

Dorico Marching Band Drum Mapping for VDL

This template has been created to enable a quick method of note entry for snare drums, tenor drums, bass drums & cymbals in Dorico using all the required notehead types that the players expect and as much of the VDL playback as possible.

For the quickest note input we recommend a minimum four-octave keyboard as the various notehead types have been mapped across the lower two octaves, and then you can use the upper two octaves to enter notes on the staves.

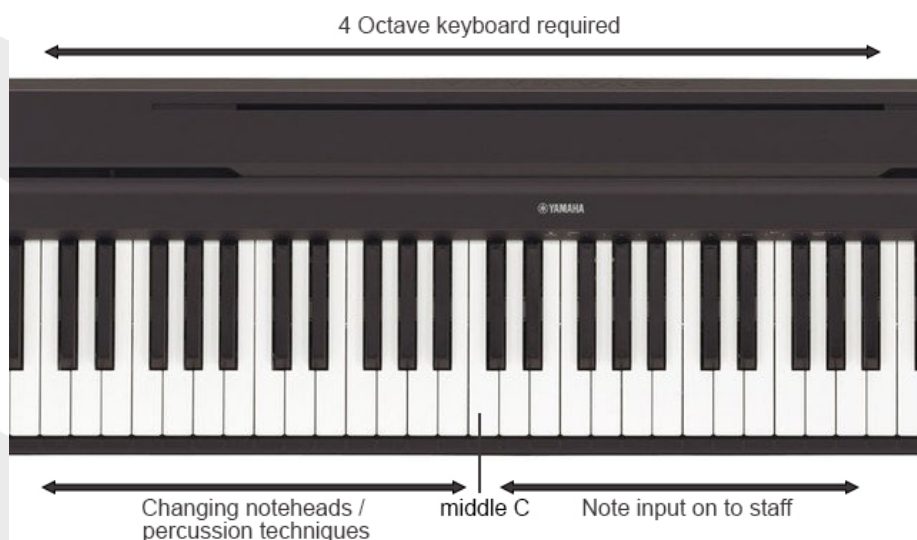


Figure 1. Ideally use a keyboard with at least four octaves.

Setup

You **must** start with the supplied Marching Drumline Dorico file as your template. It includes the mapped noteheads and corresponding percussion maps for each instrument.

The snareline, tenorline, bassline & cymbal instruments are already assigned one to each player.

Make sure you set your Dorico preferences for percussion note input (Edit > Preferences menu on Windows; Dorico > Preferences menu on Mac) as follows.

In the Note Input and Editing section:

- Input onto kit or grid: 'Use staff position'
- Interpret as: 'Treble G clef'
- Input techniques from MIDI key: '36'
- Number of keys for techniques: '24'

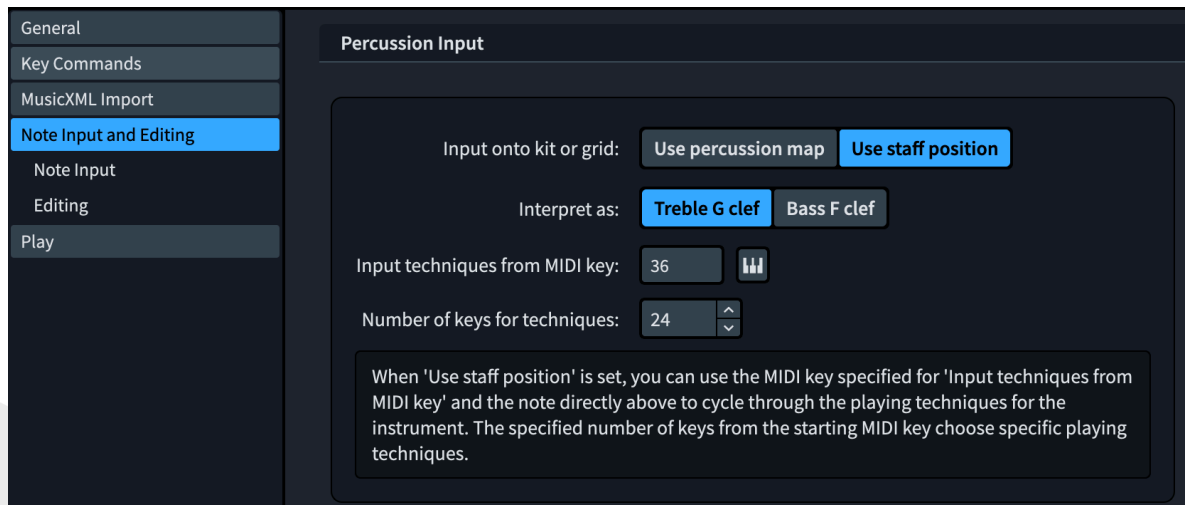


Figure 2 - preferences dialog

This enables you to choose from the different playing techniques (shown as different noteheads) by pressing notes on your MIDI keyboard starting at note 36 (two octaves below middle C).

