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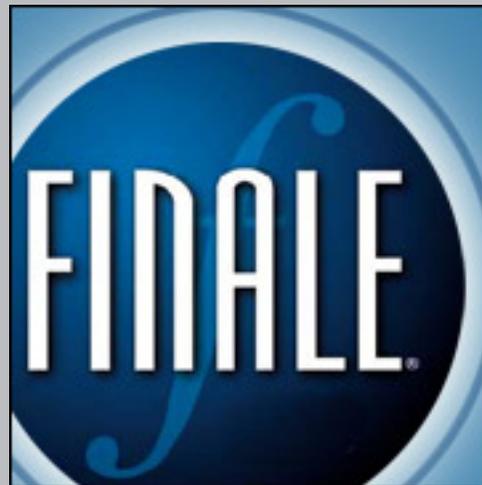
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Writing Music with Finale

Lesson 1: Drum Set Notation in Finale

This lesson is excerpted from an online course. While the navigation links on each page are not active, all of the multimedia interactions are. Have fun!

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Introduction

Welcome to Drum Set Notation in Finale!

In this lesson, we'll see how to use Finale's powerful features for creating drum notation. You'll be able to make drum parts that conform to the Percussive Arts Society (PAS) standard of drum notation, and other styles, too, and learn to set the correct stem directions and noteheads for whatever style of notation you are using. You'll also learn to play back your work with the appropriate sounds.

This lesson was created using Finale 2004 for the Macintosh. The PC version works just the same, though the screen layout will differ slightly. Nearly all the features are the same in Finale 2003, as well, and some go back even farther, to earlier versions.

You will get the most out of this lesson if you already know the basics of using Finale. You should know how to create new documents, add new staves, and enter notation using both Speedy Entry and Simple Entry. Ideally, you should have a MIDI keyboard in your setup, which you can use to enter notes.

To learn the basics of Finale, you can take the *Finale Basics* course and/or get *Finale: An Easy Guide to Music Notation*. To learn how to use Finale in greater depth, take *Finale for Composer and Arrangers*.

By the end of this lesson, you will learn to:

- understand and use the PAS standard for drum set notation
- use Finale's automated drum-set staff creation tools
- enter notation in two voices per staff, with stems going opposite directions
- use custom noteheads to indicate cymbals and drums
- use some of the special notation features used by drummers, such as measure-repeat signs and rhythm notation
- create custom percussion maps relating MIDI notes to noteheads and staff positions

Let's get started!

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The PAS Standard

Finale uses the Percussive Arts Society (PAS) standard for drum set notation. There are three basic rules for this style of notation:

1. Drums (snare, tom-tom, bass drum) are written using regular noteheads. Cymbals (ride, crash, hi-hat) are written using X noteheads.
2. Instruments played with the hands (snare, tom-tom, regular hi-hat) have stems pointing upward. Instruments played with the feet (bass drum, hi-hat foot) have stems pointing downward.
3. Each instrument of the kit is assigned to a specific line or space.

Here is how the most common instruments are notated:

At Berklee, we have found that there are other conventions for drum notation in common use. For example, many drummers prefer these variations from the PAS standard, and in fact, this is what we teach in our arranging classes.

As an arranger, it is important that you be able to use the correct notation for whatever convention is accepted wherever you are working, and for whoever is your client. To keep things simple, we will begin by using Finale's default settings for where the notes are placed on the staff. Then later, we will see how to change Finale's default behavior so that you can customize it to whatever your preference may be.

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Adding a Drum-Set Staff

The easiest way to add a drum-set staff to an existing score is by using the Setup Wizard. You can use this when you create your document or when you add a new staff. Let's try it now, adding a new staff to an existing score, which you can **download here**.

"SWEET"

FROM *THE BERKLEE PRACTICE METHOD: TEACHER'S GUIDE*   MATT MARVUGLIO

This score has staves for melody, guitar, keyboard, and bass. Let's add a drum-set part.

