

# Total Articulation Control Technology (TACT) Manual

Script v2.2 (Sept 3, 2019) | Impact Soundworks

*Concept: Nabeel Ansari*

*Scripting: Mario Krusej, Nabeel Ansari*

*UI Design: Constructive Stumblings*

## INTRODUCTION

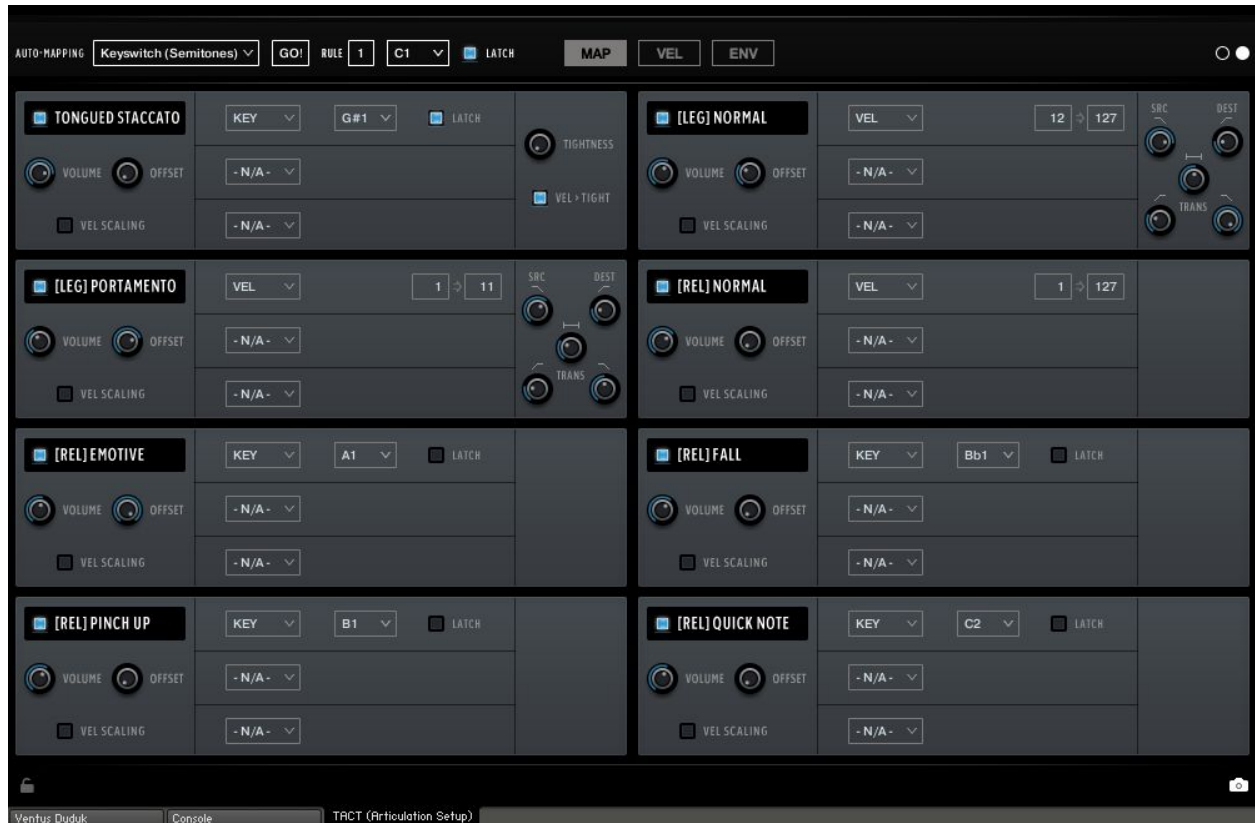
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We created **Total Articulation Control Technology** (TACT) in 2016 to give users of our instruments a unified interface for mapping and customizing articulations, rather than designing a different articulation mapping interface in every library. It also included a powerful **automap** function to quickly create an entire mapping setup without laboriously editing each articulation individually.

**TACT 2** has been completely redesigned for Kontakt 5.6+ to make use of the extra screen real estate available, as well as add some handy new features and controls. Much like v1, you can expect to see this updated version of TACT in all multi-articulation ISW instruments on Kontakt 5.6 or higher.

