



# melodyne4

user manual

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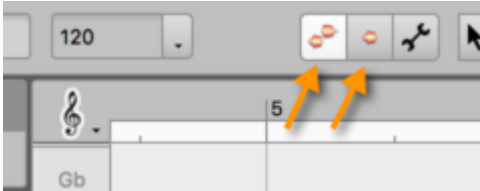
## Working with ARA

The ARA integration of Melodyne with compatible DAWs is particularly user-friendly. Among its advantages are that no transfers to the Melodyne plug-in are necessary, that Melodyne follows all changes on the DAW track automatically, and that the DAW, too, enjoys the benefit of Melodyne's tempo detection.

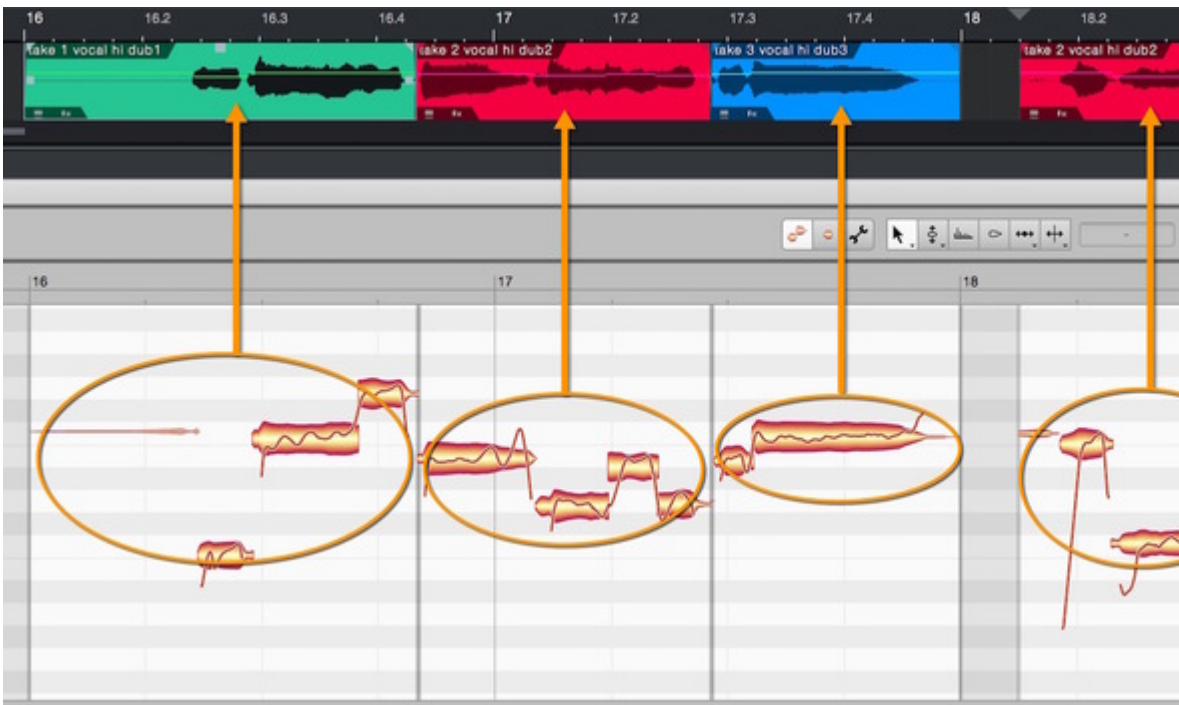
The exact functions and possibilities vary depending upon how a specific DAW implements ARA. This tour offers you a general explanation of ARA integration – so to speak, from the standpoint of, and in relation to, Melodyne.

## Track Mode

With ARA integration, after inserting the Melodyne plug-in and opening a DAW track, two alternative modes are available for editing the notes: Track Mode and Clip Mode. You can switch between them using the buttons above the Note Editor. The left-hand button activates Track Mode; the button to the right of it, Clip Mode.



Track Mode lets you see the entire contents of the track opened in Melodyne, however many clips it is composed of in the DAW.

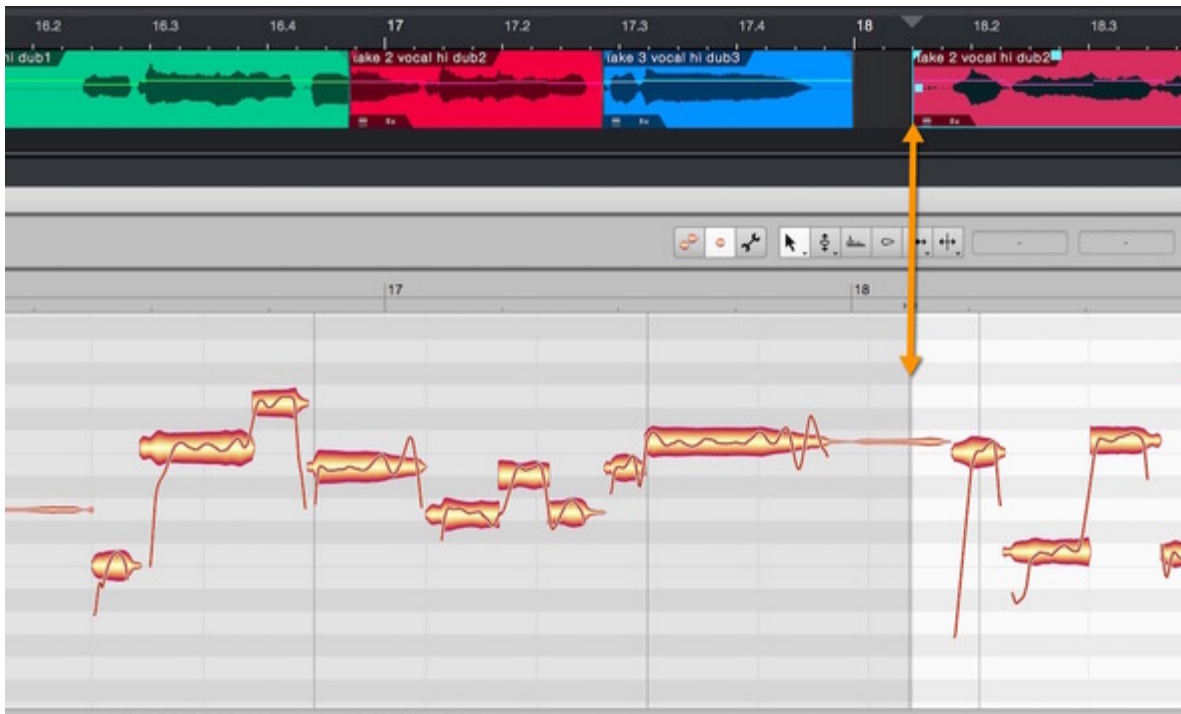


The clip borders are indicated in Melodyne by vertical gray lines. The moving of borders is performed in the DAW, not in Melodyne, but the lines in the Melodyne user interface move accordingly. This allows you to see at once whether a clip change occurs at an unfortunate moment, such as in the middle of a note.

## Clip Mode

The alternative to Track Mode is called Clip Mode. You select this by clicking the right-hand mode button (the one with a single blob) above the Note Editor.

In Clip Mode, you see only a single clip from the DAW track at a time. Track Mode and Clip Mode differ in the way notes are displayed at clip borders: whilst in Track Mode, only notes lying within the clip borders determined by the DAW can be seen, in Clip Mode notes on either side of the borders remain visible; you therefore see in Melodyne – in the area with a gray background – what you might hear if you were to resize the clip in the DAW.



The ability to reach beyond the borders of the clip has advantages when performing tasks such as comping. (Comping is the technique of selecting from multiple takes the best rendering of each passage and concatenating the chosen clips to obtain what, given the available material, you consider the optimal performance). Notes overlapping the borders of the clips in question pose particular problems when comping. In Clip Mode, such problems can be resolved on the note level simply by moving or shortening the offending notes until they fit neatly within the clip. In Clip Mode, it is also possible to copy notes lying outside the clip borders and paste them into the clip, which can also be very useful when comping.

### Switching from Track Mode to Clip Mode and from clip to clip

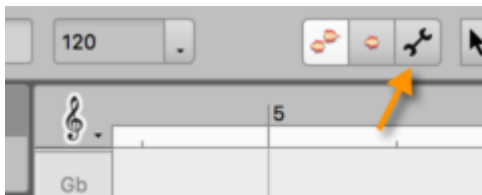
Whereas in Track Mode it is always obvious what you are looking at – the contents of the entire DAW track currently selected – Clip Mode displays only *one* of a track's clips, so before you can switch to Clip Mode, you must indicate clearly *which* clip you wish to edit. For as long as this remains unclear, the Clip Mode button will be grayed out. In this case, while still in Track Mode, you must make it clear which clip you wish to examine. You can do this in either of two ways:

- By selecting a note, in which case it is obvious which clip interests you: the one containing the note selected
- By making a selection, which, provided all the notes selected belong to the same clip, is equally unambiguous; if they do not, you must narrow your selection – if need be, to a single note.

If no note is selected, Melodyne looks to see which clip or clips are selected in the DAW. If only one clip is currently selected in the DAW, Melodyne opens its contents in Clip Mode. If several clips are selected, you can resolve the ambiguity by simply selecting a note belonging to the track you wish to examine.

Tip: If you are already in Clip Mode and wish to change clips, it is not necessary to switch back to Track Mode in order to do so. Simply click on the desired clip in the DAW, and Melodyne will display its contents immediately. This only applies, of course, if Melodyne is already present in the track containing the selected clip.

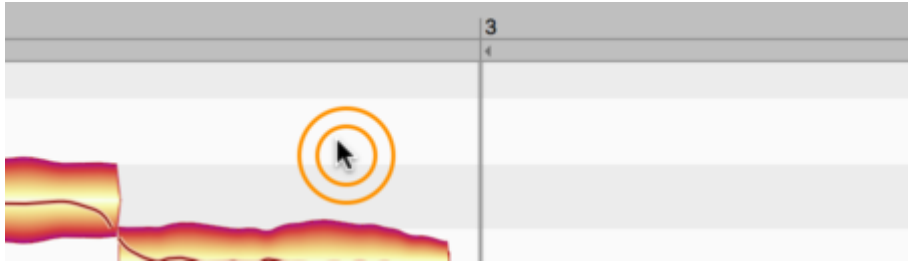
**Entering Note Assignment Mode:** You can only enter Note Assignment Mode from Track Mode if it is clear from the current note selection which clip you wish to examine. If necessary, therefore, click on one of the notes of the clip you wish to examine in Note Assignment Mode. You can enter Note Assignment Mode from Clip Mode directly, as only one clip can be selected in Clip Mode at a time and it is therefore obvious which clip you intend to examine.





## Local playback in Melodyne

If you commence playback from the DAW, using the bar ruler, for example, or the transport buttons, the full arrangement plays back. The DAW mixer then determines the balance between tracks. The same is true if you commence playback by double-clicking on the Melodyne ruler. It is also possible, however, for Melodyne alone to control the playback. We call this “local playback”. With ARA integration, this local playback is started by double-clicking in the background of the Note Editor.



What exactly you hear during local playback depends upon the current edit mode.

**Local playback in Track Mode:** In this case, you hear all the clips belonging to the track being edited, their extent and order being determined by the DAW.

**Local playback in Clip Mode:** In this mode, you hear only the clip currently open in Melodyne's Note Editor. A significant difference arises at the clip borders, however, between this mode of playback and playback in the DAW. During DAW playback, you hear only what lies within the borders of the selected clip. If any notes are incomplete, due to a poorly positioned clip border slicing off the start or end of the note, this is immediately obvious during DAW playback. During local playback, on the other hand, you can hear material lying beyond the borders of the clip (i.e. in areas with a gray background).

This allows you to check out what the result would be if you were to move the clip borders in the DAW. It can also be useful if, for instance, you wish to use the rest of the track – i.e. the material lying outside the clip as currently defined – as a “note supply” from which to “pinch” notes, by copying them and pasting them into the clip you are working on.

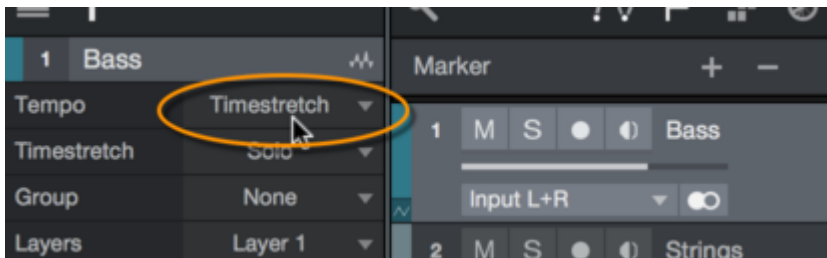
Local and DAW playback differ also in respect of playback tempo. This is discussed in the following section.

## Tempo and tempo adjustment with ARA integration

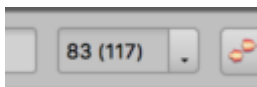
One of the strengths of ARA integration lies in the adjustment of the tempo of audio files to the existing song tempo. This functions from a technical standpoint like this: Melodyne “detects” in the case of each audio file (and consequently of each clip in the DAW arrangement) the tempo of the original recording. This works even with takes that were recorded without a click and that therefore contain tempo fluctuations – and works even if they were recorded in a quite different context from the current DAW song e.g. with stems taken from a different song or loops from a loop library. The information “discovered” in this way by Melodyne is then shared with the DAW, which in turn might come back to Melodyne with the request that it “reshape” the playback tempo of the file in question to make it match the song tempo exactly.

This communication, governed by ARA, between Melodyne and the DAW does not preclude human intervention, as there are times when it is only sensible that you, the user, should have some say in it – for example, in the question of whether or not the DAW should “believe” what Melodyne is telling it about the tempo. It may be that you know for a fact that the stems were recorded at a specific constant tempo, and therefore have no desire for Melodyne to engage in the search for a non-existent variable tempo. The procedures by which you can intervene in the process are described step by step in the following section.

- The DAW track must first be brought to a state that allows the tempo of clips to be adjusted to that of the song. This is the responsibility of the DAW itself and is illustrated here by Studio One:



If the file tempo and the current song tempo are identical, a *single* value with no brackets is displayed in Melodyne's Tempo field. If two values appear here, you know that Melodyne has detected a file tempo that is different to that of the song. The first value is the tempo of the song (in this example 83 BPM). The value in brackets indicates the tempo Melodyne has detected in the audio file (here 117 BPM).



In Track Mode, too, the song tempo is displayed without brackets, whilst the tempo of the clip over which the playback line is currently passing is shown in brackets. In Note Assignment Mode, where you are examining the “raw” source material, only the file tempo (in our example, the “117”) is displayed.

- Now it is up to you to decide how the conflicting tempos are to be reconciled. To do this, open the Tempo dialog.



**“Confirm as File Tempo”:** This tells the DAW to take Melodyne’s word for the tempo. This triggers Melodyne’s time-stretching and the tempo of the audio file is adjusted to match that of the song (slowing, in our example, from 117 to 83 BPM). Typical application: You are using an audio file (the tempo of which you do not know) and simply wish it to match that of the song.

**“Apply Project Tempo”:** In this case, regardless of the tempo detected by Melodyne, you do not wish the file to be subjected to time-stretching. In other words, you have determined that the file and song tempos are identical (which means that no time-stretching is necessary). Choose this option if the audio file was recorded or bounced in the current DAW song. Another application: You had already, using functions supplied by the DAW, adjusted the tempo of the file to the song tempo, before deciding to open a passage within it in Melodyne. Now you wish to change the melody or key in Melodyne but without jeopardizing the tempo adjustment already performed.

**“Apply Constant Tempo”:** With this command, you can, if necessary, set the file tempo manually. To do this, select the command from the menu and type into the Tempo field the desired tempo. You might wish to do this when you already know the tempo of the recording that you are importing into your song. Suppose, for example, the song tempo is 83 BPM and you are importing from a sampling CD a drum loop the stated tempo of which, in the booklet, is 90 BPM. As a rule, Melodyne will detect the 90 BPM immediately and display “83 (90)” in the Tempo field. To trigger the time-stretching in this case, it would be enough to select “Confirm as File Tempo”. In the event of Melodyne here displaying a value other than 90 BPM for the file tempo, as, for instance, when it interprets the loop in double time and consequently displays “83 (180)”, you can use the “Apply Constant Tempo” command to correct the misapprehension by typing “90” in place of “180”.

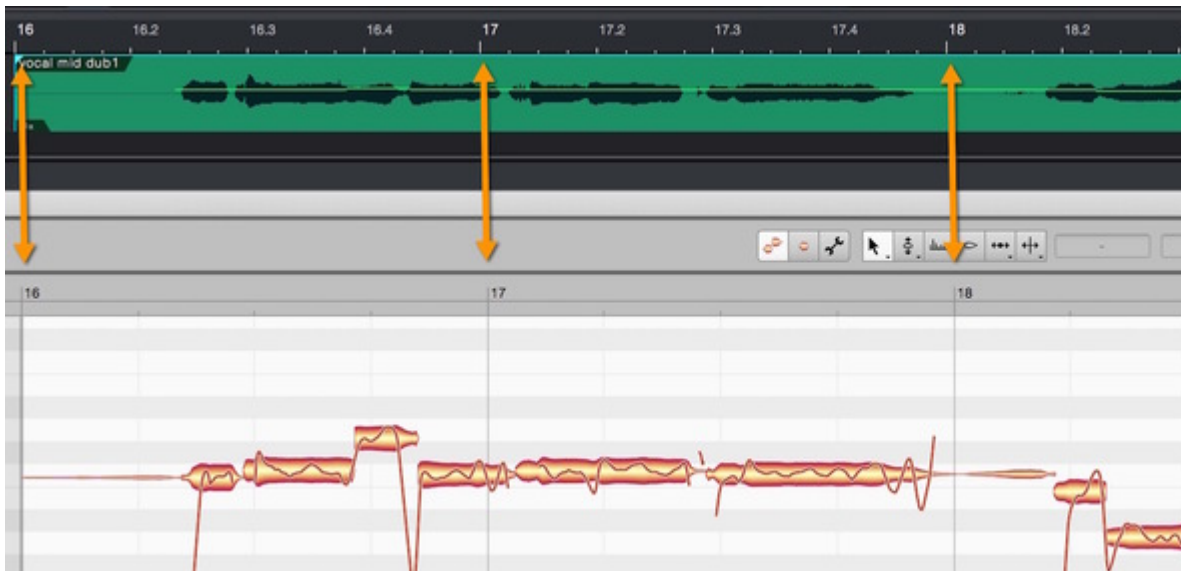
## Tempo and the Time Grid

The discovery (or explicit definition in the Tempo dialog) of the “correct” file tempo serves other purposes as well as that of musically sensitive tempo adjustment. It makes the work of editing the notes easier, because the file tempo also determines the calibration of the Time Ruler as well as the positioning of the grid lines in the background to the Note Editor.

Imagine, in this case, that you want to move a note a semiquaver (sixteenth note) to the right or left. What you intend, in all probability, is that the exact length of this sixteenth note should be a function of the current song tempo (say 100 BPM). If the Time Grid, however, were still based on the tempo of the original recording (120 BPM, say), then when you attempted to move a note by a semiquaver, it would end up in the wrong place – (the rule here being: the quicker the tempo, the more closely spaced the gridlines). For this reason, the DAW and Melodyne, communicating via ARA, strive to ensure that their rulers and Time Grids provide at all times an “accurate” representation of the current tempo and that any quantization that is undertaken is therefore similarly “accurate”. In the following, an overview taking into account the various edit modes as well as the difference between local and DAW playback.

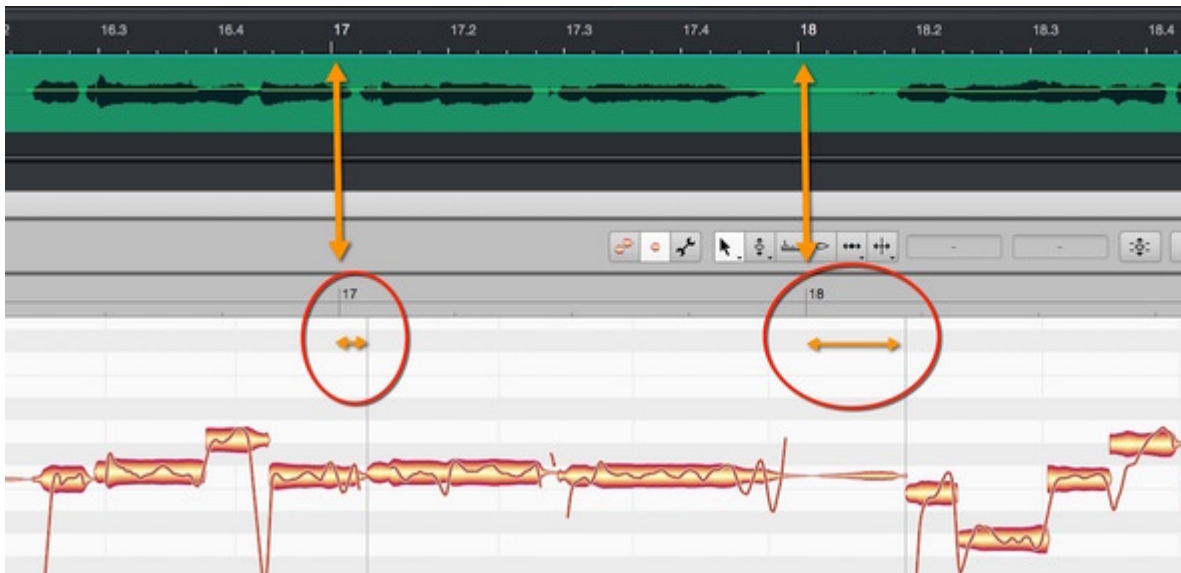
### Tempo display in Track Mode:

- Melodyne’s Tempo field displays a single value: the song tempo in your DAW.
- Melodyne’s ruler and the Time Grid in the Note Editor background are synchronized and they are each calibrated according to the same principle: the faster the song tempo, the smaller the distance between lines.



### Tempo display in Clip Mode:

- Melodyne's Tempo field displays two values (as described above): the song tempo, followed by the file tempo in brackets. A single value is displayed only when the tempo of the file and that of the song are identical.
- Melodyne's Time Ruler and the Time Grid in the Note Editor background are now no longer necessarily in sync, as the ruler reflects the song tempo, whereas the grid represents the tempo of the file. If the two tempos are not identical, the dashes on the ruler will no longer coincide with the lines of the grid.



This is as it should be and reveals the effect of dynamic time-stretching during DAW playback: the Time Grid, and with it the notes of the original recording, are squeezed or stretched to accord with the song tempo and also, therefore, with the ruler. The results, of course, will only be musically viable if the Time Grid is calibrated on the basis of “accurate” tempo-detection or -input. For this reason, Clip Mode allows you to examine the Time Grid to ensure that it corresponds with the notes. Should this not be the case, you can make the necessary adjustments using the Tempo dialog options described above.

