

VECTRA PRISM CORE

Advanced Wave Core, Warp, Mutate and DNA Flux



Figure 1. Prism Core in the Synth page, with Warp/Mutate panels below the oscillators.

Prism Core in one sentence

Prism Core is Vectra's oscillator transformation system: Warp performs live waveform shaping, Mutate rebakes a new wavetable variation, and DNA Flux creates a live mutation layer that can be blended and modulated during performance.

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Naming note

The public name used in this manual is Prism Core. AWC, or Advanced Wave Core, refers to the underlying DSP and generation engine. The expanded mutate workspace is described as the Expanded Mutate Panel.

1. Overview

Prism Core is Vectra's advanced oscillator transformation system. It lives directly on the Synth page below each oscillator and gives every oscillator a compact creative engine for live shaping, offline mutation and evolving generated tone.

The system has three core actions: Warp, Mutate and DNA Flux. Warp changes the active oscillator in a continuous, playable way. Mutate generates a new wavetable variation from the current oscillator DNA. DNA Flux generates an alternate mutation layer and lets the live oscillator blend into it with a dedicated amount control.

Area	What it means
Prism Core	The Synth-page UI component below each oscillator. It hosts Warp, Mutate, DNA Flux, audition and reforge controls.
AWC - Advanced Wave Core	The DSP/generative engine behind Prism Core. AWC performs the waveform transformation and mutation work.
Expanded Mutate Panel	A larger mutate-only workspace reached from the oscillator core. It focuses on Mutate and DNA Flux, not Warp.
Warp	A live shaping stage with positive/negative amount and selectable warp modes.
Mutate	An offline/rebake process that writes a generated wavetable variation.
DNA Flux	A live alternate mutation layer with a modulatable amount control.

Important distinction

Mutate Amount and its secondary controls are generation/rebake controls. They shape the next generated result and are not live modulation targets. Warp Amount and DNA Flux Amount are live performance controls and can be used through the modulation system.

2. Quick Start

2.1 Add live shape with Warp

1. Open the Synth page and locate the Prism Core panel below the oscillator you want to shape.
2. Click the WARP tab if the panel is currently on MUTATE.
3. Choose a Warp mode such as Bend +/-, Sync, Mirror, FM, Quantize, Formant Shift or Soft Sync.
4. Raise or lower the Warp amount. Negative and positive values can produce different motion.
5. Use Living Matrix modulation on Warp Amount for expressive movement.

2.2 Generate a new oscillator variation with Mutate

6. Switch the Prism Core panel to MUTATE.
7. Choose a mutation algorithm such as Wavefold, Spectral Resonator, Spectral FM, Genesis Recomb, Spectral Lattice or Harmonic Manifold.
8. Set Amount and the secondary Density, Decay and Gain controls where visible.
9. Press Reforge or MUTATE to create a new variation.
10. Enable AUTO when you want the current mutation to be re-applied as you edit the mutation controls.

2.3 Use DNA Flux

11. Switch to MUTATE.
12. Enable DNA.
13. Choose the mutation algorithm used for the Flux layer.
14. Adjust DNA Flux Amount. This blends the live oscillator toward the generated Flux layer.
15. Modulate DNA Flux Amount from a Macro, LFO or envelope for evolving motion.

3. System Concept: Prism Core and AWC

Prism Core is the playable front end. AWC is the engine. In practical terms, you use Prism Core to decide whether you want real-time transformation, a newly generated wavetable, or a live blend into an alternate generated version.

Function	Best for	What changes
Warp	Performance movement, timbral push, animated oscillator tone.	The live oscillator output is continuously shaped by a warp mode and amount.
Mutate	Creating new source material from a wavetable or Forge-derived oscillator.	A new mutated wavetable is generated and becomes the oscillator source.
DNA Flux	Morphing into a generated variation while the patch plays.	A separate generated Flux layer is prepared and blended by DNA Flux Amount.
Expanded Mutate Panel	Detailed two-oscillator mutation work and comparison.	Both oscillator mutation lanes are shown at large scale with Orrery/Atlas views.

