

Using 2/3 keyboards for 3/4 manuals HW sample set organ

How to use your own organ with 2 keyboards for playing a sample set organ with 3 or 4 manuals?
Or your organ with 3 manuals and a sample set with 4 manuals?
Configure the items as written below for that 3 or 4 manuals sample set.

DEFINITIONS

First some definitions of the terms in Hauptwerk and also be used in this document.

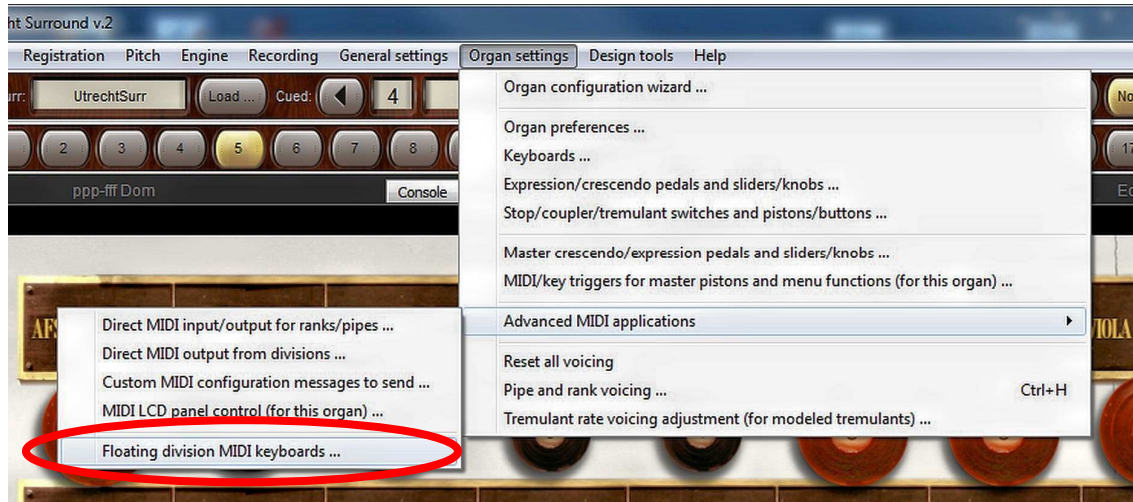
Keyboard	the hardware of your own organ, which generates a MIDI signal, or a MIDI keyboard, which both has a maximum of 61 keys. It's the physical keyboard.
Division	a keyboard and a group of stops, couplers, etc. of an pipe organ.
Floating Division	in pipe organ terminology a group of stops that can be assigned temporarily to any of several keyboards. This gives the organist extra registration flexibility. For instance, the central console of both organs in Kyllburg (Germany) has 2 manuals, but can handle 4 real divisions using routes. Also the Eule organ in the Basilica in Trier (Germany) has a floating division: Solo (4 stops), which can be played on each of the 4 manuals by using one of the 4 routing switches.
Virtual keyboard	Hauptwerk's logical model of the real organ's keyboard. It's usually visible on the screen, but its visibility isn't the defining factor -- it can still exist and function without actually being visible.
Virtual division	the virtual representation in Hauptwerk of a hardware keyboard, stops, couplers and other functionality of a manual of an organ, loaded in Hauptwerk. The relation between the virtual division and the virtual keyboard is 1 : 1 (fixed), which cannot be changed real-time
Floating division MIDI keyboards, in Hauptwerk abbreviated to 'floating division'	the virtual representation in Hauptwerk of a hardware keyboard, stops, couplers and other functionality of a manual of an organ, loaded in Hauptwerk. The relation between the floating division and the virtual keyboard is not a fixed relation but configurable by defining routes. Routes can be changed in real-time so divisions can be swapped during playing. It's is possible that there are more floating divisions than physical keyboards.
Route	a definition for the relation (mapping) between the virtual keyboard and the floating division. With 2 or more different routes you can swap the order in which the floating divisions are assigned to the virtual keyboards the in real-time. In Hauptwerk 4 routes are possible.
(virtual) keyboard - (virtual) manual	a part of a sample set/virtual organ which has 56 (g3) or 61 (c4) keys. It cannot be played directly but only by MIDI signals or by a mouse, clicking on one of the keys. It's the same as 'virtual keyboard' but for clarity and short terms in the description below this term is used. So: keyboard = your own organ // manual = the sample set.

