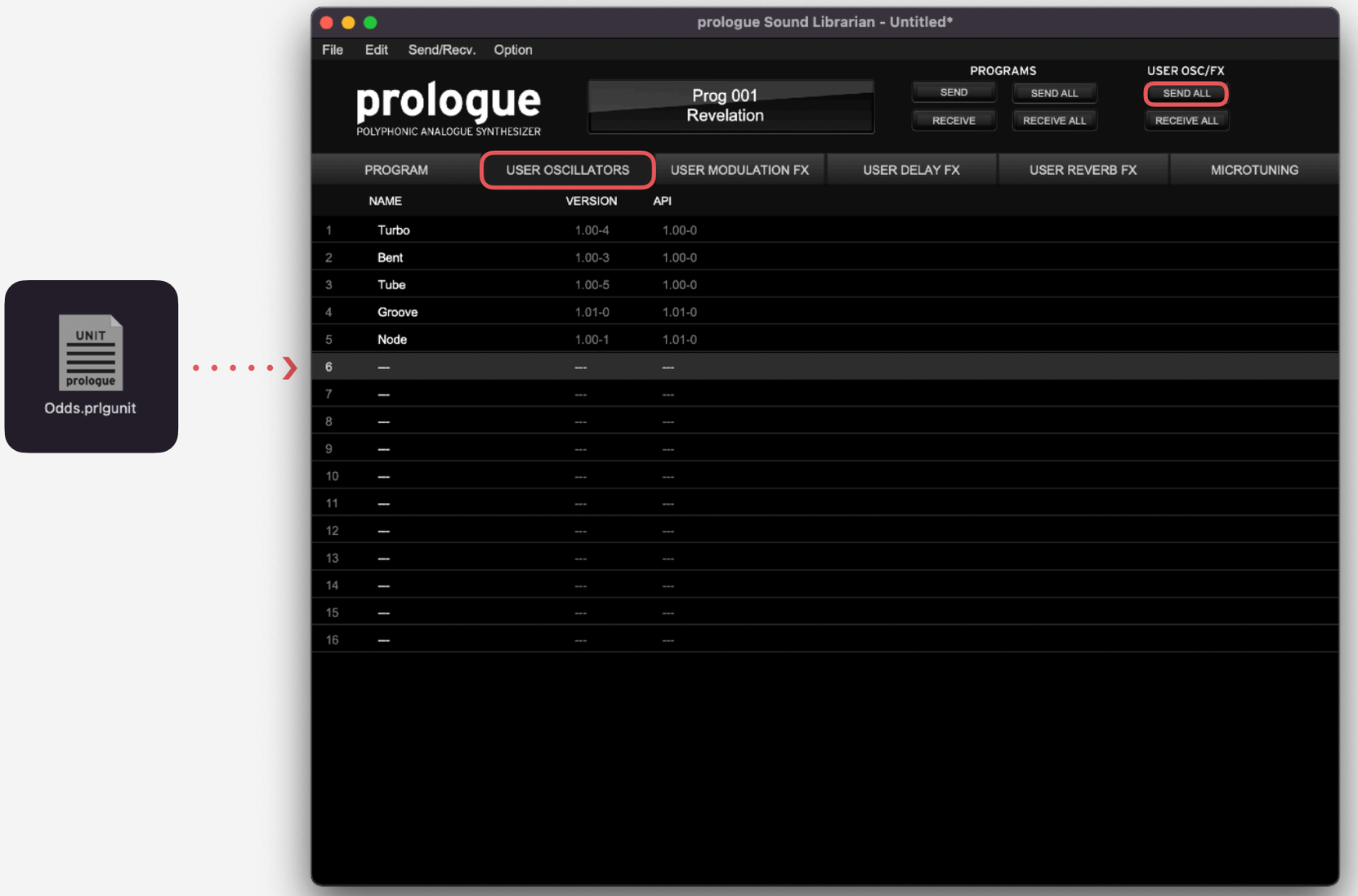
Before you install third-party plugins, please make sure that you have the latest **system update** installed on your KORG synthesizer, and that you also perform the **panel update** and **voice update** procedures if they are required. Older system versions can have major issues with newer plugins. You should keep the **Sound Librarian** application updated as well.