Musically, the system lets you move between three different kinds of change: performance, generation and evolution. Warp is immediate. Mutate is a commit. DNA Flux is an evolving bridge between the original and a generated alternative.

4. Interface Tour



Figure 2. Synth-page Prism Core. Each oscillator has its own Prism Core panel below it.

4.1 Prism Core panel



Figure 3. Prism Core in neutral/off state. The two tabs select Warp or Mutate for each oscillator.

Element	Use
WARP / MUTATE tabs	Switch the Prism Core face between live Warp controls and mutation controls.
Main hex display	Visual feedback for the current oscillator DNA, generated shape and audition state.
Mode selector	Chooses the Warp or Mutate algorithm for the current face.
Amount knob	Controls Warp Amount, Mutate Amount, or DNA Flux Amount depending on view.
Audition button	Previews the transformation state without committing it as the final source.
Reforge / Mutate button	Generates a new mutation or variation.
DNA button	Switches the Mutate face into DNA Flux live mutation mode.
AUTO pill	Re-applies the current mutation when relevant controls change. Hidden or inactive while DNA Flux is active.
HQ button	AWC quality switch for wavetable interpolation quality: Linear/Normal or Cubic/High.

Two panels, two jobs

The Synth page Prism Core is compact and performance-oriented. The Expanded Mutate Panel is a larger mutation laboratory for two oscillators. The expanded panel does not host Warp; it focuses on Mutate and DNA Flux.

5. Warp

Warp is the live side of Prism Core. It is designed for immediate oscillator shaping: bend the source, impose sync-like motion, introduce mirror or quantized movement, or push the oscillator into FM/formant-style behavior. Warp is a performance control and is therefore suitable for modulation.

Warp mode	Use it for
Off	No additional Warp shaping.
Bend +/-	Smooth positive or negative waveform bending. Useful for animated harmonic pressure.
Sync	Sync-like tightening and sweep behavior. Good for leads and aggressive bass.
Mirror	Fold or mirror-like symmetry changes. Good for metallic or glassy tone.
FM	Frequency-modulation-style edge and sidebands. Use small amounts first.
Quantize	Stepped or digital re-shaping. Good for hard electronic motion.
Formant Shift	Vocal-like spectral relocation. Useful for vowel and formant gestures.
Soft Sync	A smoother sync family with less hard edge than direct sync-style motion.

Warp is live

Warp Amount is a live modulation destination. Use Macro Bay, Living Matrix, LFOs or envelopes to move it. The mode selector chooses the algorithm and is not itself a modulation destination.

6. Mutate

Mutate is the generative side of Prism Core. Instead of continuously bending the output, it uses the current oscillator material as a blueprint and generates a new wavetable variation. This makes Mutate ideal for sound discovery, Forge continuation, wavetable recombination and fast creation of unique oscillator DNA.



Figure 4. Prism Core on the Mutate face with AUTO available. Mutate works as a generation/rebake system.

Mutate mode	Character
Spectral FM	Spectral sideband generation and complex harmonic motion.
HCM	Harmonic Content Morphing: reshapes the harmonic balance and contour.
Wavefold	Folded harmonic generation and dense edge.
Spectral Resonator	Modal or resonant spectral shaping; a useful starting point for tonal mutation.
Genesis Recomb	Recombines source information into a new related table.
Chaos Core	High-variation generative mutation for unstable or aggressive material.
Spectral Lattice	Structured spectral recombination with lattice-like harmonic organization.
Harmonic Manifold	Complex harmonic topology and smooth high-detail reshaping.



Figure 5. Mutation mode menu. Some algorithms may require the relevant edition or module entitlement.

6.1 Amount and secondary controls

Mutate Amount sets how strongly the generator moves away from the current source. The secondary controls are Density, Decay and Gain. Depending on the algorithm and view, these may appear as DENS, DECAFY, GAIN, or related secondary labels such as TILT and FOCUS.