For playback setup, see the Playback section below.

Note Mapping (snare/tenor/bass)

For the snare, tenor and bass drums all the notehead mappings are consistent.

Generally the white notes are the RH hits and the black notes to the left of those keys are the LH hits. Therefore the default notehead for a RH hit is note E and the LH hit is the key to the left, therefore Eb. In the same way the ornate X rimshot is G and the LH rimshot X is F#. See figure 2 for full details.

Where available the Left and Right hits have been assigned so that while you input the notes you can also define how they will playback if you wish. All the drums have been mapped to the 'manual' versions of the VDL patches – see the playback section of this document for details.

The first two keys (C and C#) are an alternate way to change to the previous or next technique in the list.

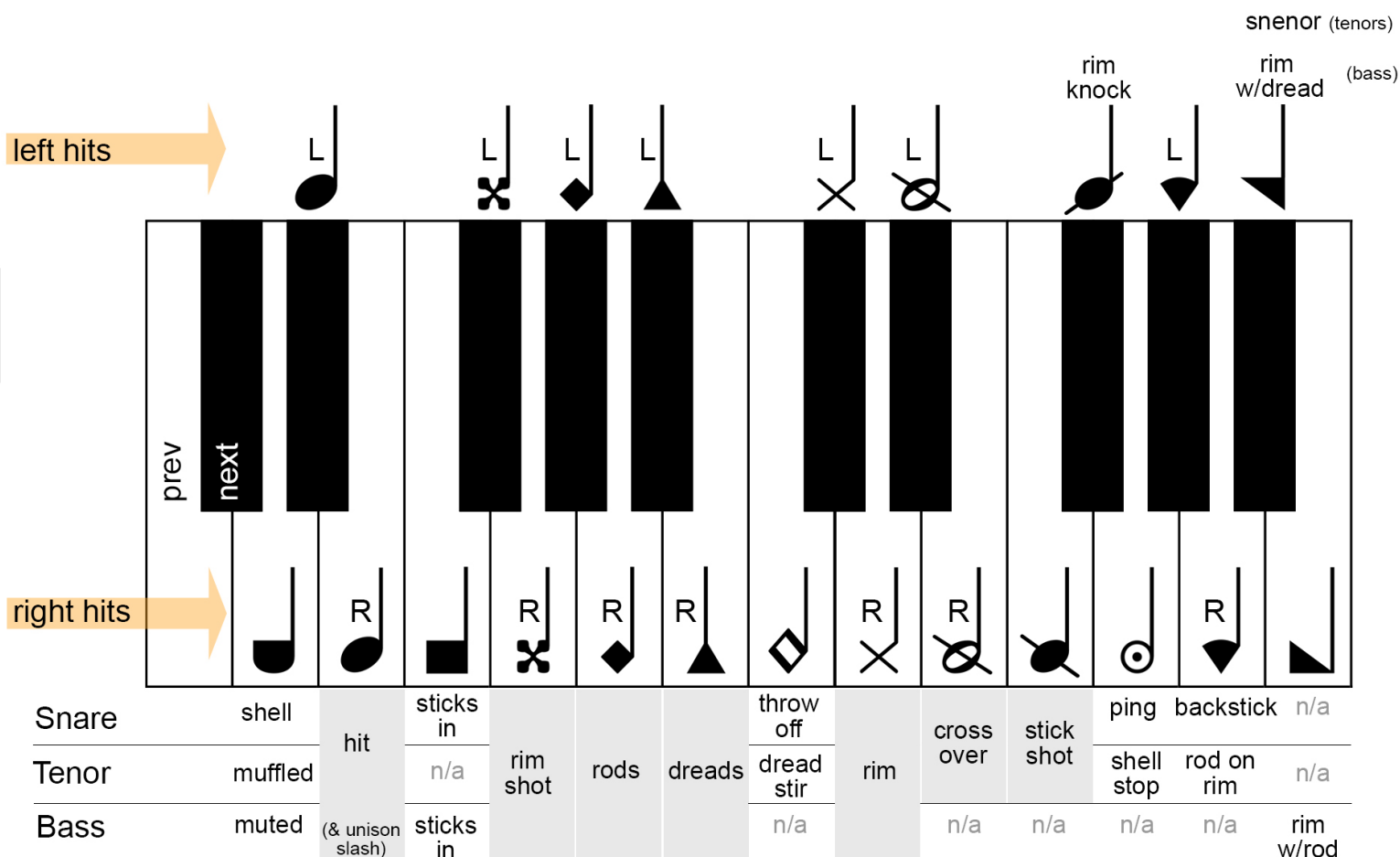


Figure 3 - Noteheads for drums mapped on a MIDI keyboard

Note input example – tenor drums

1. Start the caret using your favourite method (double-click; **Enter** or **Shift + N**) and using the **up** and **down** arrow keys you will see that Dorico shows you the abbreviated name of each drum.
2. Set the caret on a drum position e.g. the F space on the tenors labelled T. Dr. 6.
3. On your MIDI keyboard with your left hand press E for a RH hit.
4. On your MIDI keyboard with your right hand press F above middle C to enter a note for Tenor 1.
5. Continue choosing different note heads with your left hand and entering notes for the 6 tenors drums using notes F, A, C, E, G and A.
6. You can also use the other notes around the drums (D, E, G, B, D and F) to enter e.g. double-stop on shells, stand hit, jam blocks

and cowbell. Note that in cases such as the center B line for the tenors there are two instruments (hand claps and low jam block) and you can use the up or down cursor arrows to toggle between them.

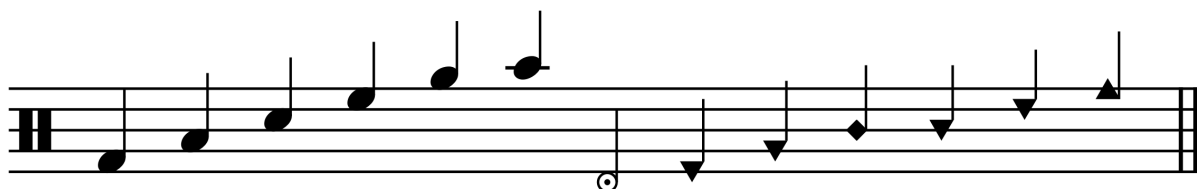


Figure 4 - Notes entered for tenor drums using MIDI pitches.

