



melodyne4

user manual

Last updated on 12/07/2020

The Melodyne Help Center and this PDF document

This PDF document was generated automatically from the contents of the Melodyne Help Center. It contains what, on the date indicated on the front page, were the latest versions of the text and images.

You will find the comprehensive and invariably up-to-date Melodyne Help Center along with numerous films and inspiring tutorials, as well naturally as the latest version of this PDF document, on our web site. Why not take a look? Just follow the link at the foot of each page of this PDF.

Loading and saving audio

[Tempo adjustment when audio files are loaded](#) • [Loading files from the menu](#) • [Loading files by drag 'n' drop](#)
• [The File Browser](#) • [Saving audio: the Export window](#) • [The 'Replace Audio' command](#)

Recording audio

[Audio and recording preferences](#) • [Handling the tempo and the metronome](#) • [Enabling, starting and stopping recording](#)

The Project Browser

[Opening the Project Browser](#) • [The Project Browser in the stand-alone implementation](#) • [Unused and missing audio files](#) • [Commands in the drop-down and context menus](#)

Project documents

[Opening a project document](#) • [Creating a new project document and switching between projects](#) • [Closing and saving projects](#) • [The audio folder of a project](#) • [Copying audio from one open project to another](#) • [Importing projects](#)

Using Rewire

[About the Rewire interface](#) • [Establishing the Rewire link](#) • [Activating Rewire in your DAW](#) • [The transmission of audio via Rewire](#) • [Starting and stopping playback](#) • [Synchronization](#)

Playback, navigation, zooming

[Controlling playback using the keyboard and transport bar](#) • [Controlling playback, scrubbing and zooming using the Time Ruler](#) • [Resizing the window](#) • [Scrolling and zooming in the Note Editor](#) • [Navigation and zoom functions](#)

Cycle mode

[Defining the cycle range](#) • [Switching cycle mode on and off](#) • [Changing the length of, and moving, the cycle range](#) • [Defining the cycle range using a blob selection](#)

Display and other options

[Showing and hiding elements of the user interface](#) • [Show Pitch Curve](#) • [Show Note Separations](#) • [Show Blob Info](#) • [Show Intended Notes](#) • [Monitor When Editing Blobs](#)

Preferences and keyboard shortcuts

[Opening the window and general settings](#) • [Audio and recording preferences](#) • [Shortcuts](#) • [Check for Updates](#)

Audio characteristics and algorithms

[The detection process](#) • [The Melodic algorithm](#) • [The Percussive algorithm](#) • [The Universal algorithm](#) • [Switching algorithms](#) • [Automatic or manual algorithm selection](#)

Note Assignment Mode

[What editing the detection involves](#) • [What is edited and where](#) • [The Main Tool in Note Assignment Mode](#) • [The Activation Tool](#) • [Starting point lines and designated starting points](#) • [The Note Separation Tool and the Separation Type Tool](#) • [The Starting Point Tool](#)

The Time Grid

[Activating and setting the Time Grid](#) • [Moving notes when the grid is active](#)

Pitch Grid and scales

[The functions of the Pitch Ruler and access to the Pitch Grid](#) • [Activating the Pitch Grid and selecting display options](#) • [The Scale Ruler and the Reference Pitch Ruler](#) • [Adjusting the master tuning](#) • [Selecting the tonic and scale variety](#) • [The Scale Window](#)

Selecting notes

[Standard selection techniques](#) • [Snake selection](#) • [Selection using the Pitch Ruler](#)

Correct Pitch Macro

[Opening and using the macro](#) • [Closing the macro and correction values when it is reopened](#)

Quantize Time Macro

[Quantizing timing: What is moved and where to?](#) • [Opening the Quantize Time Macro and setting the parameters](#) • [Closing the macro and correction values on reopening](#)

Main Tool

[Modifying the pitch and timing of notes](#) • [Modifying note lengths](#) • [Editing note separations](#)

Copying notes

[The selection, cursor and grid when copying](#) • [Tempo adjustment when copying: the Auto Stretch Switch](#)

Tempo detection and Auto Stretch

[Introduction](#) • [Tempo in the stand-alone and plug-in implementations](#) • [Determining the tempo in the stand-alone implementation](#) • [Auto Stretch when importing additional audio files](#) • [Auto Stretch when notes are moved or copied](#)

Version history

[New in Melodyne 4.2.3](#) • [New in Melodyne 4.2.2](#) • [New in Melodyne 4.2.1](#) • [New in Melodyne 4.2](#) • [New in Melodyne 4.1.1](#) • [New in Melodyne 4.1](#)

Switching to Melodyne studio trial mode

[Switching to trial mode](#) • [Comparing editions](#) • [Expiry of the trial period](#) • [Convinced?](#)

Troubleshooting

I'm not sure how to install Melodyne correctly. • I have installed Melodyne but cannot find it. • I've installed Melodyne but do not know how to activate it. • I am getting error messages and cannot complete the activation. • I would like to install Melodyne again but no longer have the installation program. • I'm not sure whether the right edition and version of Melodyne is running. • I would like to know whether an update is available for my Melodyne. • I cannot launch the stand-alone implementation of Melodyne. • I have inserted Melodyne as a plug-in in one of the audio tracks of my DAW but nothing is happening. • I have the impression that my DAW and Melodyne are not interacting correctly. • I am not getting any audio output with the stand-alone implementation of Melodyne. • After transferring or importing audio, the blobs in Melodyne are not at all as I expected. • Sometimes, I can only move the blobs in the Note Editor vertically, sometimes only horizontally. • When I shift the pitch of certain blobs, they sound unnatural. • In the stand-alone implementation, the tempo of an imported audio file is wrong.

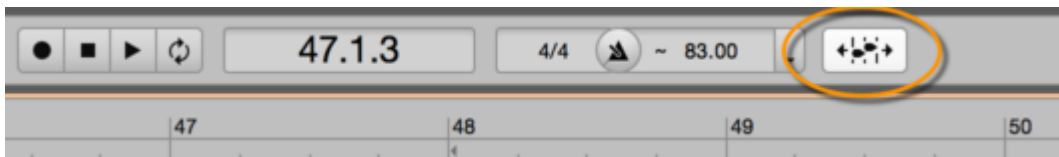
Loading and saving audio

In this tour, you will learn how to open audio files and export audio from the stand-alone implementation of Melodyne.

Please note: The amount of memory Melodyne requires depends partly upon the length of the files you are transferring to it or loading but mainly upon the number of notes they contain: the more notes a file contains, the longer the detection process takes and the more memory it requires. This makes it difficult to formulate a concrete rule, but, in general: with files longer than an hour, the detection process is generally slow; files longer than two hours, however, may be impossible to load or transfer at all, due to shortage of memory. In such cases, please divide the file up and transfer or load only the segments that you actually wish to edit in Melodyne.

Tempo adjustment when audio files are loaded

When an audio file is opened, Melodyne detects not only the notes it contains but also the musical tempo. Whether this tempo information is used to adjust the tempo of the file depends upon the status of the Auto Stretch switch in the transport bar.



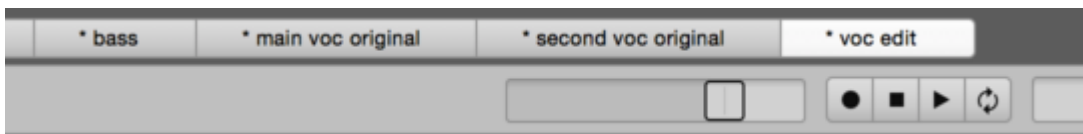
For details, see the tour “Tempo detection and Auto Stretch”.

Loading files from the menu

Choose File > Import Audio...; then use the file selector to navigate to the desired audio file, and open it.

You can load audio in various uncompressed formats such as WAV and AIFF but also MP3 – or CAF – files as well as Apple Loops.

Alternatively, you can load audio files by choosing File > Open from the menu bar. In this case, if you select more than one audio file, a separate project (with its own tab above the transport bar) will be created for each file.



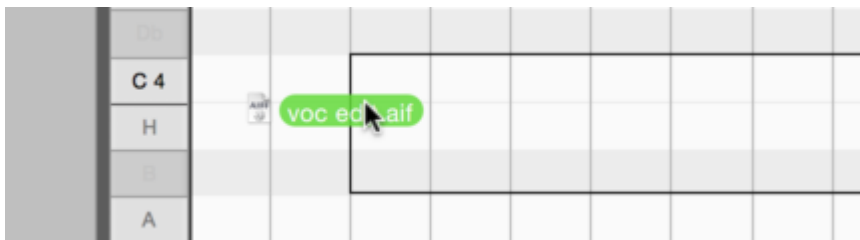
Loading files by drag 'n' drop

You can load files into Melodyne by drag 'n' drop from the following locations:

- your operating system's file manager (e.g. Finder or Explorer)
- Melodyne's File Browser (which displays folders on your hard disk – see below)
- Melodyne's Project Browser (which shows the audio files the project is already using) When dropping audio files into Melodyne, they will snap to the grid if it is active. You must therefore deactivate it if you wish to position the files freely, i.e. without the grid influencing the result.

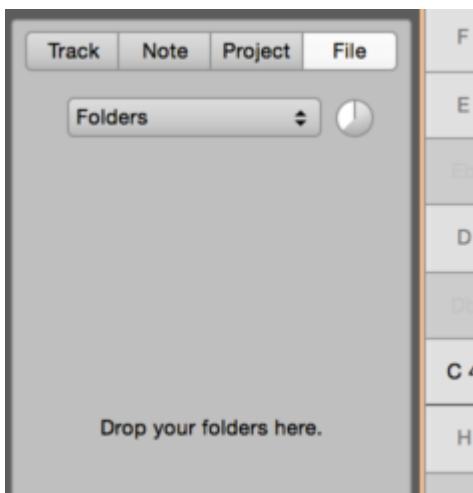
Tip: It is not only audio files but also Melodyne project files (MPD files) that can be dragged and dropped at a desired point in the timeline, in which case Melodyne imports into the current project all the contents of the MPD file.

Whenever you use the drag 'n' drop procedure, pay attention to the status of the Auto Stretch switch, as this determines whether or not the imported file adopts the tempo of the project.



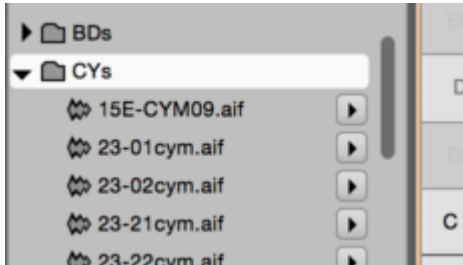
The File Browser

The File Browser can be displayed in the Info pane and offers you a user-friendly way of accessing audio file folders you use often.



Initially, the File Browser is empty. Drag the folders you wish to include from your computer's file manager (e.g. Finder or Explorer) into the empty grey pane.

You can drag to the File Browser folders from different storage devices and different hierarchical levels within your file structure. In the Browser itself, all the folders appear at the same level in the form of a simple list. To the left of each entry is a small triangle that can be used to expand the folder in question. In this way, you can navigate down through the hierarchy of folders.



Any time you double-click on a folder, you “plunge into it”, so to speak, and the rest of the directory structure in the File Browser is hidden. The pop-up button at the top of the browser displays the path of the current folder and allows you to ‘resurface’ (i.e. return to the highest level) and regain access to the hidden folders.

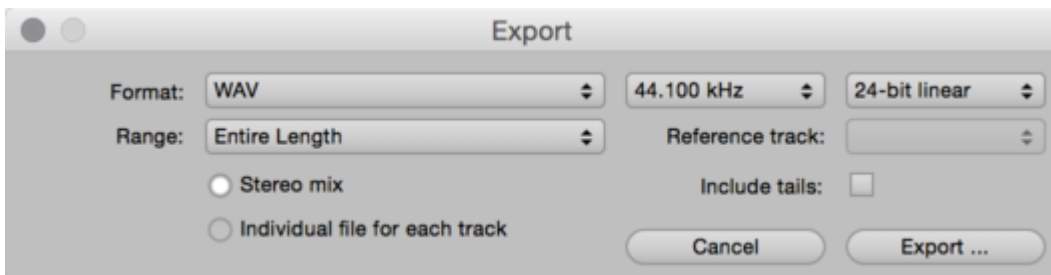


Audio files are indicated in the File Browser by either a colored blob or a grey waveform. Files with a colored blob already possess an MDD file. This contains information regarding the tempo and note detection of the file, which means it can be loaded quickly without having to go through the detection process again. Files with a grey symbol do not possess an MDD file.

To the right of each audio file, you will see a Play button to allow you to preview (or ‘audition’) its contents. The volume button for this preview function is to the right of the pop-up button displaying the folder name or level.