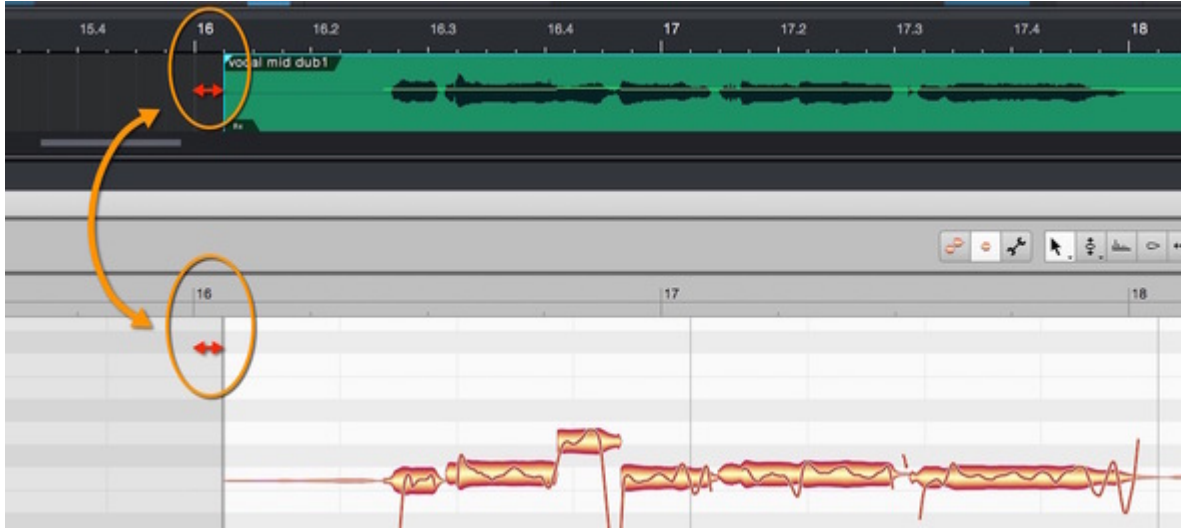
- During DAW playback, the clip follows the tempo of the song i.e. the value *before* the brackets. This is achieved by stretching or squeezing the original file to match this tempo.
- During local playback, the clip is heard at its original (file) tempo – i.e. at the tempo shown in brackets – and no time-stretching or -squeezing occurs.

**Tempo display in Note Assignment Mode:**

- Melodyne’s Tempo field displays a single value: that of the original file.
- The ruler and Time Grid are synchronized.
- DAW playback follows the song tempo. Local playback follows the file tempo. There is one difference here: Double-clicking on the Melodyne ruler in this edit mode also starts local playback and not (as in Track and Clip modes) playback from the DAW.

## Quantizing notes

As described above in the section entitled “Tempo and the Time Grid”, it is possible – in Clip Mode only – for discrepancies between the ruler and Time Grid to occur. These serve initially as an orientation aid, reminding you perhaps that you have moved a clip in the DAW a sixteenth note backwards, the evidence being that the Time Grid is now a sixteenth note ahead of the ruler.



Such an offset, however, has an effect upon the quantization, because Melodyne uses its own Time Grid for the quantization and not the DAW ruler. In practice, of course, the two are nearly always identical and the quantization therefore mostly behaves in the manner with which users of MIDI editors, for example, will be familiar. But when, as described above, a clip has been moved in the DAW arrangement (perhaps only by a few milliseconds, for creative purposes), in Clip Mode the quantization destinations (i.e. the positions towards which notes will gravitate when quantization occurs) are visually obvious.

Quantization works the same way in Track Mode as in Clip Mode, being based invariably upon the Time Grid of the original file. In Track Mode, however, you see the Time Grid of the DAW, which, in the exceptional cases described above (such as when you have shifted a clip slightly to the left or right in the DAW) can be misleading, as the quantization destinations may be offset slightly from the gridlines. This, however, is merely an optical discrepancy. Switch to Clip Mode if it annoys you, and the quantization destinations and gridlines will again coincide.

## Copying and pasting notes

Within a clip, you can copy and paste notes without any restrictions. Whether you can copy a note from one clip and paste it into another depends upon whether or not the two clips are accessing the same audio file.

Example: You have sliced up a drum recording in the DAW into individual clips, sorted them in the DAW arrangement, and are looking at them now in Melodyne's Track Mode. In this case, you can copy and paste notes freely (because they were originally part of a *single* long recording) without paying attention to the clip borders.

If, on the other hand, you have made a collage in the DAW arrangement of snippets taken from different recordings – from successive vocal takes, for instance – and are looking at these in Track Mode, you cannot copy and paste notes with the same freedom. In the following illustration, the clips have been color coded to indicate from which of five different takes they are derived:

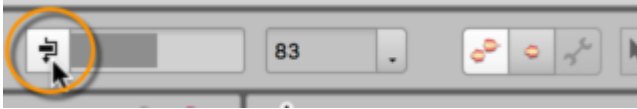


Here you cannot copy the note selected at the beginning of Bar 17 (or, indeed, any other note derived from a red clip) and paste it into Bar 16, because the destination contains a clip of a different color – in this case, green – which is therefore derived from a different recording. You can, however, paste it into Bar 18, because the content there is derived from the same red take.



## The Compare switch

When working in Melodyne, you will constantly be wanting to compare the current state of the edited recording with the original audio files. In addition to the bypass function of your DAW, which deactivates Melodyne altogether, you will find next to the level display in Melodyne a Compare switch that serves a similar purpose.



Unlike the DAW's bypass function, however, Melodyne's Compare switch reverses not only the acoustic but also the visual consequences of all editing. It is also the case that;

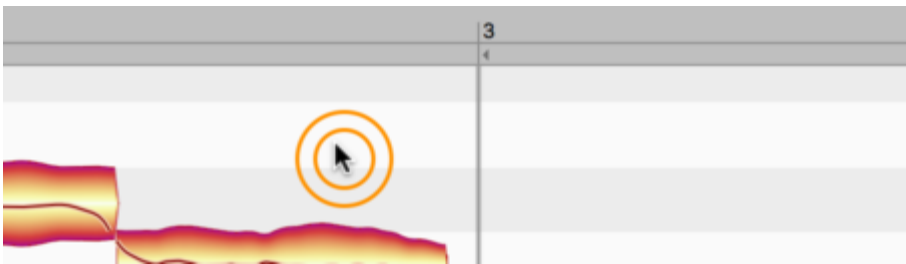
- the Compare switch affects all clips governed by Melodyne, regardless of track and whether or not they are currently displayed in the Note Editor. The entire song is therefore returned to the state it was in before you began editing notes with Melodyne.
- all changes made to the notes are undone, whether made using the macros or tools.
- any adjustment of the tempo of clips to match that of the DAW is also reversed.

## Playback, navigation, zooming

This tour will give you an overview of the functions Melodyne offers for navigation and the playing back of audio.

### Local playback in Melodyne

If you commence playback from the DAW, using its bar ruler, for example, or transport buttons, the full arrangement plays back. The DAW mixer then determines the balance between tracks. The same is true if you commence playback by double-clicking on the Melodyne ruler. It is also possible, however, to “solo” Melodyne (i.e. for Melodyne to playback on its own); we call this “local playback”. With ARA integration, this local playback is started by double-clicking in the background of the Note Editor.



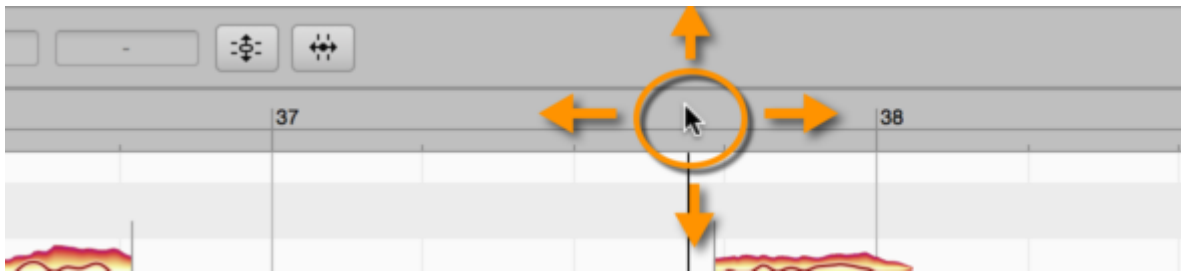
*Local playback in Clip Edit Mode:* Here, a significant difference arises at the clip borders between this mode of playback and playback in the DAW: During DAW playback, you hear only what lies within the clip borders selected in the DAW. If any notes are incomplete, due to a poorly positioned clip border slicing off the start or end of the note, this is immediately obvious during DAW playback. During local playback, on the other hand, you can hear material lying beyond the borders of the clip (i.e. in areas with a gray background).

This allows you to check out what the result would be if you were to move the clip borders in the DAW. It can also be useful if, for instance, you wish to use the rest of the track – i.e. the material lying outside the clip as currently defined – as a “note supply” from which to “pinch” notes, by copying them and pasting them into the clip you are working on.

## Controlling playback, scrubbing and zooming using the Time Ruler

- Double-click in the Melodyne Time Ruler to start the DAW playback from the corresponding place.
- Double-click in the editing background of Melodyne's Note Editor to start Melodyne only (local playback) from the position in question.
- [Alt]-double-click in the Time Ruler plays back only the current note selection in both the DAW and Melodyne.
- [Alt]-double-click in the editing background of the Note Editor plays back only the selected note segment and only in Melodyne.

These functions can also be triggered during playback.



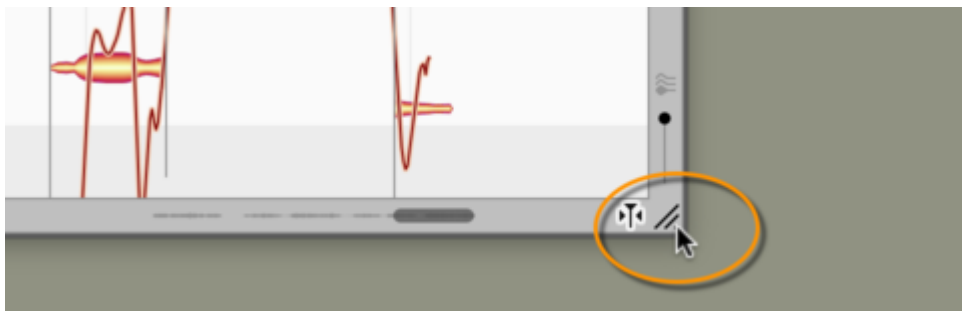
Click in the Time Ruler to move the playback cursor to the position in question and halt playback at the same time.

Click and drag in the Time Ruler to scrub through the audio material.

By dragging upwards or downwards, you can zoom the display at the current position. Scrubbing and zooming can be used in combination, allowing you to navigate and position the cursor intuitively, setting the zoom factor at the same time.

## Resizing the window

To change the size of the window, click and drag the bottom right-hand corner. The procedure is the same for both the stand-alone and plug-in implementations of Melodyne.



## Scrolling and zooming in the Note Editor

Select the Scroll Tool (the hand icon) from beneath the main tool or hold down the [Command] and [Shift] keys to move the display area with the mouse.

Select the Zoom Tool (the magnifying glass) from beneath the Main Tool or press [Command]+[Alt] to zoom the display with the mouse. You can zoom horizontally and vertically at the same time – with different levels of intensity in each case.

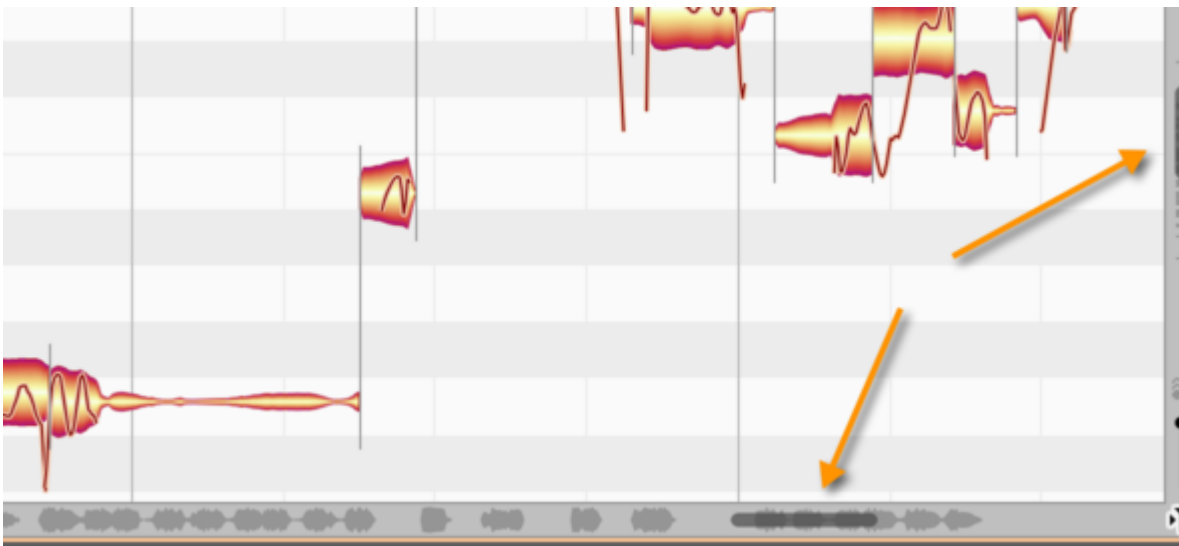


[Command]+[Shift]+double-click zooms in on one blob or several (if several are selected). A corresponding double-click in the editing background returns you to the previous zoom level.

If your hardware supports the corresponding functions, you can also scroll and zoom with the mouse and trackpad:

- The mouse wheel and swiping with two fingers on the trackpad can be used for horizontal and vertical scrolling.
- Pinching with two fingers on the trackpad zooms the display simultaneously on the horizontal and vertical planes.

Drag the horizontal or vertical scrollers (i.e. the scroll boxes or 'thumbs') to move the display. The horizontal scroller contains a miniaturized image of the contents as an orientation aid.

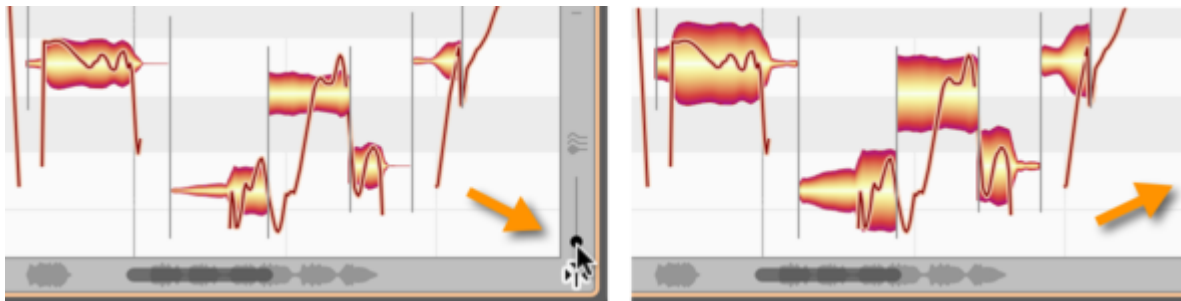


Drag the ends of the scroller to zoom the display.

If you are editing a particularly long audio file, you may find the reduced size of the scroller makes it difficult to achieve the desired zoom resolution. In that case, you can zoom in further by holding down the [Command] and [Alt] keys whilst dragging in the edit pane or else by dragging vertically in the Time Ruler.

If you pull one end of the horizontal or vertical slider as far as it will go and hold it, you can increase the vertical or horizontal size of the area displayed. This can be useful in the plug-in, for example, when you have only transferred the first three bars (measures) of your material but wish to insert something at bar 20.

Double-click in the center of the scroller to zoom in or out just enough to ensure that all the blobs are displayed. If cycle mode is active, double-clicking on the horizontal scroller zooms the display just enough to ensure that the entire contents of the cycle range are visible.



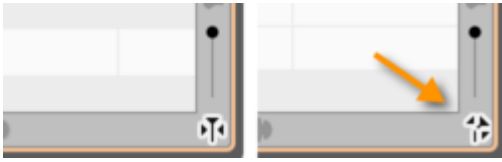
Use the slider in the bottom right-hand corner near the Note Editor to alter the height of the blobs. This does not alter their volume. Your likely motive will be to obtain a clearer view of material containing a lot of particularly quiet or particularly loud notes.

#### **A note about automatic scrolling in the Note Editor**

If you have selected one or several notes, Melodyne assumes that you wish to see and edit them, and exercises the requisite restraint by deactivating the auto-scroll function temporarily. Only when you deselect the notes (for example, by clicking in the background of the Note Editor) and restart the playback does the display resume its pursuit of the playback cursor.

Similarly, if you move the horizontal scroller so far during playback that the playback cursor actually disappears from the screen, automatic scrolling will be deactivated. Stopping and restarting in this case will reactivate the auto-scroll function.

If automatic scrolling has temporarily been deactivated, the auto-scroll icon in the bottom right-hand corner of the Note Editor takes the form shown here.



## Navigation and zoom functions

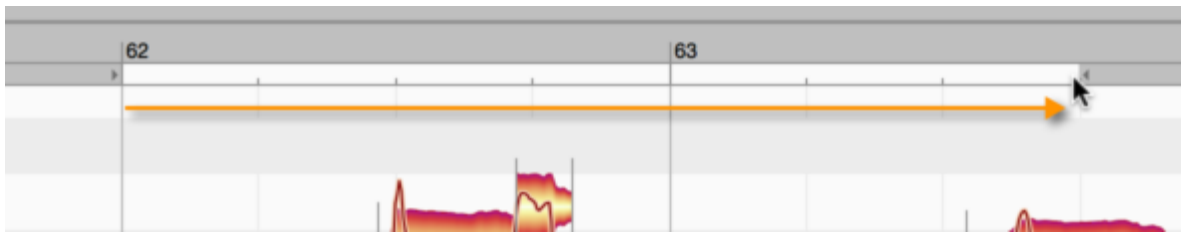
- To resize the window (also in Plugin), drag the bottom right corner
- Hold down the [Command]+[Shift] keys and drag the editing background of the Note Editor to move the area displayed
- Use the mouse wheel to scroll up and down or else (holding the [Shift] key) left and right
- A two-finger swipe on the trackpad can be used to scroll the display
- A two-finger pinch on the trackpad can be used to zoom the display.
- [Command]+[Alt]+drag in the Note Editor serves to zoom the display horizontally and/or vertically
- Drag vertically in the Time Ruler to zoom in on the area indicated
- Press [Command]+[Alt] and use the mouse wheel to zoom both axes simultaneously
- Press [Command] and double-click to zoom in on a blob or the current selection of blobs
- [Command]+double-click in the editing background to restore the previous zoom setting
- Drag the scrollers to move the display horizontally or vertically
- Drag the ends of the scroller to zoom the display horizontally or vertically
- Pull the left- or right-hand ends of the horizontal slider as far as they will go to increase the length of the section displayed (important in the plug-in e.g. when you have only transferred the first four bars and are able to navigate only in this area but wish to insert something at bar 20)
- Double-click the scrollers to zoom in or out horizontally or vertically until all notes are displayed
- The slider in the bottom right-hand corner governs the height of the blobs

## Cycle mode

In Melodyne's cycle mode, a selected passage is repeated endlessly.

### Defining the cycle range

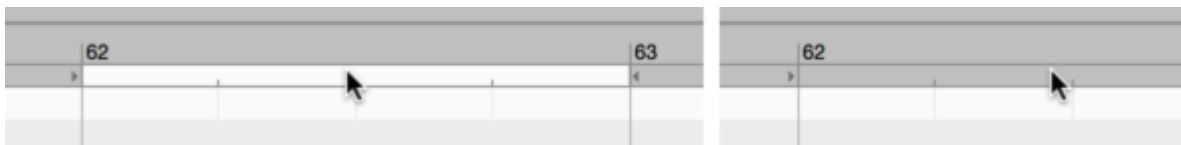
To define a cycle range, click and drag in the lower part of the Time Ruler. If, as you do so, you hold down the [Alt] key, the Time Grid will be ignored, allowing you to position the start and end points (which we call the "cycle locators") freely.



Please note that when ARA is operational, the DAW's cycle and that of Melodyne are firmly coupled: If you change the one cycle, you simultaneously change the other one as well.

### Switching cycle mode on and off

Double-click on the cycle range in the narrow strip immediately below the Time Ruler to toggle cycle mode on and off. When cycle mode is active, the cycle range is shown in dark grey



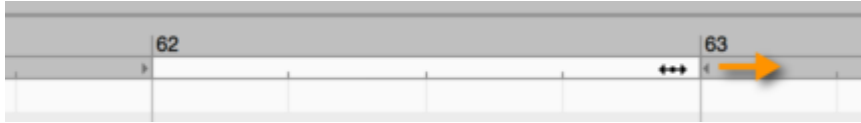
In the stand-alone implementation of Melodyne, you can also switch cycle mode on and off from the transport bar.



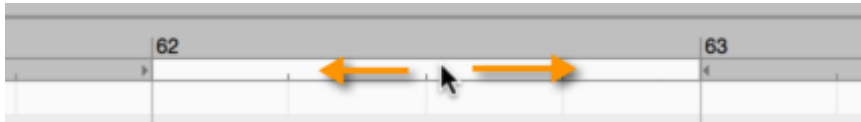
It is also possible by choosing File > Preferences > Shortcuts to define a keyboard shortcut for toggling cycle mode on and off.

### Changing the length of, and moving, the cycle range

Drag the right- or left-hand locators to alter the length of the cycle range. If, as you do so, you hold down the [Alt] key, the Time Grid will be ignored, allowing you to position the locators freely.



Drag the middle of the cycle range to move it 'en bloc' to the left or right. If, as you do so, you hold down the [Alt] key, the Time Grid will be ignored.



If you [Shift]+click near either of the cycle locators, it will move to the designated position. If, as you do so, you hold down the [Alt] key, the Time Grid will be ignored.

### Defining the cycle range using a blob selection

To move the cycle locators to the beginning and end of the current blob selection (snapping to the grid) hold the [Shift] key and double-click anywhere in the cycle range. If you hold the [Alt] key as well as the [Shift] key as you do this, instead of snapping to the grid, the locators will be placed at the beginning of the first, and end of the last, blob in the selection.

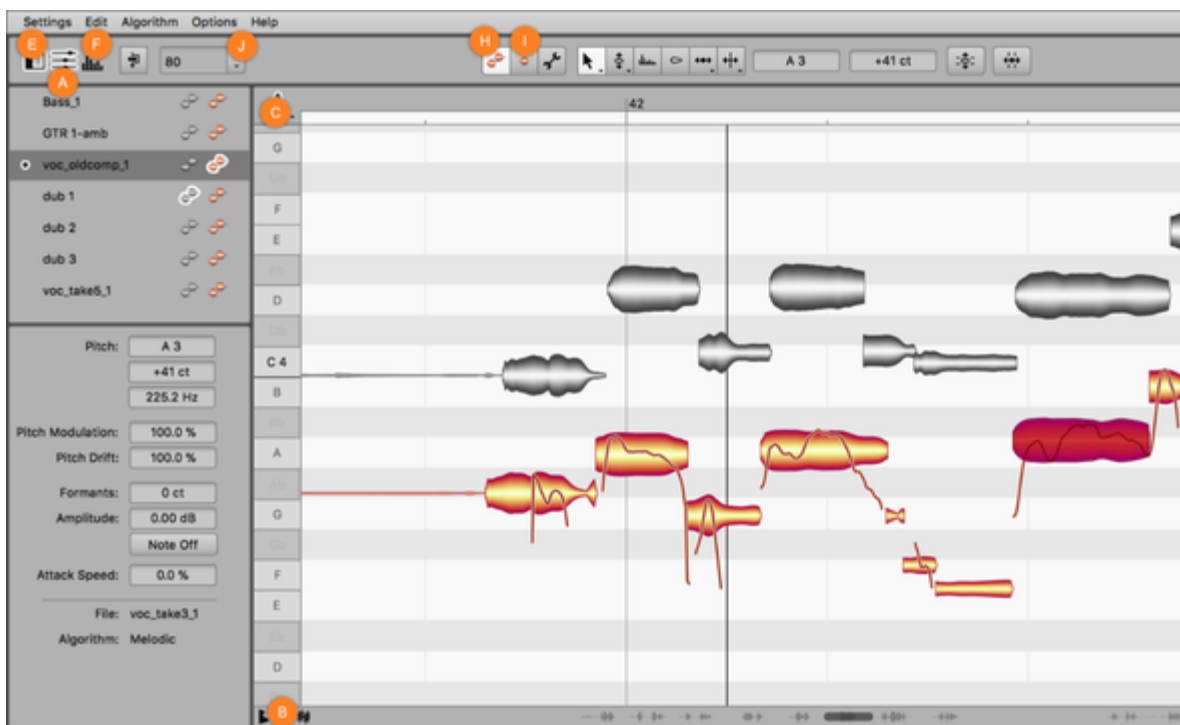


## Display and other options

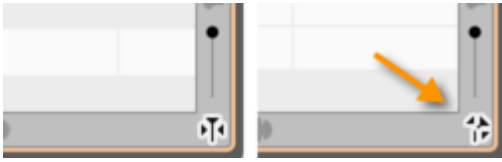
Melodyne offers for the user interface and working in the Note Editor various options that allow you to adapt the appearance and behavior of the program to your tastes.