Control	Range	Meaning
Amount	0.0 - 1.0	Mutation intensity. Higher values usually produce a more distant generated result.
Density	0.5 - 2.0	How dense the modal/spectral structure becomes.
Decay	0.5 - 2.0	How modal or resonant energy decays through the generated result.
Gain	0.5 - 2.0	Output/generation gain conditioning for the mutated result.
Wave / WT position	0.0 - 1.0	Which area of the source wavetable is emphasized in the expanded panel.
Semi / Fine	-48..+48 / -100..+100	Pitch context controls available from the expanded panel.

Mutate is not Mix

Mutate Amount is not a dry/wet mix. It is a generation intensity control. After a mutation is committed, the oscillator plays the resulting table as source material.

7. DNA Flux

DNA Flux is the live mutation layer. It asks AWC to create an alternate generated wavetable for the oscillator, then exposes a live amount control so the patch can blend from the current source toward the Flux layer during performance.

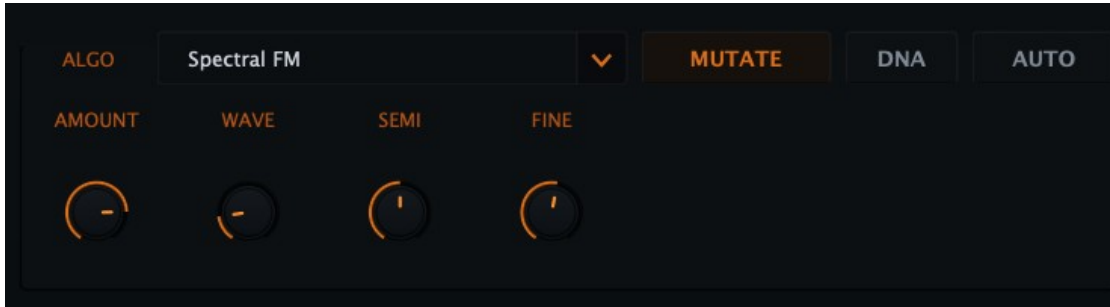


Figure 6. DNA Flux controls in the expanded panel. DNA engages live mutation mode; AUTO is separate from DNA mode.

Behavior	Explanation
DNA toggle	Enables or disables the live DNA Flux layer for the selected oscillator.
DNA Flux Amount	Live blend amount toward the generated Flux layer. This is a modulation destination.
Flux algorithm	Uses the Mutate algorithm list to decide how the Flux layer is generated.
Density / Decay / Gain	Shape the generated Flux layer before it is blended.
Reforge interaction	When DNA Flux is active, disable DNA Flux before using Reforge to replace the underlying wavetable.
Auto interaction	Offline Mutate/AUTO behavior is dormant while DNA Flux is active.

Performance idea

Map Macro 1 to DNA Flux Amount, then route an LFO or MSEG to the same destination at a smaller depth. The macro becomes a performance control for how much mutation enters the oscillator.

8. Expanded Mutate Panel

The Expanded Mutate Panel is the larger two-oscillator mutation workspace. Users open it by double-clicking the oscillator core, not by double-clicking the small Prism Core panel. It focuses on Mutate and DNA Flux and does not include Warp.



Figure 7. Expanded Mutate Panel. The large view shows both oscillator mutation lanes with Orrery/Atlas displays and mutate controls.