CONFIGURE FLOATING DIVISIONS

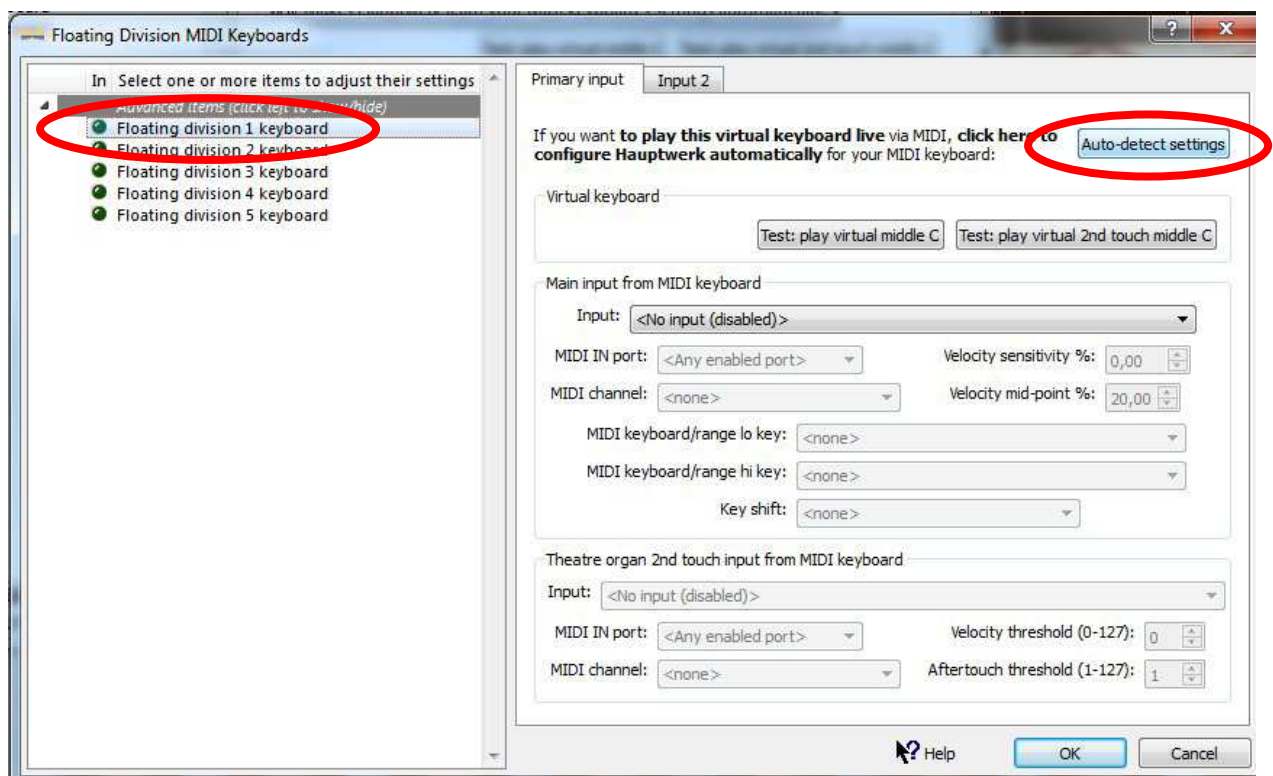
In the description on this and the next pages the configuration of floating divisions is written for a 3 manuals sample set in combination with 2 keyboards of your own organ. If the sample set has 4 manuals and/or your own organ has 3 keyboards the extra items to configure are marked between []. In both cases you can use 56 keys of the sample set manuals because the 4 upper keys will be configured for swapping the floating divisions.

Step 1: couple floating divisions to the keyboards of your organ

1. Go to menu *Organ settings* | *Advanced MIDI applications* | *Floating division MIDI keyboards*. This option opens a separate window