1. Select the Staff tool.
2. Choose Staff-New Staves (with Setup Wizard) to invoke the Wizard.
3. Choose Drums in the left column, then Drum Set, in the middle column, and then click Add. Notice that "Drum Set" is added to the right-hand column. Then click Finish.

Document Setup Wizard – Choose Parts (Page 2 of 4)

Keyboards
Chorus
Woodwinds
Brass
Strings
Plucked Strings
Fretted Instruments
Pitched Percussion
Percussion
Drums
Handbells
Empty Staves

Drum Set
Bongo Drums
Timbales
Conga Drums
Snare Drum
Quad Toms
Quint Toms
Tenor Drum
Tom Toms
Roto Toms
Bass Drum (single line)
Bass Drums (5 line)

Add »

« Remove

Drum Set

Score Order: Orchestral

Cancel   < Back   Finish

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Adding a Drum-Set Staff

Your score now has a drum staff, with the appropriate clef, notation preferences, and drum mappings. It's ready for you to add your music. Add some notation to the new drum staff, using a MIDI keyboard, and Finale will try to choose the appropriate notehead, as we'll see.

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Stems Up and Down

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Drum notation differs from other notation in two primary ways. First, drum set notation is written with two "voices" on a single staff. The top voice (stems up) is for instruments played with the hands, such as hi-hat and snare drum. The bottom voice (stems down) is for instruments played with the feet, such as bass drum and hi-hat foot.

Here's a simple drumbeat. The top voice is a snare drum. The bottom voice is a bass drum.

"Sweet"

FROM *The Berklee Practice Method: Teacher's Guide*   MATT MARVUGLIO

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Stems Up and Down

Finale lets you enter multiple voices via the Layers function. A layer is the computer equivalent of a sheet of tracing paper, but smarter. In Finale, there are four possible layers that you can use to enter your notation. Most users will almost never use more than one or two layers.

In drum notation, we will assign the top voice (hands: snare drum) to layer 1 and the bottom voice (feet: bass drum) to layer 2. By default, Finale is set to enter notation into layer 1, so we'll begin by adding the top voice here now. By default, the stems will point downward, but don't worry about that. Also don't worry if you are getting x-noteheads, as you enter the snare part; we'll fix that next.

Now, we'll enter the bass drum in layer 2, which will display in a different color (but print black). To switch layers, choose View-Select Layer-Layer 2.

As you enter your bass drum part, notice that the stems in layer 1 automatically change direction. See, smarter than tracing paper!

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More Ways to Switch Layers

There are other ways to switch layers, too.

1. Choose the layer number from the lower left-hand corner of your window.
2. In Speedy Entry, hold Shift and move through the different layers by typing the Up Arrow and Down Arrow keys.
3. Use keyboard shortcuts: Option-Command-[1-4] (Mac) or ALT-Shift-[1-4] (PC)

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Noteheads

The second way that drum notation is unique is that it uses special characters for some noteheads. Drums generally have regular noteheads, but cymbals have X noteheads, and other instruments and techniques use other special characters.

Here's the full drumbeat used in "Sweet." In this drumbeat, the top voice is playing the hi-hat (X) and snare drum, and the bottom voice is playing the bass drum.
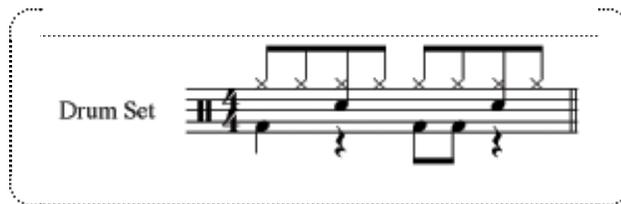
If you enter notes using a MIDI keyboard, Finale will automatically use the correct noteheads, assuming that you set up the staff using the Wizard. Let's enter the hi-hat part now.

1. Choose Speedy Entry.
2. Hold down the MIDI note for closed hi-hat (F#1) and type your rhythm values (4 for eighth notes) for each desired note.

Notice that the notes also map to the right place on the staff for the hi-hat. This is another aspect of "drum mapping." If we were entering this pitch in treble clef, we'd have a million ledger lines, below the staff. But because this is a Wizard-generated drum-set staff, it interprets the MIDI entry correctly.