Saving audio: the Export window

To save audio material in the form of an audio file on your hard disk, choose File > Export... from the menu bar. This opens the Export dialog, in which you will find a variety of options.



From the top line, you select the file format, the sample rate and the bit resolution of the file(s) to be exported. From the second line, you select the scope (in time) of the material to be exported. Whether the material is exported in mono or stereo depends upon the number of channels in the original files.

For the Range (i.e. the temporal scope), the following options are available:

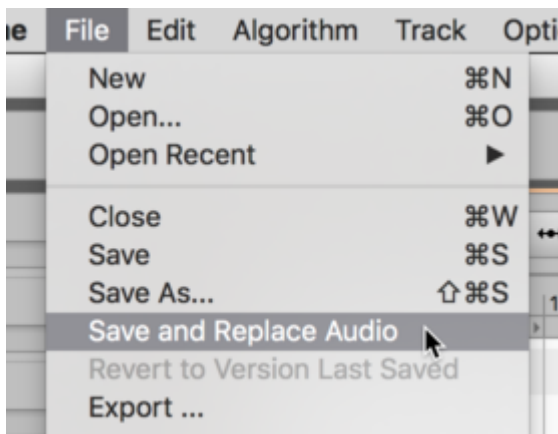
- Entire Length: everything from the beginning of the first track to the end of the last.
- Cycle Range Only: only the segment of the timeline between the cycle locators.

The “Include tails” box should be checked in cases where, for example, you have chosen Cycle Range Only but some notes in the selection overlap the end of the range. Selecting this option extends the range slightly so that the tails of notes are not chopped off and the decay is preserved.

Click the Export button to begin the export with the selected options. A file selector will open so that you can choose the storage location.

The ‘Replace Audio’ command

The ‘Replace Audio’ command in the File menu allows you to save an audio file edited in Melodyne under its original name without recourse to the Export dialog. The original file is then replaced by the version edited in Melodyne, but at the same time Melodyne also saves the original file, adding “orig” to the filename. Access to the unedited original remains possible, therefore, at any time, as it has not been deleted but simply renamed.



Saving with “Replace Audio” is primarily useful when you define Melodyne in your DAW as the external sample editor: at the push of a button inside the DAW, you can then open a file for editing in Melodyne, whereby saving it subsequently with “Replace Audio” ensures that the file is “given back” to the DAW automatically. This is because the DAW uses the name of the file to identify and access it, and since Melodyne is no longer changing the name, saving the edited file in Melodyne with “Replace Audio” makes it instantly available to the DAW.

The advantage of defining Melodyne as a sample editor in your DAW (as opposed to using it as a plug-in), is that the transfer process, which with long files can be time-consuming, is replaced by a swifter load operation. The disadvantage is that you cannot hear your editing in the context of the arrangement and cannot make the audio file available once more to the DAW without “freezing” it. This is different from working with the Melodyne plug-in, which you can leave open until the final mix, making further changes at any time and hearing them in the context of the DAW arrangement.

The replacing of audio files and the saving of Melodyne project files are processes that influence one another. Suppose, for example, you have opened a file from the DAW in Melodyne and performed some editing, but think you might wish to revise this later. In this case, you should save your editing in a Melodyne project file (suffix “.mpd”). This .mpd file initially references the audio file provided by the DAW.

If you wanted at this stage to give the edited audio file back to the DAW, the “Replace Audio” command, if it were available, would have unintended consequences, because Melodyne’s .mpd file would be referencing the newly edited version of the audio file not the original. This would mean that if in the course of further editing you tried to restore a note you had previously deleted, you would discover that this was impossible, as the note would no longer be present in the file. To avoid this problem, when replacing an audio file, Melodyne changes the reference in the .mpd file – whenever one has been created – from a reference not to the *edited* audio file but to the original (i.e. to the file with “orig” added to its name) before saving the .mpd file again. This is why the “Replace Audio” command disappears from the File menu whenever an .mpd file is created and “Save and Replace Audio” appears there instead.

This solution allows you, on the one hand, immediate access to the edited audio file in the DAW, and on the other, the freedom to undo, or make further, changes at any time in Melodyne simply by loading the .mpd file, as this retains access to the original.

Please note: The “Replace Audio” command is only available for WAV or AIF files. With compressed audio formats, such as .mp3 or .caf, you cannot overwrite the original; instead you must create a new WAV or AIF file using the “Export” command from the File menu.

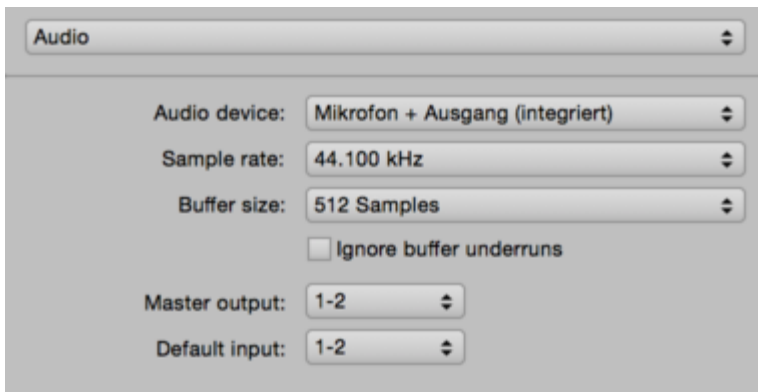
Recording audio

In this tour you will learn how to record audio with the stand-alone implementation of Melodyne and what has to be borne in mind when doing so.

Audio and recording preferences

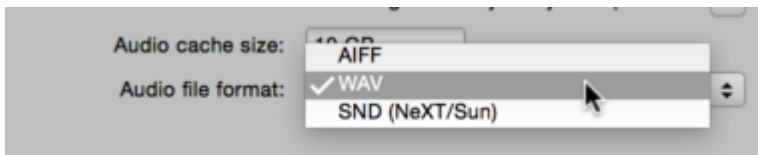
Before recording for the first time in the stand-alone implementation of Melodyne, you should open the Preferences property sheet to examine, and if necessary change, the audio and recording settings.

To open the Preferences property sheet, choose Program (macOS) or File (Windows) followed in each case by Preferences..



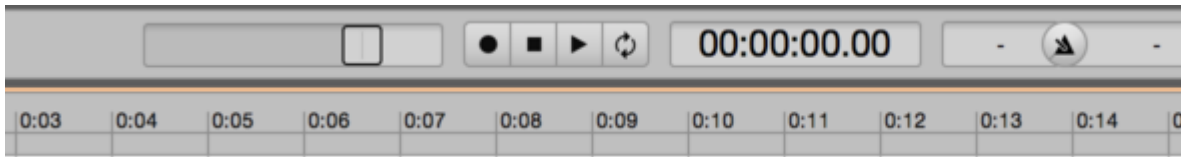
On the Audio page, you will see the general audio settings. If you have already loaded, played back and edited files with Melodyne and everything functioned, you can just leave the existing settings. (On the Mac, the internal Core Audio hardware is used by default; under Windows, the ASIO driver of your audio hardware should be selected).

On the Recording page, you can select a file format for your recordings, such as WAV or AIFF.



Handling the tempo and the metronome

Before you begin the first recording in a new Melodyne project, you should devote some thought to the matter of tempo. In a new document, the tempo and time signature fields are initially empty; instead of a value in each case, a simple dash (“—”) is displayed. The Time Ruler, initially, is calibrated in seconds. At this stage, then, there is no musical tempo.



You now have two choices: you can either enter the tempo manually and record in time to a metronome click or begin recording with the tempo field still empty, allowing Melodyne to detect the tempo automatically.

To enter the tempo manually, proceed as follows (the default values, unless others are entered by hand, are 120 BPM for the tempo, 4/4 for the time signature, and quarter note (crotchet) intervals for the Time Grid):

- Enter the desired value in beats per minute (BPM) in the tempo field
- Enter the desired values for the numerator and denominator of the time signature (e.g. 6/8)
- Enter a musical note value instead of seconds in the menu for the Time Grid
- Click on the icon between the time signature and tempo fields in the transport bar to activate the metronome. When you choose this procedure, Melodyne assumes that you intend the tempo to be constant, so any fluctuations in tempo will be revealed by a discrepancy between the position of the blobs and that of the grid lines. The fact that you have opted for a constant tempo will be indicated by an equals sign (“=”) before the tempo in the transport bar.

To activate the metronome, click on the icon between the time signature and the tempo in the transport bar. To make the click quieter or louder, click on the same (metronome) icon and drag downwards or upwards without releasing the mouse button.

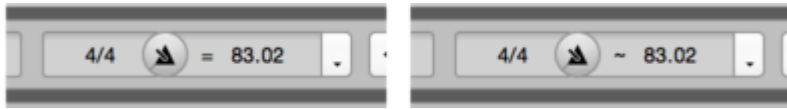


If you are used to working with DAWs, you may be more comfortable setting the tempo manually and recording to a click. Since Melodyne is extremely good at detecting the tempo, however, it is in many cases easier and more practical simply to allow Melodyne’s tempo detection routines to determine the tempo for you.

- Instead of initializing the tempo, time signature and Time Grid values manually, as just described, begin recording with the tempo and time signature fields empty. Now you no longer need a click to listen to as you record because Melodyne will detect the tempo and tempo fluctuations within the recording and adjust the grid lines and subsequent click accordingly. Instead of entering a numerical value for the tempo, in other words, you are determining the tempo through your performance.

This will result in any fluctuations in tempo within the performance being considered deliberate and the tempo being interpreted as variable. The value in the tempo field will therefore be constantly changing in the course of playback, and the mesh of the Time Grid will expand or contract accordingly (i.e. distance between grid lines will increase or decrease) as the tempo changes. The

fact that the tempo is variable is indicated by the presence of a tilde (“~”) before the value in the tempo field.



Enabling, starting and stopping recording

- Move the playback cursor to a point just to the left of that at which you intend to begin recording. This will give you a cue.
- Click on the record button in the transport bar, to activate Melodyne’s record mode.
- Begin the actual recording by clicking the play button and commence recording.



The cycle range can also be used during a recording to play back a specific segment of the track repeatedly. The recording, however, ignores the cycle and appears on your track as though the cycle were inactive.

By clicking on the record button in the transport bar as the playback proceeds, you can punch in and out (i.e. toggle record mode on and off). When you halt the playback in Melodyne, all recording ceases.

You can discard a poor recording simply by choosing Undo. You can listen to a recording even while the detection process is underway and cancel if you wish.

The Project Browser

The Project Browser shows you all the audio files used by each project and helps you manage them and locate missing files.

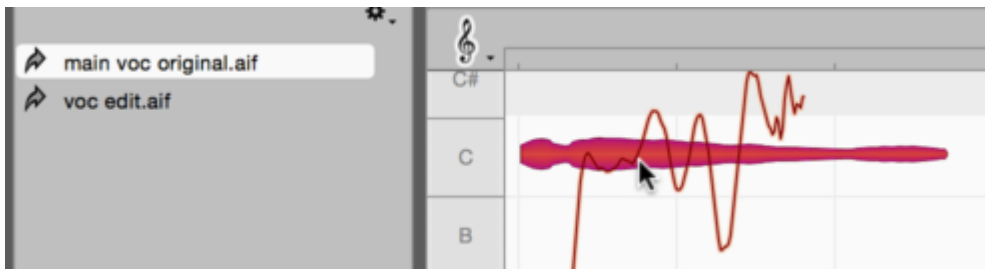
Opening the Project Browser

Both the stand-alone implementation and the plug-in possess a Project Browser. In each case, this is opened by choosing “Show Info Pane” from the Options menu.



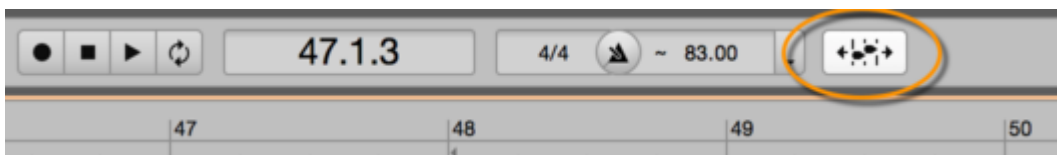
The Project Browser in the stand-alone implementation

In the stand-alone implementation of Melodyne, the Project Browser displays all the audio files that you have integrated into the project – whether via the File menu, by dragging and dropping, or by recording. If you click a blob in the Note Editor, the Project Browser will highlight the audio file to which the note in question belongs.



You can drag and drop files from the Project Browser into the project in the same way as from the File Browser. You might do this, for example, when you wish to use the same file in several different places within the project.

Please note that the Auto Stretch Switch also governs the dragging of files from the Project Browser: if Auto Stretch is switched on, the tempo of the file will be adjusted to that of the project; if it is switched off, the inserted file will retain its original tempo.