### Showing and hiding elements of the user interface

Melodyne's user interface can be adapted to a variety of different work situations and demands. You will find the means of doing so in the Options menu as well as the interface itself.



- “Tempo Dialog” (A): Offers various options governing the way tempo adjustments are performed.
- “Show Scale Ruler” (B): Shows/Hides the Scale Ruler.
- “Pitch Grid Settings” (C): Offers the choice between various options for the Pitch Grid.
- “Time Grid Settings” (D): Offers the choice between various options for the Time Grid.
- “Auto Scroll” (E): When this option is selected, the display in the Note Editor follows the playback cursor. (See also the note below.)
- “Track Edit Mode” (F): Shows the notes of all the regions/clips on the track.
- “Clip Edit Mode” (G): Shows only the notes of the region/clip currently selected.



A note about automatic scrolling in the Note Editor: If you have selected one or several notes, Melodyne assumes that you wish to see and edit them, and exercises the requisite restraint by deactivating the auto-scroll function temporarily. Only when you deselect the notes (for example, by clicking in the background of the Note Editor) and restart the playback does the display resume its pursuit of the playback cursor.

Similarly, if you move the horizontal scroller so far during playback that the playback cursor actually disappears from the screen, automatic scrolling will be deactivated. Stopping and restarting in this case will reactivate the auto-scroll function.

If automatic scrolling has temporarily been deactivated, the auto-scroll icon in the bottom right-hand corner of the Note Editor takes the form shown here.

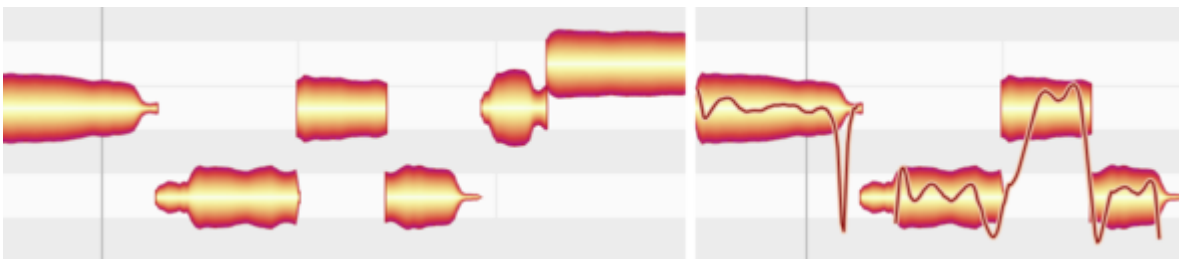
All the options described below relate to the Note Editor and are found by choosing Options > Note Editor Options from the main menu or by clicking the cog icon in the top right-hand corner of the Note Editor.

Please note that these options can be selected independently for Edit and Note Assignment modes.

### Show Pitch Curve

If you check the option Show Pitch Curve, a thin line tracing the exact pitch of the tone at each instant will be superimposed on the corresponding blob.

On the left, you can see the 'naked' blobs (with none of the Note Editor display options selected) and on the right, the same blobs with the Show Pitch Curve option checked.

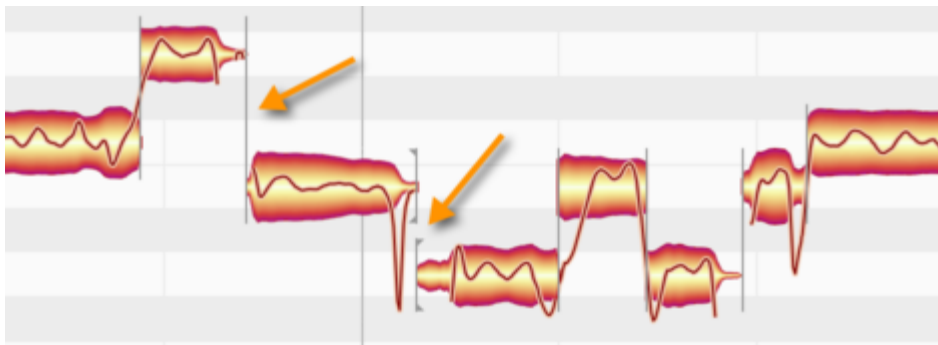


Regardless of whether or not this option is checked, the pitch curve will be displayed whenever the Pitch Tool is selected.

## Show Note Separations

If you select the option Show Note Separations, gray vertical lines appear at the beginnings and endings of notes indicating their limits or separations.

Note Separations are either shown as lines (soft separations between connected notes) or thin brackets (hard separations).

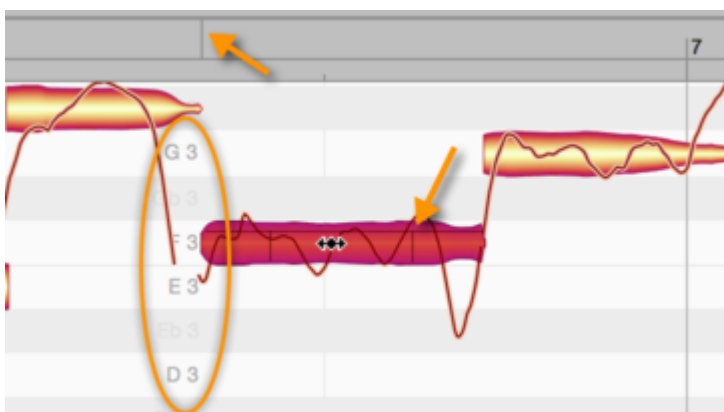


Note separations are always displayed when the independent Note Separation Tool is in use, regardless of whether or not the menu entry is checked.

## Show Blob Info

With the option Show Blob Info, you can elect to show or hide a variety of display elements designed to facilitate working with individual notes.

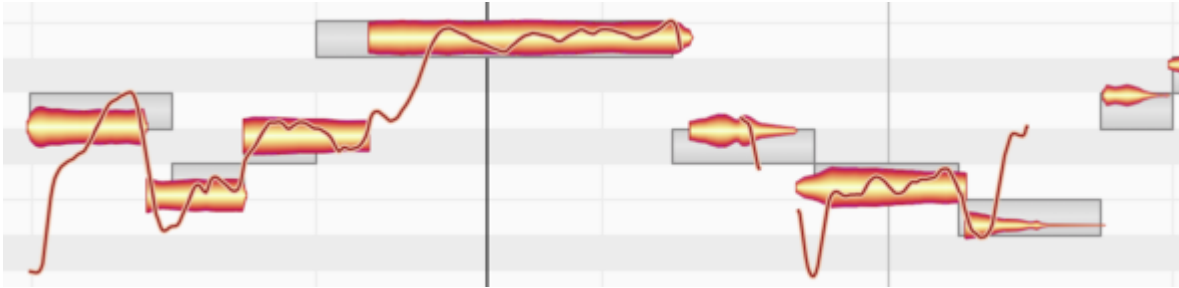
The most striking of these elements is the Local Pitch Ruler that appears directly in front of any note over which you move the mouse pointer. Within the blob itself, thin lines mark the drag zones for the context-sensitive tools.



If you drag a blob when the Show Blob Info option is checked, a vertical line also appears in the Time Ruler aligned with the exact start of the note. This makes more precise positioning possible.

### Show Intended Notes

If you check the option Show Intended Notes, gray frames appear around each blob.



These invariably lie directly on the semitone and coincide exactly with a gridline. They represent, in other words, Melodyne's assumptions (based on its own analysis of the audio) as to the intended pitch of the note and its intended position within the measure or bar. These assumptions generally turn out to be correct, but are not inevitably so. They are to be thought of as suggestions.

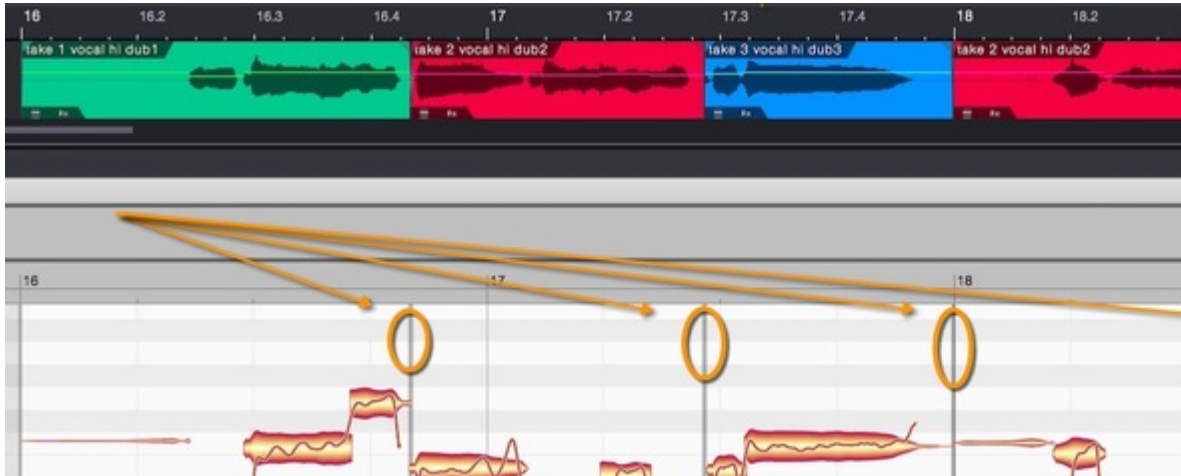
The frames also display the positions in pitch and time towards which the notes in question will gravitate if partial quantization is applied to them with the macros, which are also the positions they will snap to if you double-click on them with the Time Tool or Pitch Tool.

### Monitor When Editing Blobs

When you shift the pitch of blobs in the Note Editor with this option selected, Melodyne plays for the purpose of orientation the sound of the note at the position originally clicked. You can turn this acoustic feedback on or off.

### Show Clip Borders

This option is only visible when you are using ARA. It allows you, if you wish, to hide the gray lines between the clips in Track Mode to obtain a clearer overview of the material in the Note Editor. This is especially useful when the track you are examining contains a large number of clips and you have zoomed the display a long way out.

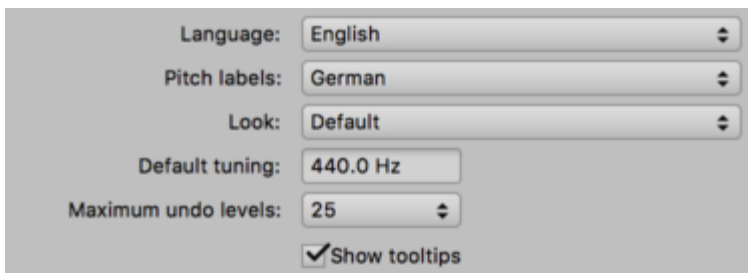


## Preferences and keyboard shortcuts

From the Preferences property sheet, you can select fundamental options governing the modus operandi of Melodyne as well as define a number of keyboard shortcuts.

### Opening the window and general settings

In the plug-in implementation of Melodyne, you open the Preferences property sheet from the Settings menu; in the stand-alone implementation, choose Preferences from the program (macOS) or File (Windows) menu. The settings available in the stand-alone implementation differ slightly from those offered by the plug-in.

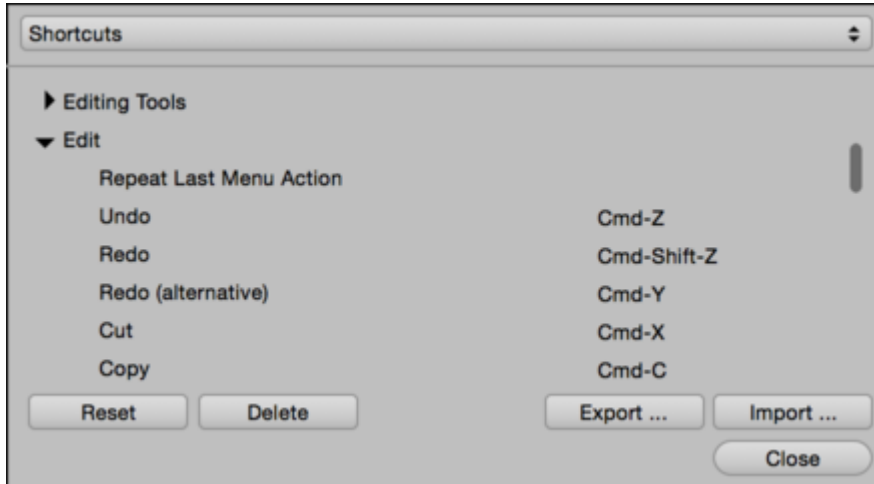


The following options, however, are available in both implementations of Melodyne. Any changes you make in either implementation apply to both.

- **Language:** Determines the language of the user interface.
- **Pitch labels:** Determines which system is used to name the notes – i.e. (descending chromatically) English (C, B, Bb etc.), German (C, H, B etc.) or Latin (Do, Si, Sib etc.).
- **Appearance:** Here you can select between different contrast settings for the user interface.
- **Default tuning:** Determines the frequency of the reference pitch A4 (the A above Middle C).
- **Maximum undo levels:** Melodyne allows you to undo up to 100 actions. The default value, however, is 25. You can, if you wish, increase this value, which will consume more RAM, or you may prefer to reduce it, if memory is running short.
- **Show tooltips:** Once you are thoroughly familiar with Melodyne, you may prefer to hide the tooltips, i.e. the explanatory text that appears as you move the cursor over the various icons and other elements of the user interface.

## Shortcuts

The Shortcuts page of the Preferences property sheet allows you to customize the keyboard shortcuts used by Melodyne for a wide range of functions.



Click the triangle to the left of the category that interests you in order to see a list of the available commands.

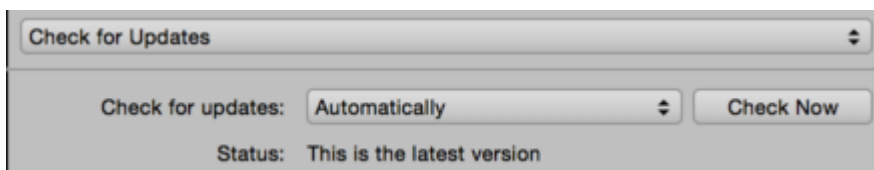
Click on a command and then press the key or combination of keys that you wish to assign as its shortcut. Melodyne will assign the key or combination of keys to the command in question. Repeat the procedure for as many commands as you like.

To remove an unwanted shortcut, select the command in question followed by Delete. You can restore the factory defaults at any time by clicking the Reset button; you will be asked to confirm that this is your intention.

The Export and Import buttons allow you to save one set of keyboard shortcuts to a storage device and reload a set saved earlier. In this way, you can carry your shortcut preferences around with you – on a USB stick, for example – when moving from studio to studio.

## Check for Updates

On this page, you can determine whether Melodyne checks for updates automatically or manually i.e. only when you click the 'Check Now' button, which you can do at any time.



## Audio characteristics and algorithms

For the display and editing of different types of audio material, Melodyne employs different algorithms. Here, we outline which algorithms are available and for which types of audio material each is used.

### The detection process

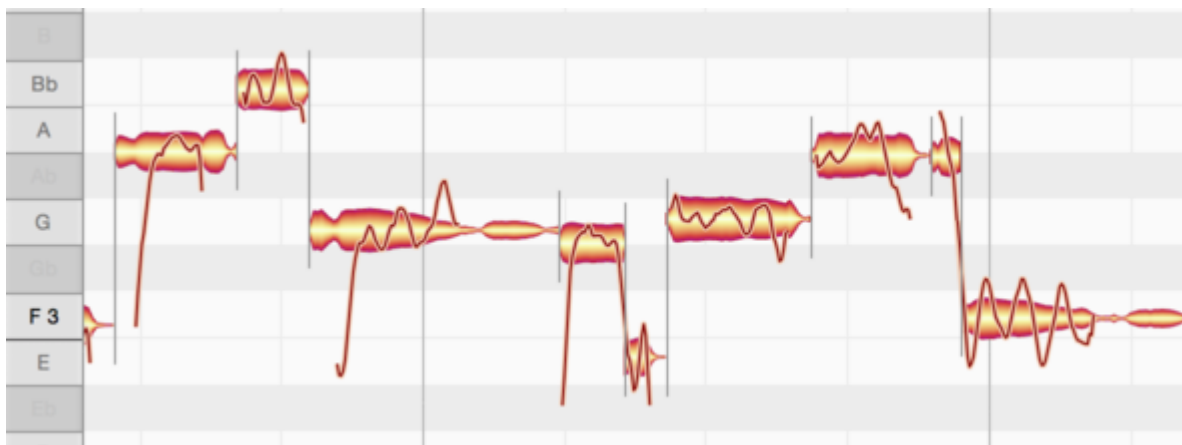
Melodyne analyzes the audio material to find the notes it contains and offer them to you for editing. We call this process “detection”.

In the course of the detection process, Melodyne itself takes a view as to what kind of material it is confronted with and decides which algorithm to use for the display and playback of the notes. You can tell which algorithm is selected at any given time by the check mark in the Algorithm menu as well as by the blobs in the Note Editor.

### The Melodic algorithm

Melodic material is monophonic, by which we mean it is such that only one note is ever sounding at any given instant. Please bear in mind, however, that reverberation can cause notes to overlap even in monophonic material, creating, in effect, a kind of polyphony. If melodic material is to be edited in Melodyne, therefore, you should aim for as clean and “dry” (reverberation-free) a recording as possible.

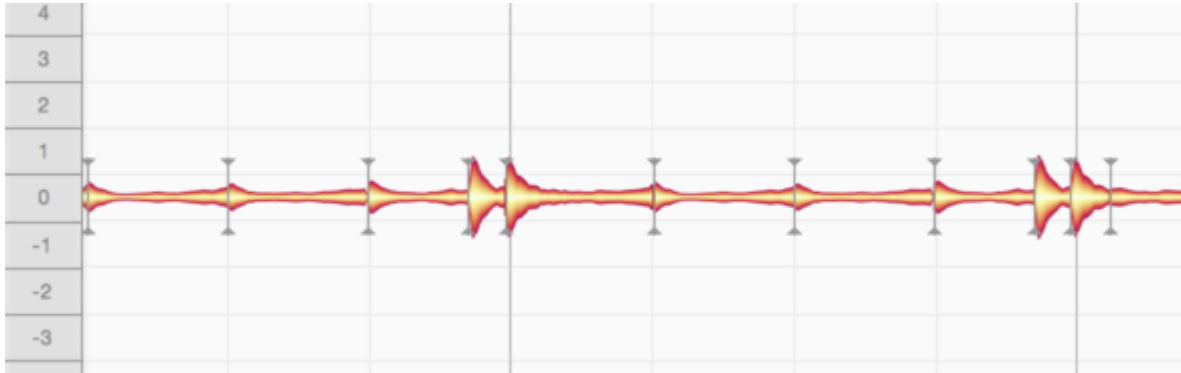
The blobs representing notes in melodic material are displayed at different pitches. Whether the blobs are isolated or joined to other blobs depends on the way they were played or sung: staccato or legato.





### The Percussive algorithm

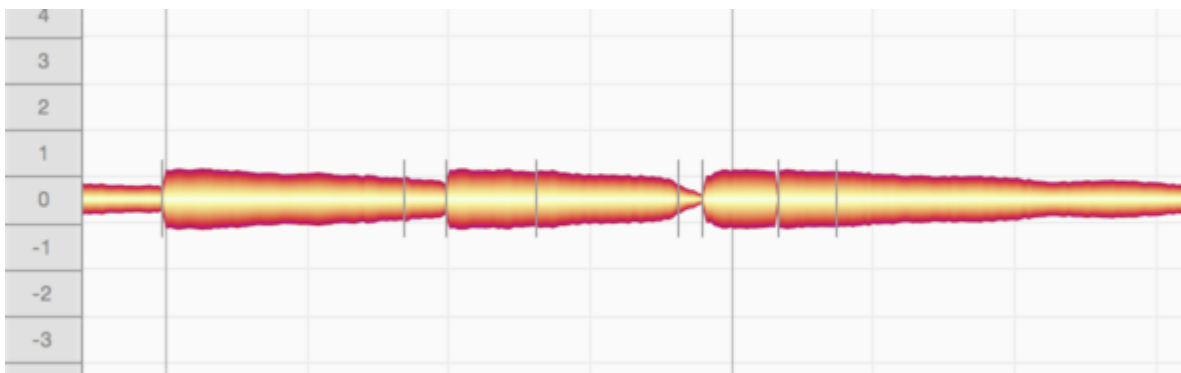
This category includes not only recordings of drums and other percussion instruments but also noise and atmospheric effects as well as other material in which Melodyne cannot detect any clear pitch in the sounds. When the Percussive algorithm is selected, successive drum strokes (for example) are distinguished, but they are all displayed at the same pitch. The blobs can still be raised or lowered in pitch, but the pitch ruler does not display the names of any notes but simply relative values in semitones. The scale functions are deactivated.



### The Universal algorithm

The Universal algorithm is particularly suitable for complex signals containing both percussive and tonal elements. If, for example, you wish to alter the pitch, timing or tempo of an entire piece of music, this algorithm will deliver the best sound quality.

The Universal algorithm, like the Percussive one, displays all the detected notes at the same pitch. The Pitch Ruler displays no note names, merely relative values for the semitones, and the scale functions are deactivated.



## Switching algorithms

You can at any time select a different algorithm to that chosen automatically for you by Melodyne. You might want to do this, for example, if you find that the material has not been interpreted in a way that suits your editing needs. To do this, while playback is halted, select the algorithm you prefer from the Algorithm menu. Melodyne will reinterpret the material in the light of your choice and adjust the display accordingly.

Note: when you do this, any editing performed prior to switching algorithms, including any copying of notes, will be lost. The right time to decide which algorithm you wish to use, therefore, is before you begin editing.

In the plug-in implementation of Melodyne, the choice of algorithm applies to an entire transfer, in the stand-alone implementation, to an entire audio file in the document being edited – collectively, we describe all such material as ‘audio sources’. Before you can change the algorithm applied to a particular audio source, you must first select one or more notes belonging exclusively to it. If you have selected no notes, or notes from two different audio sources, the Algorithm menu will be grayed out. In such cases, reduce your selection to notes belonging to one audio source only and it will be possible to switch algorithms.

When you switch algorithms, triggering a fresh detection, Melodyne looks at the status of the Auto Stretch switch: if the Auto Stretch function is activated, once the new detection is complete, the tempo of the file will also be adjusted: if Auto Stretch is not selected, the original tempo of the file will be retained.