Finale recognizes that you are entering a hi-hat, and it chooses the appropriate notehead.

This chart shows the relationship between MIDI notes and drum sounds.

NOTE NUMBER	NOTE	DRUM SOUND
27	D#0	High Q
28	E 0	Slap
29	F 0	Scratch Push
30	F#0	Scratch Pull
31	G 0	Sticks
32	G#0	Square Click
33	A 0	Metronome-Click
34	A#0	Metronome Bell
35	B 0	Kick Drum 2
36	C 1	Kick Drum 1
37	C#1	Side Stick
38	D 1	Snare 1
39	D#1	Hand Clap
40	E 1	Snare 2
41	F1	Low Tom 2
42	F#1	Closed Hi-Hat
43	G 1	Low Tom 1
44	G#1	Pedal Hi-Hat
45	A 1	Mid Tom 1
46	A#1	Open Hi-Hat
47	B 1	Mid Tom 1
48	C 2	High Tom 2
49	C#2	Crash 1
50	D 2	High Tom 1
51	D#2	Ride 1
52	E 2	Chinese Symbol
53	F 2	Ride Bell
54	F#2	Tambourine
55	G 2	Splash
56	G#2	Cowbell
57	A 2	Crash 2

NOTE NUMBER	NOTE	DRUM SOUND
58	A#2	Vibra Slap
59	B 2	Ride 2
60	C 3	Hi Bongo
61	C#3	Lo Bongo
62	D 3	Mute Conga
63	D#3	Hi Conga
64	E 3	Lo Conga
65	F 3	Hi Timbale
66	F#3	Lo Timbale
67	G 3	Hi Agogo
68	G#3	Lo Agogo
69	A 3	Cabasa
70	A#3	Maracas
71	B 3	Short Whistle
72	C 4	Long Whistle
73	C#4	Short Guiro
74	D 4	Long Guiro
75	D#4	Claves
76	E 4	Hi Wood Block
77	F 4	Lo Wood Block
78	F#4	Mute Cuica
79	G 4	Open Cuica
80	G#4	Mute Triangle
81	A 4	Open Triangle
82	A#4	Shaker
83	B 4	Jingle Bell
84	C 5	Bell Tree
85	C#5	Castanets
86	D 5	Mute Surdo
87	D#5	Open Surdo

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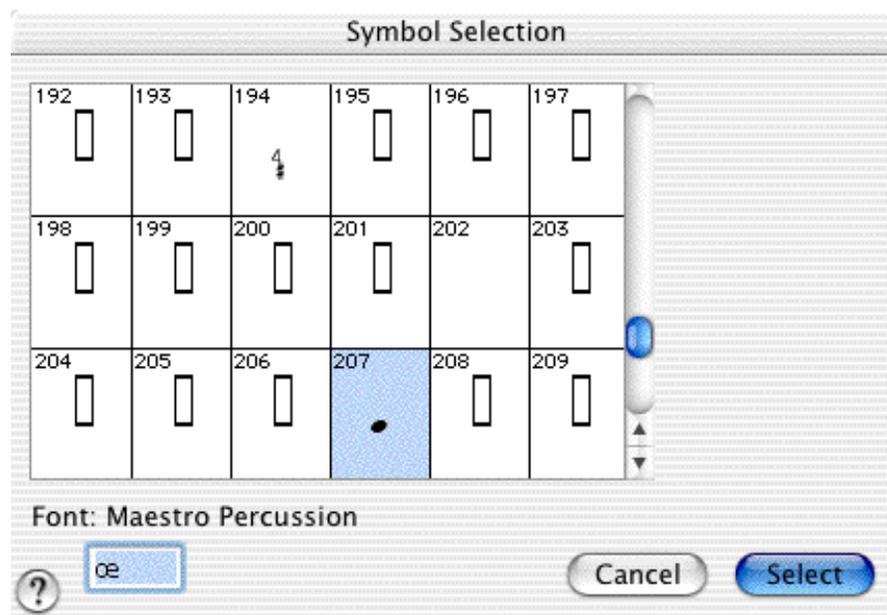## Noteheads

← →

Drum Notation without MIDI

But what if you don't have a MIDI keyboard? You can still use special noteheads, though they may not play back exactly right, unfortunately. You can still generate a score that looks right, though.