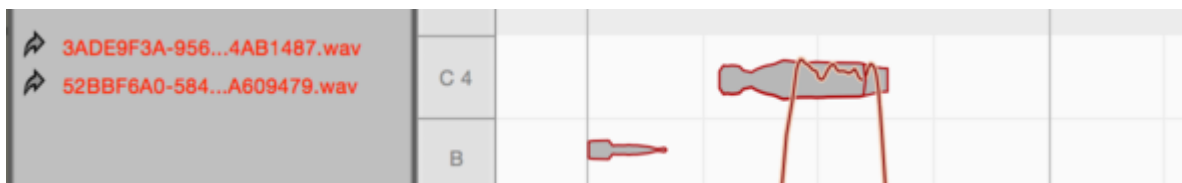
Unused and missing audio files

In both the stand-alone implementation and the plug-in, audio files are color-coded in the browser as follows:

- Black: The file is present and being used by the project
- Gray: The file is present but not in use (e.g. because you have deleted from the project all the notes it contains)
- Red: The file is needed but unavailable

The reason unused files are retained in the Project Browser rather than being deleted automatically is that this allows you to undo the delete operation, which would otherwise be impossible.

If Melodyne cannot find one of the files it needs to use – either because it has been deleted or because it was not moved to a new computer along with the other project files – the missing file will be shown in red in the Project Browser. The notes belonging to such a file are shown in gray with a red outline in the Note Editor and are muted during playback.



Commands in the drop-down and context menus

The drop-down menu opened by the cog icon in the Project Browser as well as the context menu in the same browser offer the following commands, some of which are designed to facilitate the assignment of missing files.

Set Path for Transfers... (only in the plug-in): This allows you to specify where the transfer files should be stored, as is explained above.

Show in Finder/Explorer: If you choose this command after right-clicking on a file in the Project Browser, a Finder/Explorer window will open showing you the location of the file.

Copy File(s): This copies the selected file(s) onto the clipboard. This might be useful, for example, if you have passed on to another user a project missing one or more of the requisite transfer files; by selecting the missing file(s) in the Project Browser, choosing Copy File(s) and then pasting the contents of the clipboard onto a hard disk or other storage medium, you can remedy the error swiftly without having to hunt around for the missing file(s).

Copy Path for File(s): This copies as text to the clipboard the path of the selected files. This is useful if you need to send someone a list of missing files.

Find Missing Files: This opens a file selection window that allows you to locate the missing file on your hard disk and “show” it to Melodyne.

It is advisable to save your project after reassigning files, in order to store the updated references.

Copy External Files to Project Folder (only in the stand-alone implementation): This command results in all the files that you have imported into your project from different locations on your hard disk, whether via the File menu or by drag ‘n’ drop, being copied into the audio folder of your Melodyne project. This folder, which is created when your Melodyne project is first saved, is on the same level in the file hierarchy, and bears the same name, as the MPD file of the project, but with the suffix “_Audio”. It is advisable to save your DAW project after executing this command, in order to store the updated references.

Delete Unused Files in Project Folder: If you are certain that you will have no further need for files marked as unused in the Project Browser, this command allows you to delete them and liberate space on your hard disk.

The last two commands in the context menu allow you to specify whether the files in the Project Browser should be displayed in alphabetical order or according to status (missing, used, unused).

Project documents

In the stand-alone implementation of Melodyne, you store your projects as MPD documents. You can open and work on several projects at the same time.

Opening a project document

As soon as you launch the stand-alone implementation of Melodyne, a new empty project is created. To load an existing project, choose File > Open from the menu bar. The Open Recent command offers you swift access to the documents opened most recently.

Melodyne's project documents have the suffix ".mpd".

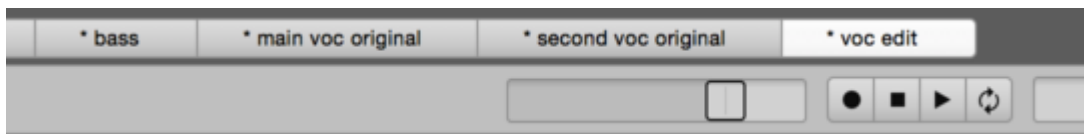


Melodyne.mpd

Creating a new project document and switching between projects

Choose File > New to create a new empty project.

Melodyne allows you to work on several projects at the same time. It is therefore unnecessary to close the current project before opening another or creating a new one. Each open project is represented by a tab just below the menu bar at the top left of the screen. Tabs are only displayed when more than one project is open.



To switch to another project, simply click on the corresponding tab.

Closing and saving projects

To close a project, either choose File > Close or use the keyboard shortcut [Command]+W. Provided more than one project is open at the time, you can also close a project by clicking on the 'x' symbol to

the left of the project name on the tab. If a project contains unsaved changes, an asterisk is displayed beside the project name on the tab.

If you attempt to close a project containing unsaved changes, you will be offered the choice of saving your changes and closing the project (Save), closing the project without saving your changes (Discard) or returning to the open project (Cancel). The same dialog box is displayed whenever you attempt to quit Melodyne while a document with unsaved changes is open.

With the commands Save and Save As... in the File menu, you can save a project at any time, under its existing name or a new name, respectively.

The command Revert to Version Last Saved has the effect of restoring a project to the state it was in when last saved i.e. of discarding all the changes you have made in the interim.

The audio folder of a project

When you save a project for the first time, as well as the project's MPD file, Melodyne creates at the same level in the directory hierarchy, a folder for the project's audio files. This has the same name as the project but with the suffix "_Audio".

All the recordings you have made within the project and all the samples you have imported using the Project Browser are stored in this folder.

If you wish to archive a project or pass it on to another user, you must archive or pass on not only its MPD file but also this audio folder.

Copying audio from one open project to another

Whenever more than one project is open in Melodyne, you can copy individual notes or an entire audio source from one project to another. Simply select the audio material, copy it, switch projects, and paste.

It is also possible to drag an audio file from the Project Browser of one project to the tab of another. As you drag the file over the tab, pause to allow Melodyne time to switch projects, before dropping the file at the desired location within the destination project.

Importing projects

You can import the contents of one project into the current project by dragging its MPD file from your computer's Finder/Explorer or Melodyne's File Browser.

If you select several MPD files in Melodyne's Open dialog, these will be loaded simultaneously as separate projects, each with its own tab.

Using Rewire

Via Rewire, you can connect the stand-alone implementation of Melodyne to your DAW and transmit audio from Melodyne to your DAW.

About the Rewire interface

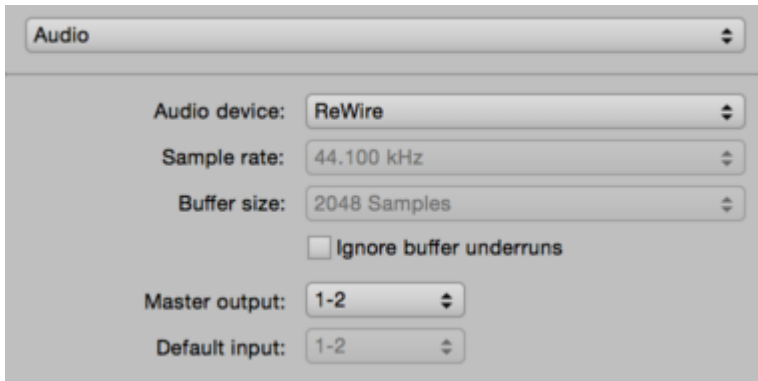
The stand-alone implementation of Melodyne's support for the Rewire protocol provides an alternative to running Melodyne as a plug-in. This is particularly useful when you want to take advantage of certain aspects of the stand-alone implementation that are not offered by the plug-in (e. g. the ability to import material from libraries or its tempo detection/editing functions) or if your DAW either has no plug-in interface or has one that is incompatible with Melodyne. For this mode of operation to be possible, of course, your DAW must be capable of supporting Rewire and of doing so in "Host" mode; but the overwhelming majority of DAWs are.

When Rewire is active, the transport functions and tempo of Melodyne and the DAW are coupled: commence playback in one, and the other starts too, with both running automatically in sync. In addition, audio signals can be transmitted from Melodyne (the Rewire slave) to the DAW (the Rewire host), where you can access them from the mixer.

Establishing the Rewire link

To use Rewire with Melodyne, you must launch your DAW first and the stand-alone implementation of Melodyne subsequently. Melodyne will detect the presence of a Rewire master (your DAW) and thereupon activate a device called "Rewire" in the preferences property sheet. If, on the other hand, you launch Melodyne when the DAW is not running, Melodyne will revert as normal to the audio device last used.

You cannot change the sampling rate, the size of the buffer used by Melodyne or the input channels in Rewire mode, as the sampling rate is dictated by your DAW, the buffer sized is fixed and the input channels are not available in Rewire mode.



Activating Rewire in your DAW

Please read the documentation of your DAW to discover how to enable its tracks for Rewire – the procedure varies from DAW to DAW. Regardless of the exact procedure, however, you must select the Rewire device “Melodyne” as the input to the desired track or mixer channel in the DAW.

The transmission of audio via Rewire

When you are using Rewire, you can select from the Master Output drop-down list on the Audio page of the Preferences dialog any of four possible stereo pairs for the transfer of audio signals to the DAW. By default, Channels 1 and 2 are selected. Please make sure that the selected input channels in the Rewire device in your DAW match the settings in Melodyne.

Tip: If you use the Melodyne Rewire device with different input channel settings on different tracks of your DAW, you can route the output signal from Melodyne to these different tracks by selecting the corresponding Master Output channels and are not therefore obliged to switch to your DAW to do this.

Note that Rewire is used to transfer audio from Melodyne to your DAW, not from your DAW to Melodyne. If you want to edit audio tracks from your DAW in Melodyne when the two are connected via Rewire, you must first export (“bounce” or “render”) the tracks in your DAW, and then import them into Melodyne.

Tip: When exporting tracks from your DAW, always begin at Bar 1, as then they will automatically be aligned correctly when imported by Melodyne. This makes it easy to avoid timing discrepancies.

Starting and stopping playback

The project loaded in Melodyne will start in sync with the DAW whether you activate playback from within the DAW or from within Melodyne. By the same token, you can halt the playback either from Melodyne or the DAW.

Melodyne adopts the tempo of the DAW and speeds up, or slows down, the playback of the project as necessary to maintain synchronicity with the DAW.

Synchronization

If a Melodyne project is to run in perfect sync with the DAW, the tempo of the Melodyne project must be the same as that in the DAW at the moment when the first files are imported into Melodyne from the DAW. To ensure that this is the case, when creating the Melodyne project you intend to use for the Rewire connection, in the transport bar type in the tempo in BPM that is displayed in the DAW. Then switch off Auto Stretch and import the audio files.

If your DAW project has a variable rather than a constant tempo, this is obviously not something you can just type in. In this case, you must export a MIDI file from your DAW that runs the entire length of the project, and then use the Import Tempo command in Melodyne's File menu to import this MIDI file; this will allow Melodyne to create a tempo map of the project. Once you have done this, you can import the audio files with Auto Stretch switched off.

By following this procedure, you will be able to operate the DAW and Melodyne together in such a way that audio comes on one side from the DAW and on the other from Melodyne. If you now change the tempo in the DAW, you will not need to take any further action, as Melodyne thereafter will follow tempo changes in the DAW automatically.

Playback, navigation, zooming

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

Controlling playback using the keyboard and transport bar

The plug-in implementation of Melodyne is integrated into the DAW and keeps perfectly in step with its playback. When you reposition the DAW, this information is conveyed to Melodyne, which mirrors the new position. As soon as the DAW starts, Melodyne also starts. It is not possible to start, stop or reposition the DAW's playback cursor from within Melodyne.

With the stand-alone implementation of Melodyne, you start and stop the playback using the buttons in the transport bar at the top or by pressing the space bar. If you hold the [Alt] key at the same time, playback will be confined to the current selection.



You can also control playback in Melodyne Stand-Alone using the numeric keypad of your computer. The shortcuts can be selected from the Preferences dialog, the default settings being as follows:

- Playback/Pause [space bar]: Stop or Start playback from the current position of the playback cursor
- Start [Enter] when stopped: Commence playback from the current position of the playback cursor
- Start [Enter] during playback: Jump to, and continue playback from, the last starting point
- Stop [0 on the numeric keypad] during playback: Stop and jump to the last starting point
- Stop [0 on the numeric keypad] twice in succession: Jump to the beginning of the project

In both the stand-alone and plug-in implementations of Melodyne, the arrow keys on the keyboard can be used to step through the blobs. When playback is stopped, the blob currently selected will sound.