2. Click left in this window on *Floating division 1 keyboard*.



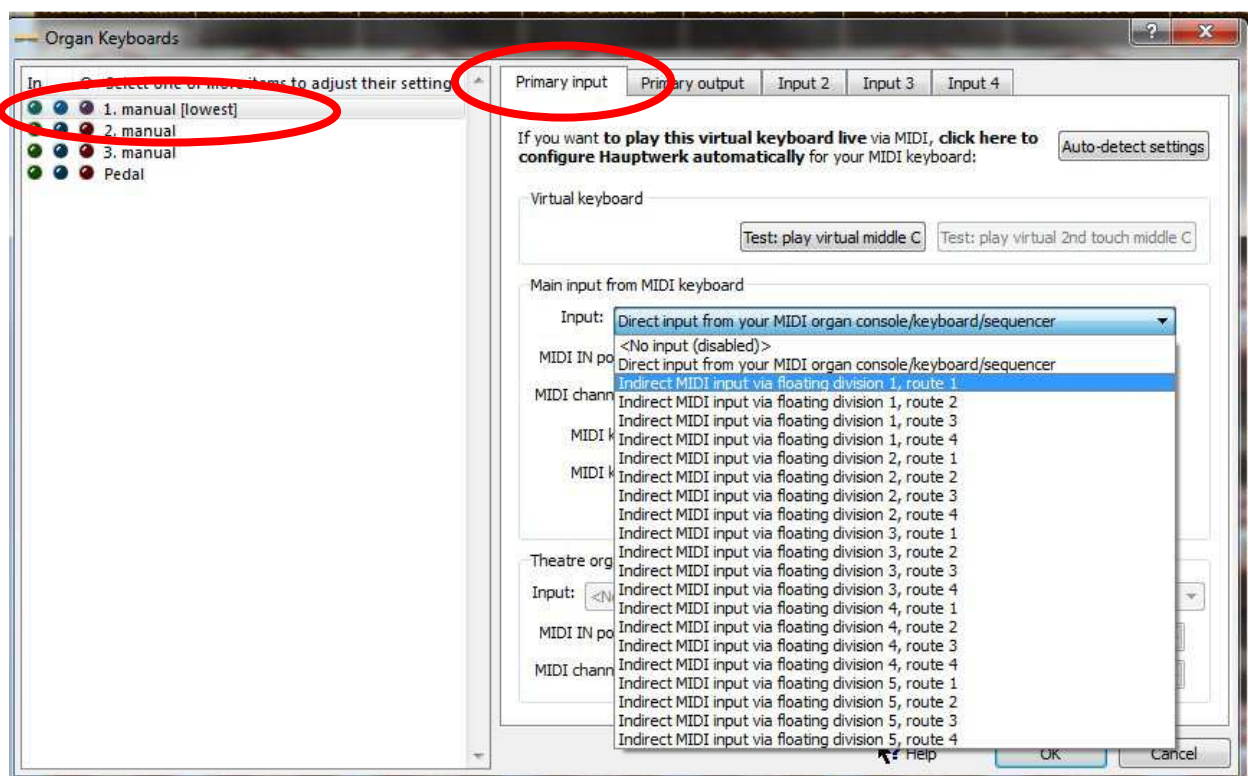
3. After that click in the right pane in the upper corner of the window on *Auto-detect settings*
4. Press the lowest key C and after that g3 of your first (lowest) organ keyboard and click *Done*.
5. If the manual was coupled earlier to one of the keyboards, a message box pops-up. Choose in that box for '*Only this control (Floating division x keyboard). Clear settings for the control(s) listed above*' and click *OK*.

6. Click left in the window on *Floating division 2 keyboard*.
7. After that click in the right pane in the upper corner of the window on *Auto-detect settings*
8. Press the lowest key C and after that g3 of your second (upper) organ keyboard and click *Done*.
9. If the manual was coupled earlier to one of the keyboards, a message box pops-up. Choose in that box for '*Only this control (Floating division x keyboard)*'. Clear settings for the control(s) listed above' and click *OK*.
10. [If your own organ has 3 keyboards and the sample set has 4 manuals, then the third keyboard can be assigned to Floating division 3 in the same method as written in step 6-9.]
11. Click *OK* to close the *Floating division MIDI keyboards* window.

The pedal of your organ can be connected to the virtual organ with the standard *MIDI learn* method (using the right button of your mouse on the pedal and choose *MIDI Auto-detect*).