Here's how to do it.

1. Use Simple Entry or whatever your preferred notation entry method is, and enter the notes on the proper line or space for that instrument. Notice that Finale makes some educated guesses about what the noteheads should be, using X noteheads. But we really want a solid notehead on the second space, for the snare drum.
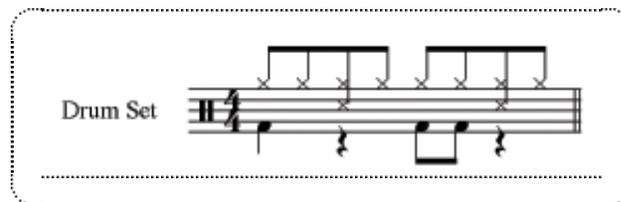
2. Choose the Note Shape tool and click the measure whose noteheads you want to edit.
3. Drag over the two target noteheads to select them, and then double-click either of them. Don't select the hi-hat part! Double-clicking invokes the Notehead Selection window.
4. Choose the solid notehead, numbered 207 below, and click Select.

TIPS

Some Tips

- Avoid scrolling (Mac only). Instead of scrolling through all the shapes in the Notehead Selection window, memorize the special character for the most common noteheads. For example, the symbol for the regular notehead is œ (on Mac, Option-q). Just type "œ" in the field (under the word "Font"), and it will select that shape.
- Change the Font. If you'd like to use a different font for your noteheads (such as Tamburo or Maestro Percussion):
    1. Choose the Staff tool and double-click your percussion staff to invoke the Staff Attributes window.
    2. Under Independent Elements, check Notehead Font, and click the Select button. Choose your new font. While Maestro has some basic notehead symbols for drum notation, Maestro Percussion, Tamburo, or various third-party fonts will give you a lot more possibilities.
- Use Mass Edit. It is sometimes faster to edit a large region of noteheads. You can use the Mass Edit tool to do this. Here's how this works.
    1. First, enter just your snare part in all measures.
    2. Choose the Mass Edit tool, then select Mass Edit-Change-Noteheads. Select the your new notehead, as above.
    3. Enter the rest of your notation.

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## Customizing the Percussion Map

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What you have learned so far may be all you need to know about entering drum notation. However, Finale goes a lot deeper than this, if you need the power. You can customize the relationship between MIDI notes, staff notes, and notehead shapes, in order to suit other drum notation conventions, such as preferences discussed earlier.

The relationships between MIDI notes, staff positions, and noteheads is called *percussion mapping*. Let's create our own percussion map to suit the Berklee arranging department's standard for drum notation.