Follow the links below to check and download the latest software for your synthesizer:

- Software for KORG **prologue**
- Software for KORG **minilogue xd**
- Software for KORG **NTS-1**

INSTALLING THE PLUGIN

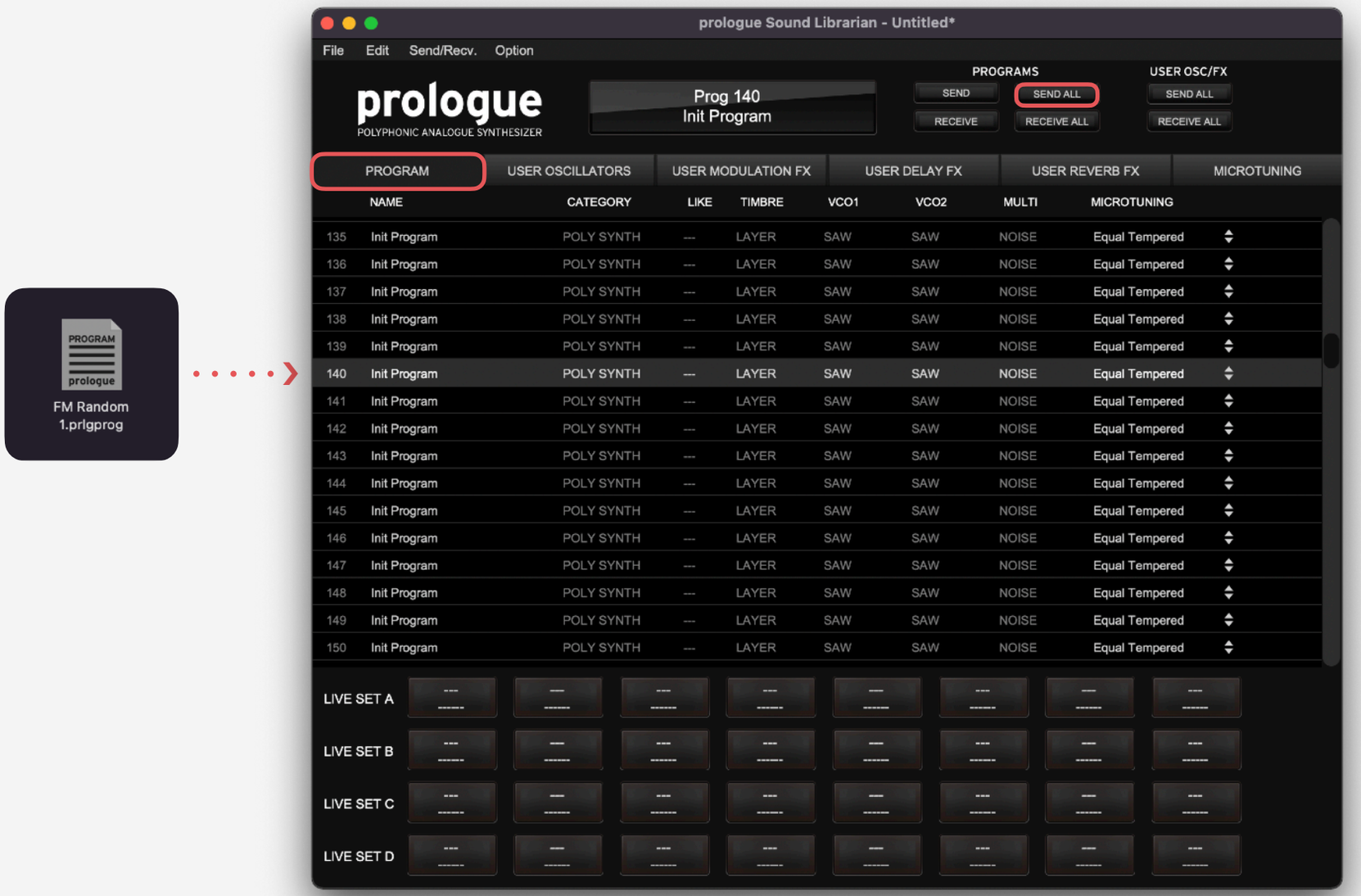
1. Connect your synthesizer to your computer with a USB cable. Alternatively, connect them together via two MIDI cables and a USB-MIDI interface for your computer.
2. Launch the Sound Librarian application on your computer.
3. Switch to the USER OSCILLATORS tab.
4. Drag and drop the **Odds** plugin file into any available oscillator slot – and note down the number of this slot.
5. Click the SEND ALL button in the USER OSC/FX toolbar section.



To get the latest version of **Odds**, visit the **Sinevibes** website and request your downloads: www.sinevibes.com/updates

INSTALLING THE PRESETS

1. Connect your synthesizer to your computer with a USB cable. Alternatively, connect them together via two MIDI cables and a USB-MIDI interface.
2. Launch the Sound Librarian application on your computer.
3. Switch to the PROGRAM tab.
4. In the **Odds** package, open the Presets folder, and then open the folder corresponding to the slot number into which you installed the plugin.
5. In the Sound Librarian, click to highlight the target preset location, then drag and drop the desired preset file onto this location. Repeat this for all presets you'd like to install.
6. Click the SEND ALL button in the PROGRAMS toolbar section.