8.1 Lane controls

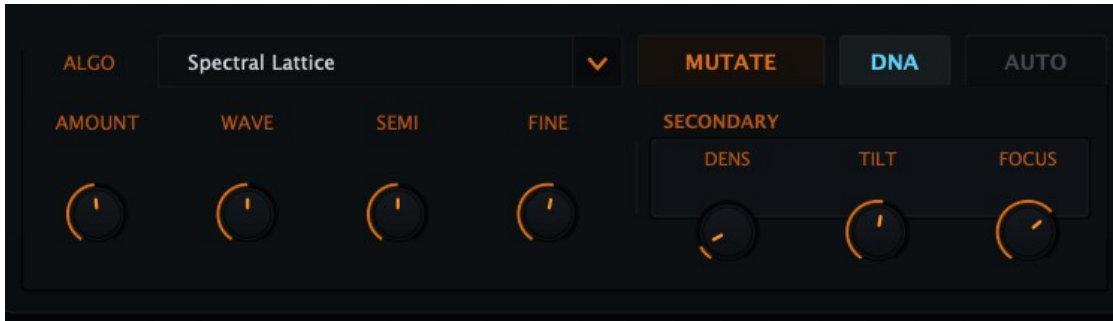


Figure 8. Expanded panel control deck. Each lane exposes algorithm, amount, wave, pitch and secondary mutation controls.

Control	Meaning
ORRERY / ATLAS	Switches the large oscillator visualization between Orrery and Atlas-style views. Alt-click on ATLAS can toggle the isometric camera when available.
ALGO	Mutate/DNA algorithm selector. Same mutate families as the Prism Core Mutate face.
MUTATE	Applies a new mutation variation to the oscillator.
DNA	Toggles live DNA Flux mode for the oscillator.
AUTO	Re-applies the current mutation when mutation controls change. Disabled while DNA is active.
AMOUNT	Mutation intensity or Flux amount, depending on mode.
WAVE	Wavetable position/source focus for the expanded lane.

SEMI / FINE	Pitch context controls for the selected oscillator lane.
SECONDARY	Algorithm-specific Density, Decay, Gain or related secondary parameters.

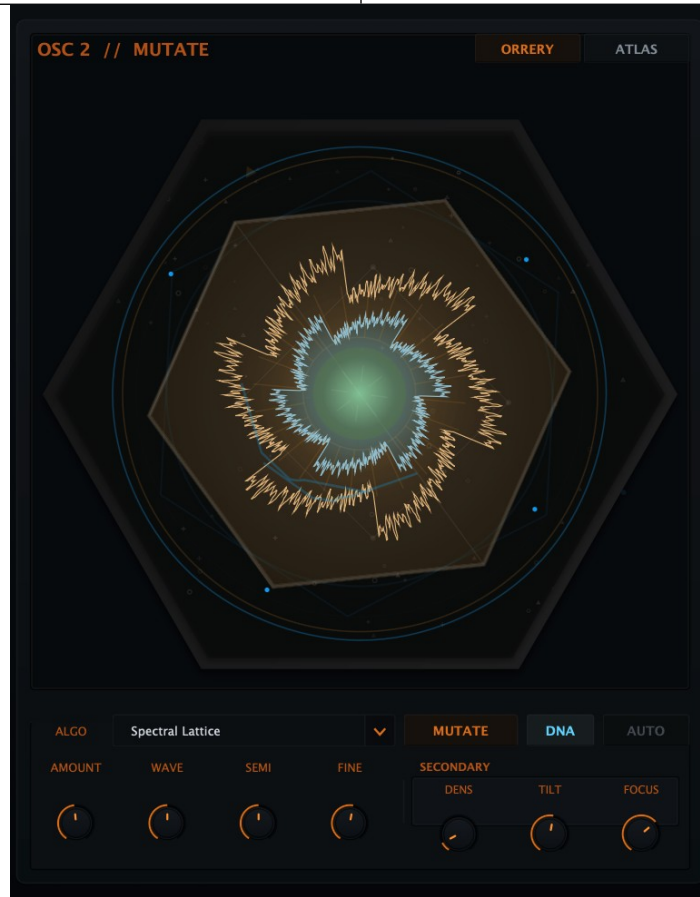


Figure 9. Expanded oscillator lane in Atlas/Orrery-style mutate view.



Figure 10. Expanded panel algorithm menu. The same AWC mutation families are available in the larger workspace.

9. Forge and Wavetable Workflows

Prism Core is strongest when it is used with wavetable-family material. Normal wavetables, Forge-generated wavetables and previously mutated material can all become the source for new AWC transformations.

