

Using the Tuplet Over Barlines Plugin

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When you install the **Tuplet Over Barlines** plugin in Sibelius 7.1.3 or later, 3 files will be placed on your machine:

- **TupletOverBarlines.plg** is the plugin file, and it will be installed in the plugin subfolder specified by the Location field in the plugin installer (File>Plug-ins>Install Plug-ins).
- **Tuplet Over Barlines Data-v6.sib** is a "data score" containing objects used to let the plugin define a special text style. It will be installed in a special "For plug-ins" subfolder in your user Manuscript Papers folder.
- **This document** will be installed into a folder called **Sibelius Plug-ins Documentation**, probably on your **Desktop**.

When the plugin runs, it will try to find the text style **Tuplets Centered Erase**. If it is not defined in the score, the plugin will open **Tuplet Over Barlines Data-v6.sib**, copy some data from it, and close it, thus defining the text style in your score. This should only happen once per score, even if you run the plugin multiple times on a score. You will see a quick flash, as the file is opened, read, and closed.

The tuplets produced by this plugin can be complex things composed of multiple smaller tuplets. Please read the sections of this document, or the Help dialog, for information on how to manipulate these cross-barline tuplets.

Here is what you will usually have to do:

1. Select a single note, chord, or rest (not a bar rest, nor a note or rest inside a tuplet) where you would like the tuplet to begin, then run the plugin. The plugin will use the position and voice of the note for the tuplet, and the duration of the note will provide the default unit size of the tuplet, though that can be changed in the plugin.
2. You will almost always want to use the recommended options to delete generated rests and turn off tuplet brackets and numbers. The generated tuplet will provide a fake tuplet indicator consisting of a bracket line and a piece of text in **Tuplets** text style or a text style of your choice. These tuplet indicators can be placed above or below the current staff, but they cannot be flipped later. The data score will provide a text style (**Tuplets Centered Erase**) based on **Tuplets** style but centered with **Erase Background** turned on.

Tuplet Over Barlines - Version 01.18.00 - by Bob Zawalich and Robin Walker

Create tuplets that cross barlines. Select a note, rest or bar rest for the starting location and voice, and choose a unit size here for the resulting tuplet, which may contain hidden or deleted rests and nested tuplets with adjusted Live Playback data. You can make these visible for debugging. Beaming may require adjusting. There should always be the correct number of notes and correct playback.

Type a tuplet ratio in the form left:right, as 3:2, 2 numbers separated by a colon.

The first time the plugin is run on a score it will open and close a data score to find a text style it needs. Ignore the flashing if you can.

The tuplet will be filled with notes of the same size, and the entire mega-tuplet will be selected when the plugin ends. There are limitations on changing the durations of some tuplet notes. See Help for more details before running this plugin.

The plugin will attempt to delete any music that is in its way, but for best results clear out space for the new tuplet before running the plugin.

<p>Tuplet ratio (left:right)</p> <input type="text" value="3:2"/>	<p><input type="radio"/> Turn off original tuplet bracket and number (recommended)</p> <p><input checked="" type="radio"/> Hide original tuplet bracket and number</p>
<p>Tuplet number format</p> <p><input type="radio"/> Number</p> <p><input type="radio"/> Ratio</p> <p><input checked="" type="radio"/> Ratio + note</p> <p><input type="radio"/> No bracket or number</p>	<p>Process generated rests</p> <p><input type="radio"/> Delete rests and respace (recommended)</p> <p><input checked="" type="radio"/> Hide rests</p> <p>Tuplet unit size (default is first selected note/rest, or a quarter note for a bar rest):</p> <p><input type="text" value="quarter note/crotchet"/></p>
<p><input checked="" type="checkbox"/> Place combined tuplet indicators above staff</p> <p><input type="checkbox"/> Do not show this dialog (this Sibelius session)</p>	
<p><input type="button" value="Help..."/> <input type="button" value="Cancel"/> <input type="button" value="OK"/></p>	

After the plugin is finished, the tuplet will be filled with notes whose duration is the unit, and will all be the same pitch. The full mega-tuplet will be selected, to facilitate deleting or highlighting. You can change the pitch of any notes. You can change the durations of any note EXCEPT the last note in each bar of the mega-tuplet, as explained below.