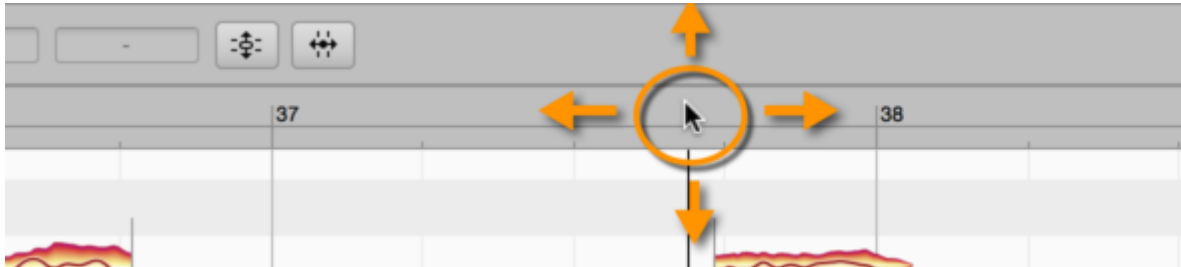
Please note that you can define a wide variety of keyboard shortcuts – including new playback shortcuts – using Melodyne's Preferences dialog. If for any reason you are not satisfied with the default shortcuts, you can redefine them at will.

Controlling playback, scrubbing and zooming using the Time Ruler

The following playback functions are available in both the stand-alone and plug-in implementations of Melodyne – in the Melodyne plug-in, however, only when the DAW is stopped; as soon as it starts

again, Melodyne plug-in resumes its shadowing of the DAW as described earlier.

Double-click in the Melodyne Time Ruler (or directly in the background of the Note Editor) to commence playback from the position in question. If you hold down the [Alt] key as you double-click in the Time Ruler, playback will be confined to the current selection.



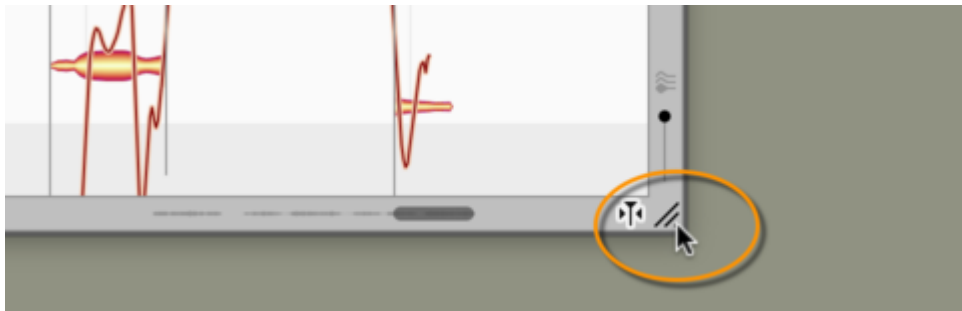
Click in the Time Ruler to move the playback cursor to the position in question and halt playback at the same time.

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.

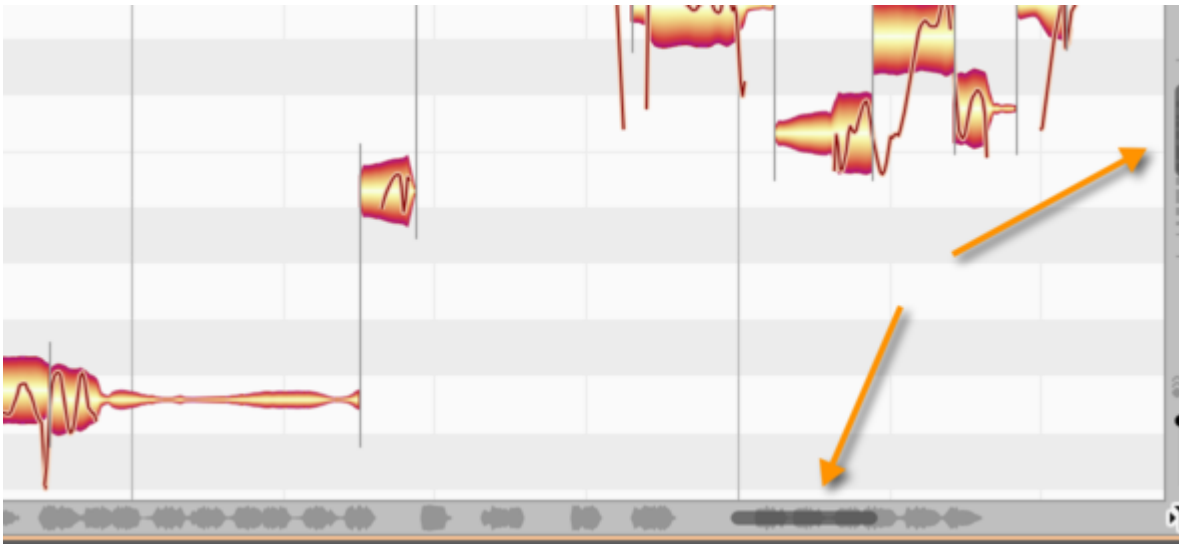


[Command]+[Shift]+double-click zooms in on one blob or several (if several are selected). A corresponding double-click in the editing background returns you to the previous zoom level.

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.

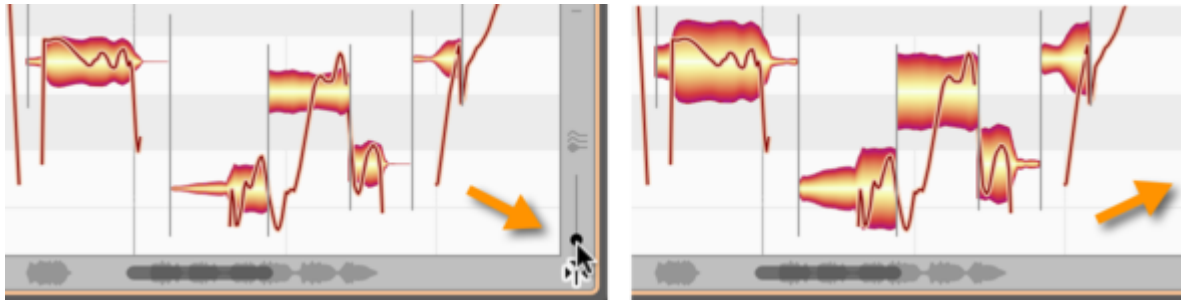


Drag the ends of the scroller to zoom the display.

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.



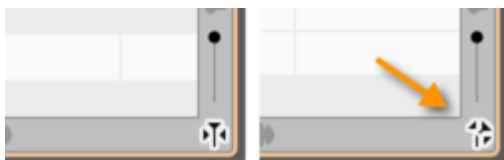
Use the slider in the bottom right-hand corner near the Note Editor to alter the height of the blobs. This does not alter their volume. Your likely motive will be to obtain a clearer view of material containing a lot of particularly quiet or particularly loud notes.

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

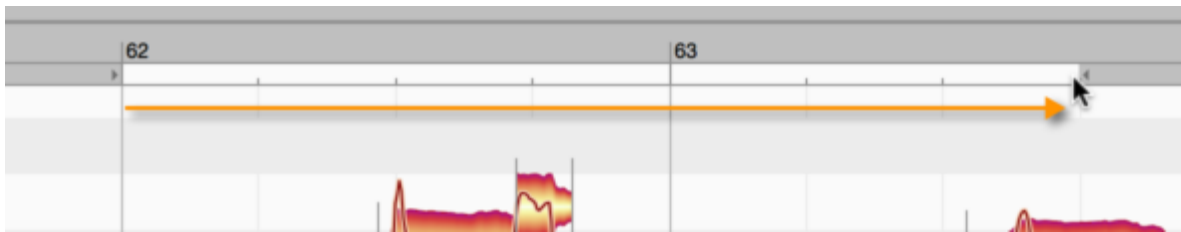
- To resize the window (also in Plugin), drag the bottom right corner
- Hold down the [Command]+[Shift] keys and drag the editing background of the Note Editor to move the area displayed
- Use the mouse wheel to scroll up and down or else (holding the [Shift] key) left and right
- A two-finger swipe 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.

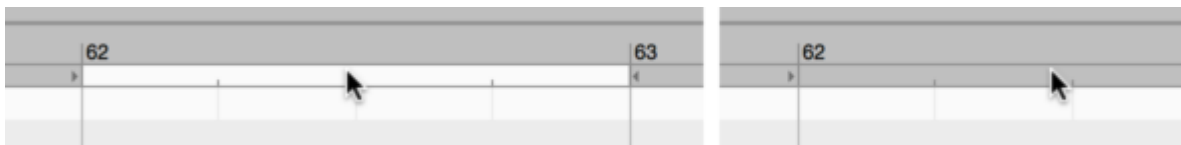
Defining the cycle range

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.



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.



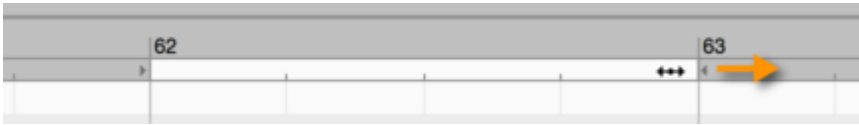
In the stand-alone implementation of Melodyne, you can also switch cycle mode on and off from the transport bar.



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

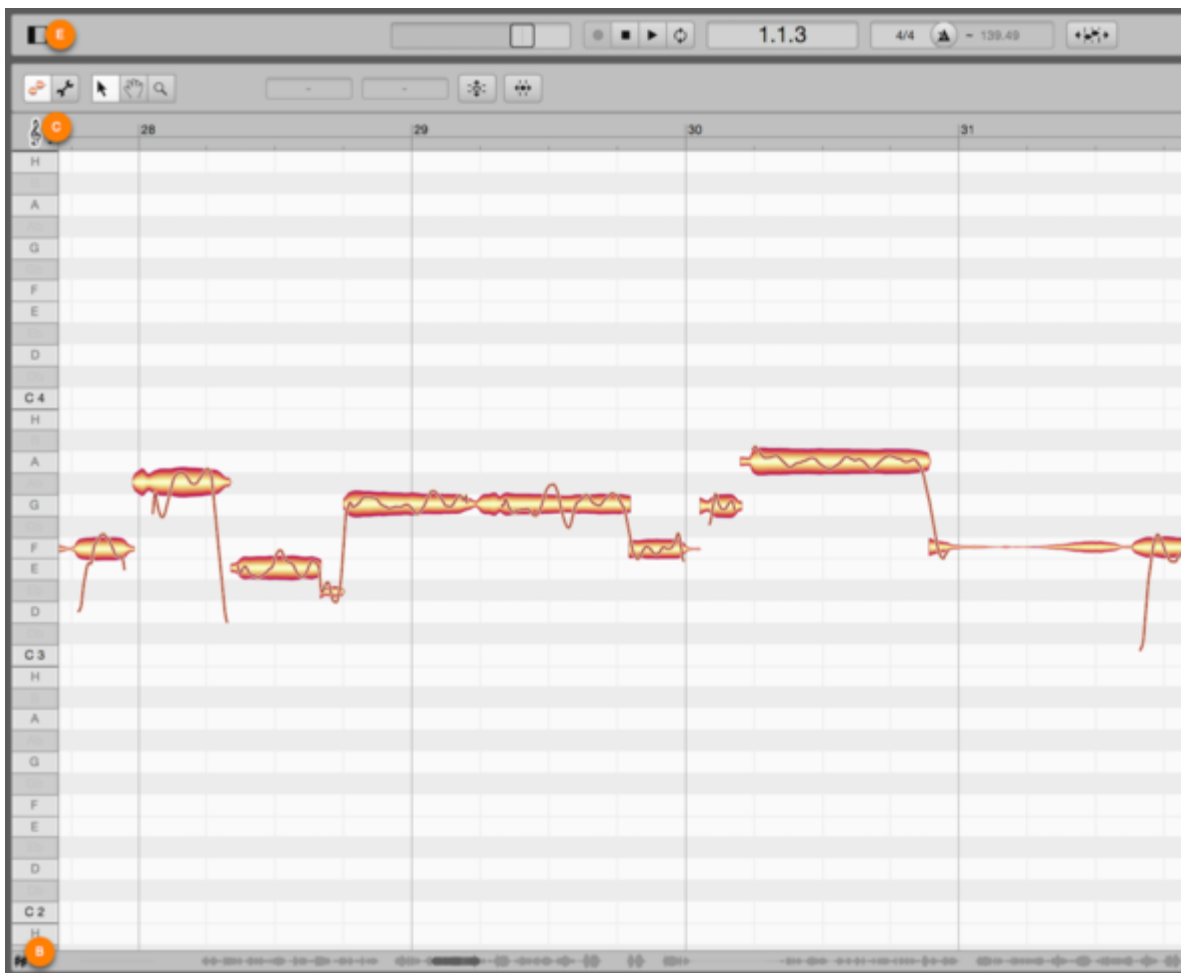
To move the cycle locators to the beginning and end of the current blob selection (snapping to the grid) hold the [Shift] key and double-click anywhere in the cycle range. If you hold the [Alt] key as well as the [Shift] key as you do this, instead of snapping to the grid, the locators will be placed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

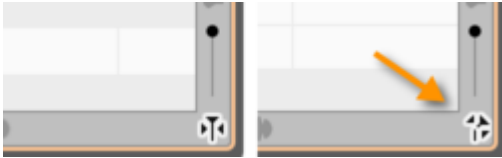
Melodyne's user interface can be adapted to a variety of different work situations and demands. You will find the means of doing so in the Options menu as well as the interface itself.