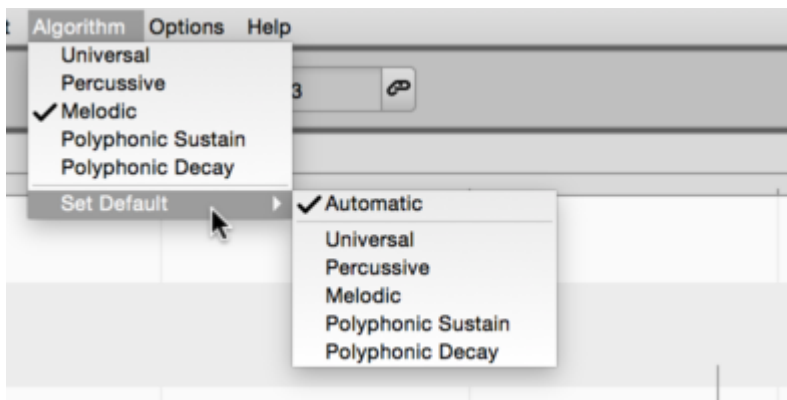
## Automatic or manual algorithm selection

Melodyne by default selects the most suitable algorithm automatically, basing its choice on the characteristics of the audio material. If, however, in an instance of the plug-in implementation of Melodyne or in the current document of the stand-alone implementation material has already been detected, when new material is transferred to that instance or a new file dragged into the stand-alone implementation, Melodyne will use the same algorithm for the new material as it used for the old – even if Automatic is selected.

Overruling the Automatic setting in this way is designed to ensure maximum consistency in the detection and avoid all risk of one of the transfers from a vocal track suddenly being interpreted as percussive. If, however, you have altered the algorithm of a transfer or file manually, the automation kicks in again afterwards, and no further attention is paid in the case of further transfers or files to already detected material.

This rule only applies when Automatic is selected as the algorithm. It does not apply, however, when you are using Melodyne with ARA; nor when, in the stand-alone implementation of Melodyne, a new file for which an MDD file already exists, containing the editing applied to its detection, is dragged into a document

By setting a different default via the Algorithm menu, you can prevent Melodyne selecting an algorithm automatically for the detection.



Do not forget, however, when you no longer need to impose your choice of algorithm on Melodyne, to restore Automatic as the default setting. Otherwise, since Melodyne remembers your default selection even after you have quit the program, you might be surprised to discover when the program is next launched that your vocals have been interpreted as percussive.

## Note Assignment Mode

Since Melodyne invariably conducts an analysis (we call it “detection”) of the audio material before you can do any editing, the correctness or otherwise of this analysis has a considerable influence upon how well you are able subsequently to work with the material and how good the results of your editing sound. For this reason it is important to check whether Melodyne has detected the notes within your material accurately and if necessary correct any mistakes. This where Melodyne’s Note Assignment Mode comes in.

### What editing the detection involves

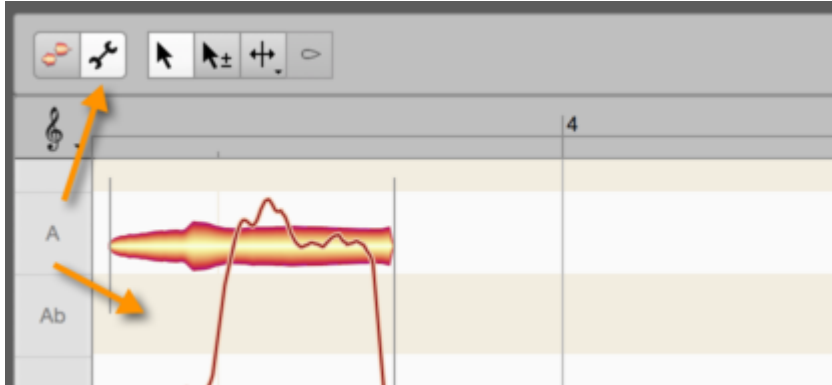
When you are working in Note Assignment Mode, none of the changes you make has any audible effect on the notes themselves. All you are doing is ensuring that the notes that are displayed do actually correspond to those that were played or sung. In other words, you are bringing what you see into line with what you hear. In the process, you are working at all times on the display of the original recording and, with it, so to speak, on the basis for all musical changes made later with Melodyne. The sounder the basis, the better the eventual sound of your edits.

The fact that it is sensible and necessary to check and edit the detection and, with it, the interpretation of the audio material may seem tiresome at first sight. But it brings with it enormous advantages, for there are often several possible interpretations of the audio material, and which is the correct one in a given acoustic and musical context is for you, ultimately, to decide.

But don’t worry, the detection process in Melodyne is mainly automatic and the end result coherent. How much there is to edit in this mode depends upon the algorithm used and the audio material in question. With a dry recording of a single vocalist, for example, you will very rarely encounter problems. It may happen from time to time that a note is detected in the wrong octave, in which case, if you later transpose it, it will sound unnatural. Correcting the detection in such cases is a task swiftly accomplished. The same goes for percussive material, where it is generally only necessary to introduce or remove the occasional note separation.

## What is edited and where

Like the choice of algorithm, Note Assignment Mode applies invariably to all the notes of i) a particular audio file, ii) a particular recording, or iii) a particular transferred segment – we will use the term “audio source” to cover all three. When the Note Editor contains notes from different audio sources, begin by selecting a note belonging to the source the detection of which you plan to edit.



Now click the wrench (spanner) icon next to the toolbox of the Note Editor to activate Note Assignment Mode. The background in the Note Editor changes color to show that you are no longer in normal Edit mode but have switched to Note Assignment Mode. In Note Assignment Mode, what you see and hear is the original state of the audio source; any editing you may have performed on it previously is ignored here.

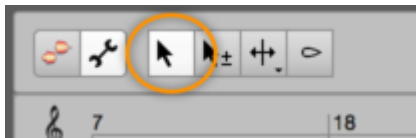
Any time you click on the blob icon (to the left of the wrench), you will leave Note Assignment Mode and return to edit mode. There you will hear once again the results of any editing you performed before switching to Note Assignment Mode. This only applies, however, if you have not changed algorithm in Note Assignment Mode, as any change of algorithm triggers a fresh analysis, and any time you trigger a fresh analysis – any time, in other words, the detection process is repeated – all editing that has been performed on the notes previously is lost.

## The Main Tool in Note Assignment Mode

In Note Assignment Mode, the toolbox contains tools with functions other than those used in normal Edit mode. The most important difference is this: In Note Assignment Mode, the tools have no direct or immediate impact on the sound of the notes; their object, rather, is to bring the detected and displayed notes as closely as possible into line with the actual music. This makes it possible subsequently to edit the material more efficiently and obtain optimal acoustic results.

Which tools are available depends upon the algorithm, as, to a lesser extent, do their functions.

The Main Tool in Note Assignment Mode combines important functions of the other tools, as it does in normal editing mode, so that you can perform a variety of common tasks without changing tools.

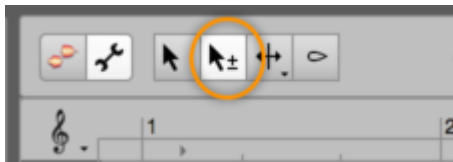


- In the lower part of a blob, the Main Tool functions as the *Activation Tool*.
- In the upper part of a blob, the Main Tool functions as the *Note Separation Tool*.

We will deal with each of these in turn.

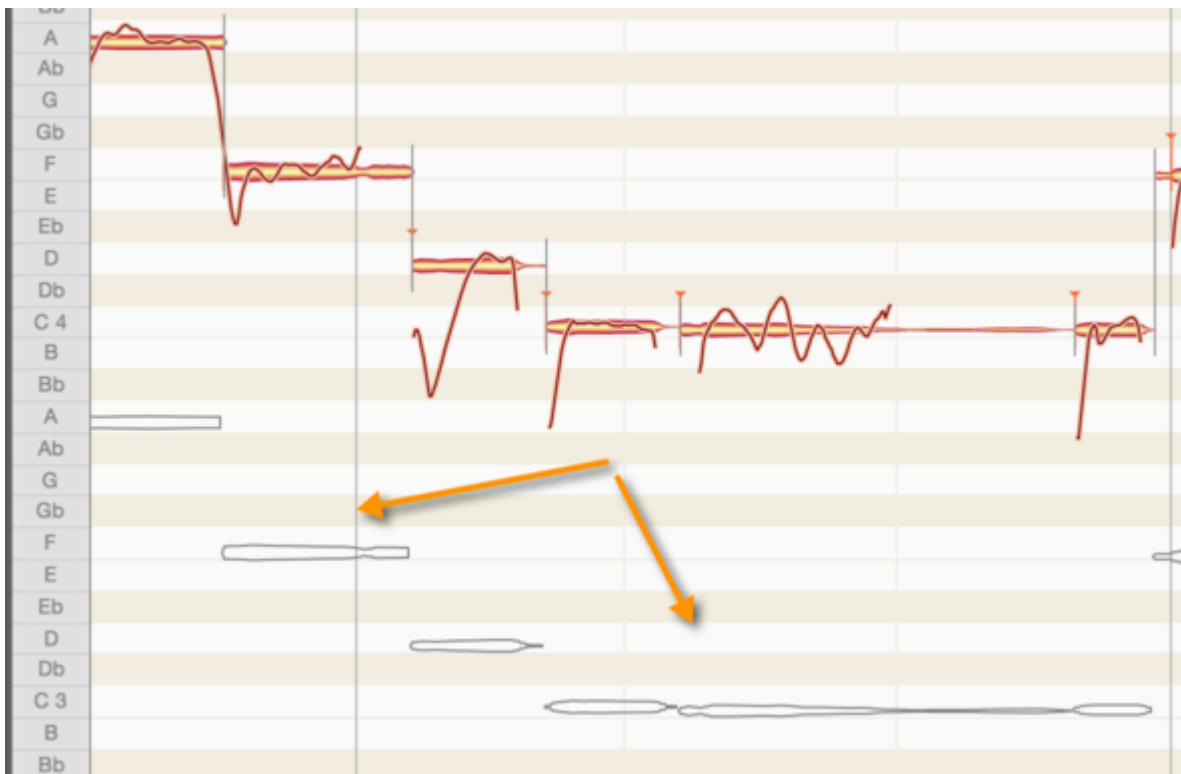
## The Activation Tool

The Activation Tool has no function when the Percussive and Universal algorithms are selected.



If you click on a note with the Activation Tool, its overtone series is shown in the editing background. This enables you to recognize at a glance the octaves and other harmonic ratios of the displayed notes.

**The Melodic Algorithm:** Double-clicking on a blob instructs Melodyne to remove the note in question to the next most plausible pitch, if there is one. Particularly plausible alternative pitches are denoted by hollow blobs – so-called “potential notes” – and tend to lie an octave above or below the original blob. You can also double-click directly on one of these potential notes in order to activate it and deactivate the original blob. If Melodyne is unable to find a plausible alternative to the blob you have double-clicked, it leaves it where it is.



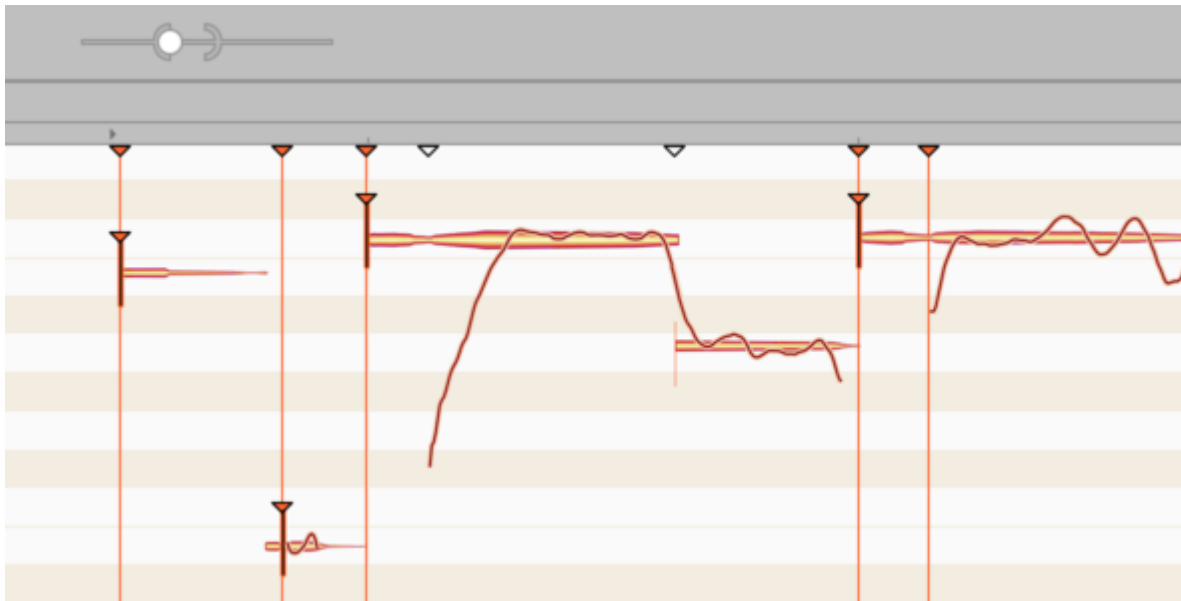
Dragging the blobs vertically with this tool has much the same effect: It instructs Melodyne to search higher up or further down for an alternative pitch. If a plausible pitch is found in the direction indicated, the blob snaps to it; otherwise it returns to its original position. You will use these double-clicking or dragging techniques to correct occasional octave errors in the detection.

## Starting point lines and designated starting points

If, in Note Assignment Mode, you select one of the separation tools, vertical lines appear in the Note Editor. At the same time, a slider with two indicators appears next to the toolbox.

We call the vertical lines “starting point lines”. Rising in parallel from their respective blobs to the Time Ruler, they show the *musical starting points* that Melodyne has identified in the audio file. A

“designated starting point” is indicated by a short vertical line (a “vertical”) topped by an inverted triangle and is invariably found near the start of a blob (though not necessarily at its leftmost extremity); when active, it indicates what, for the purposes of timing, Melodyne considers to be the effective musical starting point of the note. The musical starting point may, but does not necessarily have to, be aligned with the separator at the beginning of the note. Think of a brass instrument, for example, where each note is often heralded by a certain amount of wind noise. This noise also belongs to the note, so it falls to the right of the note separator. What is relevant from the standpoint of timing, however – as is the case also with quantization – is the moment when the sound really unfolds and the pitch first becomes discernible; *that* is the timing-critical moment, and it is that later instant that is designated the musical starting point. If Melodyne is unable to pinpoint the musical starting point of a note, no starting point line is displayed and the note has no designated starting point. For the purposes of quantization, the leftmost extremity of the note is then considered to be the starting point.

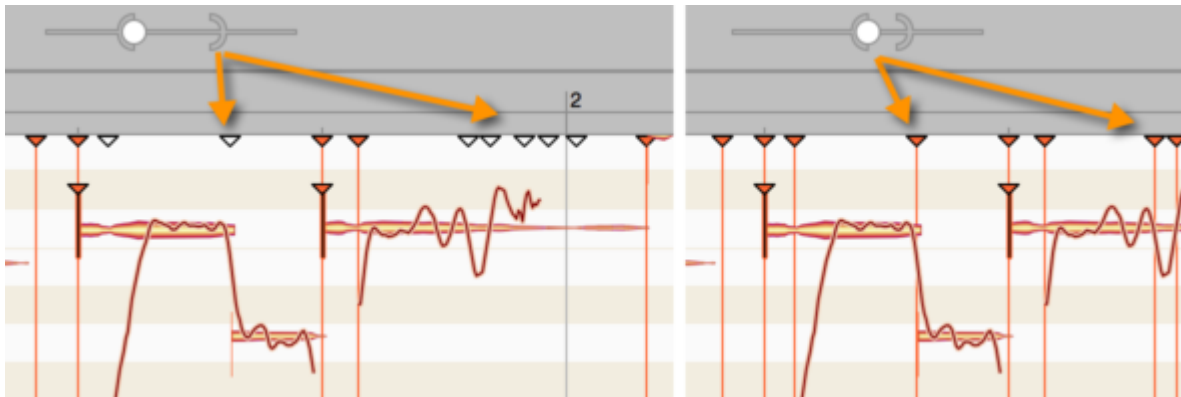




Each of the longer, starting point lines also culminates in an inverted triangular indicator, which you will see just below the Time Ruler. This indicator can be solid, in which case the corresponding starting point line is visible and active; or it can be hollow, in which case the line is invisible: we call it in this case a “potential” or “inactive” starting point line. An inactive starting point line invariably coincides with the beginning of a note. For the note in question, however, Melodyne has been unable to discern with sufficient confidence a musically relevant starting point; it is for this reason that the starting point line is only a potential one and that no vertical (no designated starting point indicator) is displayed at the blob.

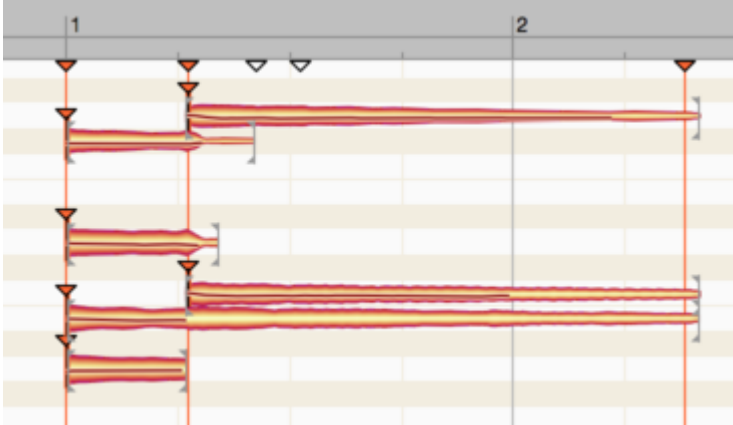
The two slider indicators, the Parenthesis and the Ball, govern, respectively, how sensitive Melodyne is to the presence of potential starting points and how willing it is to activate them, the result being reflected in turn by the total number of triangles displayed and the percentage of these that are solid red. As you move the Parenthesis gradually to the right, more and more hollow triangles (indicating the presence of “potential” starting points) appear beneath the Time Ruler; this reflects Melodyne’s increasing sensitivity that is allowing it to divine more and more points in the material at which a starting point *might* reside – “might” because the lines that are added remain invisible and do not (yet) have any effect upon the blobs.

You can alter this, however, with the slider’s second indicator: the Ball. As you move the Ball to the right, more and more of the previously invisible, “potential” starting point lines will become active; and directly below them, at the level of the blobs, designated starting points will appear at the same time.



You can activate a potential starting point line by double-clicking on the hollow triangular indicator beneath the Time Ruler and, conversely, deactivate an active line by double-clicking on the corresponding solid triangle. Double-clicking in a free place in the ruler generates a new starting point line.

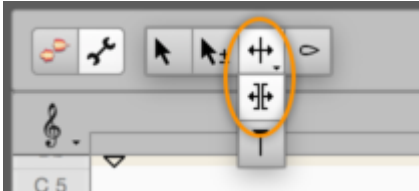
By dragging its indicator, it is possible to move a starting point line forwards or backwards in time; this, however, will seldom be necessary, as Melodyne almost invariably identifies the ideal position. You may still wish, though, to do some fine-tuning. If, for the purposes of experiment, you move a starting point line from left to right, you will notice that as soon as you pass over the start of a blob, a vertical appears complete with inverted triangle (indicating the presence of a designated starting point) that follows the line for a while before disappearing as soon as the note begins to decay, as, clearly, it would be futile to look any further for the musical starting point.



Starting point lines exhibit a kind of “magnetic” property seen not only when you move them but also when separating notes and designating starting points manually.

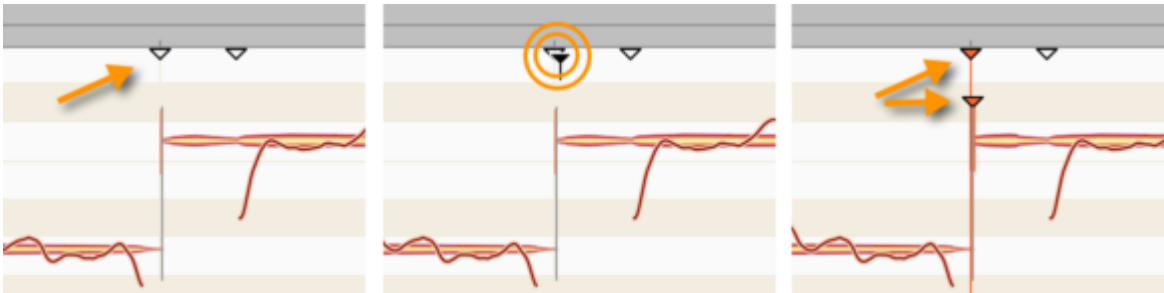
## The Note Separation Tool and the Separation Type Tool

The Note Separation Tool and the Separation Type Tool (directly below it in the toolbar) are available with all algorithms and function in the same way as their counterparts in Edit Mode. You can set or remove note separations by double-clicking and also move them along the time axis. With the Separation Type Tool, you can toggle between hard and soft separations.



By contrast with normal editing mode: In Note Assignment Mode, the separation tools are not used to reshape the music but to edit the analysis or “detection”. The object is to ensure that the blobs represent as accurately as possible the actual music. Tip: To provide two or more notes of differing pitch with a soft separation, you can select “Convert Selection to Connected Sequence” from the context menu (see below).

Since the placing of note separations and the editing of starting points often go hand in hand, you can also edit starting points with the Note Separation Tool. Simply move the pointer into the vicinity of the triangular starting point markers near the Time Ruler and it changes appearance to resemble the Starting Point Tool.



It is possible at any time to deactivate a designated starting point (i.e. withdraw the designation). A new starting point can only be designated if an active starting point line is present in a plausible place i.e. the left-hand end of a blob. Look for a moment at the starting point indicators: In the relevant place, a hollow triangle (indicating the presence of a potential starting point) will probably already be displayed. Double-click on the triangle to activate the starting point line.

If no potential starting point line has been identified at the desired position, using the slider near the toolbox you can cause additional potential starting point lines to appear: to do this, simply move the right-hand control element (the Parenthesis) further to the right.

Alternatively, by double-clicking on an empty area of the ruler at the level of the starting point markers, you can create a new starting point line and drag it into position with the mouse. When, with the Melodic, Percussive or Universal algorithms selected, you activate a potential starting point line or create a new starting point line, a note separation is automatically inserted near a note at the position in question.

Tip: When editing starting point lines, if ever you have the feeling that somewhere a note starting point exists but that it is not indicated even by a potential starting point line, scrubbing in the relevant area often makes it easier to locate the exact position. At the position in question, a rather loud noise component will be audible. Where the noise is loudest, release the mouse button and double-click to place a starting point line.

**The context menu:** When you select one of the note separation tools, a context menu appears in the Note Editor in which you will find the following commands:

- **Convert Selection to Connected Sequence:** With this command, you can convert a selection comprising two or more adjacent notes between which there are hard separations into a connected sequence with soft separations. This is also possible with notes differing in pitch and allows you gather together melodic lines to make more coherent editing possible later.
- **Separate Note:** This command separates notes automatically at a point determined by Melodyne. It is useful when you need to make precise cuts in a vocal passage and isolate sibilants or breathing noise prior to editing using the tools.
- **Reseparate Notes at Starting Point Lines:** This command splits the selected notes at all active starting point lines passing through them. It offers you, therefore, a convenient way of inserting separations at the same point in multiple notes simultaneously, while removing any superfluous separations found elsewhere.
- **Separate Notes as Trill:** The effect of this command is to slice a selection of one or more notes into smaller segments determined by the instantaneous pitch of each note. This is done by inserting note separations into the slopes of the pitch curve as it rises and falls, thereby turning each 'hill' and each 'valley' of a vibrato into a separate note.