The plugin works by creating a set of smaller tuplets, including some nested tuplets at the end of bars, and adding a bracket line and some text for the tuplet number surrounding the parts of the "**mega tuplet**". In use, you will want to use the recommended options to turn off the sub-tuplet bracket and numbers, and hide the rests, and the result will look like the first example below. In reality, though, a complex mega-tuplet is built of multiple smaller tuplets and carefully placed rests.

If at some point you want to see the tuplets indicators for the sub-tuplets, you can select the entire mega-tuplet, and turn the tuplet numbers and brackets on in the **Inspector**. To see the deleted rests, it is usually simplest to recreate the mega-tuplet in some empty bars, choosing the option to hide, not delete, rests. Selecting, copying, and pasting a mega-tuplet over itself will also restore the deleted rests, but I don't recommend that, since it is really hard to get rid of them again.

In general, you can change the pitch of any notes in the sub-tuplets, and change the duration of any notes *except* the last note in a bar, or the last note in the mega-tuplet, which is usually within a nested tuplet. If you need to change the duration of these notes it is better to recreate the tuplet using a smaller unit. Changing the duration of the final note in the bar will make the playback (controlled by careful use of **Live Playback Durations** settings) be incorrect, and it is very tricky to correct.

7:5 - quarter note tuplet.

The bracket extends over a deleted rest in the final bar

44

A musical score for measures 44 to 49. The top staff is a treble clef with a key signature of one flat (Bb). The bottom staff is a bass clef. A 7:5 quarter note tuplet bracket is shown over measures 44 to 49. The bracket extends over a deleted rest in the final bar (measure 49). The notes are quarter notes, and the bracket is labeled 7:5.

7:5 - quarter note tuplet. (Same ratio and unit as example above).

All normally deleted rests are shown as hidden. All internal tuplet brackets are shown.

In the other examples, the internal rests are deleted and the internal brackets are turned off for acceptable layout.

The internal rests are used for correct note positioning.

Nested tuplets and Live Playback in the last note in most bars are used to make smaller notes appear to be the same size as the other notes in the tuplet.

50

A musical score for measures 50 to 52. The top staff is a treble clef with a key signature of one flat (Bb). The bottom staff is a bass clef. The score shows nested tuplets. In measure 50, there is a 2:1 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. In measure 51, there is a 16:1 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. In measure 52, there is a 2:1 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. The notes are quarter notes, and the brackets are labeled with their respective ratios.

53

A musical score for measures 53 to 55. The top staff is a treble clef with a key signature of one flat (Bb). The bottom staff is a bass clef. The score shows nested tuplets. In measure 53, there is a 4:3 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. In measure 54, there is a 4:1 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. In measure 55, there is a 4:1 quarter note tuplet bracket over a 7:5 quarter note tuplet bracket. The notes are quarter notes, and the brackets are labeled with their respective ratios.

An example of a 7:5 tuplet first with the details hidden, and then with the details shown.

Different approaches to creating triplets over barlines in Sibelius

Nothing in life is perfect. In particular, making triplets over barlines in Sibelius is far from perfect. This Sibelius plugin **Triplets over Barlines** is offered as a solution with some imperfections of its own, but the authors believe that the imperfections of the plugin are less than those of any other method of doing the job. It is important to understand the limitations of what can be achieved by a plugin in an environment that does not natively support triplets over barlines. Once you are aware of these limitations, you might be surprised how much you can achieve.

Let us compare different methods of creating triplets over barlines in Sibelius.

A. Merging adjacent bars.

This is described in the Sibelius Reference, in section 3.10 **Triplets and other triplets**, subsection **Triplets over barlines**. Essentially, where you wish to write a triplet over a barline, you join the two bars on either side of that barline by using “Join Bars”, to create a long double bar. Then you can enter the triplet as normal. Finally, you need to (a) insert a fake barline where the missing barline should have been, and (b) correct the bar-numbering in the next normal bar.

The Pros and Cons of this method are:

PROS

1. It is easy to do.
2. It plays back correctly.

CONS

1. Both bars (being really one double bar) have to exist within a single system.
2. Bar numbering is disrupted, though it is easy to correct that on the next bar.
Home>Bars>Join Bars can draw barlines and reset bar numbering in addition to merging bars together.
3. Spacing around the fake barline is difficult to get looking right, as the fake barline does not cause the spacing layout that a real barline would have done. The spacing will be bad for all instruments (not just the one with the triplet), including in their part-scores.
4. Any multi-rests will be broken in the part-scores of other instruments. This is a serious drawback, for which there is no work-around.