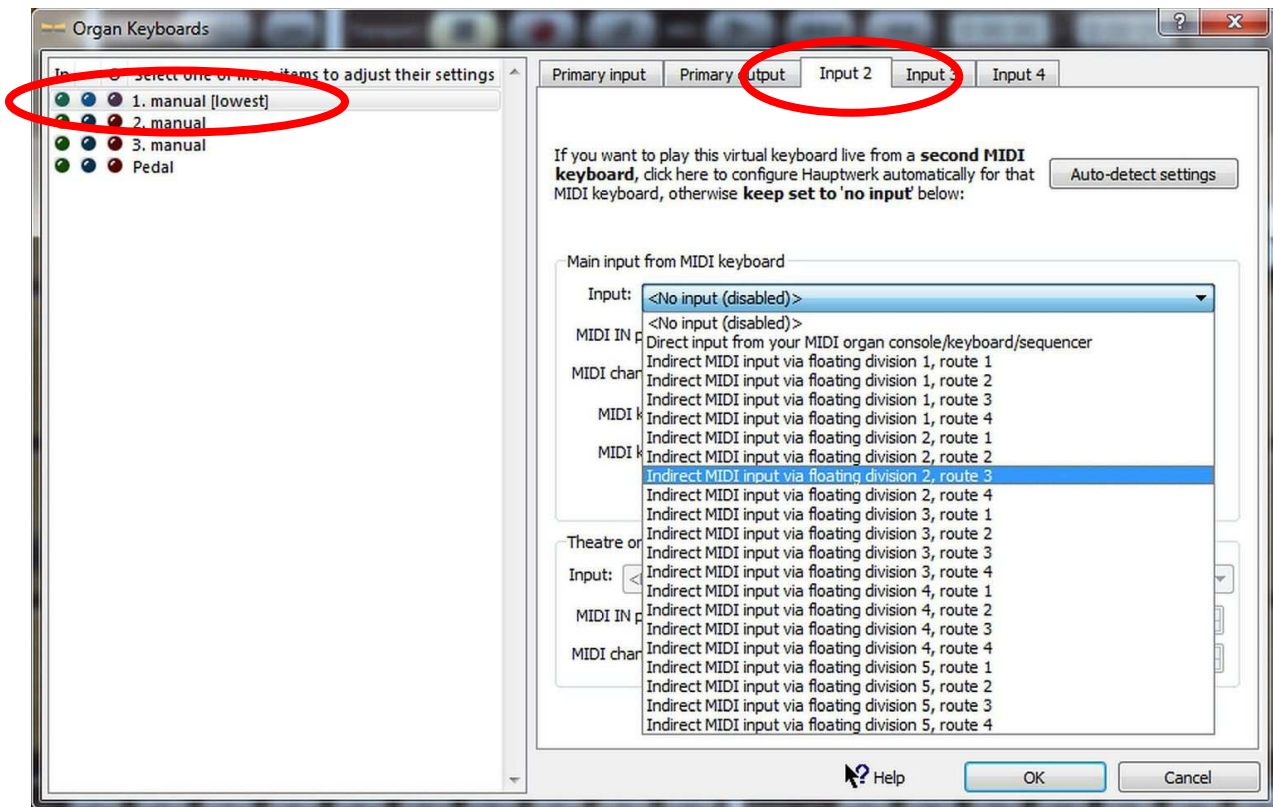
Step 2: Assign the routes to floating divisions

1. Go to menu *Organ settings | keyboards*. This option opens a separate window. Don't click OK in that window before you have done all steps below.
2. Click in the left window pane on *1. Manual (lowest)*. The name "1. Manual" depends on the name, given by the sample set producer. It also could be "Manual 1", "Great", "Grand Orgue", "Rugwerk" or something like that.
3. In the right window pane "Primary input" below "Main input from MIDI keyboard" you see a drop down menu. Choose for *Indirect input from floating division 1, route 1*



4. Click in the left window pane on *2. Manual*
5. In the right window pane in the drop down menu below "Main input from MIDI keyboard" choose for *Indirect input from floating division 1, route 2*
6. Click in the left window pane on *3. Manual*

7. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 1, route 3*
8. [In case of a sample set with 4 manuals: click in the left window pane on *4. Manual* and select in the right window pane in the drop down menu below “Main input from MIDI keyboard” for *Indirect input from floating division 1, route 4*].
9. In the right window pane go to the tab for *Input 2*
10. Click in the left window pane on *1. Manual (lowest)*
11. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 2, route 3* or if the sample set has 4 manuals choose *Indirect input from floating division 2, route 4*



12. Click in the left window pane on *2. Manual*
13. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 2, route 1*
14. Click in the left window pane on *3. Manual*
15. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 2, route 2*
16. [In case of a sample set with 4 manuals: click in the left window pane on *4. Manual* and select in the right window pane in the drop down menu below “Main input from MIDI keyboard” for *Indirect input from floating division 2, route 3*].