Let's dive in!

# OVERVIEW



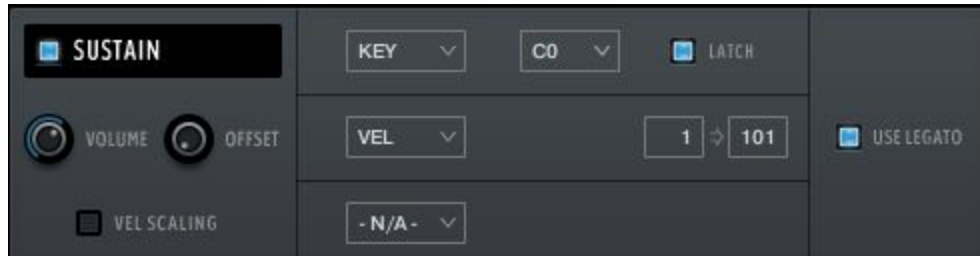
To access TACT, simply click the labeled script tab at the bottom of the instrument.

The interface shows **8 articulations** at a time. For instruments with more than that, the **dots** in the upper right of the UI represent pages, with **white** denoting the page you're currently editing.

The center tabs on the top swap the articulation view between mapping rules (MAP), velocity-related controls (VEL), and amplitude envelopes (ENV). The VEL page contains parameters for articulations that may have velocity-controlled aspects, such as dynamic layers, mute layers, speeds, and more. The **Vel > Volume** control is also found on this second page.

## Articulation Pane (Rules View)

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Rules Tab

### General Parameters

Articulations can be **turned on or off** by clicking the **blue LED** next to the articulation name. When disabled, all samples for that articulation will also be **unloaded from memory**.

**Volume** controls playback volume of the articulation samples.

**Offset** sets a sample playback offset in milliseconds (ms). Increasing Offset will make an articulation feel more *responsive* to keyboard playing, or possibly *snappier*, at the cost of truncating the attack / transient portion a bit.

**Vel Scaling** is a new parameter in TACT 2.0 that is only relevant if the articulation is mapped to a limited velocity range -- for example, 10 to 70. When **Vel Scaling** is enabled, all velocity mapping in the instrument, such as velocity curve, dynamic curve, mute level curve, speed curves, etc., will treat the rule min velocity (10) as velocity 1 and the rule max velocity (70) as 127, with all velocities in-between being rescaled to interpolate the full velocity range.

### Mapping Parameters

The **three rows** within each articulation are “mapping rules”. A rule can be enabled by selecting it from the **dropdown menu**, and disabled by setting it to **- N/A -**.

There are six mapping types available:

**KEY:** Keyswitch. Enables the articulation if the chosen keyswitch note is held.

**LATCH:** When enabled, the chosen keyswitch does not need to be held, only pressed once.

**VEL:** Velocity-based. Enables the articulation if the input velocity is within the selected range.

**CC:** Controlled by MIDI CC. Enables the articulation if the chosen MIDI CC (**# box**) is within the selected range.

**BEND:** Controlled by MIDI pitch bend (technically not a CC). Enables the articulation if the pitch bend controller is within the specified range. Note that pitch bend can be **negative** as “0” is the middle value; the max possible range is -8192 to 8192.

**RANGE:** Controlled by *key range*. Enables the articulation if the input MIDI note is within the specified range. **This is not the same as keyswitching!**

**PEDAL:** Controlled by the sustain pedal (CC64). Enables the articulation if the pedal is down, or if it is up.

Each articulation can have up to three simultaneous rules, but only one of each rule (i.e. you cannot use multiple **VEL** rules for the *same* articulations.) Multiple articulations can share rules as long as they do not conflict.

