## How to use the Advanced Copy/Paste tool in SynthFont2

This tool lets you copy, paste, move delete blocks of MIDI events between tracks. You can display this tool by pressing the button Copy/Paste to the right of the toolbar above the tracks on page Plug \& Play:


Alternatively you can use this button on the page Pianoroll, in Copy/Paste, far right:


The window may looks like this, depending on the number of MIDI tracks you have:


Top left is a box (© Show these events) that lists all different kinds of MIDI events found in the file. The events are grouped into Standard MIDI events, Controllers and Meta events. Only event types actually found in the file are shown. Here you can select which events to show in the track's Pianorolls at the middle of the screen (9). By default a copy, move or delete procedure will always act on all events checked in this box. Uncheck All shown events in box Copy/Move (2) if you want to act on notes only.


The image above shows how bar 8 in Track 2 with Pitch wheel events looks if you uncheck Pitch wheel in the Show these events box.

Further to the right you see a box (3) with the some text and two radio buttons for alternative choices. This box is enabled only if the region you want to paste into is not void of events. In this case you can choose between Merge old and new and Delete old (replace with new). In the first case the events will be mixed together, in the second case new events will replace the existing ones ("old").

The region to paste into may be empty, but still you can choose between two paste methods: paste into the empty region and leave everything else untouched, or move events above (later) than this region up a certain amount. This later approach can be compared to INSERT text in a text editor, when pasting text. Box © 4 gives you some options. Check the box Move events up to move all events a desired amount. You may choose to move only the events in the tracks you are pasting into, or all tracks at the same time. Here you can also determine how much events should be moved. Normally this amount would correspond to the length of the region you have defined to copy and paste, but not always, as we shall see later.

Box (5), From tracks, which is so far empty, shows you some statistics related to the region you have selected. It will list all selected tracks and numbers of events. In front oc every track there will be a check box which you can toggle. For example, you may have selected tracks $3-5$ but only want to copy tracks 3 and 5 - uncheck track 2 in this list then. To the right of this list you find four action buttons. Before you Paste anything, move the selection to the position you want to paste into. NOTE: even if you have selected to copy from tracks 3-5 you can still decide you want to paste everything into tracks 4-6 (or anything else suitable).

In the middle of this window you find data for the tracks. Starting from left: check boxes © for muting a track during playback, (7) name of track (and color), © default MIDI Program (you can change it here), and finally the pianorolls (9) - one for each track. The pianoroll for a track does not only show notes (as black horizontal lines) but also the other selected events, as colored vertical lines. Above the tracks there is an area ${ }^{(3)}$ that displays bar numbers and Karaoke lyrics - if available and check box © 11 checked.

The bottom part contains, from left: (10) a box with markers, a button for adding a new marker, a button to start playback from the selected marker, and a button to pause playback. If you want to add a marker at a certain position, do this: click somewhere in bar area (13. A small down arrow will appear. You can move this around before creating the new marker. Press "Add marker" when you are ready.

Tutorial example \#1: Lets start by selecting some events. We will click in the top left corner of bar 8 for track 2 and pull out a region covering one bar (four quarters in this case). As we now have Pitch wheel events hidden we will only mark the two notes in this bar, one short and one long. The image far right shows the same notes in SynthFont2's actual Pianoroll.

Look at the box (5) now. It tells us that we have selected track 02, 2 events, of which 2 are notes. But we know that the bar contains Pitch wheel events also, but because the check box in (1) is unchecked these events are currently not marked for copying, neither drawn. If we check the box in (1) we will immediately see the Pitch wheel events in the selection and also in box (5) as 52 new events.

Next we want to paste a copy of these events into bar 9 of track 3. So we drag this area down and to the right to see this:


If we now uncheck the All shown events in box (2) we see only the notes (and can paste only notes):

## From tracks:

02 (2 events, 2 notes)


From tracks:
02 (54 events, 2 notes)


But we want to paste also Pitch wheel events so we toggle the check box in (2) back on and see 54 events. We still have the option to Cancel this whole procedure or use Delete to delete original the events in track 2, bar 8. But now we will click the Paste button. The result is shown in the image to the right, below.