To change note duration use the numbers on your computers QWERTY keyboard as normal e.g.

4 = 16th note

5 = 8th note

6 = quarter note

7 = half note, etc

Please note: If you enter a note on one of the staff positions that is not a regular drum position the next drum note you enter will use the last drum notehead you entered. You cannot change the drum notehead type while the cursor is on a non-drum staff position. For example if you entered a rimshot and then a cowbell the next drum note you enter will also be a rimshot. If you want to enter a different type of notehead after the cowbell you will need to use the up/down arrow keys to navigate back to any regular drum position, and then you can choose the new notehead type and continue entering notes.

Bass drums

Six bass drums are mapped to staff positions D, F, A, C, E and G with an additional 'Unison' mapped to the center B line. You can choose to use this, or display unisons as a chord.

Some noteheads have been mapped to maintain the consistency with tenors and snares of notehead types across the MIDI keyboard even if they aren't commonly used on bass drums.

For full bass drum mapping, see the Appendix at the end of this document.

Snare drums

Three snare drums are mapped. 'Snare solo' on the center line, 'Snares on' on the C space and 'Snares off' on the A space, plus some additional staff positions for instruments such as cymbals.

For full snare drum mapping, see the Appendix at the end of this document.

Consistent Mapping for Snare, Tenor and Bassline

As you can see above in from figure 2 the noteheads are mapped across a 2 octave range in such a way that the same key will always give you the same notehead whether you are writing for tenor, snare or bassline. The labels also show where there are differences in playing techniques (sounds) across the different drums.

The **n/a** label simply means that while the notehead has been mapped for consistency during note input, those noteheads are not commonly used on that drum.