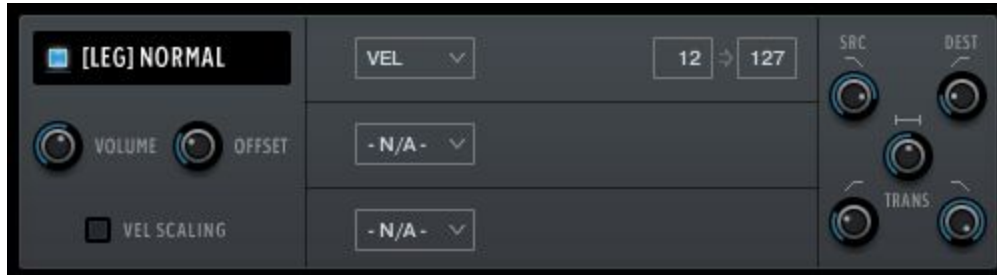
For example, in a guitar instrument, you could assign **KEY** (C0) + **VEL** (60-127) for the Sustain articulation, and **KEY** (C0) + **VEL** (1-59) for Palm Mutes. This means if you press C0, you will enable Sustain OR Palm Mutes, depending on which velocity range you play.

However, if both articulations were mapped to **VEL** (1-127), TACT will highlight them in red, indicating that there are overlapping rules that must be addressed.

**NOTE:** Some articulations follow special rules unique to an individual library. For example, release (REL) articulations *only* trigger when a note is lifted (MIDI note off). Other articulations may trigger **before** another articulation, such as a guitar ‘rake’. Be sure to check the articulation list in the instrument manual for more info.

## Other Controls

*For Legato Articulations*



Legato articulations such as the one pictured above include fine control over the contour of the slide.

**Source Fade-out:** [Top Left] The fade-out time of the **source** note. e.g. If sliding from C4 to G4, this controls the fade-out time of C4.

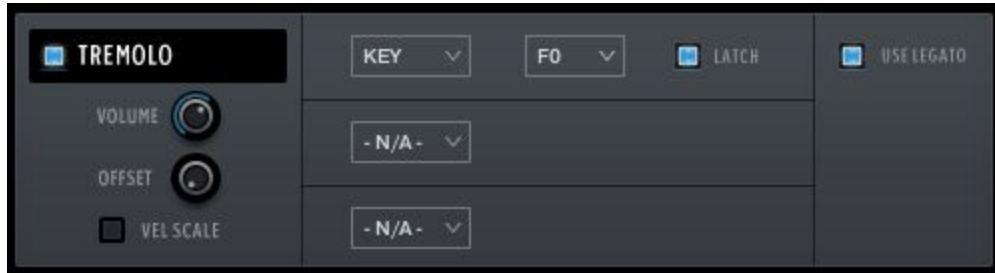
**Destination Fade-in:** [Top Right] The fade-in time of the **destination** note. If sliding from C4 to G4, this controls the fade-in time of G4.

**Transition Length:** [Center] The base 'wait time' allowed for the slide (transition) sample. This speed may be altered by the instrument in other ways.

**Transition Fade-In:** [Lower Left] The fade-in time of the **slide sample**.

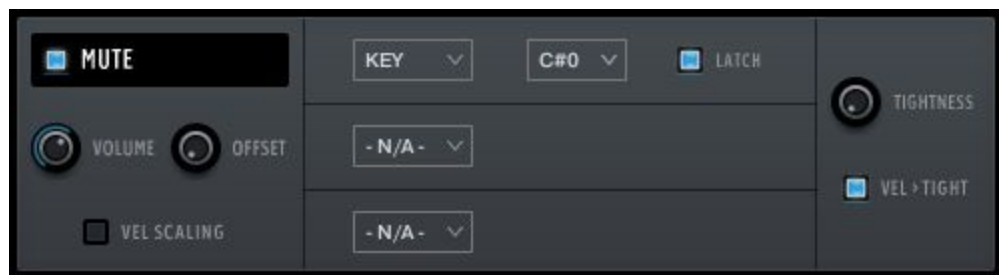
**Transition Fade-Out:** [Lower Right] The fade-out time of the **slide sample**.

*For Legato-enabled Articulations*



**Use Legato** may be used to enable this articulation for a legato transition. The mapping should be configured for both the source articulation and the desired legato articulation to be triggered simultaneously. This can be done many ways, such as assigning Slide as a single rule **VEL** range, **PEDAL** mapping, or **nonlatching KEY**. A common mapping is assigning Portamento articulations to low velocities such as 1-20.