1. Choose the Staff tool, double-click a drum-set staff, and click *Select* next to Notation Style [Percussion]. This brings up a list of different mapping schemes. You can edit them or create your own. We'll create our own new map.
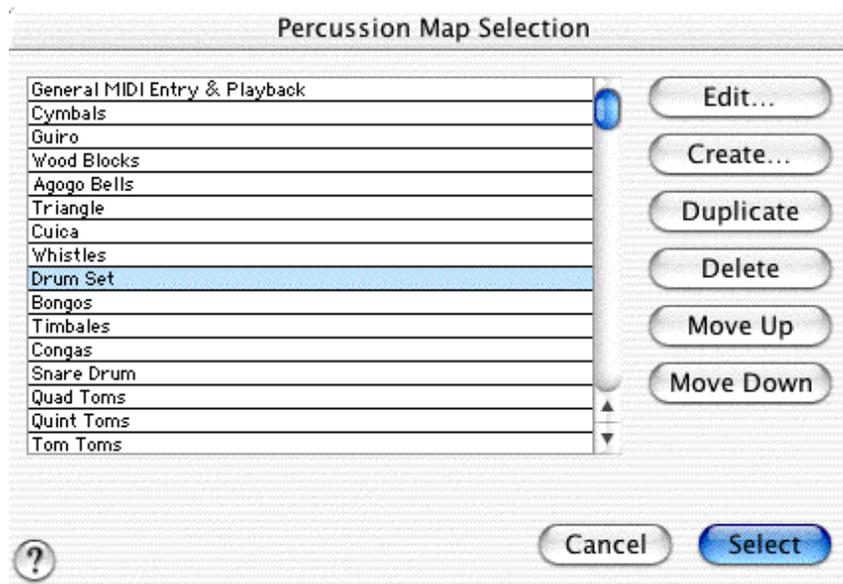
2. Click Create, and name the new percussion map something that makes sense to you. I'll call this one "Arranging Drum Set" because it's a drum set I'm customizing for the Berklee Arranging department. You could also click Duplicate, instead of Create, to start with more of the MakeMusic defaults. In practice, this is my preferred way, and am clicking Create here only because it makes for a clearer graphic.
3. Map your instruments. Let's start with the bass drum. In the left pane, click the note C2, which we will use for the bass drum. Set "note name" to "Bass Drum." In the staff on the right, there is a handle, a closed notehead, and an open notehead. Drag the handle to the bottom space (F, on treble clef). So, we have indicated that we want the pitch C2 to display on the bottom space. It is already set to play a bass drum sound (on C2).
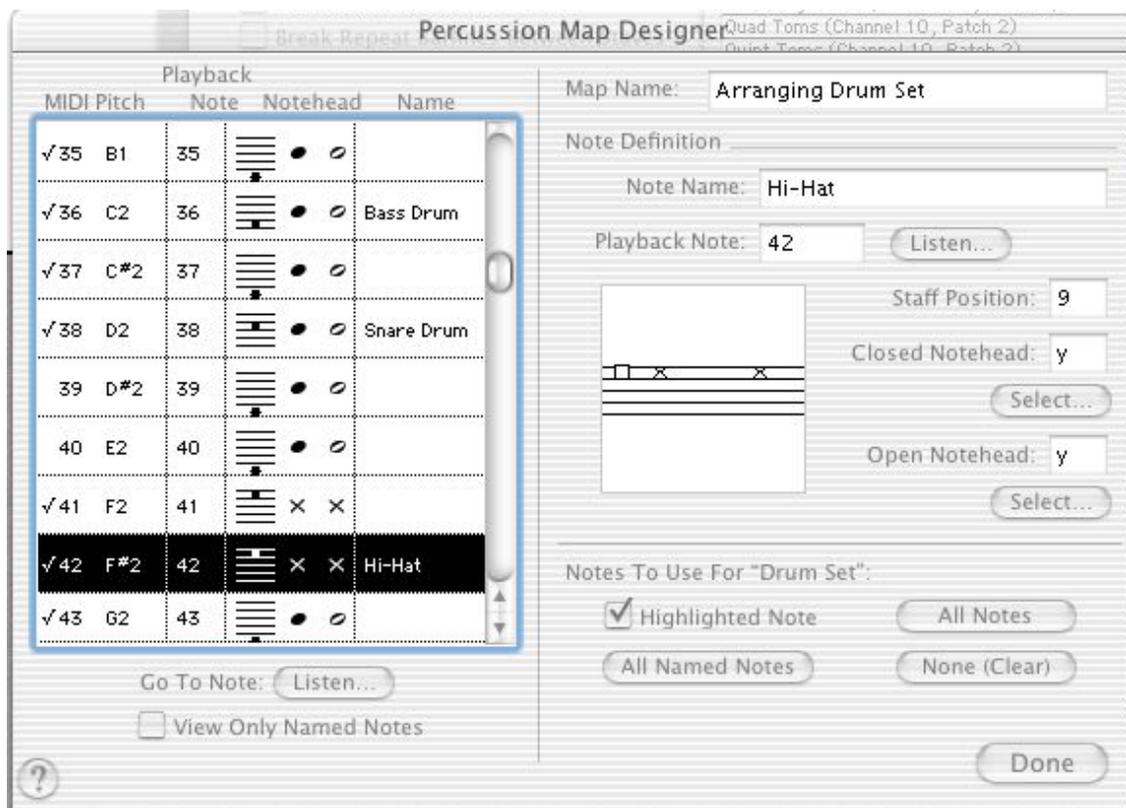
4. Now, let's add a hi-hat. Click the pitch F#2, which is the MIDI note for the hi-hat. Name it "Hi-Hat." To make it display X-noteheads, click each "Select" button, to the right of the Open and Closed fields, and choose the X notehead.