[If your own organ has 3 manuals also configure next things:

17. In the right window pane go to the tab for *Input 3*
18. Click in the left window pane on *1. Manual (lowest)*
19. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 3, route 3*
20. Click in the left window pane on *2. Manual*
21. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 3, route 4*
22. Click in the left window pane on *3. Manual*

23. In the right window pane in the drop down menu below “Main input from MIDI keyboard” choose for *Indirect input from floating division 3, route 1*
24. Click in the left window pane on *4. Manual* and select in the right window pane in the drop down menu below “Main input from MIDI keyboard” for *Indirect input from floating division 3, route 2*].
25. Click right below in the window on OK

After loading this organ route 1 is automatically chosen (this is the default in Hauptwerk). That means that

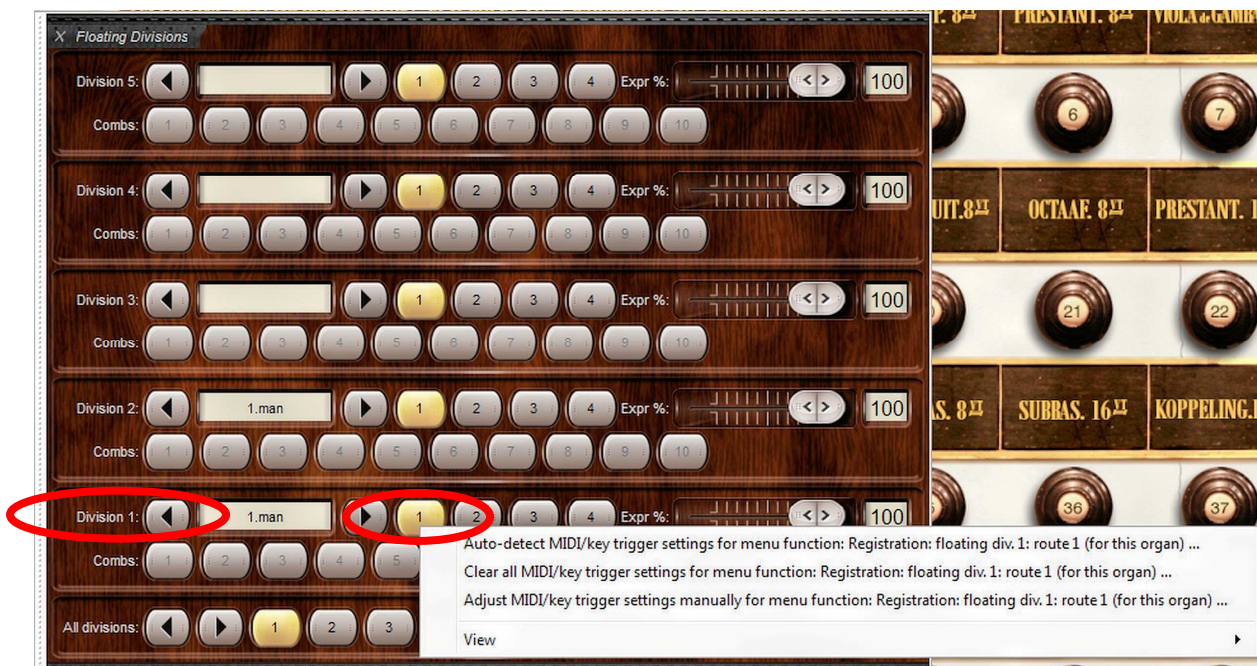
- manual 1 of the sample set can be played on keyboard 1 of your own organ
- manual 2 of the sample set can be played on keyboard 2 of your own organ
- [- manual 3 of the sample set can be played on keyboard 3 of your own organ]

You can change this manually during playing the organ.

For switching a sample set manual to another keyboard of your organ you can use the 3 or 4 highest keys of your organ keyboard (estimate that the keyboard of your organ has 61 keys) for a flexible use of the floating divisions or you can use the buttons of a special mini panel in Hauptwerk: "Floating division route (all simultaneously)" in which the floating divisions has a fixed order. The first option is what we will configure in step 3.

Step 3: Assigning some keyboard keys to the routes

1. Go to menu *View | Large control panels | Floating divisions*. The control panel for 'Floating divisions' opens.
2. Right of the text "division 1" (on the same row), click with your right mouse button on button *1*



3. Choose *Auto-detect MIDI/key trigger settings...* and press on your lowest organ keyboard the highest A (a3). If this key is already used for an other function in Hauptwerk, a pop-up window is generated. Choose the option '*Only this control*'.
4. Click *Done*.