The illustration shows which icons in the user interface of the stand-alone implementation of Melodyne correspond to which items in the Options menu.

- Note Editor (A): Various options for the Note Editor that are described in detail below.

- Scale Editor (B): Shows/Hides successively one, two or all three panes of the Scale Editor window.
- Pitch Grid ©: Offers the choice between various options for the Pitch Grid.
- Time Grid (D): Offers the choice between various options for the Time Grid.
- Show Info Pane (E): Hides the info pane or shows it on the left- and/or right-hand side of the screen.
- Auto-Scroll Note Editor (F): When this option is activated, the display in the Note Editor follows the playback cursor.



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.

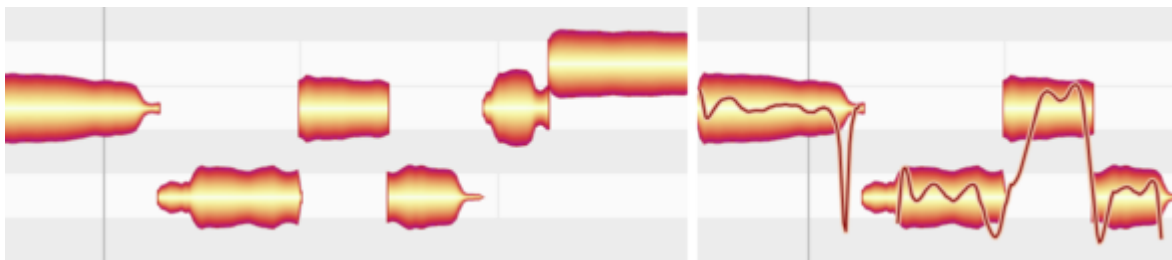
All the options described below relate to the Note Editor and are found by choosing Options > Note Editor Options from the main menu or by clicking the cog icon in the top right-hand corner of the Note Editor.

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.

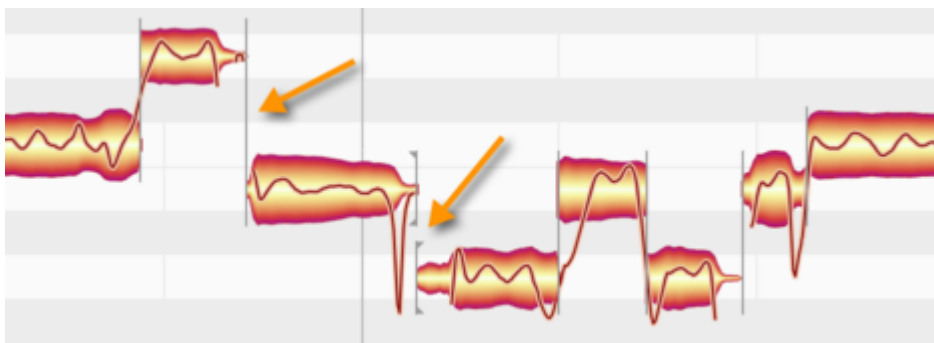


Regardless of whether or not this option is checked, the pitch curve will be displayed whenever the Pitch Tool is selected.

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).

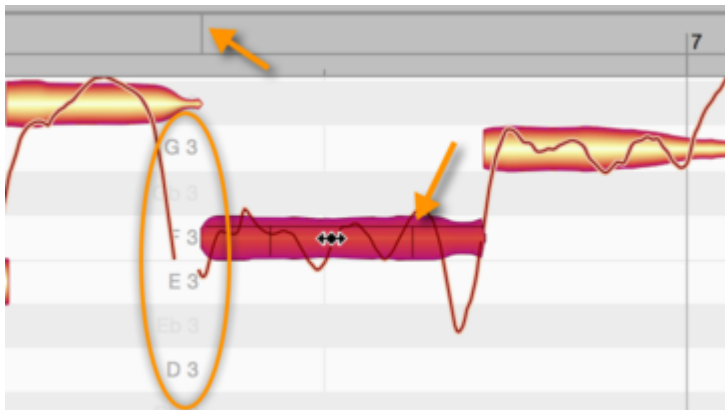


Note separations are always displayed when the independent Note Separation Tool is in use, regardless of whether or not the menu entry is checked.

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.

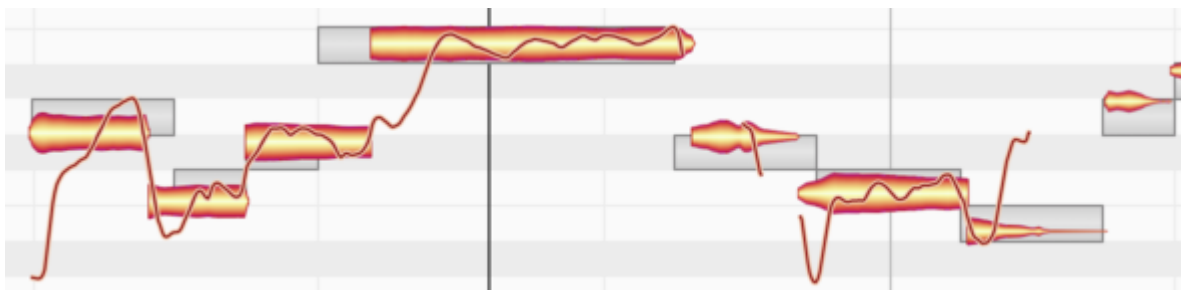
The most striking of these elements is the Local Pitch Ruler that appears directly in front of any note over which you move the mouse pointer. Within the blob itself, thin lines mark the drag zones for the context-sensitive tools.



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

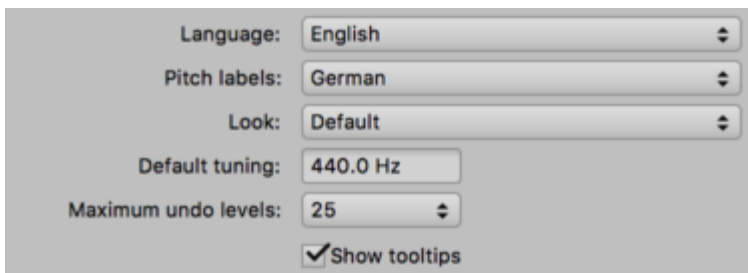
When you shift the pitch of blobs in the Note Editor with this option selected, Melodyne plays for the purpose of orientation the sound of the note at the position originally clicked. You can turn this acoustic feedback on or off.

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.

Audio and recording preferences

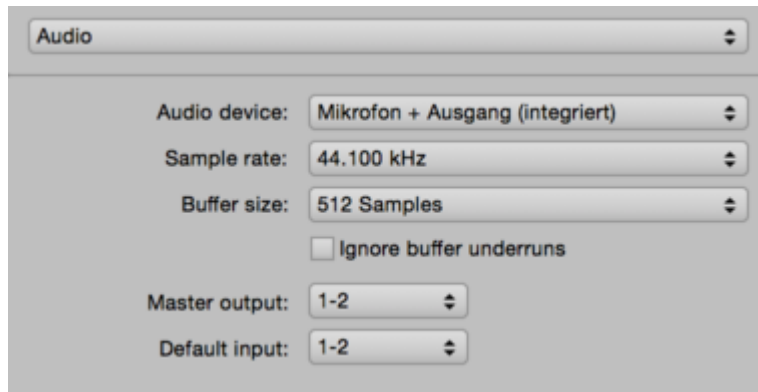
In both the stand-alone implementation and the plug-in, you will find the following two options:

- **Audio cache:** Determines the location on your hard disk of the audio cache Melodyne editor requires for internal processing.
- **Audio cache size:** Determines the maximum size of this audio cache.

The following option is only found in the plug-in:

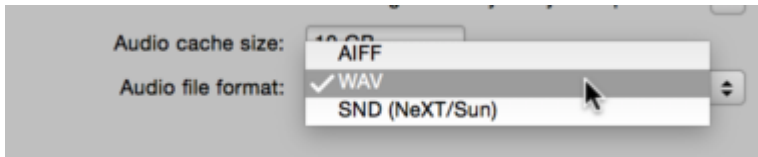


- **Detect audio after transfer:** When this option is selected, the detection (analysis) of the audio material does not begin until the transfer is complete, thereby reducing the CPU load during the transfer. Select this option if your computer is not especially powerful and there are indications during the transfer that its resources are becoming overstretched (e.g. clicks, drop outs, extreme slowing-down of the system).



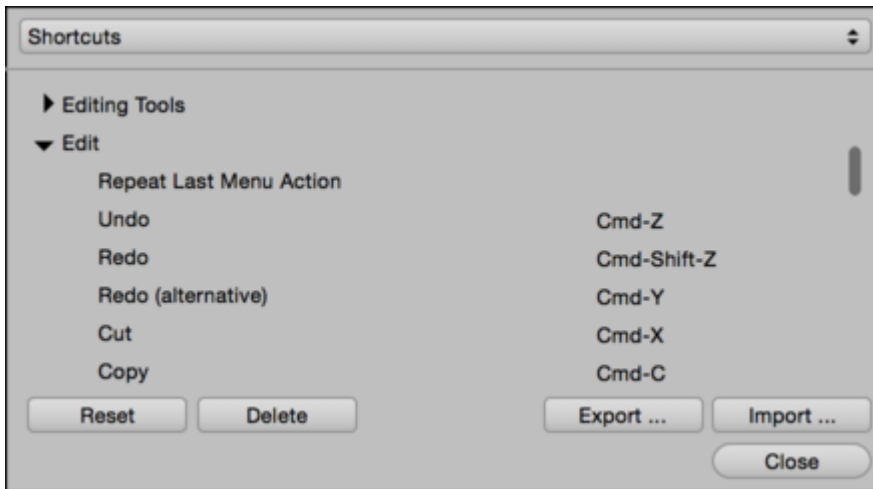
The Audio and Recording pages of the Preferences property sheet display the following additional options:

- **Audio device:** allows you to select an audio driver or the audio hardware driven by it.
- **Sample rate:** determines the sample rate used by Melodyne.
- **Buffer size:** determines the size of the buffer used for audio editing. The smaller the value, the lower the latency but the greater the load on the CPU.
- **Ignore buffer underruns:** If Melodyne Stand-Alone is running on a slow computer where the possibility of an overload (and an ensuing click or dropout) exists, by checking this box, you inform Melodyne that you consider the former to be the lesser of the two evils – the point being that audio hardware is often very sensitive to dropouts and can even in such cases cause the entire computer to crash. Check the box if ever this happens. Such occurrences are very rare, however, and most users can safely ignore this option.
- **Master output:** selects the main output for Melodyne stand-alone. The level at this output is controlled by the Master Volume control in the transport bar. If your audio hardware only offers one output, this is automatically the Master output
- **Default input:** selects the main input for Melodyne Stand-Alone. If your audio hardware only offers one input, this is automatically the Default input.
- **Audio file format:** determines the file format used by Melodyne to store recordings. The most commonly used formats are WAV and AIFF.



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.

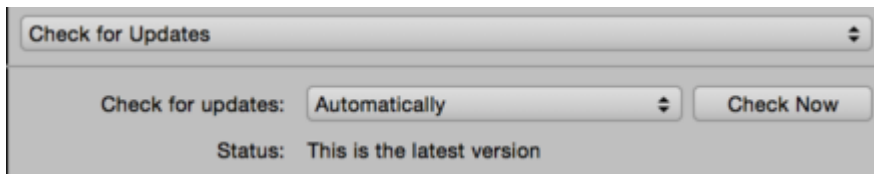
Click on a command and then press the key or combination of keys that you wish to assign as its shortcut. Melodyne will assign the key or combination of keys to the command in question. Repeat the procedure for as many commands as you like.