B. Cleverly splitting the triplet into two parts

For certain triplets, with simple ratios, and simple symmetric placement, a triplet over a barline can be synthesized from two sub-triplets butting up to the barline on each side. Examples are 3:2, or 5:4, symmetrically disposed around a barline. Each sub-triplet is created with half the unit size of the intended full triplet, and the same ratio. Then the notes or rests faked to look like the real thing.

The Pros and Cons of this method are:

PROS

1. The two bars remain their separate selves: bar numbering is not disrupted.
2. The spacing around the barline looks good.
3. Multi-rests in other instruments are not broken.
4. The triplet can be split over a system break.

CONS

1. Some manual fakery might be required with unwanted notes or rests in the right-hand subtuplet.
2. The tuplet ratio figures and bracket might need manual adjustment or fakery.
3. The split tuplet will not play back correctly unless some extra manual fakery is undertaken (sometimes in another voice).
4. The range of tuplet ratios and placements which can easily be split over a barline using this method is limited.

Using the Tuplet over Barlines plugin

This plugin is a development of Method (B) above, in which almost the whole process is automated. All the advantages of Method (B) are retained, and many of the disadvantages of Method (B) are eliminated or mitigated.

This plugin allows you to specify a tuplet starting position, a tuplet ratio and size, and some other tuplet properties. It will create a number of sub-tuplets in multiple bars that when combined function as a single **mega-tuplet**.

The tuplet can spread over any number of barlines, not just one. Any tuplet ratio, any tuplet unit, and any start placement allowed by Sibelius is possible. Playback is correct (providing **Live Playback** is enabled). Visual placement of the notes on the staff is correct, with each note aligned to its correct strike point.

Here are the Pros and Cons of using this plugin:

PROS

1. It is quite easy to use: probably easier and quicker than other methods.
2. All bars retain their separate identities: bar numbering is not disrupted.
3. The spacing around barlines looks good.
4. Multi-rests in other instruments are not broken.
5. The tuplet can be broken over a system break at any barline.
6. Every note is perfectly positioned on its staff, at the correct beat position.
7. Playback is accurate (providing **Live Playback** is enabled).
8. Any tuplet ratio, any tuplet unit duration, any tuplet start placement can be accommodated.
9. Beams are automatically supported across barlines.

CONS

1. **Live Playback** has to be enabled for correct playback duration of the final note of each bar.
2. The tuplet bracket and number for the **mega-tuplet** are a separate line and separate text object. You cannot flip them or change them in the Inspector, and they may need repositioning.
3. There are limitations on what duration editing is allowed to the final note of the tuplet in each bar.

LIMITATIONS OF THE PLUGIN

Please understand the limitations of this plugin before attempting any editing of the tuplets it has created:

1. Except in certain trivial cases, the plugin uses many DELETED rests to achieve its timings and layout. These rests are DELETED after creation, rather than being hidden. The note spacing rules of Sibelius ignore deleted rests, whereas hidden rests occupy horizontal space in the staff. If you copy and paste a tuplet created by this plugin, all the previously deleted rests will be re-created, and you probably do not

want that to happen to your score. It is best not to copy such tuplets, but use the plugin to create new tuplets whenever you need one.

2. You cannot paste a generated mega-tuplet to a different starting location in a bar, because that will very likely cause one or more of the internal sub-tuplets to cross a barline, which they still cannot do. You will need to delete the original mega-tuplet and rerun the plugin to reposition the tuplet.
3. The final tuplet note in each bar is “special”. In most cases, it is physically shorter in duration than it looks. A nested one-note tuplet has been created by the plugin to make this short note APPEAR visually the same as all the others. In addition, a **Live Duration** setting has been applied so that the final note will play to the duration that it has been faked to appear: this feature will work only if **Live Playback** is enabled for the score. A tie FROM the final tuplet note of a bar (e.g. a tie across the barline) might require manual adjustment to the tie length. The specialness of the final note of each bar places some limitations on editing that note, as discussed below.