LOADING THE PLUGIN

To use **Odds** for creating your own sounds, you need to load the plugin into the MULTI ENGINE oscillator. It is best to start from an initialized preset to make sure that there are no pre-existing sound adjustments that could prevent the plugin from sounding correctly.

prologue

- Select an initialized patch.
- In the MIXER, set VCO1 level to zero and MULTI level to the maximum.
- Set the MULTI ENGINE oscillator type switch to USR.
- Use the TYPE dial to scroll through plugins until you select **Odds**.

minilogue xd

- Select an initialized patch.
- In the MIXER, set VCO1 level to zero and MULTI level to the maximum.
- Set the MULTI ENGINE oscillator type switch to USR.
- Use the TYPE dial to scroll through plugins until you select **Odds**.

NTS-1

- Turn the synthesizer off and on again to initialize the current patch.
- Press the OSC button.
- Use the TYPE dial to scroll through plugins until you select **Odds**.

NOTE: due to the limited resources on the **NTS-1**'s single processor, and considerable resource requirements for **Odds**, it can affect the total amount of effects you can run at the same time.

EDITING PARAMETERS

Like all multi-engine plugins, **Odds** includes additional parameters that enable deep customization. Below are the instructions for accessing and editing them depending on the device model. For the detailed description of what each parameter does, please see the PARAMETER GUIDE.

prologue

- Press the EDIT MODE button and select PROGRAM EDIT.
- Press the function key #7 repeatedly to switch between the additional plugin parameters.
- Use the PROGRAM/VALUE dial to adjust the currently selected parameter.

minilogue xd

- On the **minilogue xd** module, make sure that the KEYBOARD switch is off.
- Press the EDIT MODE button and select PROGRAM EDIT.
- Press the sequencer key #10 repeatedly to switch between the additional plugin parameters.
- Use the PROGRAM/VALUE dial to adjust the currently selected parameter.

NTS-1

- Press and hold the OSC button, then rotate the TYPE dial to enter the oscillator parameter edit mode.
- Use the TYPE dial to switch between the additional plugin parameters.
- Use the B knob to adjust the currently selected parameter.

PARAMETER GUIDE

Parameter	Range	Description
SHAPE / A	0 .. 100%	Adjust the main control parameter of the sound engine. Depending on the selected **Source Type**, this control is mapped to either filter cutoff frequency, frequency modulation depth, or waveshaper intensity.
SHIFT+SHAPE / B	0 .. 100%	Adjust the probability of each note being triggered: the parameter range is reversed, e.g. actual probability value goes from 100 to 0%.
Source Type	1 .. 80	Select the sound engine configuration: these include various oscillator models, their waveforms and pitches, as well as output filter types. Parameter value reference: SOURCE TYPES
Random Pitch	0 .. 27%	Select the pitch transpose amount that will be applied each time a note is triggered. Depending on the transpose pattern, pitch can go up or down in multiple fifth or octave intervals. Parameter value reference: RANDOM PITCH
Random Tone	0 .. 16%	Select the sound engine parameters that will be randomized each time a note is triggered. Parameter value reference: RANDOM TONE
MG Type	1 .. 24	Select the modulation generator type and configuration: exponential envelope, linear envelope, LFO, sample & hold, random triangle. Parameter value reference: MODULATOR MODES
MG Speed	0 .. 100%	Adjust the modulation generator time or frequency depending on the currently selected **MG Type**: the range is mapped to **5 ms .. 10 s** (EG), **0.05 .. 20 Hz** (LFO), **0 .. 20 Hz** (sample & hold, random triangle).
MG Depth	0 .. 100%	Adjust the amount of modulation generator output sent into the **SHAPE** parameter

SOURCE TYPES

	Generator	Filter		Generator	Filter
1	saw	high-pass	21	saw	band-pass
2	square		22	square	
3	2x saw detuned		23	2x saw detuned	
4	2x square detuned		24	2x square detuned	
5	saw + square detuned		25	saw + square detuned	
6	2x saw fifth		26	2x saw fifth	
7	2x square fifth		27	2x square fifth	
8	2x saw octave		28	2x saw octave	
9	2x square octave		29	2x square octave	
10	saw + square octave		30	saw + square octave	
11	saw	low-pass	31	2-op FM with 1:1 ratio	–
12	square		32	2-op FM with 1:1 ratio + feedback	
13	2x saw detuned		33	2-op FM with 2:1 ratio	
14	2x square detuned		34	2-op FM with 2:1 ratio + feedback	
15	saw + square detuned		35	2-op FM with 3:1 ratio	
16	2x saw fifth		36	2-op FM with 3:1 ratio + feedback	
17	2x square fifth		37	2-op FM with 4:1 ratio	
18	2x saw octave		38	2-op FM with 4:1 ratio + feedback	
18	2x square octave		39	2-op FM with 6:1 ratio	
20	saw + square octave		40	2-op FM with 6:1 ratio + feedback	