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

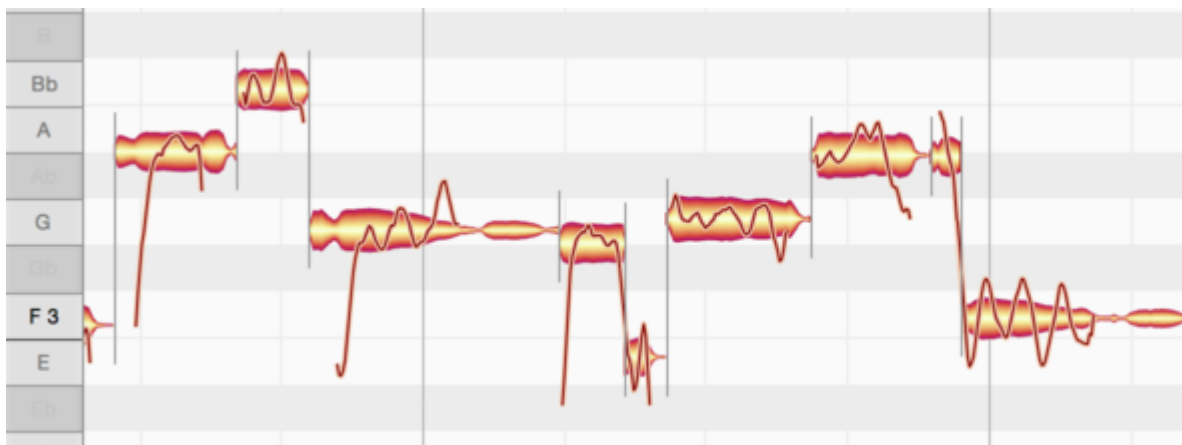
Melodyne analyzes the audio material to find the notes it contains and offer them to you for editing. We call this process “detection”.

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

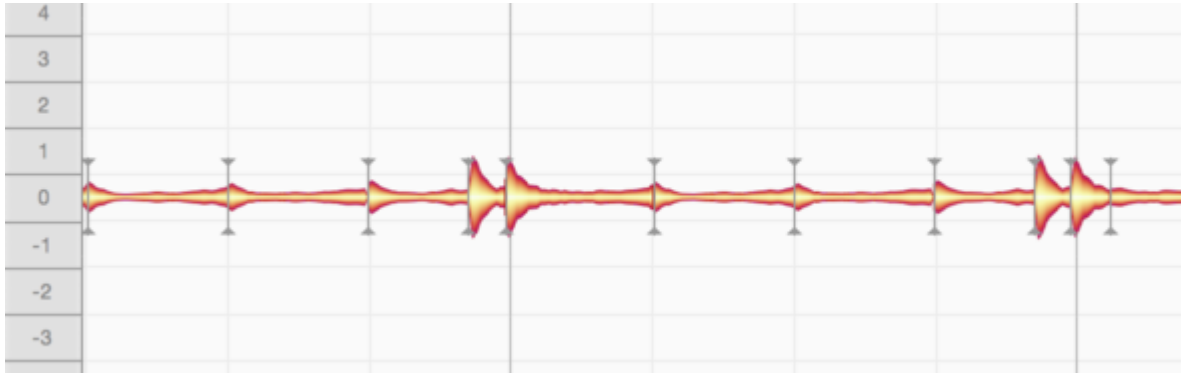
Melodic material is monophonic, by which we mean it is such that only one note is ever sounding at any given instant. Please bear in mind, however, that reverberation can cause notes to overlap even in monophonic material, creating, in effect, a kind of polyphony. If melodic material is to be edited 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

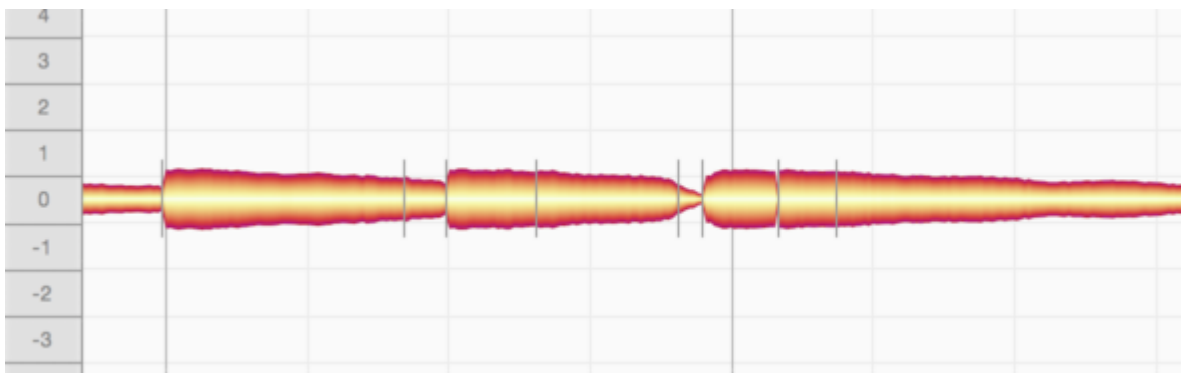
This category includes not only recordings of drums and other percussion instruments but also noise and atmospheric effects as well as other material in which Melodyne cannot detect any clear pitch in the sounds. When the Percussive algorithm is selected, successive drum strokes (for example) are distinguished, 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.

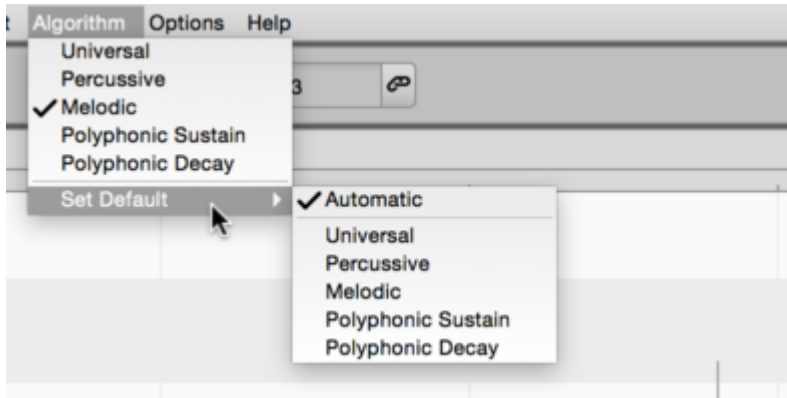
Automatic or manual algorithm selection

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

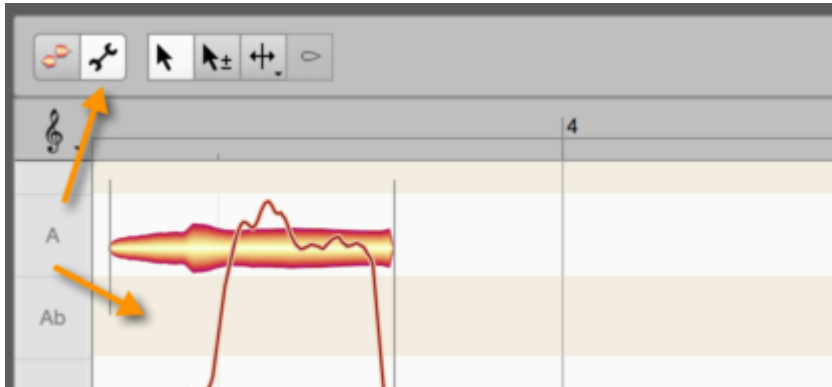
When you are working in Note Assignment Mode, none of the changes you make has any audible effect on the notes themselves. All you are doing is ensuring that the notes that are displayed do actually correspond to those that were played or sung. In other words, you are bringing what you see into line 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.

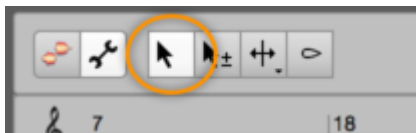
Any time you click on the blob icon (to the left of the wrench), you will leave Note Assignment Mode and return to edit mode. There you will hear once again the results of any editing you performed before switching to Note Assignment Mode. This only applies, however, if you have not changed algorithm 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.

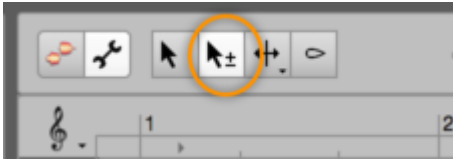


- In the lower part of a blob, the Main Tool functions as the *Activation Tool*.
- In the upper part of a blob, the Main Tool functions as the *Note Separation Tool*.

We will deal with each of these in turn.

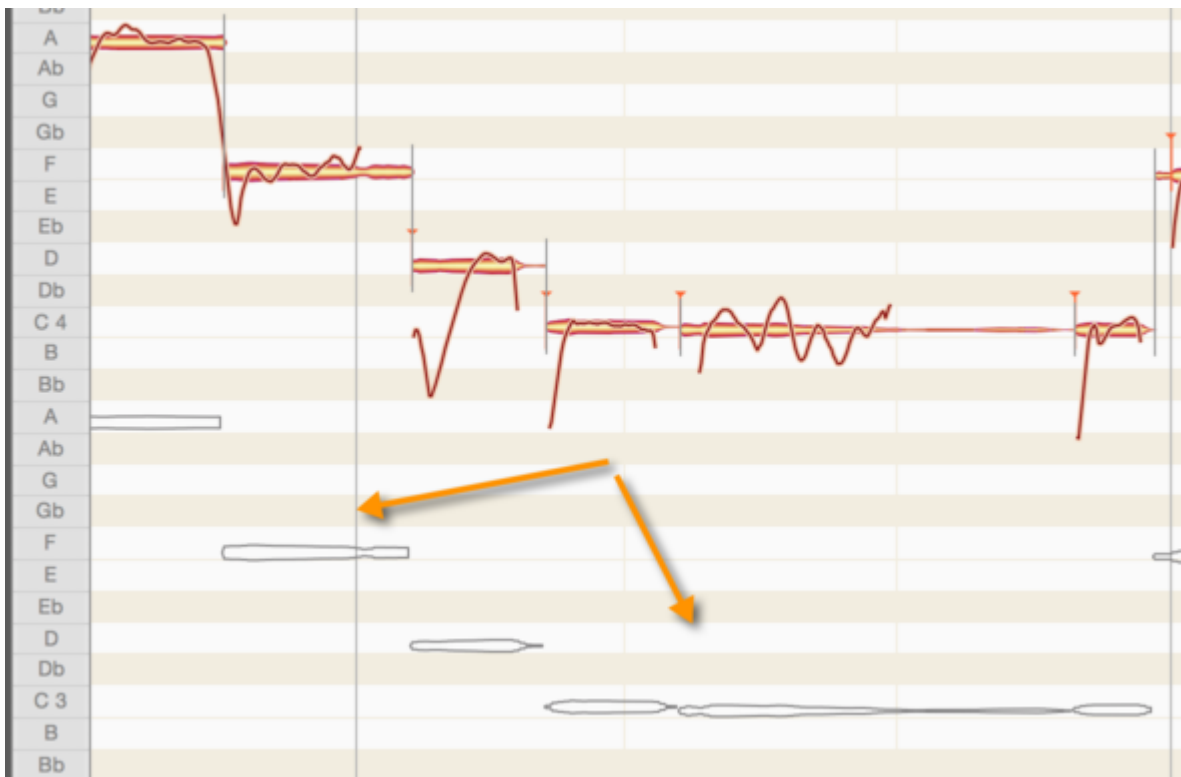
The Activation Tool

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.