Please note that the fluctuations in the Pitch Curve must be fairly pronounced for the "Separate Notes as Trill" function to have any effect and that it is only available when the Melodic algorithm is active, being grayed out in every other case. If you wish to assign a shortcut to the command "Separate Notes as Trill", this can be done using the Preferences dialog.

- **Reset Separations Based on the Selected Grid:** This command separates the notes at obvious starting points as well as at suitable positions on the selected Time Grid. This command is available with the Melodic, Percussive and Universal

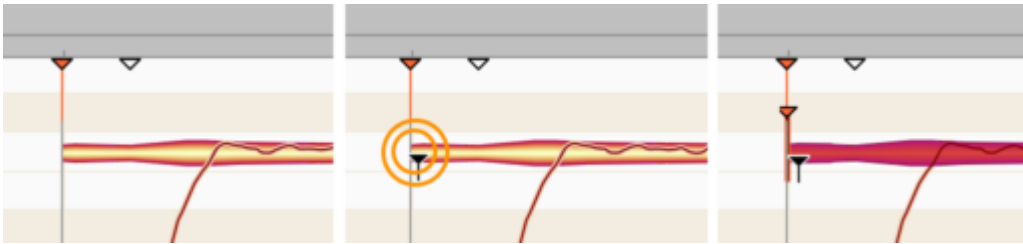
algorithms.

## The Starting Point Tool

The Starting Point Tool is the second sub-tool of the Note Separation Tool.



It is available with all algorithms and is used to designate or undesignate starting points manually by double-clicking. A designated starting point is indicated by a vertical (i.e. a short vertical line) with a red triangle on top located at or near the leftmost extremity of the blob.

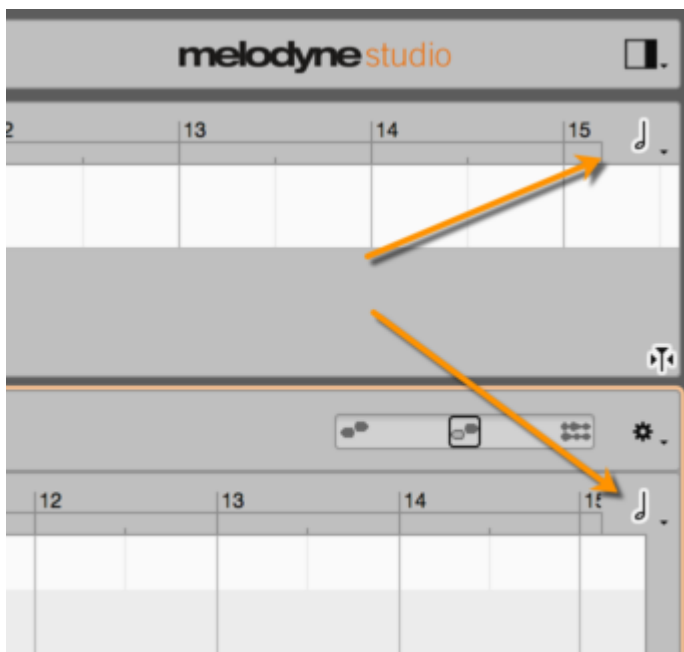


By moving the Starting Point Tool in the region of the starting point markers beneath the Time Ruler, you can also edit these with the Starting Point Tool. As a rule, however, you will generally use the Note Separation Tool for this purpose, as described above.

## The Time Grid

The Time Grid slices up the time axis at regular intervals to provide a clearer temporal overview. It can also have the function, however, of causing content as it is moved to snap to the nearest grid line, thereby making it easier to position notes exactly on the beat. For the spacing of the grid (i.e. the distance between adjacent grid lines), you can choose between Seconds and any of a variety of note values (half note, quarter note etc.).

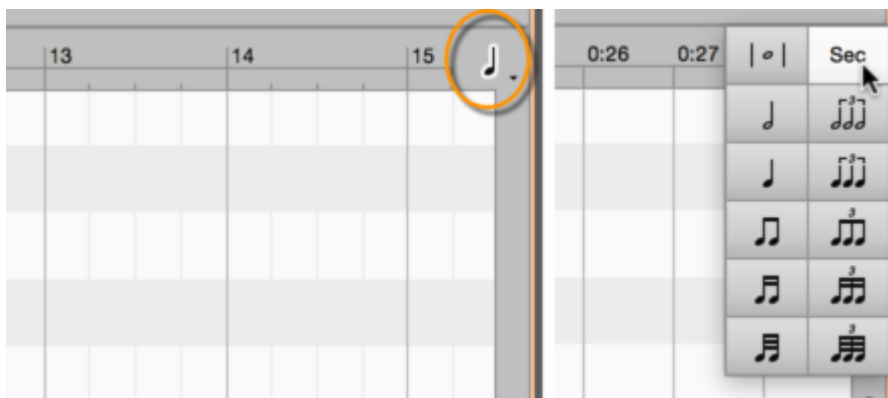
### Activating and setting the Time Grid



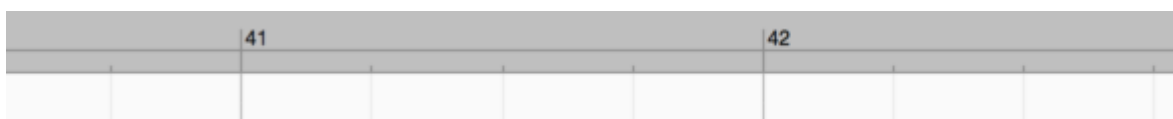
To adjust the Time Grid, either choose Options > Time Grid from the main menu or click the note icon (at the top right of the Note Editor) to open the pop-up menu shown here.

Clicking on the note icon activates or deactivates the grid; you can also define a keyboard shortcut for this command from the Shortcuts page of the Preferences dialog. If you click the note value or the arrow alongside it and hold down the mouse button, the grid menu pops up.

This allows you to set the interval between grid lines to any of a variety of regular or triplet note values or else to Seconds.

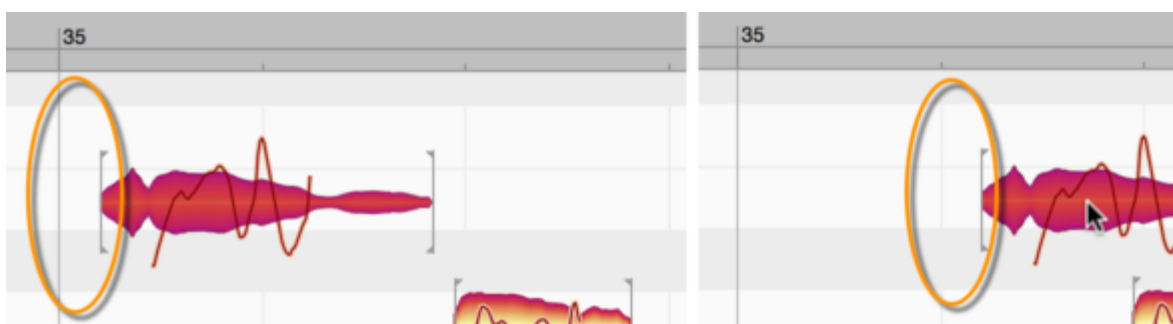


The time axis is then graduated at intervals equivalent to the note value selected. If you have chosen a small note value (such as 1/16) and then zoom the display outwards, at a certain point it will become impossible to display all the grid lines; the grid value selected, however, will remain active.



### Moving notes when the grid is active

When the Time Grid is active and Seconds is not checked, notes moved from one beat to another will end up the same distance from the new beat as they were from the old one. In other words, whilst the grid does influence their position, they don't snap exactly to the nearest grid line unless they were on a grid line to begin with. The note depicted below, for example, sounds slightly after the first beat of the bar.



If, while the grid is active, this is moved to the second beat, there, too, it will sound slightly after the beat – the offset in the two cases being identical.

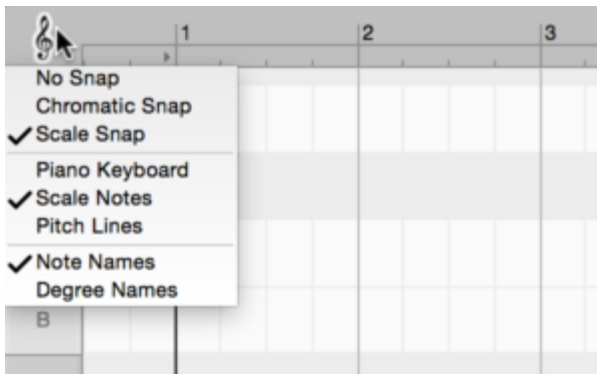
Even if the grid is active, you can still adjust the position of a note (or a selection of notes) independently of the grid by holding down the [Alt] key as you move it.

## Pitch Grid and scales

You can shift the pitch of notes in Melodyne either continuously or in discrete steps using the grid. When the grid is active, notes can only be moved to such pitches as the grid allows. The grid in such cases can correspond to either the chromatic or some other scale.

### The functions of the Pitch Ruler and access to the Pitch Grid

You can change the options relating to the Pitch Grid either from the sub-menu of the same name under Options in the main menu or by clicking the clef icon directly above the Pitch Ruler.





## Activating the Pitch Grid and selecting display options

Single-clicking the clef icon activates or deactivates the Pitch Grid, thereby switching on and off the snap function. When the grid is inactive, you can move notes freely in pitch – even to frequencies falling between notes of the chromatic scale. The Pitch Ruler in this case displays, for reference only, faint lines between the notes.

If you click the clef icon or the small arrow symbol alongside it, hold down the mouse button and drag downwards, a drop-down menu opens displaying the snap, background and ruler options:

### Snap

- **No Snap:** The grid is inactive. Notes can be moved to any pitch, whether or not it coincides with a degree of the chromatic scale.
- **Chromatic Snap:** Notes snap to the nearest degree of the chromatic scale and the lines on the Pitch Ruler are more boldly displayed.
- **Scale Snap:** In this case, based on its own analysis of the audio material, Melodyne selects what it considers the most appropriate major or minor scale. The tonic (or 'keynote') thus ascertained is highlighted in the Pitch Ruler. Naturally you can alter the scale and tonic but we will come to that in a moment. Let's look first at the other options in this menu.

### Background

Here you can choose the appearance of the background in the Note Editor.

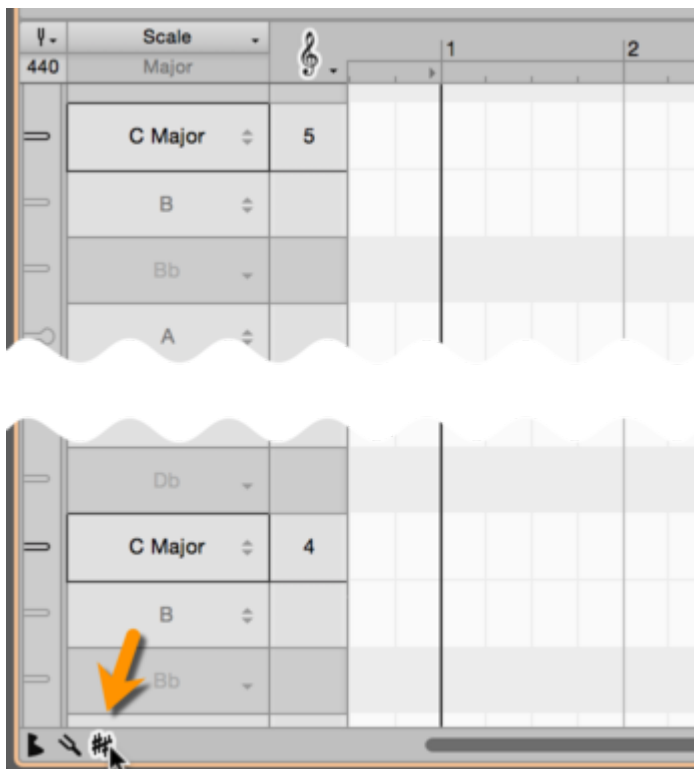
- **Piano Keyboard:** the darker beams in the Note Editor represent the black notes of a piano keyboard and the paler beams the white ones – a layout with which users of most MIDI editors will be familiar.
- **Scale Notes:** The lighter beams are assigned to the notes of the scale, whilst the darker beams indicate notes foreign to it. When Scale Snap is selected, therefore, notes will invariably come to rest on the lighter beams.
- **Pitch Lines:** The degrees of the scale are indicated by bold lines instead of beams – with thinner lines reserved for notes foreign to the scale. This is useful in the case of poor intonation, as the precise pitch of each degree of the scale is clearly indicated.

### Ruler

Here you can choose whether the Pitch Ruler displays the names of the notes or the degrees of the scale.

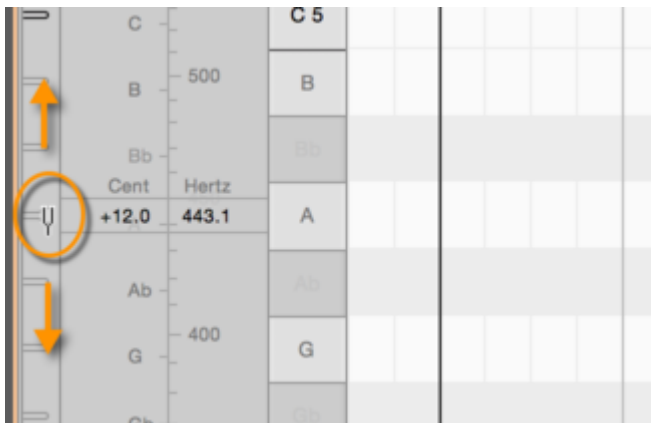
## The Scale Ruler and the Reference Pitch Ruler

To select a tonic (keynote) and a scale yourself or change other settings, open the drawer we mentioned earlier a little wider by clicking the rightmost arrow beneath the Pitch Ruler. Two new columns will appear to the left of it.

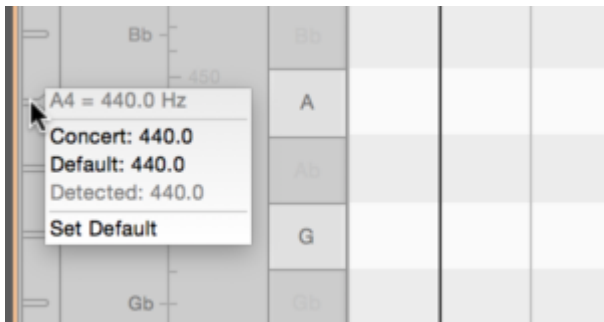


## Adjusting the master tuning

The narrow column on the very left is the Reference Pitch Ruler. Drag in either direction the mark alongside any note – A4, for example – and the Frequency Ruler appears, which you can consult as you fine-tune the note in question and, with it, of course, all the other notes of the scale. What you are doing here is adjusting the master tuning for the entire Pitch Grid. A tip: increase the vertical zoom factor, as this will make it easier for you to locate the value you want.

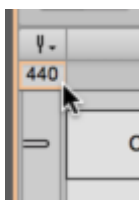


By right-clicking any of the marks on the ruler, you can open a small context menu. This offers a number of pointers to help you bring the Pitch Grid swiftly into line with a particular tuning:



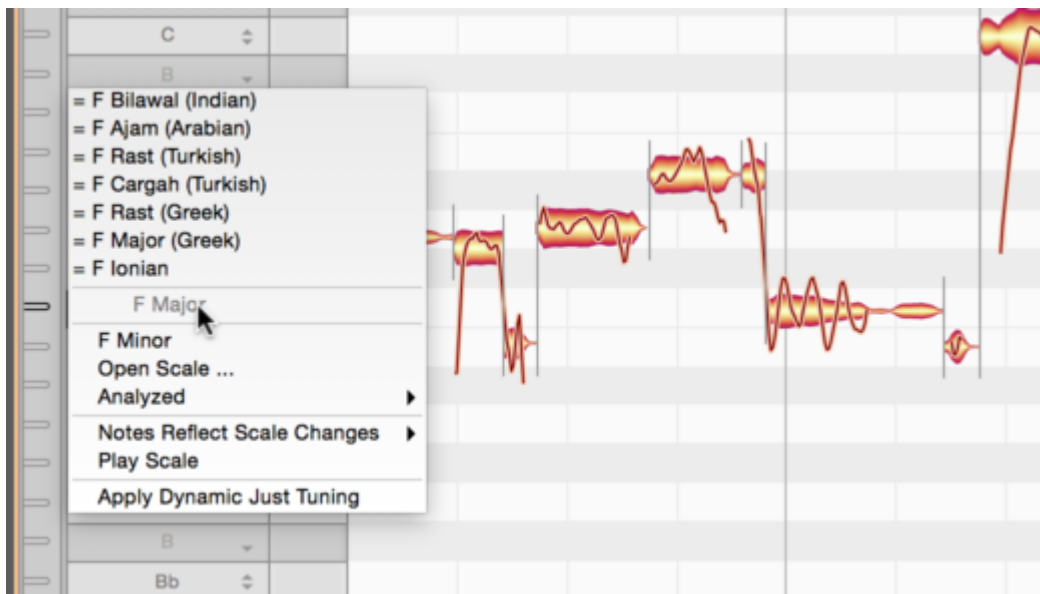
- At the top, you will see the current frequency of the note selected.
- Concert: bases the tuning on modern standard concert pitch (where A4 = 440 Hz).
- Default: bases the tuning on the frequency currently assigned to A4 in the Preferences dialog.
- Detected: bases the tuning on Melodyne's analysis of the music being edited – the original tuning.
- Set as Default: tells Melodyne to use the current value as the default tuning for new documents and adjusts the value in the Preferences dialog accordingly.

The various settings for A4, incidentally, can be found quickly by clicking the tuning fork icon at the top of the Reference Pitch Ruler. By typing into the box immediately below this icon, you can assign to A4 any frequency you like.



## Selecting the tonic and scale variety

The wider ruler next to the Reference Pitch Ruler is the Scale Ruler. Here you can select the 'tonic' (i. e. the first degree or keynote) of the scale as well as its mode or type. First click on the note you wish to use as the tonic. The following menu opens:



Related scales: in the top part of the menu, you will find a varying number of scales preceded by a “=” sign. These are scales that correspond to the current scale but are differently named.

Please note that when you select a related scale from this menu, only the main structure of the mode in question is adopted: the scale is simply given a new name and, if applicable, a new tonic. It can be, however, that the exact definition of the related scale in question contains additional secondary degrees or fine-tuning. If you wish to use these, please choose Open Scale... from the scale drop-down menu.

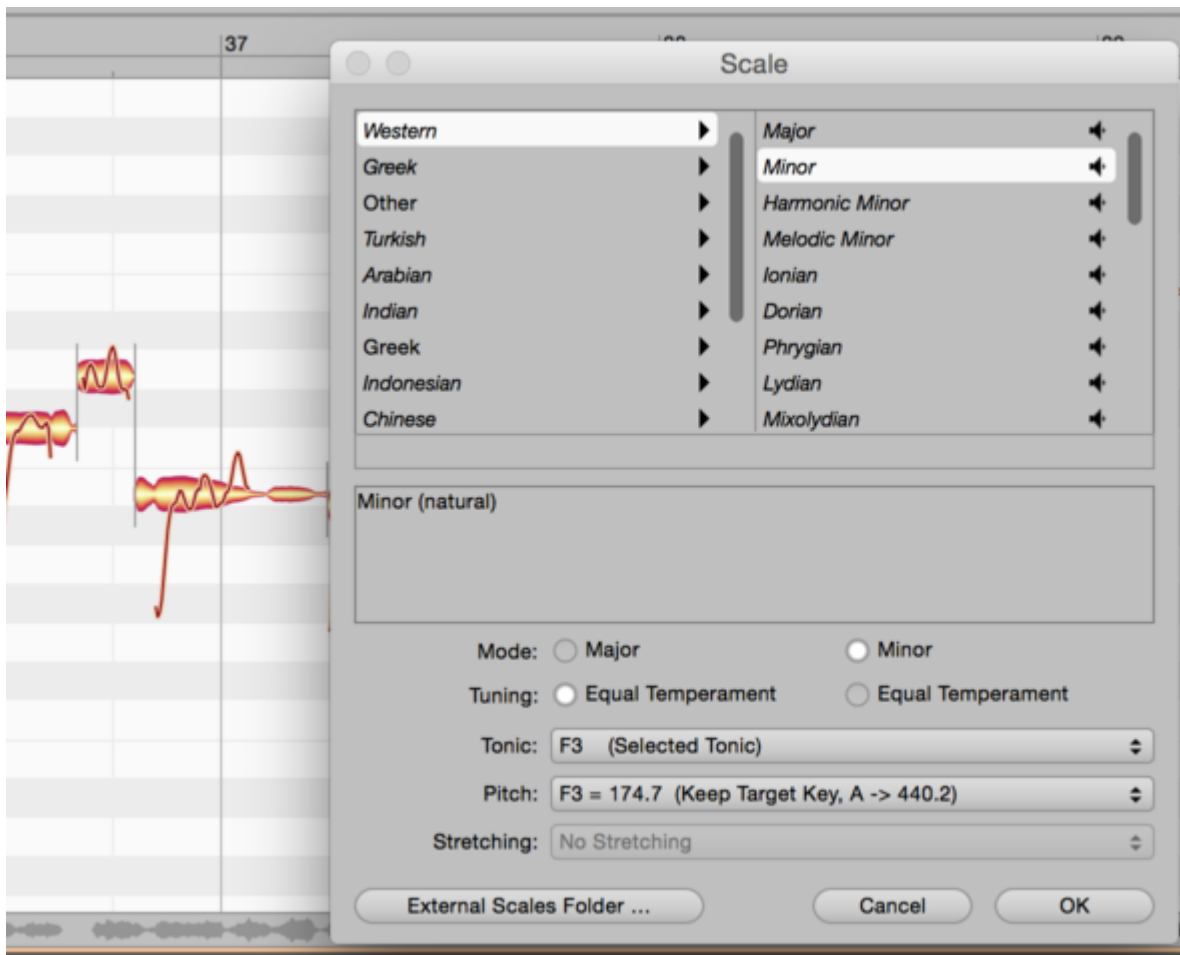
- The current note: in the middle of the submenu, grayed out, you will see the name of the note you have clicked on and which you can now make the tonic.
- Major / Minor: Allows you to select a major or minor scale with the note selected as tonic. To select C Major, for example, click C in the ruler, followed by C Major from the submenu.
- Open Scale... : opens Melodyne's Scale Window, which offers access to a wide variety of additional scales. This window will be described in the next section.
- Analyzed: this offers you rapid access to two options derived from Melodyne's analysis of the material: the closest major or minor scales and an exact microtonal scale.
- Notes Reflect Scale Changes: normally when you change the scale, Melodyne adjusts the Pitch Grid but does not change the notes themselves unless you double-click on them first, in which case they will snap to the grid. If, however, you wish the notes to adjust automatically to any change of scale, select either Tuning or Tuning and Mode. Then any changes will take effect immediately and you will hear them at once during playback.
- Play Scale: plays the current scale. When this function is active, the loudspeaker icon appears above the Scale Ruler. By clicking on this icon, you can deactivate the function without needing to access a menu.

**Tip: Initialize the key prior to the transfer/load:** In the case of monophonic or polyphonic audio material, Melodyne also recognizes the key of the music. With short melodic phrases, however, the key chosen is often not the one intended, simply because too few notes are available for a correct appraisal. To prevent this happening, you can set the key using the Scale Ruler of an empty instance of the plug-in or an empty document (if using the stand-alone implementation of the program) *before* the transfer or loading of an audio file. To do this, simply click on the desired keynote in the Scale Ruler and select the desired scale from the context menu. Melodyne will then retain this initialized value, regardless of its own subsequent analysis.