Source type	Recommended workflow
Factory or user wavetable	Use Warp for live scan movement, then Mutate to create a new related table.
Forge oscillator material	Generate in Forge, load it into the oscillator, then use Mutate or DNA Flux to extend it as playable source material.
Already-mutated wavetable	Use Reforge to create another variation, or DNA Flux to add live movement without replacing the underlying source.
VA or sample context	Some Prism behaviors may be reduced or translated through the oscillator/wavetable path. Use wavetable or Forge sources for the fullest Prism Core workflow.

Best practice

Use Forge when you want to design source DNA. Use Prism Core when you want to transform, mutate or perform that DNA inside the Synth page.

10. Modulation Rules

Prism Core touches both live parameters and generation parameters. The distinction matters. Live parameters are designed for performance modulation. Generation parameters affect what gets generated the next time a mutation or rebake happens.

Parameter / action	Modulatable?	Reason
Warp Amount	Yes	Live performance amount.
DNA Flux Amount	Yes	Live blend into the generated Flux layer.
Mutate Amount	No live destination	Generation/rebake intensity; not a continuous performance mix.
Density / Decay / Gain	No live destination	Generation/rebake controls for Mutate or DNA layer creation.
Warp mode selector	No	Chooses algorithm state.
Mutate algorithm selector	No	Chooses generation algorithm.
DNA toggle	No	Switches a mode/state.
Reforge / Mutate button	No	Triggers generation.
AUTO	No	Latch state for automatic rebake behavior.

Safe modulation example

Modulate Warp Amount or DNA Flux Amount from the Living Matrix. Do not expect the algorithm selectors or Reforge trigger to behave as modulation destinations.

11. Practical Recipes

Warm wavetable drift

16. Load a smooth wavetable.
17. Set Warp to Bend +/- with a small amount.
18. Route a slow LFO or Macro to Warp Amount.
19. Keep Mutate off until the live movement feels right.

Metallic FM edge

20. Choose a bright wavetable.
21. Set Warp to FM.
22. Start with very small positive or negative Warp Amount.
23. Control brightness with the filter and map Macro 1 to Warp Amount.

Generated bass variation

24. Switch to Mutate.
25. Choose Wavefold or Spectral Resonator.
26. Set Amount around the lower-middle range.
27. Press Mutate/Reforge until the low end remains stable.
28. Save the preset once the generated source works in context.

DNA Flux performance macro

29. Enable DNA Flux on the oscillator.
30. Choose Spectral FM, Genesis Recomb or Spectral Lattice.
31. Set DNA Flux Amount low.
32. Map Macro 1 to DNA Flux Amount.
33. Use the macro as a movement or drop control in performance.

Forge continuation

34. Create or load a Forge recipe.
35. Send it to the oscillator.
36. Use Mutate to create sibling variations.
37. Use DNA Flux for live morphing between the source and a generated layer.

Two-oscillator mutation comparison

38. Open the Expanded Mutate Panel.
39. Use OSC 1 and OSC 2 with different algorithms.
40. Switch between Orrery and Atlas views.
41. Use Wave/Semi/Fine to compare musical roles.
42. Blend the oscillators on the Synth page.

12. Troubleshooting

Symptom	Likely reason	What to do
The expanded panel has no Warp controls.	The Expanded Mutate Panel is mutate-only.	Use the Synth-page Prism Core panel for Warp.
MUTATE changes the source instead of moving like a knob.	Mutate is a generation/rebake action.	Use Warp Amount or DNA Flux Amount for live modulation.
AUTO is grey or dormant.	AUTO is only relevant to offline mutation and is dormant while DNA Flux is active.	Disable DNA Flux if you want automatic rebake behavior.
Reforge does not replace the table while DNA is active.	DNA Flux is live-layer mode.	Disable DNA Flux before Reforge if you want to replace the underlying source.
A mode has a lock icon.	Some AWC modes require the relevant edition or module entitlement.	Use an unlocked algorithm or activate the required module.
The sound changes too aggressively.	High Warp/FM/Mutation amounts can create dense spectra quickly.	Reduce Amount, use lower Density/Gain, and filter after the oscillator.
The visualizer changes but the patch feels static.	The generated table may be committed, but no live amount is moving.	Modulate Warp Amount or DNA Flux Amount, or move WT Position.
Mutate Amount does not appear in the Mod Matrix.	It is a generation control, not a live destination.	Use DNA Flux Amount if you need live modulation into mutation.