Note Mapping (Cymbals)

The cymbal mapping has been created to match the drums as closely as possible, e.g. moon, standard, ornate cross and cross noteheads are in the same places, and the others mapped to fit with similar types e.g. flat crash near orchestral crash and the crash chokes an octave above the flat and orchestral crashes etc.

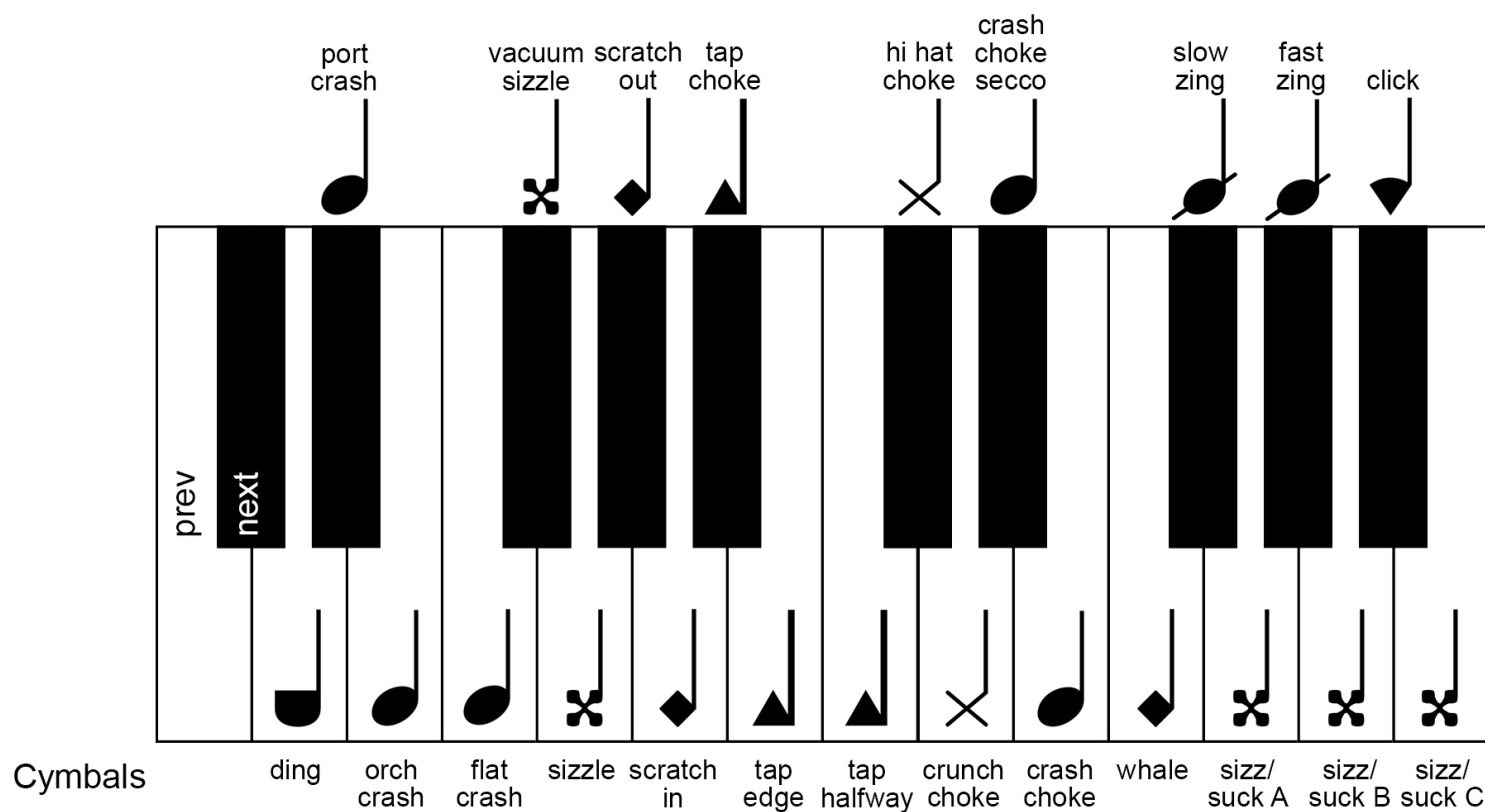


Figure 5. Noteheads for cymbals mapped on a MIDI keyboard

The cymbals have been mapped on to a 5-line staff as 16", 18" and 20" solo and ensemble/unison cymbals as shown in the Edit Percussion Kit dialog (see figure 5).