5. Repeat the same for "division 1", button 2, and press at *auto-detect* on your lowest organ keyboard the highest A# (a#3).
6. Repeat the same for "division 1", button 3, and press at *auto-detect* on your lowest organ keyboard the highest B (b3).
7. [Only if configure this for a 4 manual sample set organ: repeat the same for "division 1", button 4, and press at *auto-detect* on you lowest organ keyboard the highest C (c4)]
8. Repeat the same for "division 2", button 3 [4], and press at *auto-detect* on your upper organ keyboard the highest A (a3).
9. Repeat the same for "division 2", button 1, and press at *auto-detect* your upper organ keyboard the highest A# (a#3).
10. Repeat the same for "division 2", button 2, and press at *auto-detect* your upper organ keyboard the highest B (b3).
11. [Only if configure this for a 4 manual sample set organ: repeat the same for "division 2", button 3, and press at *auto-detect* you upper organ keyboard the highest C (c4)].

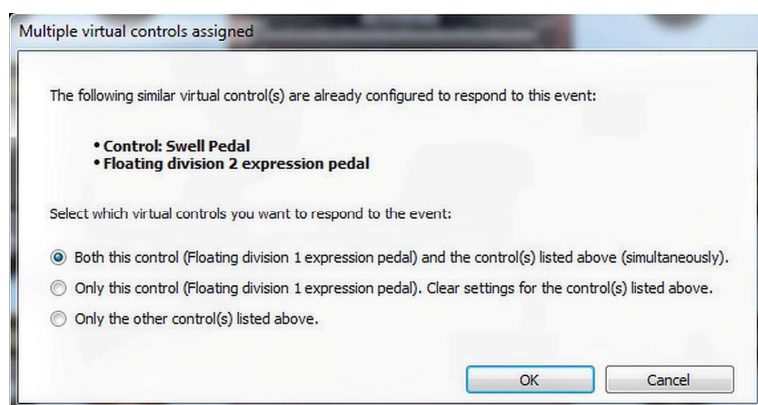
[If your own organ has 3 keyboards and the sample set has 4 manuals, then repeat step 8-11 for 'division 3' in combination with the 4 highest keys of the 3rd keyboard of your own organ.]

Swell pedal configuration

If the sample set organ has a swell, first assign the swell pedal of the virtual organ to the swell pedal of your own organ, using the *MIDI learn* method.

After that you have to do some additional steps in the Floating Divisions window.

1. Assign the swell pedal of your own organ to the *Expr % slider* of *Division 1* using *MIDI learn*. A message is displayed that the swell pedal already is assigned. Choose '*Both this control (...) and the control(s) listed above*' and click *OK*. See picture next page.
2. Do the same for the swell pedal of your organ and the *Expr % slider* of *Division 2*. Also in this case choose for '*Both this control (...) and the control(s) listed above*'.
3. [If your organ has 3 keyboards and the sample set has 4 manuals: do the same for the swell pedal of your organ and the *Expr % slider* of *Division 3*. Also in this case choose for '*Both this control (...) and the control(s) listed above*'.]



FINALY:

- Close the Floating Divisions window
- Save your new Hauptwerk settings using menu *File | Save any unsaved settings*

The configuration is finished.