Now, when we enter our notation, these noteheads and staff positions will be assigned to the MIDI notes that we want. The key is the MIDI notes. Everything is tied to them. These are all ways of notating what the MIDI drum note will play back.

You don't have to assign every single possible note. Just assign the ones you'll use. For drum set, I'd usually only assign bass drum, snare, hi-hat (open, closed, foot), ride, crash, and maybe a couple tom-toms. If I decide I need something else, I can always edit my map later on.

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Playback

Let's configure Finale to play back your drum sounds correctly. If you like, you can try playing back your score now, just to see what it does by default: it chooses a piano sound, rather than drums. Interesting, but not what we want.
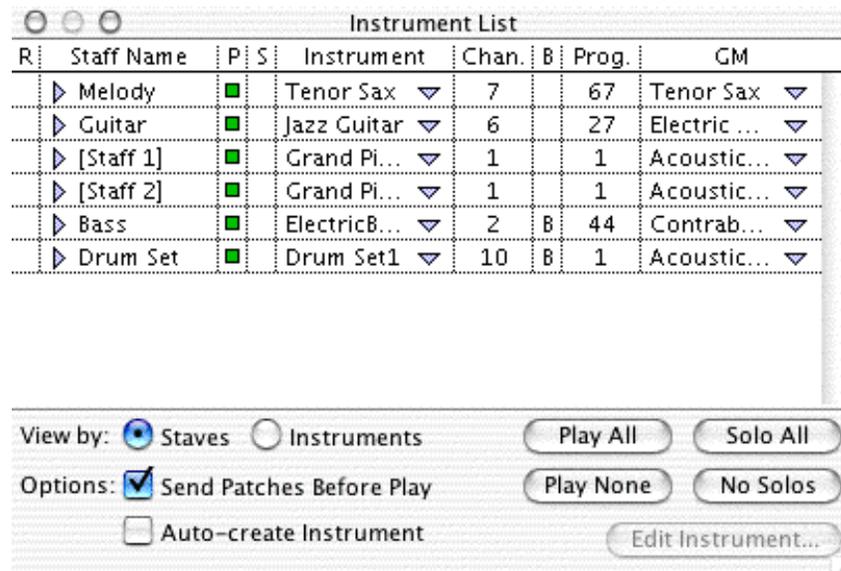
The trick is, in MIDI, programs like Finale transmit different sounds via different MIDI "channels." (Yes, I'm oversimplifying. Take *MIDI Sequencing Basics*, if you want to learn the whole truth about this.)

A MIDI channel is sort of like a channel on your television. There are a couple differences. First, in MIDI, you can choose your own programs. Second, this television can play several channels simultaneously.

To generalize, each channel plays an instrument. The convention is that channel 10 is reserved for percussion. It's like certain cities have a channel reserved for PBS. No commercials! PBS is similar to the other channels, but has some different kinds of programming. Likewise, in MIDI, channel 10 is all drums, all the time. Unless you get fancy, which is a story for another time.

So, we need to set Finale's drum staff to broadcast on channel 10. Here's how.

1. Choose Window-Instrument List. Notice that there is a line here for each of your staves. You can assign all instruments in your score unique playback instruments.

2. In the Drum Set staff, in the Instrument column, choose "New Instrument." This brings up the Instrument Definition Window.