If you are only writing for one size of cymbal in your ensemble you can edit the staff positions. In Setup mode expand the player card, hover

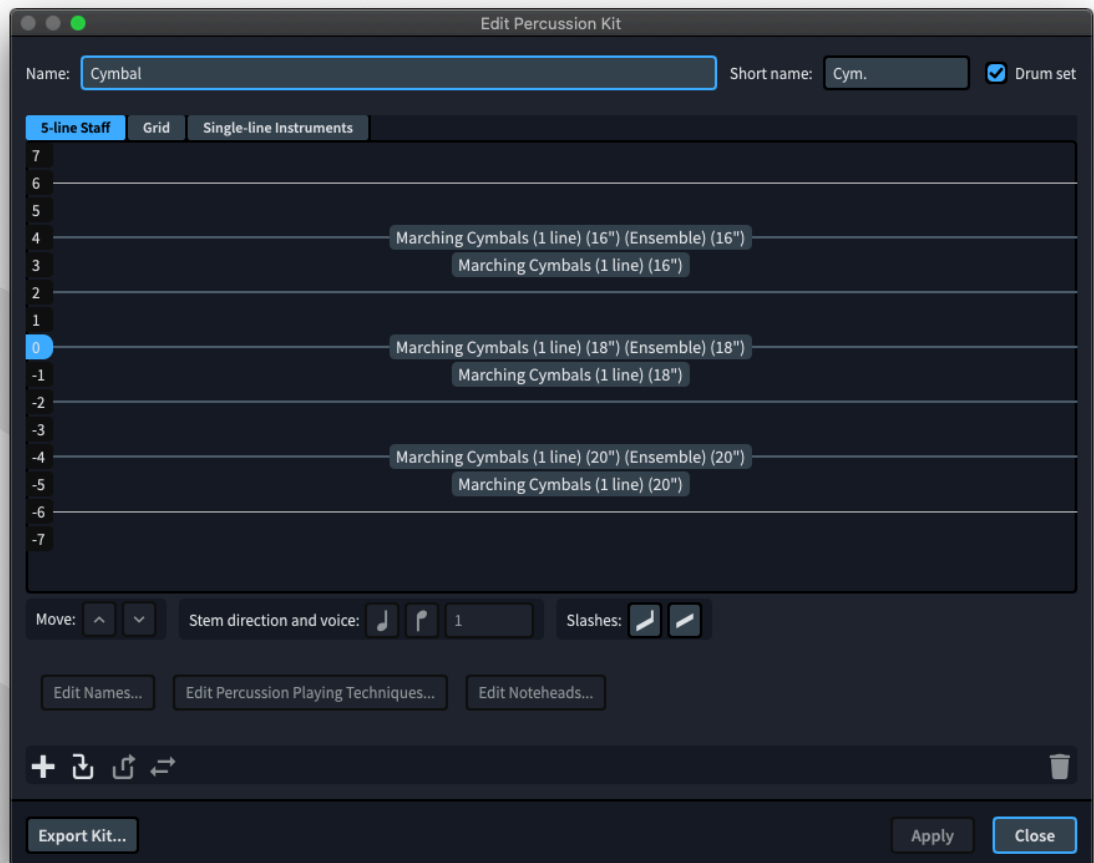


Figure 6. Cymbals mapped on to a 5-line staff.

over the Cymbal player and select Edit Percussion Kit. In the dialog select and drag the players in to the staff positions you need and then Apply and Close the dialog. This will also move any existing notes you have already input on a cymbal staff.

You may also then wish to change the percussion map to only use the size of cymbal you need – see the Playback > MIDI CC Messages - Cymbals section of this document for details on how to change this.

Navigating with a QWERTY keyboard

You can also navigate the staff for each instrument using the QWERTY keyboard on your computer. This is not the fastest method, but useful sometimes for editing or when a MIDI keyboard is not available.

Up/Down cursor arrows will move up and down the staff. (For some staff positions e.g. the centre line on a tenor drum staff there are both hand clap and jam block instruments assigned to the same staff position.)

When the caret is active, **Alt + up/down** arrows will cycle round all the available techniques (if available) for that instrument e.g. Tenor Drum 3.