13. Technical Appendix

AWC operates on oscillator source material as a wavetable-oriented transformation system. It can either process live oscillator output through Warp, or generate/rebake a new wavetable set through Mutate and DNA Flux workflows. The implementation includes guardrails for non-finite samples, DC removal, RMS/peak conditioning and source-aware generation paths so generated material remains usable as oscillator input.

System	Technical summary
Warp path	Uses a selected warp mode and bipolar amount. Warp Amount ranges from -1.0 to +1.0 and is exposed as a live modulation target.
Mutate path	Uses a source wavetable, selected mutator algorithm, Amount and secondary settings to generate a new WavetableSet.
DNA Flux path	Generates a separate Flux WavetableSet in the background. The generated layer is baked at full internal strength; the audible blend is controlled by DNA Flux Amount.
Seed behavior	Mutations use stored or generated seed data so reapplication and variation can be managed without silently breaking presets.
Forge source behavior	When the oscillator is in Forge mode, mutation paths can use the active Forge wavetable material as the source.
Entitlement behavior	Premium Warp and Mutate modes check the relevant capability and show lock/callout behavior when unavailable.

13.1 Preset compatibility

Prism Core stores its visible aspect and DNA Flux view state with the preset so patches can reopen on the correct Warp/Mutate face. Mutated source data and seed/source references are also maintained so patches remain understandable even when the oscillator source changes.

13.2 Safety and level notes

AWC mutation can create very dense or bright spectra. Use the filter, output levels, Aegis Dynamics or other safety processing when exploring high amounts, FM-style warp, Chaos Core or strong resonance/lattice settings.

14. Parameter and Mode Reference

Parameter	Range / choices	Default / note
Warp Mode	Off, Bend +/-, Sync, Mirror, FM, Quantize, Formant Shift, Soft Sync	Default Off.
Warp Amount	-1.0 to +1.0	Default 0.0. Live modulation destination.
Mutate Mode	Spectral FM, HCM, Wavefold, Spectral Resonator, Genesis Recomb, Chaos Core, Spectral Lattice, Harmonic Manifold	Default Wavefold.
Mutate Amount	0.0 to 1.0	Default 0.0. Generation/rebake intensity.
SMF Density	0.5 to 2.0	Default 1.4 for standard mutation, 1.0 for DNA Flux layer.
SMF Decay	0.5 to 2.0	Default 1.3 for standard mutation, 1.0 for DNA Flux layer.
SMF Gain	0.5 to 2.0	Default 1.5 for standard mutation, 1.0 for DNA Flux layer.
DNA Flux Enable	Off / On	Default Off.
DNA Flux Amount	0.0 to 1.0	Default 0.0. Live modulation destination.
AWC Quality	Linear / Cubic	Normal / High interpolation quality.

14.1 Public naming

Name	Use in documentation
Prism Core	Primary public name for the oscillator transformation UI and feature family.
AWC - Advanced Wave Core	Name for the underlying DSP/generative engine.
Expanded Mutate Panel	Large, mutate-only two-oscillator workspace.
Warp	Live transformation.
Mutate	Offline/rebake generation.
DNA Flux	Live generated mutation layer.

Closing workflow

Start simple: Warp for live movement, Mutate for source discovery, DNA Flux for performance evolution. Once those three roles are clear, Prism Core becomes one of the fastest routes to unique oscillator material in Vectra.