SOURCE TYPES

	Generator	Filter		Generator	Filter
41	2-op FM, 1:1 ratio + phase distortion	–	**61**	bit-reduced triangle + modulation	low-pass
42	2-op FM, 1:1 ratio + phase distortion + feedback		**62**	bit-reduced saw + modulation	
43	2-op FM, 2:1 ratio + phase distortion		**63**	2x square detuned × ring mod	
44	2-op FM, 2:1 ratio + phase distortion + feedback		**64**	2x square detuned/mixed × ring mod	
45	bit-reduced 2-op FM, 1:1 ratio		**65**	2x square octave × ring mod	
46	bit-reduced 2-op FM, 1:1 ratio + feedback		**66**	triangle + square octave × ring mod	
47	sine + waveshaper		**67**	cross-modulated saw	
48	2x sine octave + waveshaper		**68**	cross-modulated square	
49	bit-reduced sine + waveshaper		**69**	overmodulated square	
50	bit-reduced 2x sine octave + waveshaper		**70**	overmodulated saw fifth	
51	bit-reduced triangle + modulation	high-pass	**71**	bit-reduced triangle + modulation	band-pass
52	bit-reduced saw + modulation		**72**	bit-reduced saw + modulation	
53	2x square detuned × ring mod		**73**	2x square detuned × ring mod	
54	2x square detuned/mixed × ring mod		**74**	2x square detuned/mixed × ring mod	
55	2x square octave × ring mod		**75**	2x square octave × ring mod	
56	triangle + square octave × ring mod		**76**	triangle + square octave × ring mod	
57	cross-modulated saw		**77**	cross-modulated saw	
58	cross-modulated square		**78**	cross-modulated square	
59	overmodulated square		**79**	overmodulated square	
60	overmodulated saw fifth		**80**	overmodulated saw fifth	

RANDOM PITCH

Value	**Transpose Pattern** (semitones)	Value	**Transpose Pattern** (semitones)
0	0	**14**	0, +7, +12, +19, +24, +31
1	0, +12	**15**	0, +7, +12, +19, +24, +31, +36
2	0, +12, +24	**16**	0, -7
3	0, +12, +24, +36	**17**	0, -7, -12
4	0, -12	**18**	0, -7, -12, -19
5	0, -12, -24	**19**	0, -7, -12, -19, -24
6	0, -12, -24, -36	**20**	0, -7, -12, -19, -24, -31
7	0, +12, -12	**21**	0, -7, -12, -19, -24, -31, -36
8	0, +12, -12, +24, -24	**22**	0, +7, -7
9	0, +12, -12, +24, -24, +36, -36	**23**	0, +7, -7, +12, -12
10	0, +7	**24**	0, +7, -7, +12, -12, +19, -19
11	0, +7, +12	**25**	0, +7, -7, +12, -12, +19. -19, +24, -24
12	0, +7, +12, +19	**26**	0, +7, -7, +12, -12, +19. -19, +24, -24, +31, -31
13	0, +7, +12, +19, +24	**27**	0, +7, -7, +12, -12, +19. -19, +24, -24, +31, -31, +36, -36

RANDOM TONE

Value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Shape		●				●	●	●				●	●	●		●
MG speed			●			●			●	●		●	●		●	●
MG depth				●			●		●		●	●		●	●	●
Level					●			●		●	●		●	●	●	●

MODULATOR MODES

1	 Exponential decay-sustain EG	13	 Square LFO
2	 Exponential attack-sustain EG	14	 Square LFO, inverted
3	 Exponential attack-decay-sustain EG	15	 80% pulse LFO
4	 Exponential attack-decay-sustain EG, attack time 5x shorter than decay time	16	 80% pulse LFO, inverted
5	 Linear decay-sustain EG	17	 20% pulse LFO
6	 Linear attack-sustain EG	18	 20% pulse LFO, inverted
7	 Linear attack-decay-sustain EG	19	 Trapezoid LFO
8	 Linear attack-decay-sustain EG, attack time 5x shorter than decay time	20	 Trapezoid LFO, inverted
9	 Triangle LFO	21	 Peak LFO
10	 Triangle LFO, inverted	22	 Peak LFO, inverted
11	 Saw LFO	23	 Sample & hold
12	 Saw LFO, inverted	24	 Random triangle

SINEVIBES

ROCKET FUEL FOR YOUR CREATIVITY

www.sinevibes.com