

Mixed and Changing Meters

Text and examples by Norman Weinberg.

IN MUCH OF today's contemporary music, a single time signature does not continue for an entire piece. In some works, the basic beat or underlying rhythm may remain steady while the number of counts per measure changes. In others, everything is up for grabs – the number of counts per bar and the speed of those counts. This is our focus this month.

Pulling all of the information about time signatures together, we can set up a few rules. **Rule One:** The upper number in the time signature tells you how many counts are included in a single measure. **Rule Two:** The bottom number in the time signature tells you which note value equals one of those counts. **Rule Three:** Two eighths always equal a quarter. Now that we've got the rules, let's take a quick look at each one...

The first rule is perhaps the easiest to apply. It simply states that if the upper number in the time signature is a "4," there will be four counts in each measure. To carry this further, the number "3" will signify three counts per bar; "7" means seven counts, and so on.

The second rule should pose no problem if you've been a regular reader of this column. For those who may have missed it, here's a quick review. In the time signature of 4/4, the upper number says there will be four counts in each measure. But, which note is going to equal the value of one count? The lower number answers this question and is in a type of code. The key to the code is: 1 = whole note, 2 = half note, 4 = quarter note, 8 = eighth note, 16 = sixteenth note, 32 = thirty-second note, etc. So, in 4/4, there will be the value of four quarter notes in each measure. In the time signature of 7/8, there will be the value of seven eighth notes in each measure. The meter of 11/16 will have eleven six-

teenth notes per bar, and so forth.

The last rule is the one that makes it all happen when playing music with mixed and changing meters. It is stated very simply, but has far reaching effects. If two eighths always equal a quarter, then two sixteenths always equal an eighth, two halves always equal a whole, and...well, you get the idea. This rule is applicable under any time signature and under any circumstances. Let's see how to apply these rules to a passage using different meters.

Take a look at **Example 1**. Here you see four measures, each with their own time signature, but all containing sixteenth notes. By looking at the counts below each note, you see that the sixteenths in each measure will be counted differently, even though their speed will remain constant. In the first measure, the sixteenths divide each quarter note count into four parts and use the "1-e-+a" syllables. In the second measure, since the eighth note gets the value of a count, the sixteenths divide the count into only two parts. For the 7/16 measure, the sixteenth note is the value of the count, so each sixteenth is counted as a number. Since the last measure is in 4/32, the thirty-second note is going to receive the value of a single count. Sixteenth notes are twice as long as thirty-seconds, and therefore get the value of two counts each.

I know that you may be thinking that there must be an easier way to perform this example. How about simply playing one measure of sixteenths in 4/4 time (that's the easiest measure), and then follow that with 21 sixteenths in a row? Well, if you're sure that all the sixteenths are being played at the same speed, then this little shortcut will work. But, it might not be the best way to

approach the problem of mixed meters. Take a look at the next example and you'll see why.

Example 2, while keeping the same pattern of time signatures as the first example, contains notes of different rhythmic values. To accurately perform a passage like this, it's critical to keep track of the note values and their relationship to the measure. Some of the trickier aspects of this example are changing from the eighth to the dotted eighth when going from the first measure to the second, and keeping the relationship of the sixteenths to the thirty-seconds in the third measure. As you work this example out, notice that the speed of the eighth notes in the third measure should be the same as the eighths in the first measure. Also, the sixteenths in the last measure move at the same speed as the sixteenths in the third bar. In other words, not only are two eighths always equal to a quarter as the rule states, but an eighth is always equal to any other eighth note.

While it may seem difficult to keep changing the speed of the counts in each measure while keeping the relationships of the notes steady, the extra effort is really worth it. Passages like this are hardly sight-readable, and trying to come up with shortcuts like the one used in the first exercise is close to impossible. But, once you work out a few problems like these with the proper counting, others become much easier to perform.

When working with this month's exercise, you might first try counting each measure without paying any attention to the note values inside the measure. In other words, count only the number syllables, making sure that any changes between quarter note, eighth, or sixteenth note counts are accurate. Once you can comfortably count the number syllables, go inside each measure and "dissect" the internal rhythm.

Try not to be frustrated if you have some problems when starting out. This is a pretty advanced exercise, so take it slow and easy by working out a few measures at a time. ®

1e+a 2e+a 3e+a 4e+a 1+2+3+4+5+6+ 1234567 13

The first system of the musical score for 'The Little Boat' consists of four measures. The first measure is in 4/4 time and contains a half note G4, a quarter note A4, a quarter note B4, and a half note C5. The second measure is in 6/8 time and contains a half note G4, a quarter note A4, and a quarter note B4. The third measure is in 7/16 time and contains a half note G4, a quarter note A4, and a quarter note B4. The fourth measure is in 4/32 time and contains a half note G4, a quarter note A4, and a quarter note B4.

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All examples in this column were produced using Finale, courtesy of Coda Software.