*For Short Articulations*



**Tightness** is used to shorten the ADSR decay of the articulation. Increasing the value results in a shorter, snappier note. This can be useful if the recorded articulations are perceived as too loose or long for the tempo of the music

## Articulation / Velocity Tables View

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*Tables Tab*

**Vel > Volume** controls the intensity of volume response depending on input velocity. Input velocities are mapped through the main instrument's "Velocity Curve" table, if it exists, and then processed through this articulation's control value. If **Vel Scaling** is turned on, the velocity input is rescaled prior to the "Velocity Curve" table.

The table shown in the right pane is **specific** to the viewed articulation, and if multiple tables exist for that articulation, they can be viewed by clicking the dropdown menu below. The table parameters map input velocity to any variety of articulation aspects for maximum workflow advantage.

In the example above, the table offered for the Sustain articulation is the dynamic layer, with three available layers for any input velocity. If **Vel Scaling** is turned on, the velocity input is rescaled prior to this table.

Other instruments may have velocity mappings for things like trill speed (slow vs. fast), trill interval (2nds, 3rds), mute layers, etc.

## Envelope Editor View

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This page offers straightforward control over the amplitude envelope of each articulation - attack / decay / release time, and sustain level.

## Automapping

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Automap works by selecting a list of articulations by clicking their names (activating a **blue highlight**), selecting a scheme, such as "CC Split", configuring any parameters associated with that scheme (such as for CC Split, which CC# for it to work on), setting the rule # to apply the new mapping on, and the "GO" which executes the automap.

Holding **control**, **shift**, or **alt** while selecting an articulation will select or deselect all articulations.



When automap is executed by pressing GO, the previous mappings will be preserved in memory. If the user wishes to undo the change, they can access the preset menu and hit "Undo Automap". Note that this will only work 1 time, as there is only 1 level of history.

When a new mapping is applied to an articulation via Automap, the associated rule is automatically turned on in every selected articulation. If an articulation already contained a rule with the relevant trigger type, that pre-existing rule will be cleared out first.

For all mapping schemes, especially splits, they are done *in order of selection*, not visually ascending or descending order. For instance, if velocity split mapping was engaged on articulations ABCD that are selected in order CDBA, then articulation C will have the lowest velocity range, D will have the next lowest, and so on.

Here is the list of currently implemented schemes:

**Keyswitch (WT)** - Will map selected articulations starting at the specified keyswitch, ascending by whole tones (2 half-steps).

**Keyswitch (ST)** - Will map selected articulations starting at the specified keyswitch, ascending by semi tones (1 half-step).

**Velocity Split** - Will map selected articulations to ascending velocity trigger ranges that are even divisions of 1 to 127. For example, on articulations AB will map A to 1-64 and B to 65-127.

**CC Split** - Will map selected articulations on the specified CC# to ascending ranges that are even divisions of 1 to 127. For example, on articulations AB will map A to 1-64 and B to 65-127.

In addition to the spanning schemes listed above, TACT also features "shared" schemes that apply the same rule to selected articulations:

**Shared Keyswitch** - Will map selected articulations to the specified keyswitch.

**Shared Velocity Range** - Will map selected articulations to the specified velocity range.

**Shared CC Range** - Will map selected articulations to the specified value range on the specified CC#.

**Shared Key Range** - Will map selected articulations to the specified key range.

**Pedal State** - Will map selected articulations to the specified pedal position.

**Clear Rule** - Will "delete" whatever mapping exists in the selected articulations on the chosen rule (set them to [None]).

A combination of spanning schemes and shared schemes is the key to getting the most out of TACT. For example, in a string library, a user could set all short articulations to a "shared keyswitch" rule, and then have their second rule be a "CC Split Range". This way, they can switch to a general "shorts" keyswitch, and use their mod wheel to select the specific one. Another example is when the user has a satisfactory mapping scheme but would like to trigger legato using the sustain pedal; they can quickly use automap on the non-legato articulations to have them only trigger when the pedal is released.

## TROUBLESHOOTING

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If you encounter any problems while using TACT, please visit our [Support page](#) and drop us a line. Be sure to include **what library you're using**, along with what **Kontakt version**.