Tutorial example \#2: Look at bar 4 and 5 in track 2. There is a whole note (selected) in bar 4 directly followed by another whole note of the same key in bar 5 . Beneath these there is a double note extending over both bars. Lastly, there is a whole note in bar 5.


We will start the selection at the top left corner and drag down/right to cover the whole of bar 5 and a few beats of bar 5 . When we release the mouse something will happen.

The selection will automatically be extended to cover the
 whole length of the single double note. This is maybe not what you would expect but it is a natural behavior. This is definitely the selection you want if the area also contains events that have a real time impact on how notes sound during playback - for example Pitch wheel events.

The region you are
pasting events into
already contains other
events ("old"), so please
decide what to do with
old events: (3)
Merge old and new
Delete old (replace
with new)
The region you are pasting events into has
events at a later time (or overlapping).
Decide what you want to do with these:
Move events up ('insert')
All tracks (4)
Amount (Bars / Beats / Ticks)

From tracks:
$\checkmark 02$ (4 events, 4 notes) pasting events into already contains other events ("old"), so please deide what to do with

- Merge old and new

Delete old (replace with new)

Next we will pull the selection into track 3 . As both bars 4 and 5 of track 3 already contains some events, the box (3) becomes enabled (see image above). As the are not only the two alternatives depicted in box (3), also box (4) becomes enabled. If we press Paste now the four notes will be mixed with the other notes already in bars 4 and 5 . The result is shown in the top image to the right. If we select Delete old ... in box (3), the notes (events) in bars 4 and 5 will be deleted and overwritten by the new ones. Notice that even if it looks like note in bar 6 have been deleted as well, this is nit the fact. The "notes" in bar 6 are only
 the tails of notes starting in bar 5 . Hence these tails disappear.

The third option is to move all events later than bar 4 up by a certain amount. In this example we will move events for all three tracks.

Notice that also events in tracks 1 and 2 are moved up 2 bars. Thus the notes originally copied from bar 4 in track 2 are now in bar 6. Thus, be careful with thsi option!

The region you are pasting events into has events at a later time (or overlapping).
Decide what you want to do with these:
$\checkmark$ Move events up ("insert")

## ( All tracks

Amount (Bars / Beats / Ticks)
$2 \quad \stackrel{\Delta}{\sim} 0 \quad 0 \quad \stackrel{\Delta}{\sim}$


Tutorial example \#3: We will start by selecting bar 1 in track 3. Notice how the selection is automatically exeneded to cover the full lengths of all selected notes.

We pull the selection to a later time in track 3.

ts $\quad$\begin{tabular}{l}
The region you are <br>
pasting events into <br>
already contains other <br>
events ("old"), so please <br>
decide what to do with <br>
old events: (3) <br>

- Merge old and new <br>
Delete old (replace <br>
with new)
\end{tabular}

> The region you are pasting events into has events at a later time (or overlapping). Decide what you want to do with these: Move events up ("insert") $\square$ All tracks (4) $\begin{array}{ll}\text { Amount (Bars / Beats / Ticks) } \\ 1\end{array}$


## From tracks:

03 (8 events, 5 notes)


We can see now that the length of the selection is 1 whole bar, 1 whole beat and 24 MIDI ticks. As this area (bars 3 and 4) are empty the selections in box (3) are disabled. But as there are events at a later moment in track 3 we are allowed to move them up. We can do so, but moving them 1:1:24 would probably not be a clever idea:


Note that only events in track 3 were now moved.
A better choice is probably to select to move just one whole bar, so we set Beats and Ticks to 0:

The region you are pasting events into has events at a later time (or overlapping).
Decide what you want to do with these:
$\checkmark$ Move events up ("insert")
All tracks
Amount (Bars / Beats / Ticks)


An additional feature in this tool is the possibility to edit Karaoke lyrics. Activate the display of Karaoke lyrics in ©1. You can now drag the lyrics events along the bar area (13). The selected event is shown in green. Pull it left or right to change position.