3. Enter "10" in the Channel field.

4. Then choose channel 10 for your MIDI gear, and a drum-set program. These will vary based on your personal MIDI setup. Forget the rest of it, for now; this is enough to get you started. Play it back, and enjoy your drum sounds!

Berkleemusic Online School -- BMW -100: Drum Set Notation in Finale: /web/bonline/course-html/bmw100/L1-5.htm

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Special Notation

Drumbeats often repeat, and drummers (and other rhythm-section musicians) generally prefer to just read a repeating beat once, and then read repeat signs. This frees them to pay more attention to their bandmates than to their score.

Here's how "Sweet" looks, using the repeat symbols.

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Special Notation

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To add these symbols, we use a Finale feature called "Staff Styles." Here's how it works.

1. Create a score with your notated beats in every measure. (Use Mass Edit to clone a measure by dragging your original to the target measures.) This is just like our original score, from topic 2.

2. Choose the Staff tool, and select the measures that you want to use the repeat symbols. We'll choose the repeated measures for the whole rhythm section.
3. Choose Staff-Apply Staff Styles, and choose "One-Bar Repeats."

Drum Set Notation in Finale

Apply Staff Style

Select Style To Apply To Selected Region:

01. Slash Notation (S)
02. Rhythmic Notation (R)
03. Blank Notation: Layer 1 (B)
04. Blank Notation: Layer 4 (K)
05. Blank Notation: All Layers (A)
06. Normal Notation (M)
07. One–Bar Repeat (O)

Define...   Cancel   OK

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Tip

Here's a shortcut. After you choose your measures, just type "o." You can avoid the menus!

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Special Notation

Here's how the score looks. I respaced the music (Mass Edit–Music Spacing-Apply Beat Spacing) to give the melody notes some more room, which is another good reason for using the repeats in this dense rhythm-section part.

"Sweet"
from The Berklee Practice Method: Teacher's Guide — Matt Marvuglio

Staff styles can be used for other types of notation, as well, and these are often of use to drummers. For example, here we choose Rhythm Notation for a few bars, rather than "One-Bar Repeats." This type of notation is used when you want them to just "hit something." Try some of the other staff styles, and see how they work.

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Finale Drum Notation Quiz

Answer the following seven True/False questions based on the content of this lesson.

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Where to Go from Here

Thanks very much for taking this Berklee Shares course, which is in the same style as my Finale courses. I hope that these materials have helped you to write for drum set."

To learn more about writing for drum set, check out the arranging courses here, which very closely model the Berklee arranging courses. In *Arranging I*, you'll learn to include drum-set notation in your scores, and so much more.

To learn more about Finale, check out my own Finale courses on Berkleemusic.com. *Finale Basics* teaches the essential elements of the software. *Finale for Composers and Arrangers* is for people with a strong working knowledge of Finale, but who want to make more efficient use of their time, and explore some of the more advanced functions in greater depth.

And while I have your ear, I'd like to recommend two books to you that I co-authored. *Essential Songwriter* is a concise, finely honed, tiny-but-mighty resource of chord progressions, technical songwriting ideas, and suggestions for the songwriting process. I also wrote the teacher's guide to *The Berklee Practice Method* series, which I served as the series editor. These books teach how to play in a band. Beyond the basics of instrumental technique, they show how to listen to your bandmates, improvise, interpret lead sheets, and many, many other techniques that rarely get taught in more traditional methods. My *Teacher's Guide* shows how to develop a "band" instruction program using the other books in this series.

I've also edited a number of books about playing drums:

Beyond the Backbeat, by Larry Finn
Instant Drum Set, by Ron Savage
The Berklee Practice Method: Drums, by Ron Savage and Casey Scheuerell

And Berklee Media has a number of other drum-related products, which you can review on our Web site.

Again, thanks for reading. I hope you found this lesson useful.

Jonathan Feist
Senior Writer/Editor of Berklee Press
Berklee College of Music

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Finale: An Easy Guide to Music Notation, Second Edition
Designed for both novice and experienced Finale users, the step-by-step instructions will help you master all of Finale's capabilities. This detailed guide is your shortcut to getting Finale working for you.

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