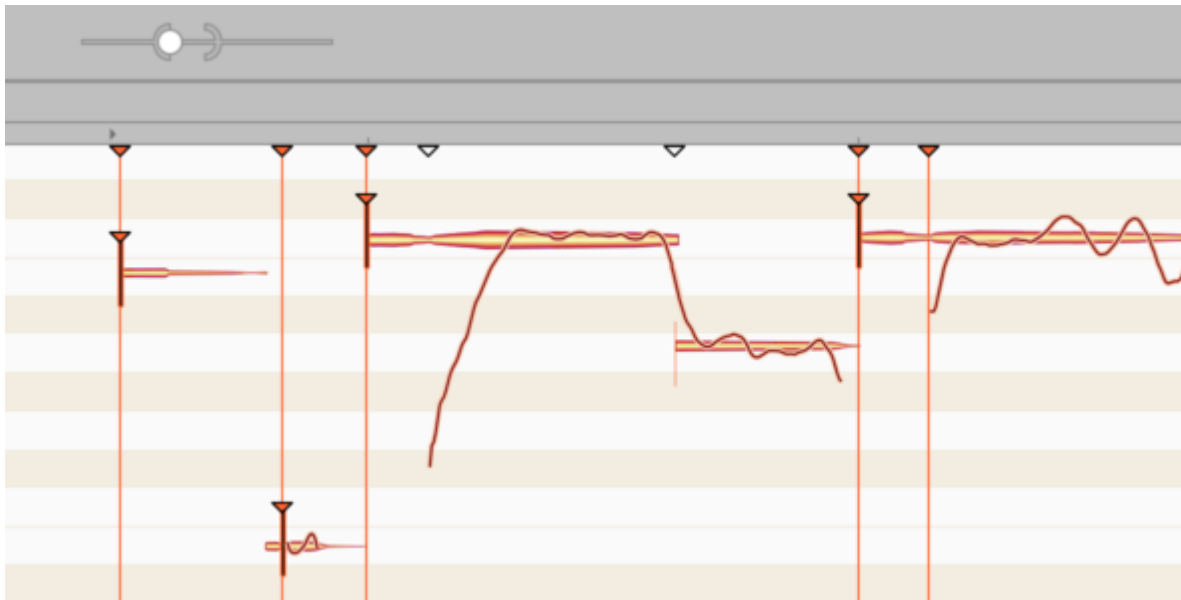


Dragging the blobs vertically with this tool has much the same effect: It instructs Melodyne to search higher up or further down for an alternative pitch. If a plausible pitch is found in the direction indicated, the blob snaps to it; otherwise it returns to its original position. You will use these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

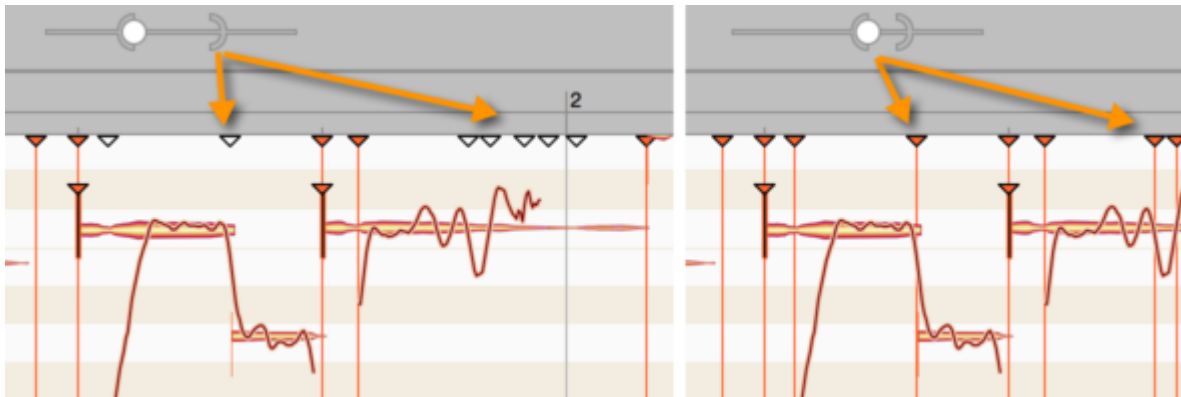
We call the vertical lines “starting point lines”. Rising in parallel from their respective blobs to the Time Ruler, they show the *musical starting points* that Melodyne has identified in the audio file. A “designated starting point” is indicated by a short vertical line (a “vertical”) topped by an 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

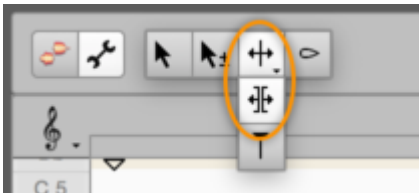
vertical appears complete with inverted triangle (indicating the presence of a designated starting point) that follows the line for a while before disappearing as soon as the note begins to decay, as, clearly, it would be futile to look any further for the musical starting point.



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.

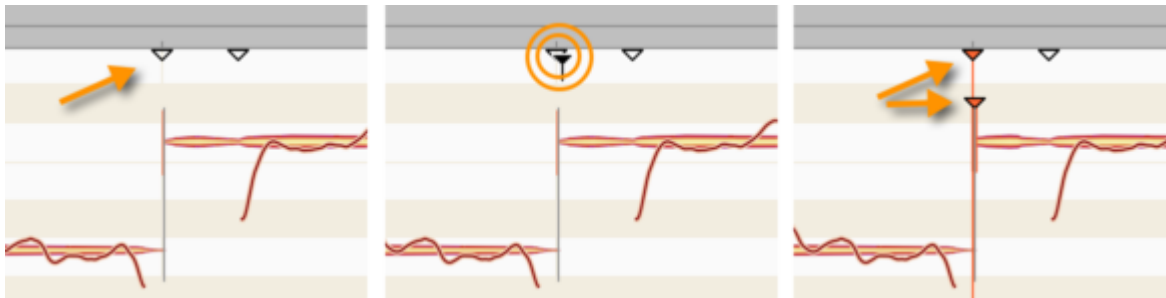
The Note Separation Tool and the Separation Type Tool

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 to 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

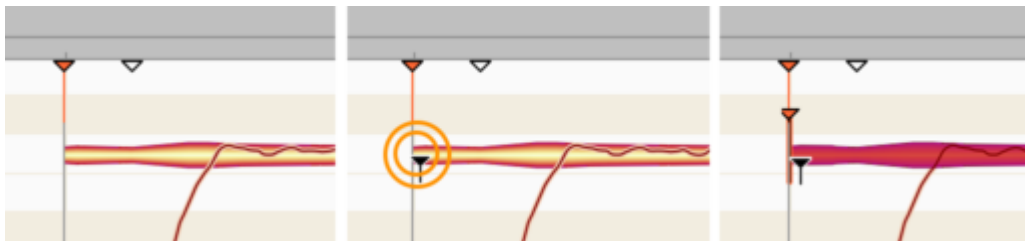
algorithms.

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.

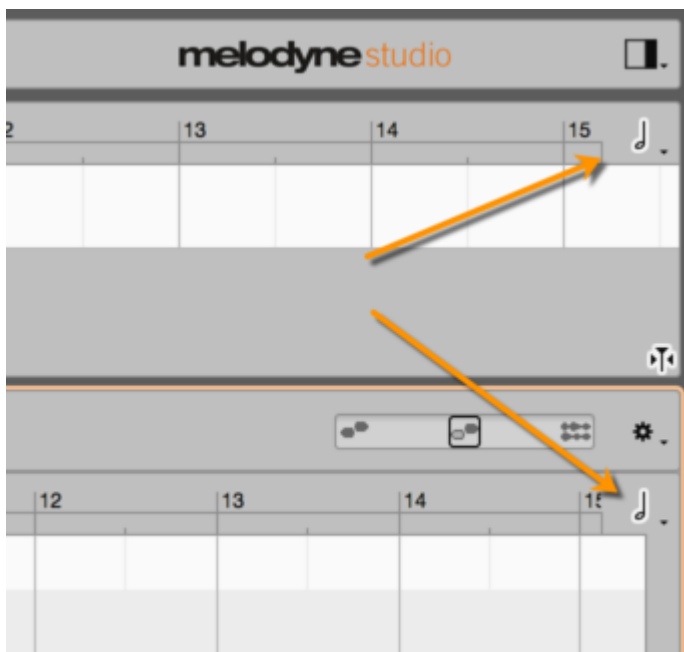


By moving the Starting Point Tool in the region of the starting point markers beneath the Time Ruler, you can also edit these with the Starting Point Tool. As a rule, however, you will generally use the Note Separation Tool for this purpose, as described above.

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.).

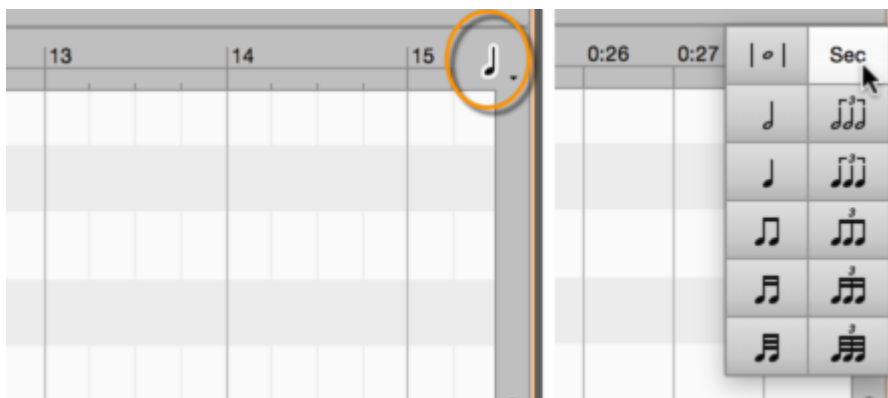
Activating and setting the Time Grid



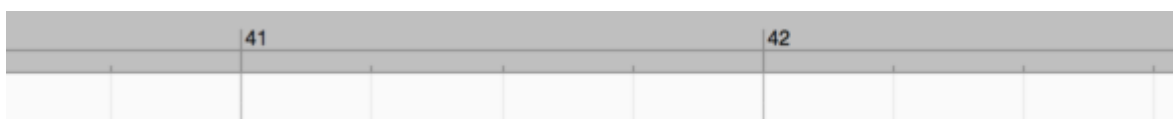
To adjust the Time Grid, either choose Options > Time Grid from the main menu or click the note icon (at the top right of the Note Editor) to open the pop-up menu shown here.

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.

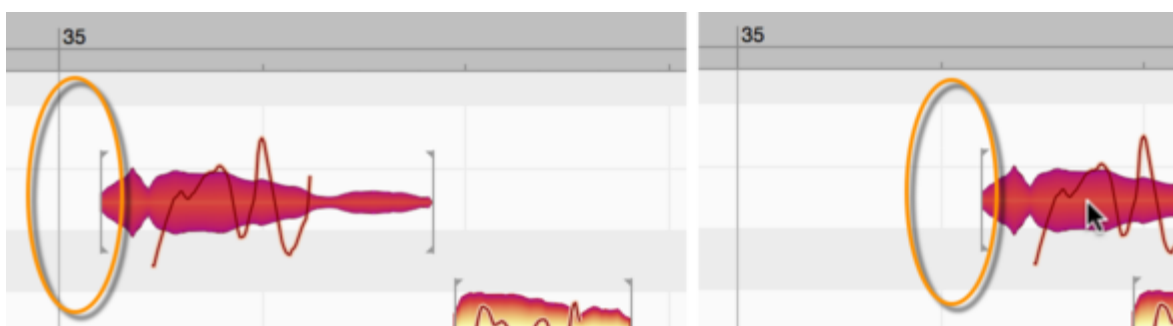


The time axis is then graduated at intervals equivalent to the note value selected. If you have chosen a small note value (such as 1/16) and then zoom the display outwards, at a certain point it will become impossible to display all the grid lines; the grid value selected, however, will remain active.



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.

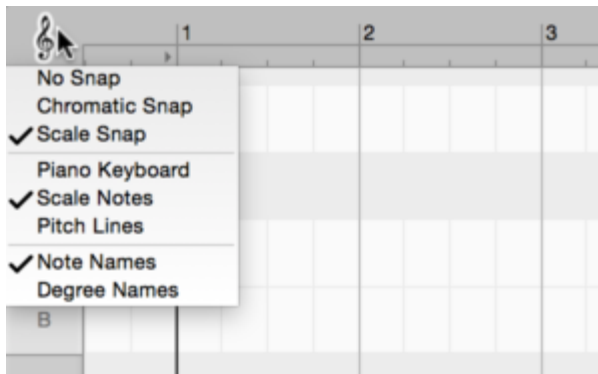
Even if the grid is active, you can still adjust the position of a note (or a selection of notes) independently of the grid by holding down the [Alt] key as you move it.

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.

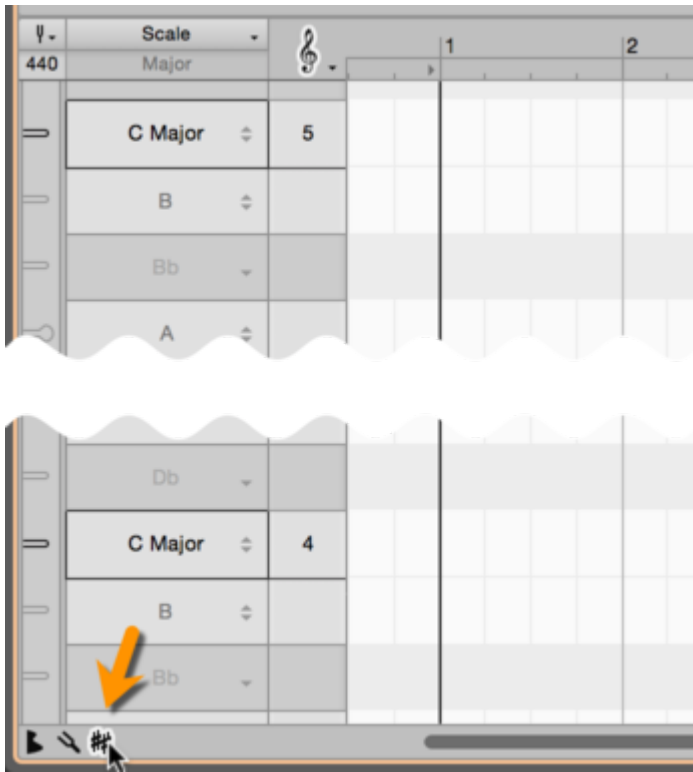
- **Piano Keyboard:** the darker beams in the Note Editor represent the black notes of a piano keyboard and the paler beams the white ones – a layout with which users of most MIDI editors will be familiar.
- **Scale Notes:** The lighter beams are assigned to the notes of the scale, whilst the darker 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.