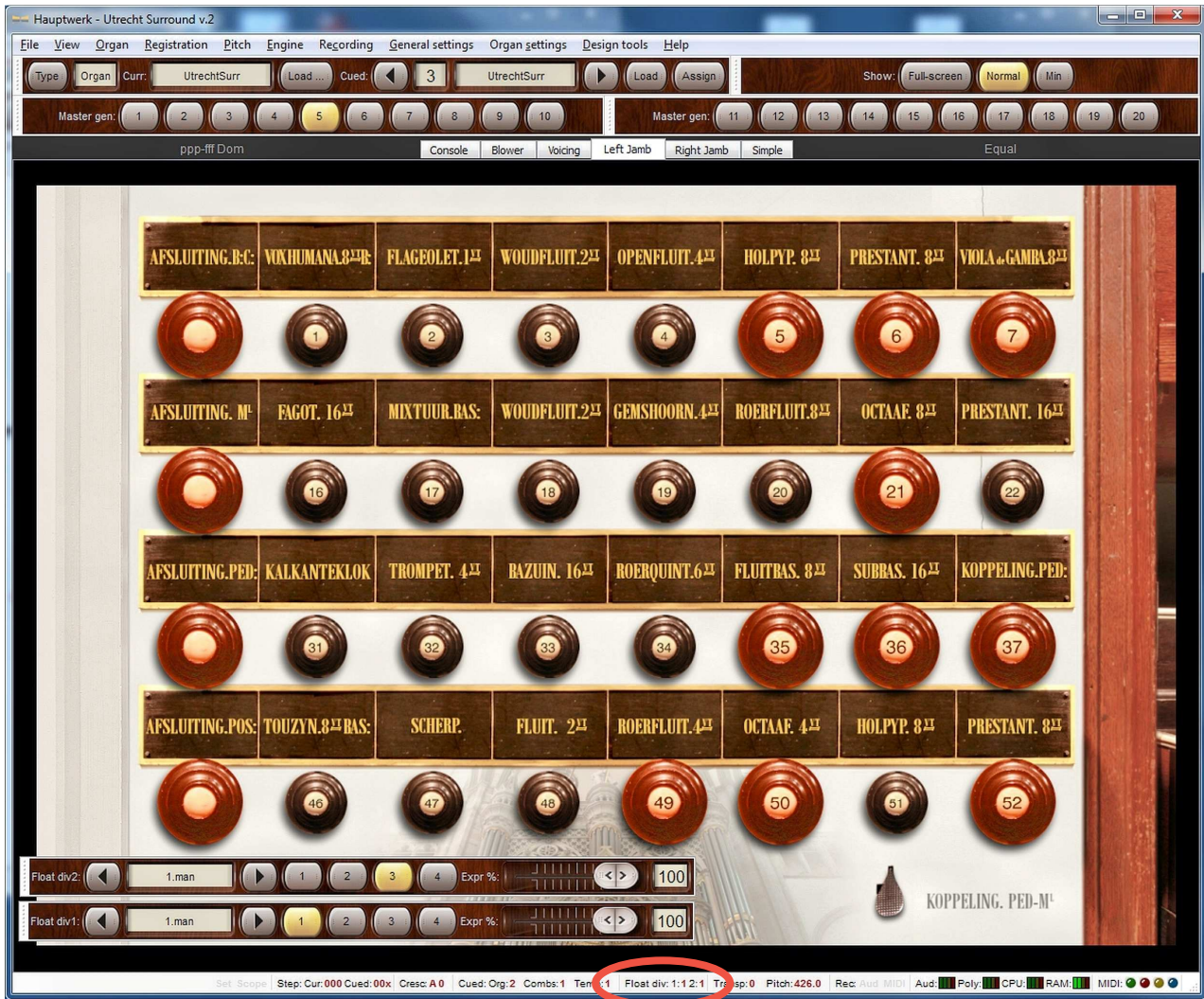
HOW TO USE?

With the configuration written above each manual of the sample set can be played on each keyboard of the own organ. The swapping happens after pressing one of the programmed keys of the keyboard. On your organ keyboard 1 you can press the highest A (a3) for using sample set manual 1 on that keyboard, the a#3 key for manual 2, the b3 for manual 3 [and c4 for manual 4 of a 4 manuals sample set].

This also applies for second keyboard of your organ [and the third keyboard].

You can also use the large Floating divisions panel as showed above or the mini panels “Floating division 1 route and expression” and “Floating division 2 route and expression” [and “Floating division 3 route and expression”].

With 2 mini panels it looks like this:

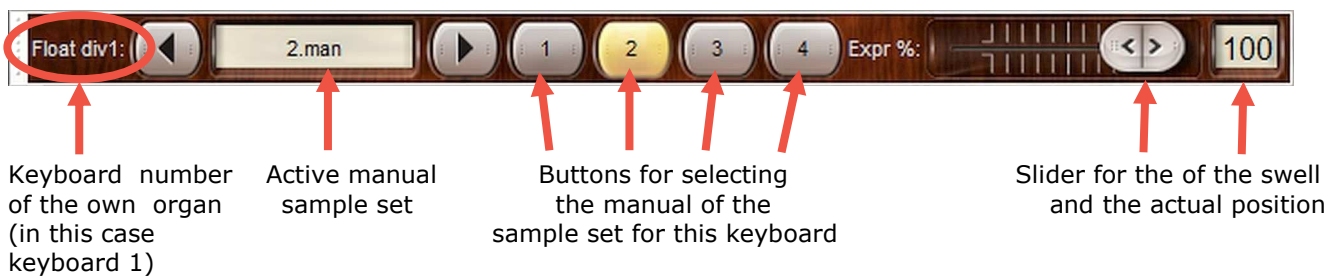


You can place the 2/3 mini panels every where on the screen. If you use the 3 or 4 keys on each of your organ keyboards for switching, these mini panels are not necessary but they can be useful for seeing which manual is active on which keyboard of your organ.

In the status bar of the main Hauptwerk screen you also can see the floating division status: which manual of the sample set is routed to which keyboard of your own organ (only for 2 keyboards).

If the swell division of the sample set is played and you use the swell pedal of your own organ all expression sliders on division 1 and 2 [and 3] in the mini panel and large panel are moving. Also if that floating division is used for another manual than the swell division. This is because the swell pedal is assigned of all sliders.