When a note is selected, **Alt + up/down** arrows will move the selected note to a new staff position, keeping the notehead type where available. If you want to change the notehead of a selected note use **Shift + Alt + up/down**

Letters **A-G** will input 'pitches' on the staff as if it is a treble clef staff.

The letter **Y** (default pitch) will input a note at the current staff position of the caret.

Numbers **1-9** will change note duration as normal.

Please note that insert mode (key command letter **i**) is slightly different on percussion staves to other instruments. Insert mode on percussion staves only affects the instrument/staff position you are editing. However even without Insert mode you can still select one or more notes and use **Alt + left/right** cursor arrows to move them.

Playback

The included template also has the playback mapping defined using Kontakt 6 and VSL.

If Dorico in Play mode you can see this if you click on the Edit 'e' icon in the RH panel for the Kontakt instance.



Figure 7. VDL window with instruments loaded

The instruments are loaded automatically and percussion maps assigned as show in the table below.

Dorico Instrument	Percussion Map	VDL Patch	Slot
Snare	VDL Snare Line Manual/Manual Lite	SnareLine Manual	1
Tenor	VDL TenorLine Manual/Manual Lite	TenorLine Manual	2
Bass	VDL BassLine Manual/Manual Lite	BassLine Manual	3
Cymbals	VDL Cymbal Line all	Cymbal Line All	4

The 'Lite' versions of the VDL patches use fewer layer for its sounds and will therefore load more quickly and place less burden on your computer. You can change to these patches in VDL if you wish.

MIDI CC Messages - Drums

Some drum and cymbal sounds require not only the correct note to be pressed (and in some cases also a keyswitch), but also use the modulation wheel (MIDI control change 1) in a certain position. In Dorico v3.1 this is only possible by adding the MIDI control changes manually in Play mode in the automation lane.

You can do this in the top lane for each drum type, e.g in the 'Tenors' automation lane instead of individually in the lane for each drum size as shown below. Choose the line tool and draw a line to add the change where you need it.