[Detailed notes for experts: (a) in certain trivial cases of ratios, units, and start placements, the final tuplet note in a bar does not require a nested one-note tuplet to fake it to look the same as the others: in these rare cases the final note is not “special”, and is exempted from the limitations discussed below; (b) in certain awkward cases, the very last note of the mega-tuplet will be “special”, even though it might not be the final note of a bar].

4. You can change the pitch of **any** of the tuplet notes, add or remove articulations, slurs, ties, convert the notes to chords or rests, and so on. With all tuplet notes EXCEPT the special final tuplet note in each bar, you may merge them to a longer-duration note, or split them into shorter-duration notes. You may NOT perform any merges to longer-duration notes, or splits to shorter-duration notes, which affect the special final tuplet note in a bar. However, a **tie to** the final note will work as expected. If you desire a shorter duration tuplet note at the final position of a bar, then delete the whole multi-bar mega-tuplet, and re-create it with that shorter duration as the tuplet unit, so that the plugin can evaluate which side of the barline that new shorter note, and its siblings, should be.
5. The ability to beam the tuplet across barlines or deleted rests uses a feature that is available only to plugins, and not in the Sibelius user interface. If you restore the deleted rests to visibility, then even if you delete them again, you will need to use a plugin such as **Beamed Note Groups** to restore the beams.

Appendix: Why can't I change the duration of the final note in a bar?

The image shows a musical score with five staves. The first four staves are treble clef, and the fifth is a bass clef. The time signature is 4/4. The first staff has a 3:2 ratio bracketed over a group of notes. The second staff has a 3:2 ratio bracketed over a group of notes. The third staff has a 3:2 ratio bracketed over a group of notes. The fourth staff has a 6:4 ratio bracketed over a group of notes. The fifth staff has a 3:2 ratio bracketed over a group of notes. The notes are positioned such that the final note in a bar is in an uncomfortable position, as indicated by the text.

The final note in a bar in a subtuplet within a mega-tuplet can be in an uncomfortable position. Its starting position is determined by the enclosing tuplet, but there is often not enough room for the note to fit completely in the bar before the bar ends. In the first example above, the last note looks like a quarter note, but in fact, if you delete the nested 2:1 tuplet that encloses it, you can see that it has only room to be an 8th note, as shown in the second tuplet on the first staff.

The plugin has positioned the **next** sounding note (the 3rd in the tuplet) in its proper location by inserting an 8th rest before it. By default, that rest is deleted so that note spacing works.

The plugin makes the final note in the first bar *look* like a quarter note by enclosing it in a 2:1 tuplet of 8th notes, and then combining 2-8th notes into a single quarter note, but the playback will still terminate at the bar line, and sound short. The plugin uses **Live Playback** to extend the duration of the final note, so it rings through the rest at the start of the following bar.

What if I want to change the durations of these notes? I could change the first and 3rd notes in the first example to 8th notes, and they would be fine, because **they actually contain real quarter notes**. The result would look like the first and last pair of notes in the 6:4 tuplet in the 3rd staff. If you look carefully, you can see that the first note of each pair in the 6:4 tuplet aligns with the quarter notes in the top staff, and the 8th notes of the second staff. (In the example below, the note stems of the bottom staff have been dragged up to serve as a handy ruler).



But what about the second note in the tuplet, the one that is really an 8th note inside a tuplet. Why can't we just change that quarter note to 2-8th notes, as in the 3rd staff?

If we do that, we see that the first 8th note of the pair is in the correct location, but the second one is not. It should really align with the 4th note in the 6:4 tuplet, and start after the final 16th note in the bottom staff, not before it - it should really be displayed in the second bar. Furthermore, playback will be all wrong, both for normal reasons and also because the Live Playback values are not adjusted when a note is copied. It would be possible to adjust the Live Duration of the first 8th note to be half its original value, and then adjust both the Live Duration and Live Start Position of the second 8th note so the sound is right, but the note is still in the wrong place.

The only way to correctly make the middle quarter note into 2-8th notes is to recreate the 3:2 quarter note tuplet as a 6:4 tuplet of 8th notes. You could then combine the first and second 8th notes into a quarter note, and do the same for the 5th and 6th notes, and the tuplet will split correctly, with the first 8th note at the end of the first bar, and the second note at the start of the second bar.