## The Scale Window

Melodyne's Scale Window offers a multitude of scales you can select, listen to, and make use of. To access this window, choose “Open Scale” from the context menu of the Scale Ruler.

The selected scale applies to all instances of the Melodyne plug-in.



To open the Scale Window, select Open Scale from the context menu of the Scale Ruler.

Now choose a category from the left-hand pane followed by the desired scale from the pane on the right. Click the loudspeaker icon to the right of each entry to hear the scale selected.

If you have activated the option Notes Follow Scale Changes, during playback you will hear immediately the effect of applying the scale selected to your audio material. The window allows you to try out (or 'audition') different scales quickly and easily. If you wish to adopt the changes, exit the window with OK; otherwise click Cancel.

From the lower pane of the window, you can select between the parameters of your existing scale and those of the scale selected in the Scale Window.

- Mode and Tuning: you can adopt either the parameters of your existing scale (on the left) or of the scale currently selected in the Scale Window (on the right).
- Tonic: you can choose between the selected tonic or the tonic from the preset.
- Pitch: here you can choose between current tuning, the pitch from the preset or various standard tunings.
- Stretching: here you can select whether or not stretched tuning should be applied to the scale.
- External Scales Folder...: this button allows you to open a folder containing scale definitions in Scala format (filename extension “.scl”) which will then appear as an additional category in the Scale Window.

On the Internet, you will find at <http://www.huygens-fokker.org/microtonality/scales.html> a collection of over 4,000 Scala files that you can copy to any part of your hard disk and audition and try out in this way using Melodyne editor.

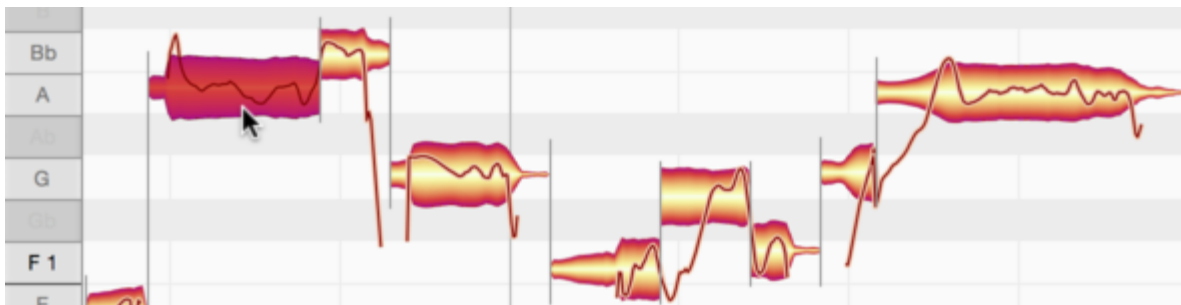
You can also load scale definitions created in Melodyne studio (filename extension ‘.mts’) with this button.

## Selecting notes

In this tour, you will learn which techniques you can use to select notes in Melodyne prior to editing them.

### Standard selection techniques

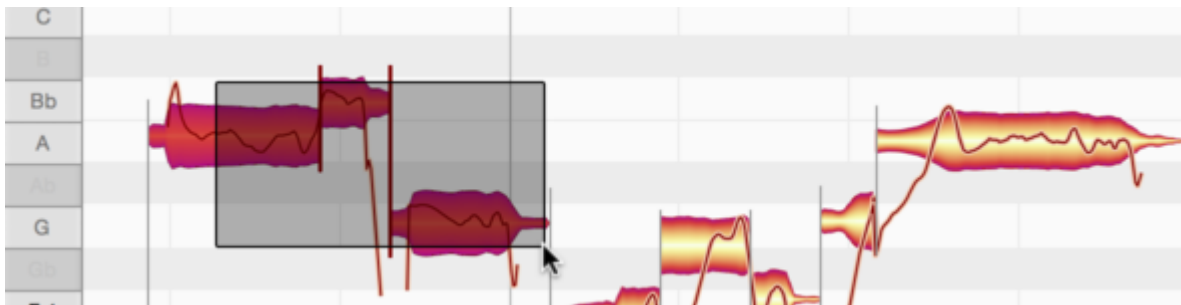
Click a note in the Note Editor to select it. Selected notes are more boldly colored.



[Command]-click additional notes to add them to the selection.

[Command]-clicking a selected note removes it from the selection.

Another way of selecting multiple blobs is to lasso them by clicking the background in one corner of the desired selection and then dragging the pointer to the corner diagonally opposite. This is sometimes called rubber-banding. If you hold down the [Command] key, you can add a further rubber-band selection to the existing one. You can also add individual notes to the selection (or remove them from it) by [Command]-clicking.

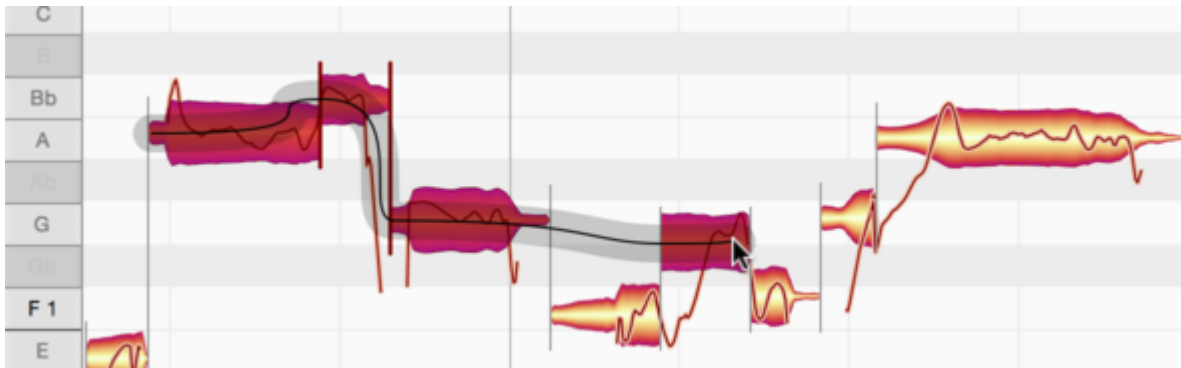


To select a passage (i.e. a series of notes), click the first note of the series and then [Shift]-click the last (or vice versa).

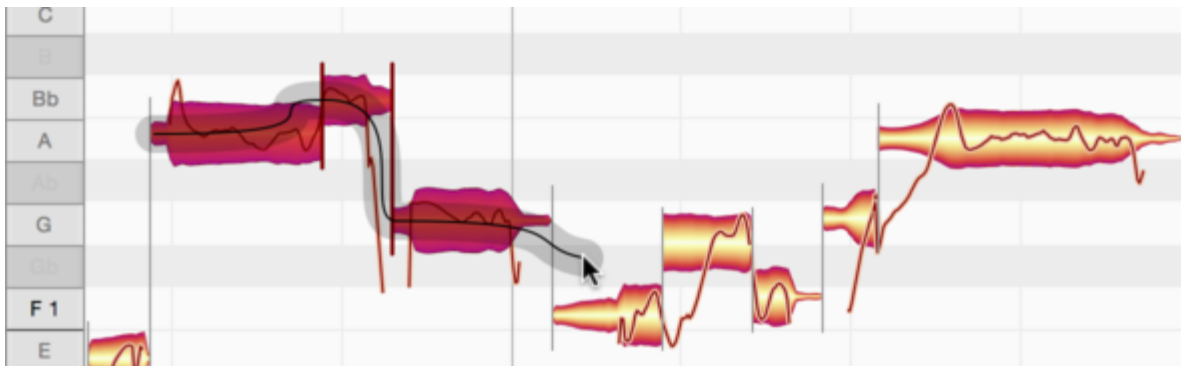


## Snake selection

If you press the [Shift] key, click a note and then move the mouse pointer away, Melodyne's snake selection mode is activated. You can now add notes to the selection by painting over them with the snake.

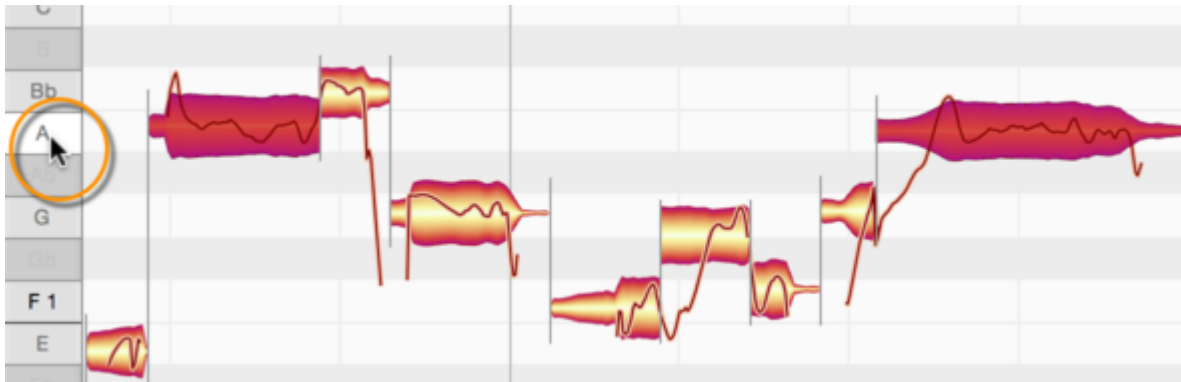


If you move the mouse (and thereby the snake) backwards again, you can remove notes previously painted over from the selection.



## Selection using the Pitch Ruler

Click a note in the Pitch Ruler to select notes of the corresponding pitch.

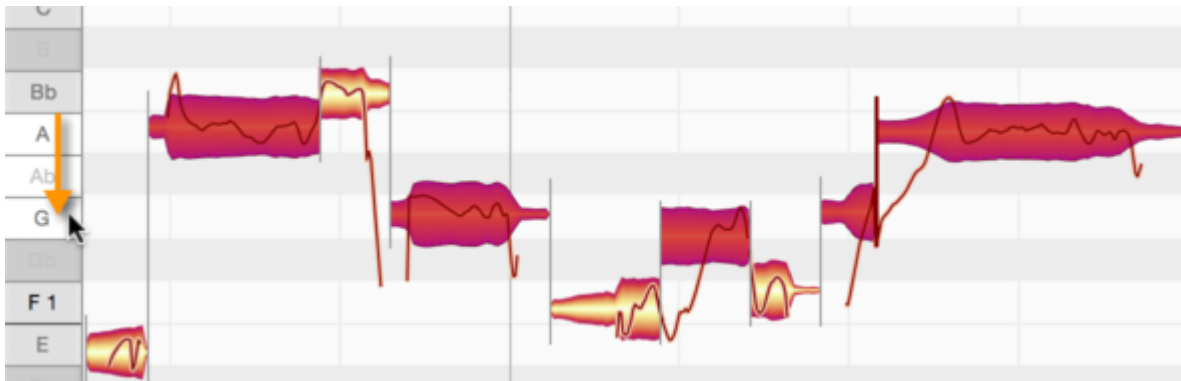


If cycle mode is active, the selection only affects such notes if they lie within the cycle range.

By [Command]-clicking other notes in the Pitch Ruler, you can add them to the selection and later remove them by the same means.

If you double-click, as opposed to single-clicking, a note in the Pitch Ruler, you will select the same note in all octaves rather than simply that single instance of the note.

Click and drag in the Pitch Ruler to select a range of notes.



By using the [Command] key in the Pitch Ruler, you can remove from the selection a range of notes or individual notes. Here too, if a cycle is active, only notes within the cycle range will be selected.

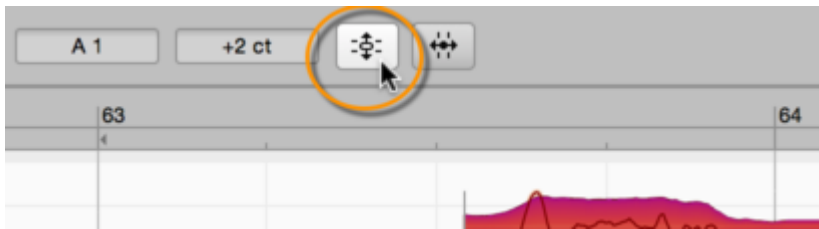
## Correct Pitch Macro

The Correct Pitch Macro is used to rectify poor intonation quickly and intelligently and rein in any undue wavering in pitch.

### Opening and using the macro

Select the notes you wish to edit. If no notes are selected, macro editing will by default affect all notes.

To open the macro, choose Edit > Quantization Macros > Correct Pitch or click on this button at the top of the Note Editor.

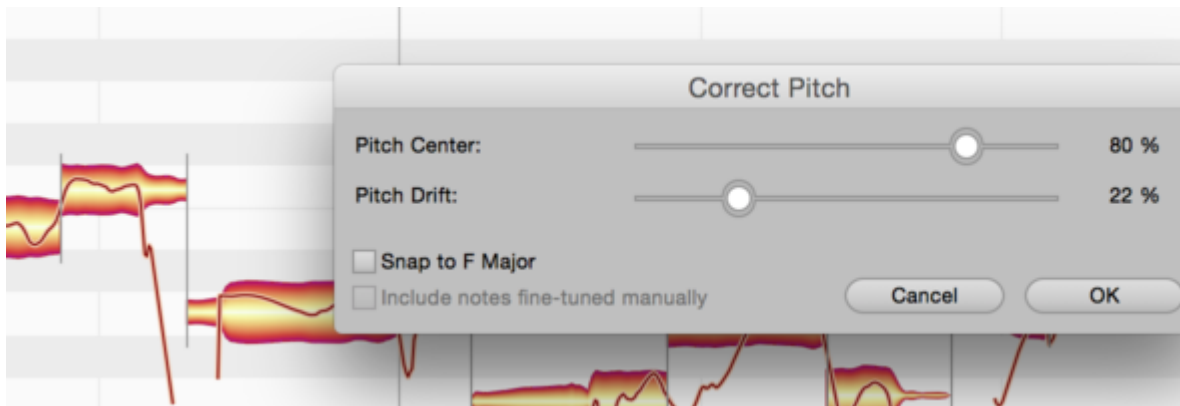


Here, with the upper slider, you can apply a degree of correction ranging in intensity from 0% (no influence) to 100% (full power) to the pitch center of the notes selected. By default, such notes are moved towards, or to, the nearest semitone, but if you check the option “Snap to (the selected scale)”, notes foreign to the scale will be ignored as possible destinations, and, depending upon the position of the slider, notes will move a certain distance towards, or all the way to, the nearest degree of the scale in question.

A word of caution here: notes often fluctuate slightly in pitch, so their position is based on a mean pitch that Melodyne has to calculate. This mean pitch, or “pitch center”, forms the basis for pitch correction. If a note wavers slightly in pitch, it cannot be guaranteed that, after 100% correction has been applied to it, it will sound right at the new pitch – especially since the correct pitch of any given note is not a constant but depends upon the musical context.

The macro works in a musically intelligent manner: At lower settings it affects only those notes that are wildly out of tune, leaving untouched those that are already quite close to the intended pitch. As the slider is moved further towards the right, however, even those notes are influenced, and to an increasing degree, until at 100% all the selected notes are exactly in tune.

The pitch center, which the macro adjusts automatically, is the same parameter that is modified when pitch correction is performed manually using the Pitch Tool.



With the lower slider, you can progressively reduce the amount of pitch drift exhibited by the notes in question. By “pitch drift”, we mean the kind of slow wavering in pitch that is symptomatic of poor technique. More rapid fluctuations in pitch, such as pitch modulation or vibrato, remain unaffected.

You can modify both correction parameters in real time as the audio plays back; and hear, but also see (by the movement of the blobs in the Note Editor, the effect of different settings.

If you have already fine-tuned some notes using the Pitch Tool, Melodyne will assume you are satisfied with the results; this means that, by default, if you now open the Correct Pitch Macro with no notes selected and begin making changes, only the other notes will be affected. By default, in other words, notes that have been tuned manually are not affected by the macro. If you wish the pitch of these too to be affected by the macro, check ‘Include notes fine-tuned manually’. The option is grayed out, of course, as being of no relevance, if no manual editing of intonation has been performed.

### **Closing the macro and correction values when it is reopened**

Exit with OK to keep your changes or Cancel to discard them. Naturally the fact that you have used the Correct Pitch Macro in no way precludes your fine-tuning notes at any time subsequently by hand.

If you select a note that has already been edited using the macro and then open the macro again, the settings previously applied to it will be displayed; the macro remembers, in other words, the parameters previously applied to each note. If the current selection includes notes to which different settings have been applied, when it is opened the minimum and maximum values for each parameter will be displayed.

Even after exiting with OK, you can still reverse the effects of the macro editing by using the undo function.

## Quantize Time Macro

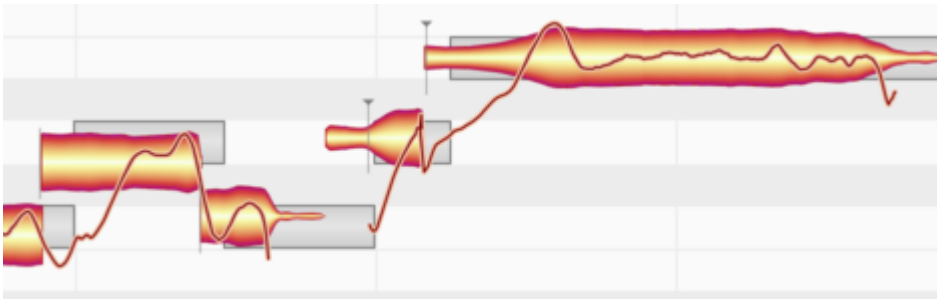
In this tour, you will learn how to work with the Quantize Time Macro, which makes it possible to correct the timing of notes swiftly and effortlessly.

### Quantizing timing: What is moved and where to?

Before examining the operation of the Quantize Time Macro, we should clarify a few basic concepts and relationships.

Now check Show Intended Notes in the Options > Note Editor sub-menu, which can also be accessed via the cog icon in the top right-hand corner of the Note Editor.

Gray boxes now enclose each blob.



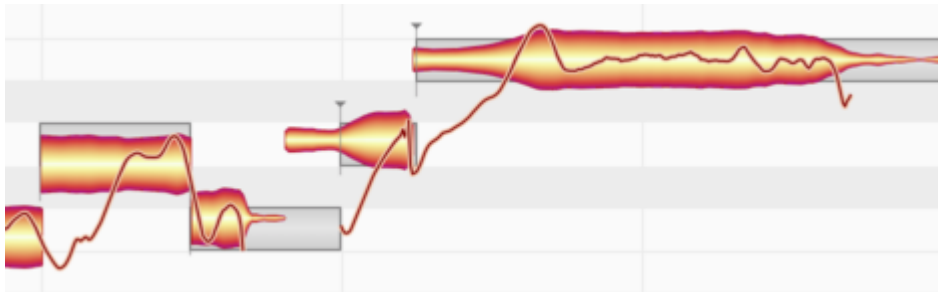
When it first analyzes the material, Melodyne calculates for each note two parameters of relevance to the process of time correction.

The first is the intended musical beat of the note; this is indicated by the start of the gray frame enclosing the blob. As you can see, the start of the frame invariably coincides with a grid line.

The second is the the beginning or musical starting point of the note, represented, respectively, by a note separation or a vertical dash with a triangle. This will not necessarily be aligned with the left-hand extremity of the blob. Think of a brass instrument, for example, where each actual note is often heralded by a certain amount of wind noise. Admittedly this noise belongs to the note, but from the standpoint of timing what is of relevance is the moment the sound really unfolds and the pitch first becomes discernible; that is the timing-critical moment.

It may not always be possible to determine when this occurs, in which case only the beginning of the note will be marked. (Starting points can be edited in Note Assignment Mode).

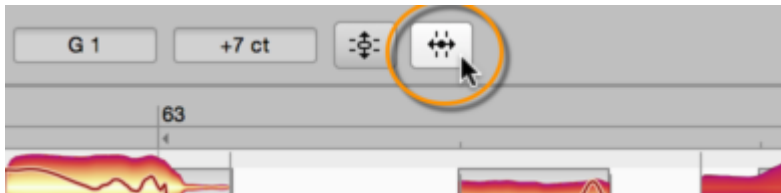
If you quantize notes with the Quantize Time Macro, the musical starting point of each note (if one has been determined; if not, the beginning of the note] will move towards the left-hand side of its gray frame. The quantization intensity slider determines whether it goes all of the way, or only part of the way, to the beat assigned it.



### Opening the Quantize Time Macro and setting the parameters

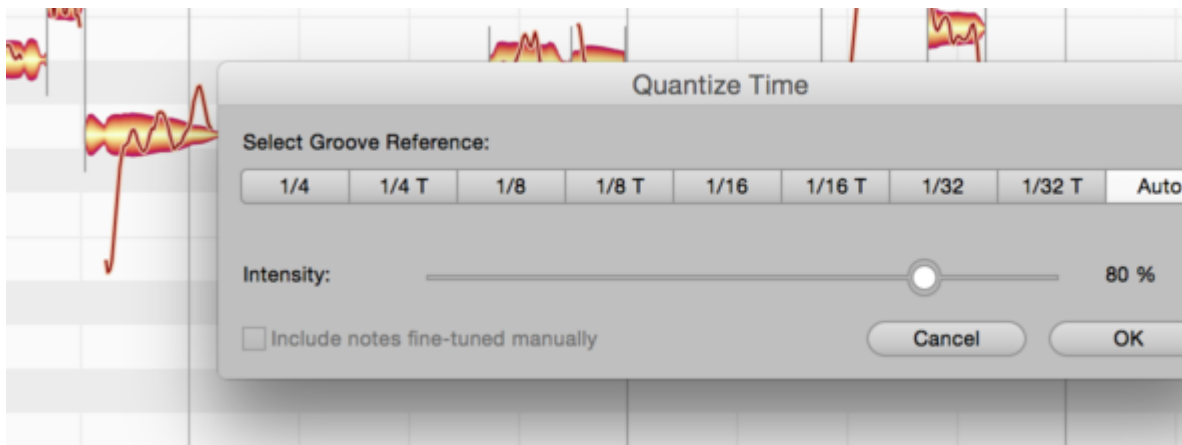
Select the notes you wish to edit. If no notes are selected, macro editing will by default affect all notes.

To open the Quantize Time Macro, choose Edit > Quantization Macros > Quantize Time or click the Quantize Time icon (illustrated here) to the right of the toolbar in the Note Editor.



First, the Groove Reference (if any) that will govern the time correction must be selected.

If Auto is selected, the target (or ultimate destination) of any quantization will be the left-hand edge of the gray frame, as already described. This is invariably aligned with the grid line that represents the beat to which Melodyne, in the course of its analysis, assigned the note. (On the whole, the system functions very well; but it can happen that Melodyne gets it wrong, and that after quantization you have to move the note manually to the preceding or following beat.) By selecting Auto, in other words, you are telling the Quantize Time Macro to move notes to (or towards) the beats assigned them by Melodyne based on its own analysis of the material.



With the other buttons, you can select the target grid for the quantization. The 'T' next to the note values stands for the corresponding triplet. If you select 1/4 as the Groove Reference, to give one example, the grey frames will move to the nearest quarter-note (or 'crotchet') and this will then become the ultimate destination for any quantization.

Note that the time correction macro works differently from, and in a more musical fashion than, the quantization typically offered by MIDI sequencers. Instead of simply causing all notes to snap to the selected grid, it edits the points of rhythmic emphasis of the selected notes. If, for example, you take a passage containing successions of sixteenth notes (semiquavers) and quantize it to quarter notes (crotchets), the beginning of each succession of sixteenth notes will be moved to the nearest quarter note. The timing of the semiquavers within the sequence, however, remains unaltered. If you wish to tidy that up as well, you can do so in a second pass, taking each semiquaver sequence in turn and using sixteenth notes as the quantization factor.