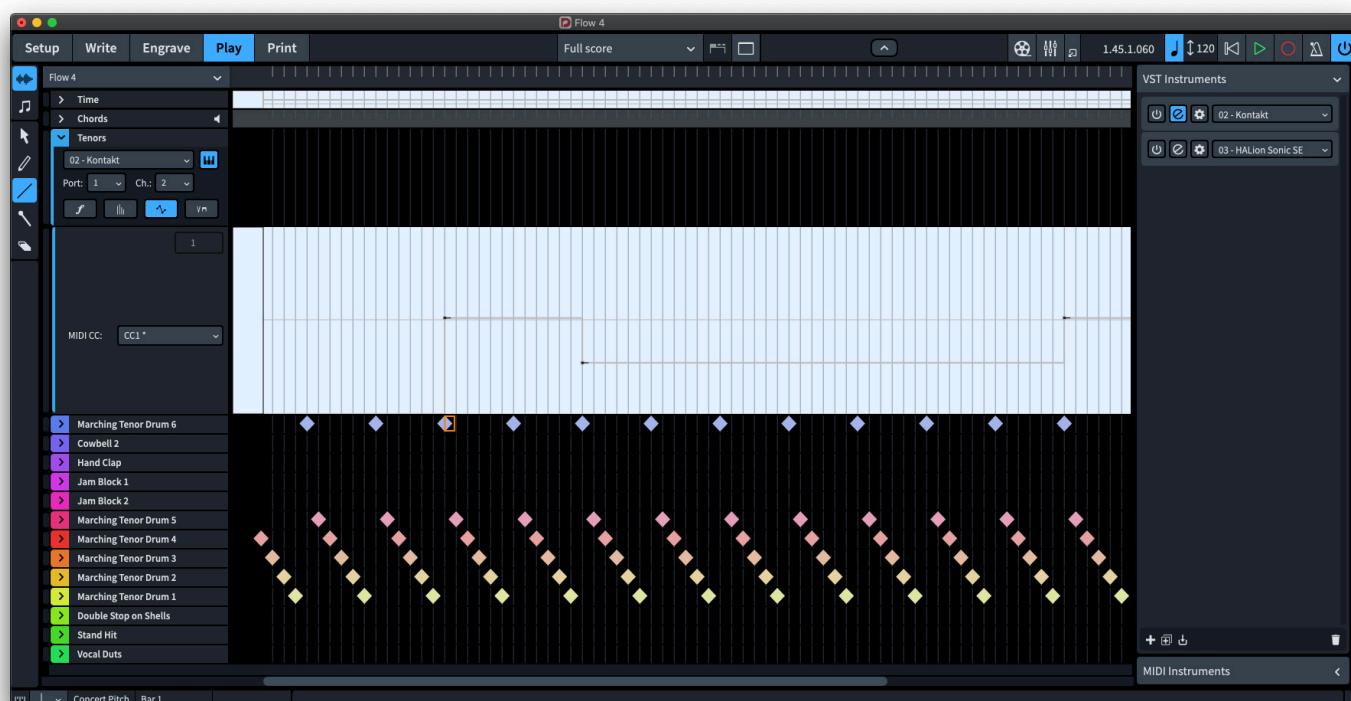


Figure 8. CC1 messages added to the tenors

The table below shows the drum noteheads that will not automatically trigger the correct sounds, and which CC message you would need to add in Play mode.

VDL Patch	Notehead	Sound	Required CC1
Tenorline Manual	Triangle (centre stem)	Dread	32-63
	Diamond	Rod	64-95
	Cross	Rim	96-127
	Slashed (filled)	Stick shots	65-127
Bassline Manual	Triangle (down left)	Rim with rod	65-127
	Diamond (w stem slash)	Roll with rod	65-127
	Ornate cross	Rim shot	33-64
	Triangle (centre stem)	Dread	65-95
	Diamond	Rod	96-127

MIDI CC Messages – Cymbals

For cymbals if you want to use all three sizes you need to set the following CC messages.

VDL Patch	Notehead	Sound	Required CC1
Cymbal Line All	All	20"	0-40
	All	18"	41-80
	All	16"	81-127

Alternatively, if you only want to use one size of cymbal you can change the percussion map.

To do this, go to Play mode and in the RH panel click on the Endpoint Setup cog for the Kontakt instance. For the Cymbal in slot 4 change the Percussion map to the size of cymbal you wish to hear. No CC messages are then required.

Common Questions & Troubleshooting

Why do I not hear the correct sound during note input?

Currently the noteheads don't audition correctly as you input them, but they will playback correctly when you play your piece.

Why can I sometimes not change the technique?

If the caret is on one of the extra instruments e.g. dut or hand clap you won't be able to change the technique using your MIDI keyboard. This is because the noteheads/techniques aren't assigned to those instruments. Entering a note for a drum will enter the last notehead/technique you used. To change the notehead/technique simply use the up/down cursor arrow to move the caret to a drum position and then continue.

Why do some techniques (e.g. rim shot, rim, dreads) not play the correct sound?

Some techniques require mod wheel / CC1 messages to be sent for correct playback. This is not currently possible using a percussion map, so for correct playback see the Playback > MIDI CC Messages section.

Playback of rolls and mallet changes e.g. Puffy

At the moment the playback of rolls (e.g. tremolo slashes or buzz roll / z on stems on stems) will repeat the normal sample and doesn't use key switches. If you have comments on this, please let me know. Similarly changes to e.g. Puffy mallets currently may not yet playback.

How do I edit the notehead used for a particular style?

It is not advisable to edit the notehead styles. Please get in touch with John if you wish to make changes. The reason is that the noteheads have been mapped for consistency across as many drums as possible, and each drum has to be defined individually. If you change or delete a technique for one drum it will not affect any others, therefore giving inconsistent results during note input. If you need to make a change you would also need to make the same change for the other 14 drums.

How do I move a drum to a different staff position?

In Setup mode, expand the player card in the LH panel and use the Edit Percussion Kit dialog. You can simply click and drag a drum to a new staff position. This might be useful for e.g. cymbals if you only want to use one of the available instruments on the center staff line.

How do I get the instruments from this template into my Dorico file?

At the moment we suggest starting with our template and adding any additional instruments to the supplied template file. If you have written

music for other instruments in another Dorico project use File > Import > Flows to import your music into the drumline template.

Can I use the VDL note mapping to enter notes?

If you normally use the VDL note mapping across an 88 key MIDI keyboard to enter notes you can also do this in Dorico for many of the techniques. On Windows PC in Edit > Preferences > Note Input and Editing (Dorico > Preferences > Note Input and Editing on Mac) in the Percussion Input section you can choose 'Use percussion map'.

Can I use drum pads or other midi devices or note input?