On the mini panel *Floating division 1 route and expression* and also on the other floating panels relevant information is written: which manual of the sample set is active on which keyboard of your organ.



Below an overview with which button a manual of the sample set can be activated on the keyboard of your own organ.

	Manual 1 sample set	Manual 2	Manual 3	[Manual 4]
Keyboard 3 own organ	Button 2 [3]	Button 3 [4]	Button 1	[Button 2]
Keyboard 2 own organ	Button 3 [4]	Button 1	Button 2	[Button 3]
Keyboard 1 own organ	Button 1	Button 2	Button 3	[Button 4]

Now you will see some possibilities.

Manual 1 of the sample set (button 1) is on your own organ keyboard 1 (Float div. 1) and manual 2 (button 1) of the sample set is on your own organ keyboard 2 (Float div. 2)



manual 1 of the sample set is on your own organ keyboard 1 and manual 3 of the sample set is on your organ keyboard 2



manual 2 of the sample set is on your own organ keyboard 1 and manual 3 of the sample set is on your organ keyboard 2



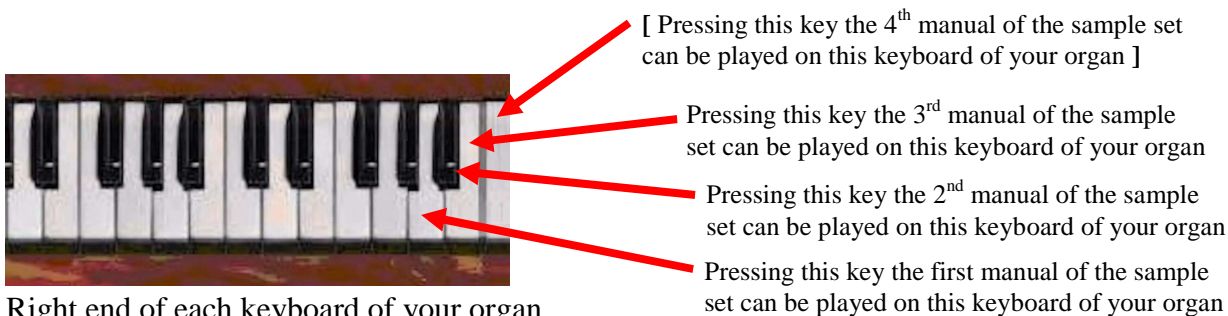
manual 2 of the sample set is on your own organ keyboard 1 and manual 1 of the sample set is on your organ keyboard 2



Even this is possible: manual 2 of the sample set is on your own organ keyboard 1 and 2 (!!) and can be played together. The same can be done with the other buttons.



These small windows above has the same function as the 3 [or 4] upper keys of each keyboard your organ.



Right end of each keyboard of your organ

With this configuration you can use each organ manual of a sample set on each keyboard of your own organ by pressing one of the 3 [or 4] upper keys of your organ keyboards or by pressing one of the 3 [or 4] buttons in the small windows “Floating division <n> route and expression”.

You can also use the 'All divisions' buttons 1, 2, 3, 4 in the large panel *View / Large floating control panels / Floating divisions* panel or the same 4 buttons on the mini panel *View / Mini control panels / Floating division route* (all simultaneously). The last one looks like:



Pressing button 1 route 1 is selected and the first manual of the sample set can be played on keyboard 1 of your own organ and manual 2 on keyboard 2. With button 2 that is resp. manual 2 and 3, with button 3 that is resp. manual 3 and 1 (or in case of a sample set with 4 manuals 3 and 4). There is always a fixed order, written in this overview for a organ with 2 keyboards and a sample set with 3 or 4 manuals:

	Button 1 (= default)	Button 2	Button 3	[Button 4]
Keyboard 2 own organ	Manual 2 sample set	Manual 3	Manual 1 [4]	[Manual 1]
Keyboard 1 own organ	Manual 1 sample set	Manual 2	Manual 3	[Manual 4]

If the own organ has 3 keyboards and the sample set has 4 manuals, then the 4 buttons gives this fixed order of the manuals:

	Button 1 (= default)	Button 2	Button 3	Button 4
Keyboard 3 own organ	Manual 3 sample set	Manual 4	Manual 1	Manual 2
Keyboard 2 own organ	Manual 2 sample set	Manual 3	Manual 4	Manual 1
Keyboard 1 own organ	Manual 1 sample set	Manual 2	Manual 3	Manual 4