The Intensity slider determines what percentage of the distance to this ultimate destination the notes will travel in the course of quantization. If you select 0%, for example, they'll not budge; 50%, and they'll go half way; 100%, and they'll travel the full distance, ending up precisely on the beat. You can modify both the Groove Reference and the Intensity of the quantization in real time as the audio plays back; and hear, but also see (from the movement of the blobs in the Note Editor), the effect of different settings.

If you have already finely adjusted the position of notes using the Timing Tool, Melodyne will assume you are satisfied with the results; this means that, by default, if you now open the Quantize Time Macro with no notes selected and begin making changes, all notes will be affected except these. If you wish the position of these too to be affected by the macro, check 'Include notes fine-tuned manually'. The option is grayed out, of course, as being of no relevance, if no manual editing of note positions has been performed.

### **Closing the macro and correction values on reopening**

Exit with OK to keep your changes or Cancel to discard them. Naturally, the fact that you have used the Quantize Time Macro in no way precludes your moving notes at any time subsequently by hand.

If you select a note that has already been edited using the macro and then open the macro again, the settings previously applied to it will be displayed; the macro remembers, in other words, the parameters previously applied to each note. If the current selection includes notes to which different settings have been applied, a mean value for each parameter will be displayed.

Even after exiting with OK, you can still reverse the effects of the macro editing by using the undo function.



## Main Tool

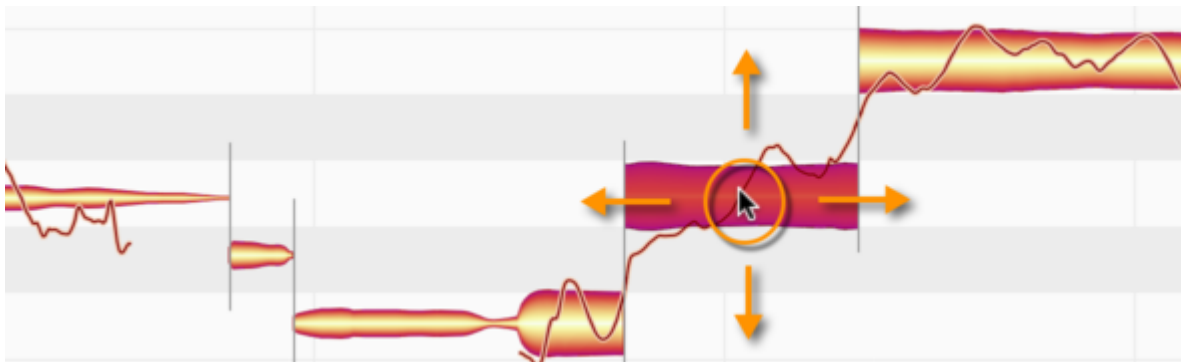
Melodyne's Main Tool is context-sensitive, its exact function at any given moment depending upon its position relative to the selected blob.

### Modifying the pitch and timing of notes

Select the Main Tool (denoted by an arrow) from either the toolbox or the context menu of the Note Editor or by pressing the [F1] key of your computer keyboard. (If you wish to assign a different shortcut to this tool, you may do so after choosing Melodyne > Preferences > Shortcuts > Editing Tools from the main menu.)



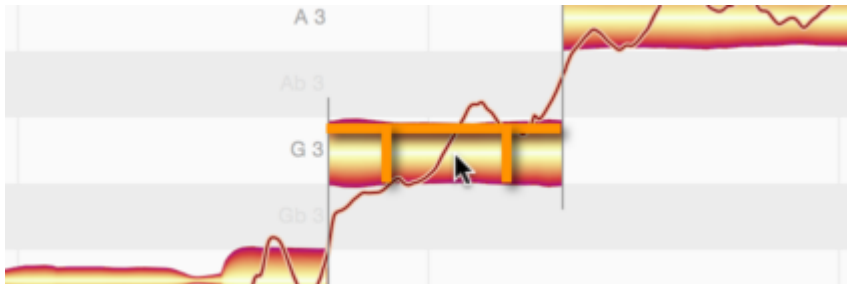
With the Main Tool, move the arrow to a point near the center of a blob and press and hold the mouse button as you drag it upwards or downwards (to alter its pitch) or left or right (to move it forwards or backwards in time). It is the initial movement (whether vertical or horizontal) that decides whether the pitch or timing of the note is altered. Before changing axis, you must first release the note. If you hold down the [Alt] key as you drag the note, the Pitch Grid or Time Grid, even if active, will temporarily be ignored, allowing you to position the note exactly where you want it.



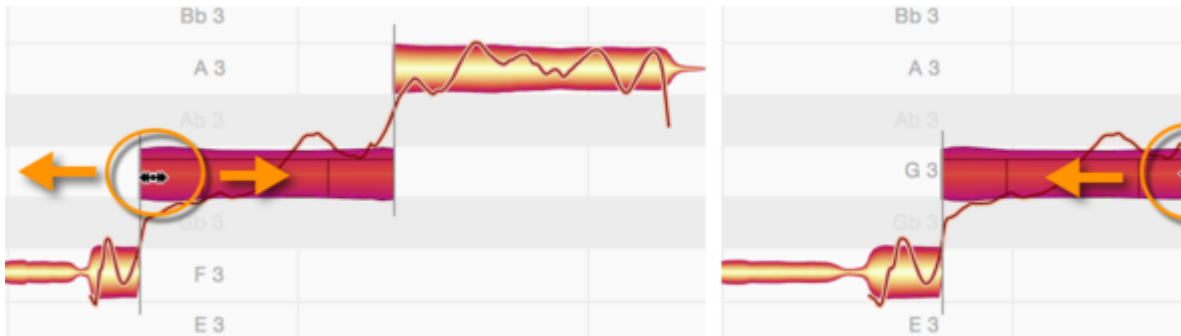
While you are dragging a note up or down, you will hear the frozen sound of the note at the point where you clicked. If, whilst dragging, you move the mouse to the right or left, you can put other parts of the note under the acoustic microscope. If you do not wish to monitor pitch changes in this way, uncheck the option Monitor When Editing Blobs in the Options > Note Editor sub-menu, which can also be accessed via the cog icon in the top right-hand corner of the Note Editor.

## Modifying note lengths

Open the Note Editor Options menu and check Show Blob Info. Zoom in on a few individual blobs, so that you can study them more closely. Now, as you move the mouse pointer over a blob, thin lines appear indicating the zones in which the Main Tool performs particular functions. For illustrative purposes, the lines here have been drawn more boldly than in the program itself. The central area you already know about. This has to be distinguished from the front, back and upper regions of the blob. As you move the mouse pointer from one of these regions to another, it changes its appearance to emulate whichever of the more specialized tools is most appropriate to that zone – adopting its functions at the same time.



Drag the front part of a note to the right or left. Hold down the [Alt] key as you do so if you wish to override an active time grid. Now only the beginning of the note moves; the end remains anchored, so the note is either being stretched or compressed.

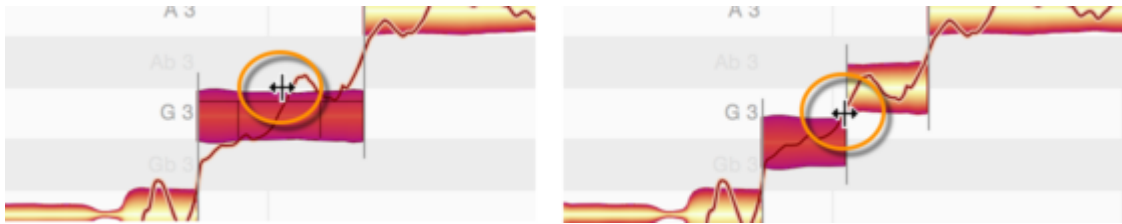


In the same way, you can move only the rightmost part of the blob (corresponding to the end of the note).

Notice that as you move the beginning or end of a note in this way, the preceding or following note, if adjacent, is also either stretched or compressed by the same amount to avoid either the two notes overlapping or white space (silence) appearing between them. This type of relationship exists whenever a pitch transition between consecutive notes has been detected. By moving the adjacent note as well, Melodyne ensures that discontinuities are avoided and the musicality of the phrasing is preserved.

## Editing note separations

If you move the mouse pointer to the upper part of a note (above the horizontal line), the Main Tool adopts the appearance, and emulates the functions, of the Note Separation Tool. If you double-click now, you can create a note separation – i.e. slice the note in two.



Don't be surprised if the two notes that result move apart in pitch: this is because a new tonal center is calculated for each of the newly created notes, and that may differ from the tonal center they shared when they were one note. In such cases, each therefore moves to a new vertical position based on its newly calculated pitch center.

You can move an existing note separation horizontally with the Note Separation Tool. Before you begin, choose Options > Note Editor Options and check Show Note Separations.

You can double-click a note separation to remove it.

If you select several notes and move a note separation, the note separations of the other selected notes will also be moved. If you double-click one of the note separations to remove it, those of the other selected notes will also be removed.

If you have selected several notes that overlap, you can simultaneously insert a note separation at the same point in all of them, as well as move or remove one.

## Copying notes

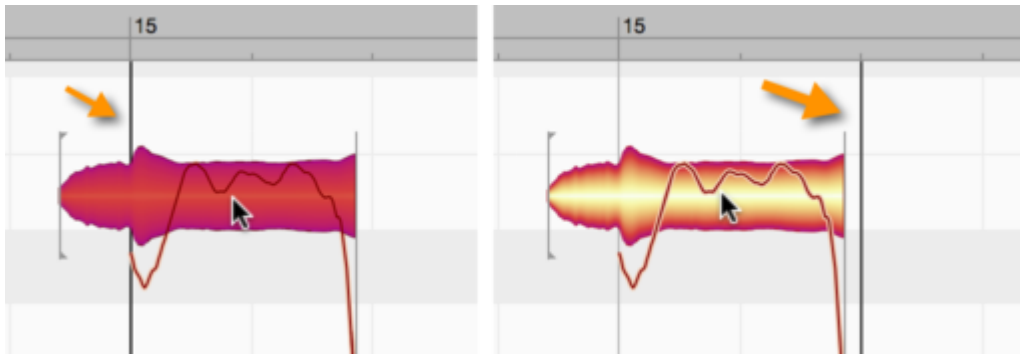
To copy notes in Melodyne, first select the desired notes, then choose Copy from the Edit menu or the context menu of the Note Editor. To insert them, use the Paste command. The following points here need to be noted.

### The selection, cursor and grid when copying

When you copy notes to the clipboard using the Copy command, you will notice that the cursor moves to the start of the selection, or, to be more precise, to the quarter-note (crotchet) on the Time Grid closest to the first note of the selection.

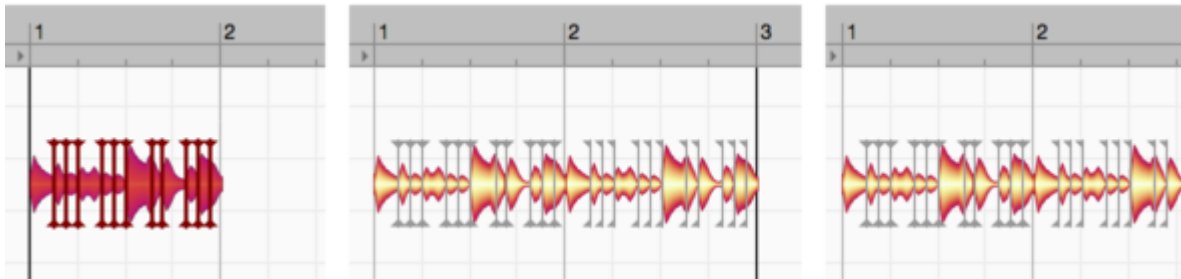
If, with the notes still selected, you use the Paste command, all that appears to happen is that the notes that were selected prior to the paste are now no longer selected and the cursor is now located just after the last of them.

In fact, however, the notes previously selected have been replaced by those on the clipboard. In other words, the notes have been copied onto themselves, with the copies replacing the originals. Admittedly, this may not sound particularly useful, but look at the position of the cursor: it is now aligned with the quarter-note on the Time Grid closest to the last copied note.



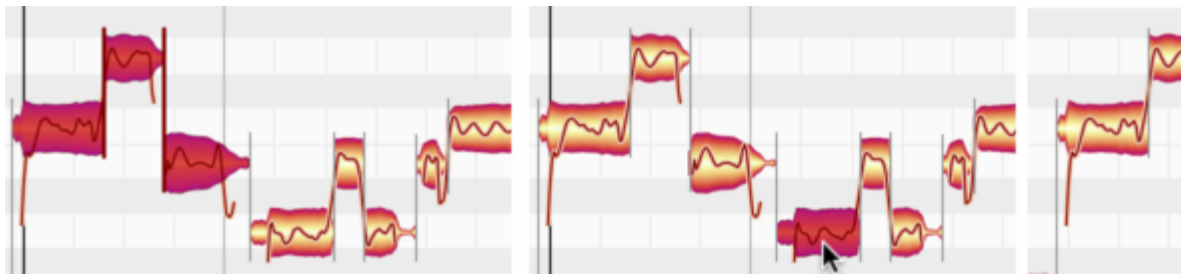
If you now execute a further Paste, the notes on the clipboard will be pasted a second time. This time, however, since no notes were selected, nothing will be replaced. Instead, the newly pasted notes will end up just after those that replaced the originals the first time round.

Their position is now determined by the cursor. And since, after the first paste, this was aligned with a quarter-note on the Time Grid (the first quarter-note after the pasted notes, to be specific), the effect of the second paste is that the original alignment of the notes relative to the gridlines is reproduced exactly, only further along the timeline. This behavior allows you to string together a succession of copies of the same passage, quickly and accurately – in order, for example, to create multiple iterations of a drum loop.

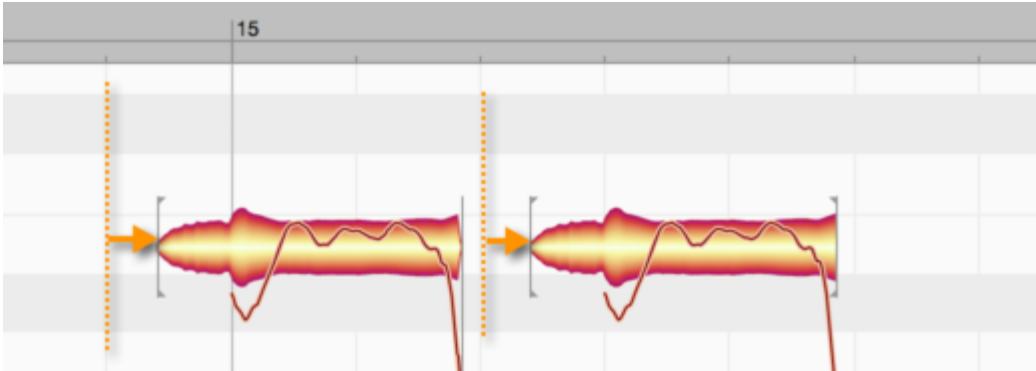


Based on what we have just seen, we can formulate the following rules:

- If any notes are selected when the Paste command is executed, these are replaced by the contents of the clipboard. The pasted notes are stretched or squeezed until they fit exactly the range from the beginning of the first to the end of the last note of the selection. This is illustrated here: on the left are the notes to be copied; in the centre, a single selected note, which serves as the destination of the copy; on the right is the result after the paste is performed: The selected destination note has been replaced and the pasted notes squeezed just enough for them to fit exactly the space it occupied.



- If when the Paste is executed no notes are selected, the cursor determines the point at which the pasted passage begins. The grid settings here play an important role: when copying notes to the clipboard, Melodyne remembers the distance between the first of the copied notes and the nearest grid line. When the paste is repeated at the new cursor position, the offset of the first pasted note to the gridline nearest to it will be exactly the same.

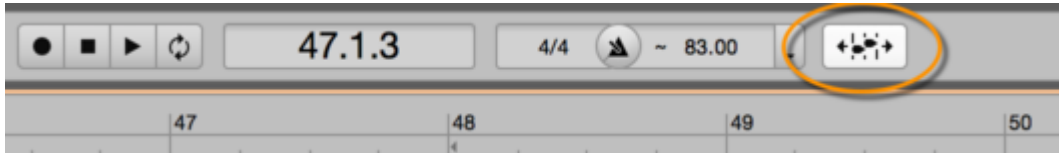


In other words, notes in Melodyne are not copied in such a way that they necessarily coincide with gridlines, because then the subtleties of expression would be lost. Instead, the notes copied retain their respective offsets to the grid. There is an exception, however, to this rule: if, instead of being calibrated in beats, the grid is calibrated in seconds (i.e. if you have selected “Sec” from the Time Grid Settings drop-down menu to the right of the Time Ruler), then the note (or first of a series of copied notes) will begin exactly at the cursor position, with no offset.

- After each paste, the cursor is moved to the first quarter-note following the most recent paste, making it easy to string together multiple iterations of the same passage. Obviously, if you wish, you can move the cursor by hand to some other point on the Time Ruler and make that, rather than the automatically selected quarter-note, the reference point for the next paste. You might want to do this, for instance, to introduce a pause between iterations.
- The pitch of the copied notes is always the same as that of the originals. This is even true when notes are selected, and therefore replaced, when the paste is performed. The length of the passage selected, in this case, is retained but the original pitch of the notes it contained is not. Of course, after performing the paste you can move the notes by hand to any pitches you like.

### Tempo adjustment when copying: the Auto Stretch Switch

If notes are selected when the paste is performed, the inserted passage will be stretched or squeezed to fill the available space (i.e. that between the beginning of the first selected note and the end of the last) as we have already seen. But how is the tempo of the copied passage treated when the position of the paste is determined instead by the cursor?



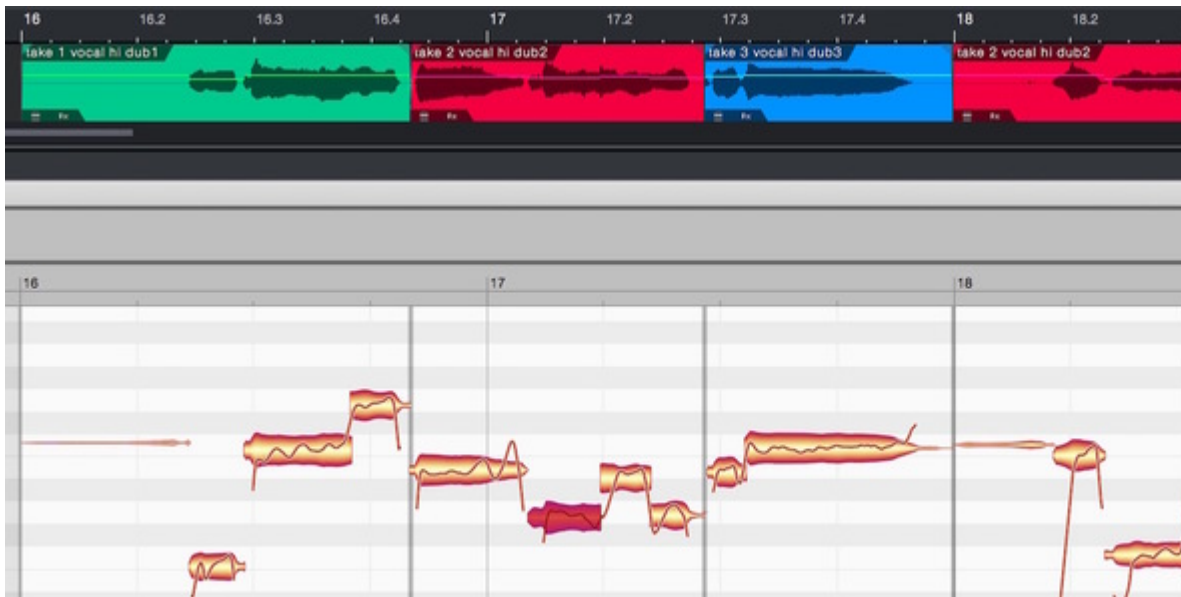
If the tempo at the destination of the paste is different from that of the passage from which the notes were copied, it is the status of the Auto Stretch Switch that determines whether the pasted notes adjust to the tempo of the destination or retain their original tempo. If the Auto Stretch Switch is on, they adjust; if it is off, they do not. So unless you want to change the tempo at the cursor position, you should switch Auto Stretch on before performing the paste.

## Copying in an ARA context

Within a clip, you can copy and paste notes without any restrictions. Whether you can copy a note from one clip and paste it into another depends upon whether or not the two clips are accessing the same audio file.

Example: You have sliced up a fairly long drum recording in the DAW into individual clips, sorted these in the DAW arrangement, and are looking at them now in Melodyne's Track Edit Mode. In this case, you can copy and paste notes freely (because they were originally part of one long recording) without paying attention to the clip borders.

If, on the other hand, you have made a collage in the DAW arrangement of snippets taken from different recordings – from successive vocal takes, for instance – and are looking at these in Track Edit Mode, you cannot copy and paste notes with the same freedom. The color assigned to each of the five takes in the following screenshot indicates the take from which it is derived:



Here you cannot copy the note selected at the beginning of Bar 17 (or, indeed, any other note derived from a red clip) and paste it into Bar 16, because the destination clip is a different color – in this case, green – and is therefore derived from a different recording. You can, however, paste it into Bar 18, because the content there is derived from the same red take.



## Version history

Here you will find an overview of all changes introduced by the most recent Melodyne updates.

### New in Melodyne 4.2.3

- Fixed: In Version 4.2.2, Melodyne in certain configurations displayed the message “expired” at start-up and refused to launch.

### New in Melodyne 4.2.2

#### New functions and improvements

**Better window management in Studio One 4:** Melodyne’s zoom and other window settings now remain constant when you select a new audio region, instead of being displayed with individual settings as previously.

#### Bug fixes

- Fixed: In Cakewalk, under certain circumstances, instead of new files being analysed automatically, you had to select an algorithm manually in order to trigger the detection process.
- Fixed: In the stand-alone implementation of Melodyne, closing a project without saving sometimes led to a crash if other projects were open at the time.
- Fixed: In Logic, validating the Melodyne plug-in sometimes slowed down the launch of the DAW.
- Fixed: In the stand-alone implementation of Melodyne, opening or importing projects under certain circumstances led to a crash.
- Fixed: In ARA mode, it could happen under certain circumstances that the monitoring during blob editing no longer functioned after starting and stopping playback.
- Fixed: In Cakewalk, selecting a new clip sometimes led to a misalignment of the Melodyne position display.

## New in Melodyne 4.2.1

### New functions and improvements

**Faster loading with ARA:** In DAWs with ARA support, extensive projects now load considerably faster.

### Bug fixes

- Fixed: During ARA operation with Mixcraft and Cakewalk, blob monitoring and scrubbing were no longer available in Melodyne if you started playback in the DAW.
- Fixed: With Melodyne in Player Mode (i.e. without activating the program on the computer being used), the ARA plug-in sometimes crashed when you switched from Track Edit Mode to Clip Edit Mode.
- Fixed: If the detection was aborted after a transfer with the Melodyne plug-in and you subsequently tried to move audio material whilst holding down the ALT key, a crash was sometimes the result.
- Fixed: If an audio file was selected in the track pane of the stand-alone implementation of Melodyne studio, adjusting the fine tuning in the inspector sometimes led to a crash.

## New in Melodyne 4.2

### Thanks to ARA, now more fully integrated: Melodyne and Logic

Thanks to ARA Audio Random Access, Melodyne 4.2 and Logic Pro X 10.4.3 work more closely and efficiently together. Here are the most important workflow advantages in a nutshell.