You can use other MIDI devices for note input, but it will depend on the mapping of that device e.g. if your MIDI device can send MIDI pitches that map to a treble staff you could use those instead of a MIDI keyboard to enter notes, but you still may want to use a keyboard to change the many available noteheads/techniques.

Changes

2020-03-31

Roll/buzz roll playback now added for z on stem for snare, tenor and bass.

2020-04-16

Adding new players no longer additionally adds them to existing layouts.

Appendices

The following pages have the full list of available noteheads/techniques and staff positions for each instrument.

Snares

Metronome (accent) Shell Dut 1 Dut 2 Sticks in Crash Ride Ride Bell Hi hat R Cowbell Hi hat L w/tip Ribbon crasher

Dress center Harness hit

Snare Solo

LH hit RH hit Rim shot L Rods L Dreads L Dread stir

Shell Sticks in Rim shot R Rods R Dreads R

Rim L Crossover L Stick shot Ping shot Rods on rim L Snenor

Rim R Crossover R Rim knock Rods on rim R

Snares on

LH hit RH hit Rim shot L Rods L Dreads L Dread stir

Shell Sticks in Rim shot R Rods R Dreads R

Rim L Crossover L Stick shot Ping shot Rods on rim L Snenor

Rim R Crossover R Rim knock Rods on rim R

Snares off

LH hit RH hit Rim shot L Rods L Dreads L Dread stir

Shell Sticks in Rim shot R Rods R Dreads R

Rim L Crossover L Stick shot Ping shot Rods on rim L Snenor

Rim R Crossover R Rim knock Rods on rim R

Tenors

Stand hit

Hand clap

High jam block

Double stop on shells

Duts

Low jam block

Cowbell

Muffled / damped

LH hits

RH hits

Sticks in*

Rimshot L

Rimshot R

Rods beater L

Rods beater R

Dreads L

Dreads R

CC1 64-95

CC1 64-95

CC1 32-63

CC1 32-63

Dread stir

Rim L

Rim R

Crossover L

Crossover R

Stick shot CC

Rim knock*

CC1 65-127

Shell stop

Rod on rim L

Rod on rim R

Snenor

* No default mapping, included for notehead mapping consistency
 'CC1' etc - manual messages required in Play mode for correct playback

Basses

The image displays musical notation for various bass drum techniques, organized into seven horizontal staves. Each staff begins with a double bar line and a key signature of one flat (Bb). The notation uses different note heads and stems to represent specific techniques:

- Staff 1:** Muted (quarter notes), LH Hits (quarter notes), RH Hits (quarter notes).
- Staff 2:** Sticks in (quarter notes), Rim shot L (x marks), Rim shot R (x marks).
- Staff 3:** Rods L (quarter notes), Rods R (quarter notes), Dreads L (quarter notes), Dreads R (quarter notes).
- Staff 4:** Rim L (x marks), Rim R (x marks).
- Staff 5:** Rim knock (quarter notes), Rim w/dread (quarter notes), Rim w/rod (quarter notes).
- Staff 6:** Rim w/dread (quarter notes), Rim w/rod (quarter notes).
- Staff 7:** Rim w/rod (quarter notes).

CC1 33-64 CC1 33-64 CC1 96-127 CC1 96-127 CC1 65-95 CC1 65-95 CC1 65-127

* No default mapping, included for notehead mapping consistency
 'CC1' etc - manual messages required in Play mode for correct playback

Cymbals

Ding	Port crash	Orchestral crash	Flat crash	Vacuum sizzle	Sizzle	Scratch out	Scratch in	Tap choke	Tap edge	Tap halfway
------	------------	------------------	------------	---------------	--------	-------------	------------	-----------	----------	-------------

16" solo

Hi hat choke	Crunch choke	Crash choke secco	Crash choke fat	Whale call	Zing slow	Zing fast	Sizzle/suck A	Sizzle/suck B	Sizzle/suck C	Click
--------------	--------------	-------------------	-----------------	------------	-----------	-----------	---------------	---------------	---------------	-------

The ensemble, 18" and 20" cymbals are mapped the same but on the following staff positions.

16" unison/ensemble

18" solo

18" unison/ensemble

20" solo

20" unison/ensemble

If only writing for one size of cymbal in your ensemble, see the Note Mapping section of the documentation. For correct playback of all three sizes see the Playback > MIDI CC Messages - Cymbals section.