**You can open tracks without transfers:** Just load Melodyne as an insert effect, start playback and the entire track will appear automatically in Melodyne. There is no further need for transfers.

**Melodyne follows all changes you make to the track:** Melodyne compares its contents to those of the audio track and accurately replicates any lengthening, shortening or movement of regions.

**Real copies and ghost copies of regions:** When regions are copied, looped or cloned, the Melodyne content behaves accordingly as a real copy or as a ghost copy (Loop).

**Region-based mixing:** Regions edited with Melodyne now support all the mix functions of the region inspector in Logic: Region, Gain, Mute and Fades.

**You can use Melodyne as early as the comping stage:** Now you can edit takes with Melodyne before committing yourself to a choice between them, which gives you a more realistic assessment of their respective merits, leading to better results.

**The management of transfer files is a thing of the past:** Thanks to ARA, there is no need anymore to keep transfer files in mind and archive them or pass them on to collaborators.

[More...](#)

## **New functions and improvements**

**ARA in Logic:** Melodyne 4.2 supports ARA integration into Apple's new Logic Pro X 10.4.3. With ARA, transfers are no longer necessary in Logic, and Melodyne follows all changes made to the audio track.

**The transfer path in Cakewalk/Sonar:** When using the Melodyne VST3 plug-in in Cakewalk/Sonar, the transfer path is now created automatically within the current project (Cakewalk Projects / <project folder> / Melodyne / Transfers).

**Improved interaction:** Melodyne 4.2 interacts even better with Studio One and now requires Studio One Version 3.5.6 or later.

**Additional keyboard shortcut:** You can now assign a keyboard shortcut from the Preferences dialog for the command "Reseparate Notes at Starting-Point Lines" that appears in the context menu in Note Assignment Mode; the shortcut is then also available in edit mode.

## **Bug fixes**

- Fixed: In Studio One, in projects with many Melodyne clips, the generation of additional Melodyne instances (using the command "Open in Melodyne") sometimes slowed down the program.
- Fixed: In Studio One under Windows, the color of the note background used to change when you altered the zoom level.
- Fixed: In Studio One, the function "Unison Spread" sometimes shifted the notes in Melodyne several octaves.
- Fixed: In Studio One, use of the Note Separation Tool under certain circumstances led to a crash.
- Fixed: In Studio One, the note display (the lines superimposed on the waveform) was previously not updated when notes were deleted in Melodyne.
- Fixed: In Studio One, in the case of copied events, "Follow Clip Selection in the DAW" resulted in the wrong bars being shown.
- Fixed: In Cakewalk/Sonar, the export of a 16-bit audio file edited with Melodyne sometimes led to a crash.
- Fixed: In Cakewalk/Sonar, use of the Freeze function sometimes led to a crash.
- Fixed: In all DAWs with ARA, changes to the key or scale were previously not saved.
- Fixed: In all DAWs with ARA, use of the Compare switch stopped local playback in Melodyne.
- Fixed: In Logic 10.3, the opening of some projects with Melodyne could lead to a crash.
- Fixed: In Digital Performer, the opening of projects previously edited with Melodyne sometimes led to a crash.
- Fixed: In the plug-in, the command "Restore File to Original State" could under certain circumstances result in the wrong notes being deleted.

- Fixed: Canceling a transfer could lead to a display error or even (if you proceeded with editing ) to the DAW crashing.
- Fixed: In the plug-in, the assignable keyboard shortcut “Repeat Last Menu Action” did not work.
- Fixed: If the Scale Window was open when you switched from edit mode to Note Assignment Mode, the wrong area of the timeline used to be displayed.
- Fixed: In the Sound Editor, no peak values were displayed for the spectrum when Note Assignment Mode was active.
- Fixed: In Melodyne studio’s track list, the “Edit” and “Reference” buttons could both be activated by Alt-clicking.
- Fixed: In Melodyne studio, when multiple tracks were copied simultaneously, their contents were sometimes swapped.
- Fixed: In Melodyne essential, the assignable keyboard shortcut for “Separate Notes as Trills” was missing.
- Fixed: In Melodyne essential, opening a document saved by Melodyne studio sometimes resulted in the wrong track being displayed.
- Fixed: In the stand-alone application, it was impossible to copy and paste notes in Tempo Assignment Mode.
- Fixed: In the stand-alone application, a new detection sometimes led to the audio being offset in the timeline.
- Fixed: In the stand-alone application under macOS Version 10.12, crashes sometimes occurred when the import audio function was used.

## **New in Melodyne 4.1.1**

### **New functions and improvements**

#### **The “Separate Note” command**

This command separates notes automatically at a point determined by Melodyne. It is useful when you need to make precise cuts in a vocal passage and isolate sibilants or breathing noise prior to editing using the tools.

You will find the “Separate Note” command in the context menu of the Note Separation Tool and on the “Shortcuts” page of the Preferences property sheet, where you can assign a keyboard shortcut to it.

#### **A shortcut for the command "Separate at Starting Point Lines"**

From the “Shortcuts” page (heading: “Note Assignment”) of the “Preferences” property sheet, it is now possible to assign a keyboard shortcut to the command “Separate at Starting Point Lines” that is used in Note Assignment Mode; this command could previously only be accessed from the context menu of the Note Separation Tool.

### **Bug fixes**

- Fixed: graying out under certain circumstances of the buttons used to open the macros
- Fixed: occasional crashes when the Note Separation Tool was used in Note Assignment Mode and the threshold value was altered
- Fixed: alteration under certain circumstances of the length of an audio file when saving
- Fixed: crashes occurring in rare cases when multiple recordings followed in quick succession
- Fixed: crashes occurring in certain circumstances with Logic Pro 10.3.1 under macOS 10.12.x and 10.11.x
- Fixed: crashes coincident with the opening of some projects with Logic 10.3
- Fixed: crashes occurring sometimes in Sonar when an ARA region was frozen
- Fixed: occasional interruptions of the simultaneous transfer of four or more tracks with Digital Performer 9.13 under macOS 10.11.6
- Fixed: memory leak with FL Studio

## **New in Melodyne 4.1**

The update brings important improvements to all editions of Melodyne, including a new playback type for high-pitched monophonic instruments, a command for separating notes as trills and additional keyboard shortcuts. When Melodyne is integrated into the DAW by means of the ARA interface extension, user-friendly new possibilities are now available for vocal comping, and in Melodyne 4 studio, the simultaneous editing of an unlimited number of tracks can now be done via ARA, too.

In ARA-compatible DAWs, Version 4.1 offers decisive improvements that make it possible to focus Melodyne's functions in an optimal manner on an individual clip or an entire track. In Clip Mode, you have access to a single clip, but this extends to notes lying beyond its borders; as a result, when comping it is very simple to solve any problems posed by clip borders slicing notes in two, which greatly streamlines the comping workflow. In Track Mode, on the other hand, you see all clips of a track exactly as these are cut and arranged in the DAW. The two modes complement each other perfectly and offer ideal editing possibilities in ARA-compatible DAWs.

When Melodyne is integrated into a DAW by means of ARA, Version 4.1 now allows the simultaneous display and editing of an unlimited number of DAW tracks in a single Melodyne plug-in window – ideal for backing vocals and other multitrack applications.

The ARA Audio Random Access interface extension, which is currently supported by Presonus Studio One, Cakewalk Sonar, Magix Samplitude and Tracktion, makes the use of Melodyne particularly fast and efficient. DAW tracks can be edited directly without any time-consuming transfers; furthermore, Melodyne follows automatically any changes made to the tracks. The result is that Melodyne feels like a comfortable integrated sample editor – but one that allows the note-based editing of tracks.

### **New functions and improvements**

#### **Multitrack Note Editing now also during ARA integration**

In Melodyne studio 4.1's Note Editor, you can now also with ARA integration display and edit as many DAW tracks simultaneously as you like.

#### **ARA improvements for (vocal) comping in the DAW**

Thanks to two new ARA modes, Melodyne's power can be optimally focused on an individual clip or an entire track, thereby providing ideal support for typical DAW workflows such as (vocal) comping: ARA Clip Mode affords access to a single clip but also to notes on either side of the clip borders. ARA Track Mode, on the other hand, shows you all the clips on a DAW track, exactly as they are edited and arranged there.

#### **New playback type for monophonic instruments**

To enhance sound quality during the playback of soprano voices or very high-pitched melodic instruments (e.g. piccolos), the Algorithm Inspector now includes a new playback type: "Tonal (high)".

#### **The "Separate Notes as Trill" command**

The Note Editor and Note Assignment Mode now feature Melodyne studio 3's familiar "Separate Notes as Trill" command.

#### **The "Separate Note" command**

This command separates notes automatically at a point determined by Melodyne. It is useful when you need to make precise cuts in a vocal passage and isolate sibilants or breathing noise prior to editing using the tools.

### **A shortcut for the command "Separate at Starting Point Lines"**

From the "Shortcuts" page (heading: "Note Assignment") of the "Preferences" property sheet, it is now possible to assign a keyboard shortcut to the command "Separate at Starting Point Lines" that is used in Note Assignment Mode; this command could previously only be accessed from the context menu of the Note Separation Tool.

### **The "Replace Audio" command**

The "Replace Audio" command allows you to save an audio file under its existing name without having to open the Export dialog.

### **Better keyboard shortcuts**

Every sub-tool now has its own independent shortcut. A shortcut has also been added for the Time Grid, and Zoom commands assigned to the numerical keypad.

### **Contrast variations for the user interface**

In the Preferences dialog, several new contrast options are available for the user interface.

### **HiDPI support under Windows**

On suitable systems running Windows 8 or later, Melodyne now supports the high resolution screen. This applies to both the stand-alone implementation and the plug-in in Studio One. HiDPI support for further DAWs is planned.

### **Reduced memory requirements**

Thanks to internal optimization, the memory requirements under Windows in particular of Melodyne 4.1 (stand-alone, plug-ins and ARA) have been reduced.

### **Auto Scroll options**

When running Melodyne as a plug-in, you can now save separate Auto Scroll settings for each instance.

### **iLok**

In addition to the iLok 2, Melodyne 4.1 now supports the new iLok 3.

## Bug fixes

- Fixed: under Windows 7, certain MP3 files when loaded causing Melodyne stand-alone to crash
- Fixed: in Cubase, the setting “Always on Top” for the plug-in window sometimes leading to a crash
- Fixed: various graphics problems in the plug-in
- Fixed: entered or detected tonalities reset to C Major when saving
- Fixed: MAR files from Melodyne studio 3 imported by Melodyne 4 with incorrect tempo information
- Fixed: sundry other problems affecting the import of studio 3 files
- Fixed: shift by a few samples of audio material after a later change of algorithm
- Fixed: occasional misalignment of the Time Grid after tempo learning in the DAW
- Fixed: unreliable transfer to the Melodyne plug-in of information regarding changes of time signature in Cubase’s Learn Tempo dialog
- Fixed: crashes occurring in certain circumstances with Logic Pro 10.3.1 under macOS 10.12.x and 10.11.x
- Fixed: crashes coincident with the opening of some projects with Logic 10.3
- Fixed: occasional crashes when the Note Separation Tool was used in Note Assignment Mode and the threshold value was altered
- Fixed: alteration under certain circumstances of the length of an audio file when saving
- Fixed: crashes occurring sometimes in Sonar when an ARA region was frozen
- Fixed: graying out under certain circumstances of the buttons used to open the macros



## Switching to Melodyne studio trial mode

Explore all the possibilities Melodyne has to offer! To do this, simply switch your Melodyne essential, assistant or editor to Melodyne studio trial mode. If you do not have Melodyne, you can [download the trial version here](#).

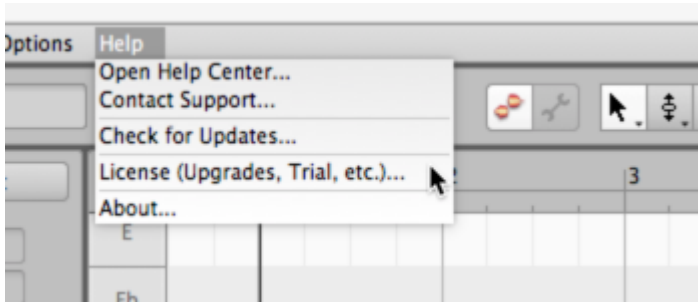
### Switching to trial mode

When you switch to trial mode, your Melodyne essential, assistant or editor will be transformed for 30 days – free of charge and without obligation - into Melodyne studio, the largest Melodyne edition, which contains the full range of Melodyne functions. You can use all these functions for 30 days without restriction, exactly as if you had purchased Melodyne studio. Trial mode can only be activated once on the same computer. To switch to trial mode, and each time you launch Melodyne studio during the trial period, you will need an Internet connection.

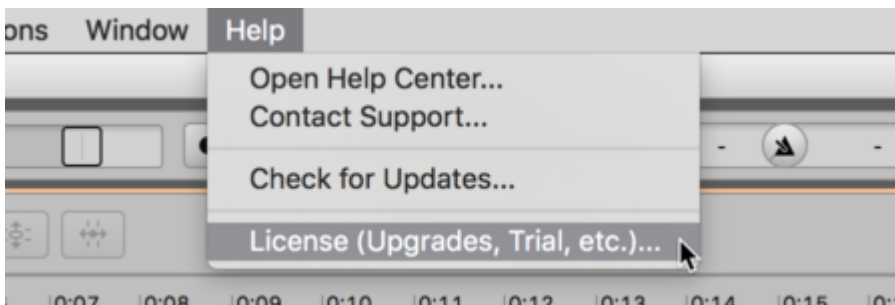
Here's how to activate trial mode:

1) Start Melodyne. Next go to the Help menu and select "License".

In the plugin:

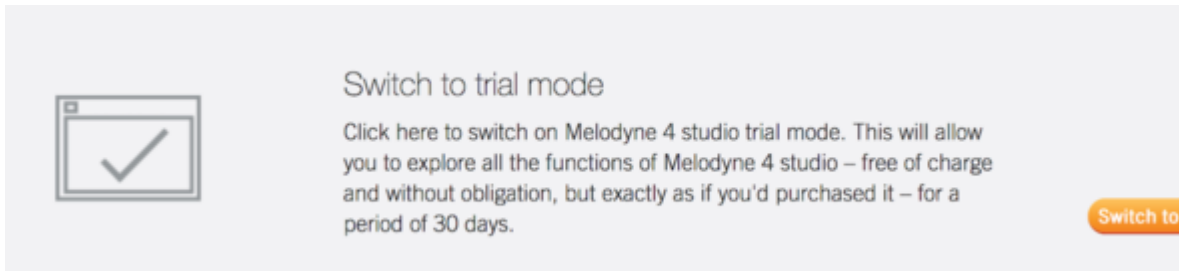


In the stand-alone implementation:



2) You will be directed to your user account in your browser where you will see your license options.

In the "Melodyne studio trial mode" frame, switch to trial mode:

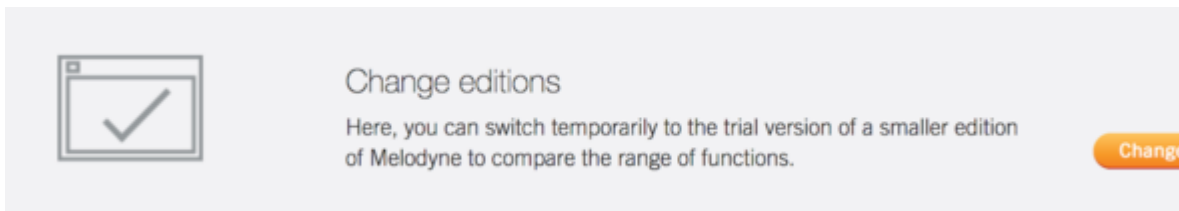


That's all there is to it. Trial mode will remain active for 30 days, so when you return now to Melodyne you will see that the "Melodyne studio" edition is running.

### Comparing editions

If you wish, you can switch to a smaller edition in the course of the trial period in order to compare the range of functions offered by the various editions. This could be useful, for instance, if you own Melodyne essential and are wondering which of the larger editions to upgrade to. Easy. Just try them all.

To switch editions, select "License" from the Help menu exactly as before. This will take you back to your user account in your browser, where you will be given the option of switching to one of the smaller editions.



Your choice, however, will only remain effective while Melodyne is actually running. As soon as you restart Melodyne, the full Melodyne studio function set will be restored.

### Expiry of the trial period

At the end of the 30-day trial period, Melodyne will automatically revert to your previous edition. Further editing of projects created during the trial period will still be possible, but only using the functions of your previous Melodyne edition. Playback, however, will be unaffected, so none of the work you did during the trial period will be lost.

### Convinced?

If you wish, you can switch permanently to Melodyne studio at any time during the trial period or thereafter. The requisite upgrade can be obtained [from our web shop](#) or from your local dealer.

## Troubleshooting

If you have problems, you will find advice here. Additional topics can be accessed by clicking on “FAQ” in the side menu.

If the tips do not help contact [support@celemony.com](mailto:support@celemony.com). Our support staff speaks English and German.

### **I'm not sure how to install Melodyne correctly.**

Just run the installation program that you received as a download or that you will find on your Melodyne CD. This will install both the stand-alone implementation of Melodyne and the various plug-ins onto your computer.

### **I have installed Melodyne but cannot find it.**

Under macOS, the stand-alone implementation of the program is called “Melodyne”. You will find it in the “Melodyne” subfolder of the “Applications” folder. The plug-ins are also called “Melodyne” and you will find them in: Macintosh HD/Library/Audio/Plug-Ins/<Subfolder of the plug-in type in question>.

Under Windows, the stand-alone implementation is called “Melodyne.exe”. You will find it under C://Programs/Celemony/Melodyne/ or C://Program Files (x86)/Celemony/Melodyne/. The various plug-ins are also called “Melodyne” and are generally to be found here:

VST3 (64 Bit): C://Programs/Common Files/VST3/Celemony

VST3 (32 Bit): C://Program Files (x86)/Common Files/VST3/Celemony

VST2 (64 Bit): C://Programs/Common Files/Steinberg/VST2/Celemony (the path can be chosen at the time of the installation; please check to see which path your DAW is using)

VST2 (32 Bit): C://Program Files (x86)/Steinberg/VSTplugins/ (the path can be chosen at the time of the installation; please check to see which path your DAW is using)

AAX: C://Programs/Common Files/Avid/Audio/Plug-Ins

RTAS: C://Program Files (x86)/Common Files/Digidesign/DAE/Plug-Ins

In your DAW, you will find Melodyne among the audio effects plug-ins. To use it, insert the plug-in into the desired audio tracks.

### **I've installed Melodyne but do not know how to activate it.**

Launch the stand-alone implementation of Melodyne. In the dialog box that appears, click on “Activate”. This takes you online to our registration page, where you can create a user account if you do not already have one. To do this, follow the onscreen instructions. When you have finished, your computer will be activated and you will be able to run Melodyne on it permanently and without restrictions. If you purchased Melodyne from our web shop, it is enough to click on “Activate”, as you will already have created your user account at the time of the purchase.

**I am getting error messages and cannot complete the activation.**

To activate the program, you need a working Internet connection. Make sure – e.g. by trying to access another web site – that you are actually online. If you are, restart Melodyne and try again.

**I would like to install Melodyne again but no longer have the installation program.**

You will find your personal installation program in your user account. Log in at [www.celemony.com/login](http://www.celemony.com/login) and download it to reinstall Melodyne.

**I'm not sure whether the right edition and version of Melodyne is running.**

To discover which edition and version number of Melodyne is running, choose “About Melodyne” from the main menu. If you need it, you will find the installation program for the Melodyne edition corresponding to your license in your user account ([www.celemony.com/login](http://www.celemony.com/login)).

**I would like to know whether an update is available for my Melodyne.**

Melodyne checks automatically via the Internet whether a newer version is available. You will find this function on the “Check for Updates” page of the Preferences dialog where you can also check for updates manually by clicking “Check Now”. We also provide information about updates in our newsletter, to which you can subscribe from your user account (at [www.celemony.com/login](http://www.celemony.com/login)).

**I cannot launch the stand-alone implementation of Melodyne.**

Restart your computer, then make a further attempt to launch Melodyne. If that does not work, delete your Melodyne preferences (instructions below) and try again. If Melodyne still will not launch, please contact our support at [support@celemony.com](mailto:support@celemony.com). You will find your Melodyne preferences here:

- macOS: Hold down the Alt key in Finder and from the main menu choose Go > Library and open the Preferences subfolder. Scroll down to the file “com.celemony.melodyne.pref.plist” and delete it.
- Windows: Navigate to C://Users/<Your user name>/AppData/Roaming/Celemony/ and delete the file “com.celemony.melodyne.plist”. If the “AppData” folder is not visible, open the Control Panel by clicking the Start button (Windows 7) or right-clicking in the bottom left-hand corner of the screen (Windows 8). Now choose “Appearance and Personalization” followed by “Folder Options”. Click on the View tab. Under “Advanced Settings”, check “Show hidden files, folders, and drives” and exit with OK.

**I have inserted Melodyne as a plug-in in one of the audio tracks of my DAW but nothing is happening.**

Initially Melodyne is empty; before it can do anything, audio material has to be transferred to it from the relevant track of the DAW. To do this, click the Transfer button in Melodyne and then, from the DAW, play the passage you wish to edit. Once you have finished the transfer, the notes will appear in Melodyne and you will be able to edit them.

**I have the impression that my DAW and Melodyne are not interacting correctly.**

Many DAWs have particular characteristics of which you need to be aware, such as whether or not they support the ARA interface extension. In our Help Center, you will find the required information and tips on all leading DAWs. You can reach our Help center from Melodyne's Help menu or under [www.helpcenter.celemony.com](http://www.helpcenter.celemony.com).

**I am not getting any audio output with the stand-alone implementation of Melodyne.**

Open the Audio page of the Preferences dialog and make sure that the correct audio device is selected. Under macOS that should be the built-in audio hardware or your audio interface (and not, for example, the wireless interface Airplay). Under Windows, please select the correct ASIO driver. With DirectX no recording is possible.

**After transferring or importing audio, the blobs in Melodyne are not at all as I expected.**

By default, Melodyne selects an algorithm for your audio material automatically. It can happen from time to time that monophonic material is interpreted as polyphonic. If this happens, click on a note in the affected passage and select from the main menu under "Algorithm" an algorithm better suited to your purpose.

**Sometimes, I can only move the blobs in the Note Editor vertically, sometimes only horizontally.**

If you are editing a blob using the Main Tool (the arrow symbol), it is the initial direction of the drag that determines whether the blob can be moved vertically or horizontally. Release the blob momentarily if you wish to change direction. If the Pitch or Time grid is active, you will need to hold down the Alt key to make fine adjustments in the dimension concerned. When moving blobs horizontally, remember that it makes a difference whether you begin dragging from the middle of the blob or from either the beginning or the end. In the former case, the whole blob is moved; in the latter, only the beginning or end.

**When I shift the pitch of certain blobs, they sound unnatural.**

Occasionally, in the detection of monophonic audio material, octave errors can occur, and in that of polyphonic audio, prominent overtones can be mistaken for separate notes. In such cases, when the corresponding blobs are moved, artifacts can arise. You can prevent this by checking, and if necessary editing, the detection in Note Assignment Mode before you start, to ensure that the notes displayed really do correspond to those actually played.

**In the stand-alone implementation, the tempo of an imported audio file is wrong.**

Activate the Auto Stretch switch to adapt the file you are importing to the project tempo. Deactivate it if you wish the original tempo of the imported file to be retained. If, in the former case, the tempo of the imported file is still wrong, open the file first in a separate project document and correct the tempo assignment there before copying the blobs into the first project.