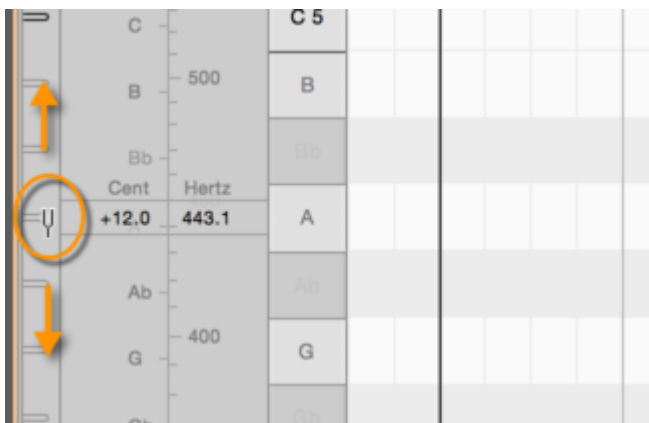
The Scale Ruler and the Reference Pitch Ruler

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.

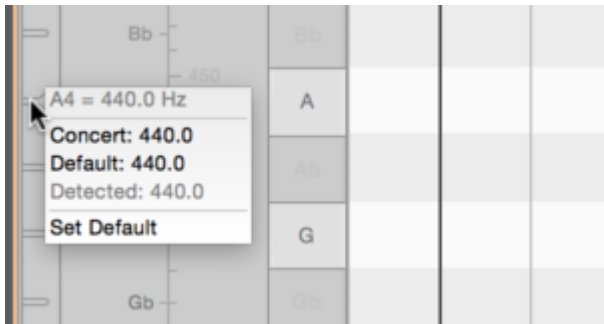


Adjusting the master tuning

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.

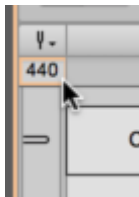


By right-clicking any of the marks on the ruler, you can open a small context menu. This offers a number of pointers to help you bring the Pitch Grid swiftly into line with a particular tuning:



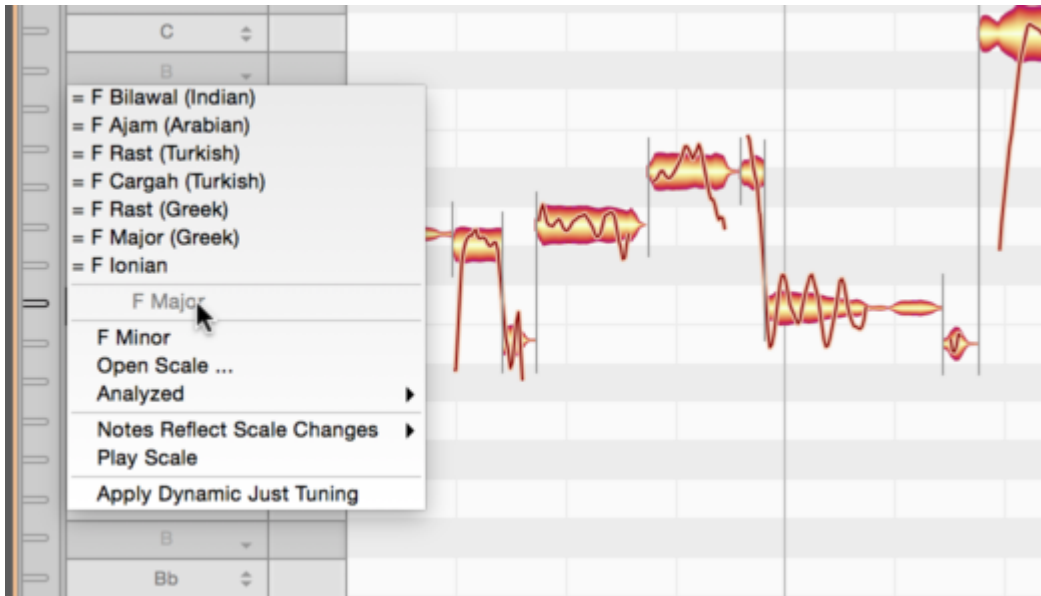
- At the top, you will see the current frequency of the note selected.
- Concert: bases the tuning on modern standard concert pitch (where A4 = 440 Hz).
- Default: bases the tuning on the frequency currently assigned to A4 in the Preferences dialog.
- Detected: bases the tuning on Melodyne's analysis 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.

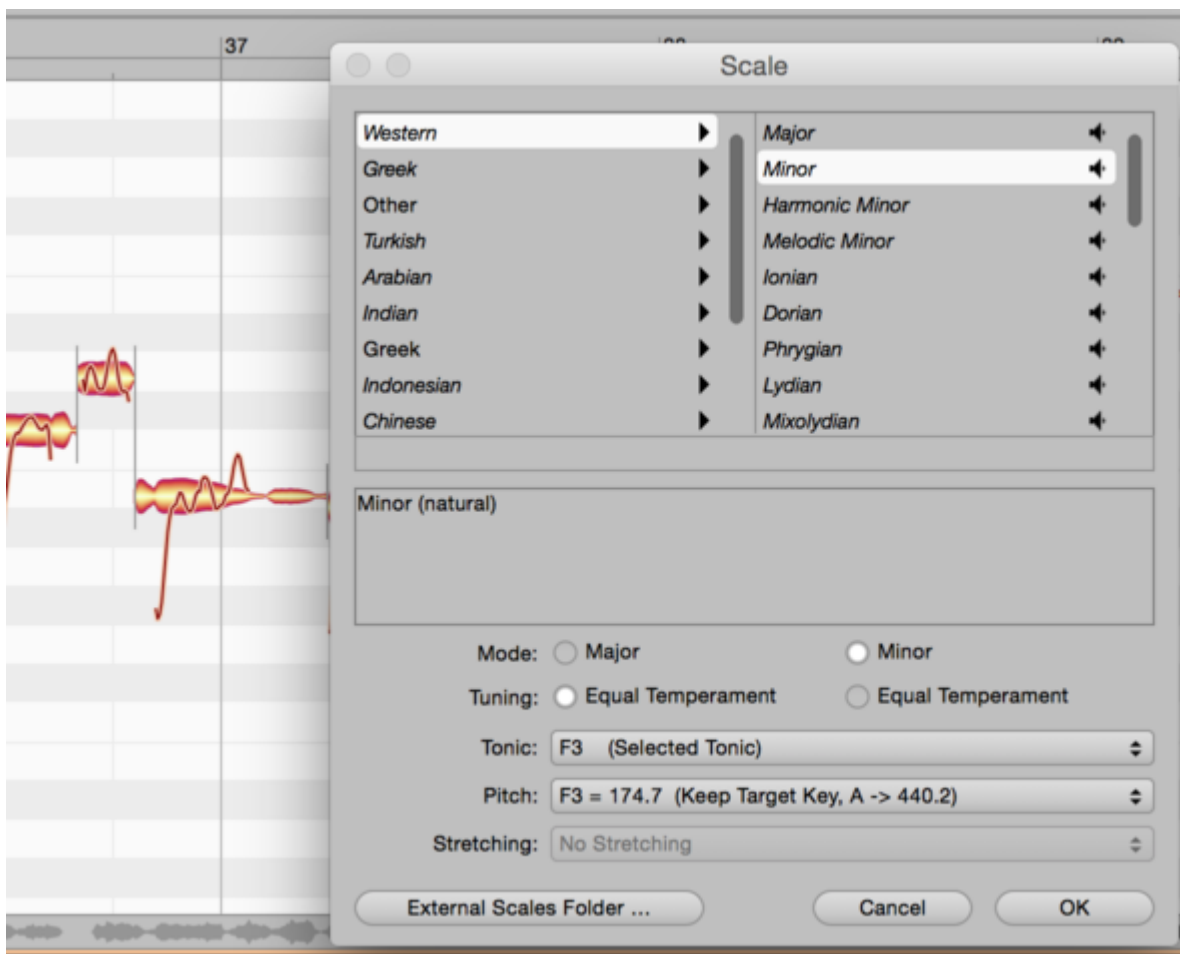
- The current note: in the middle of the submenu, grayed out, you will see the name of the note you have clicked on and which you can now make the tonic.
- Major / Minor: Allows you to select a major or minor scale with the note selected as tonic. To select C Major, for example, click C in the ruler, 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.

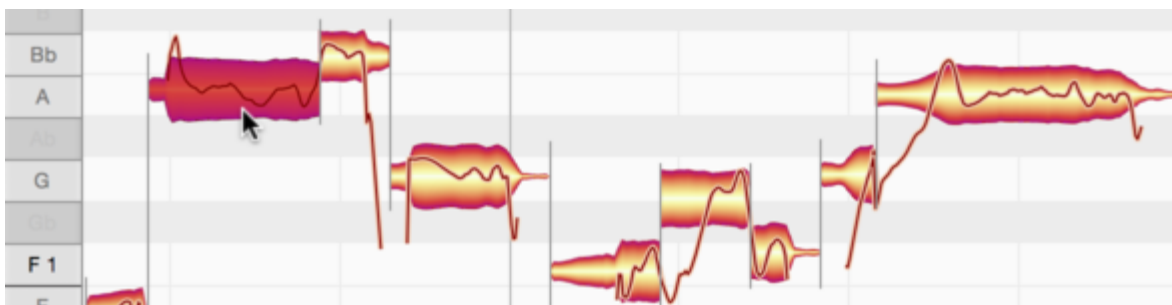
You can also load scale definitions created in Melodyne studio (filename extension '.mts') with this button.

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

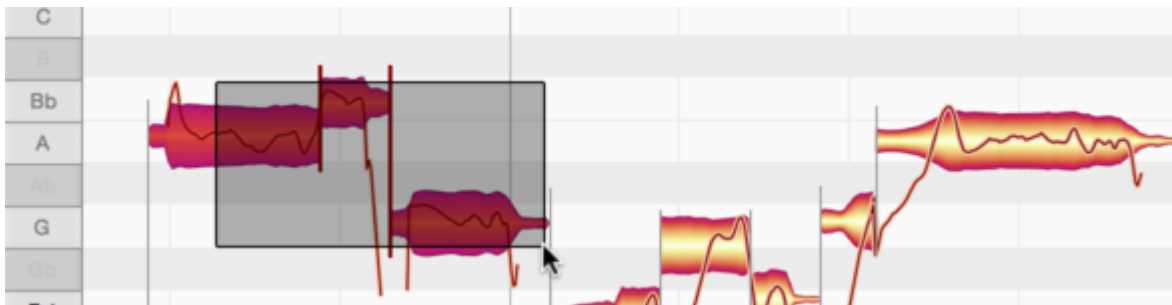
Click a note in the Note Editor to select it. Selected notes are more boldly colored.



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

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

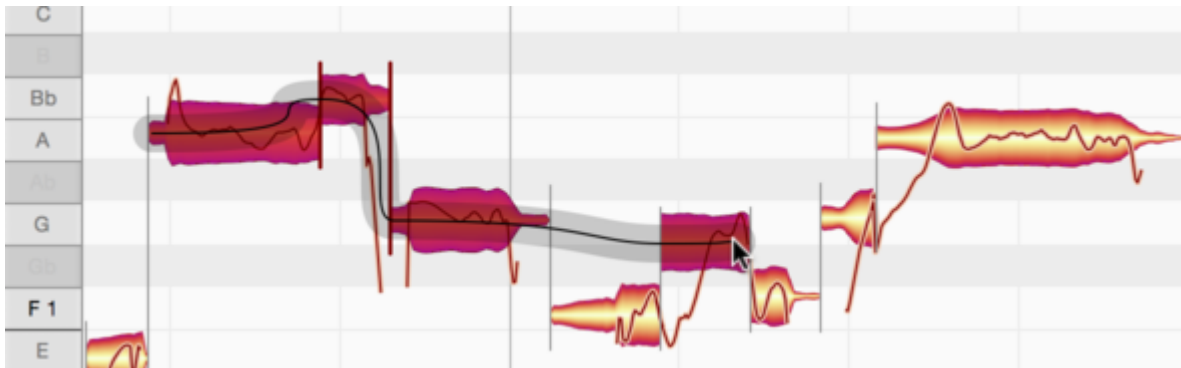
Another way of selecting multiple blobs is to lasso them by clicking the background in one corner of the desired selection and then dragging the pointer to the corner diagonally opposite. This is sometimes called rubber-banding. If you hold down the [Command] key, you can add a further rubber-band selection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



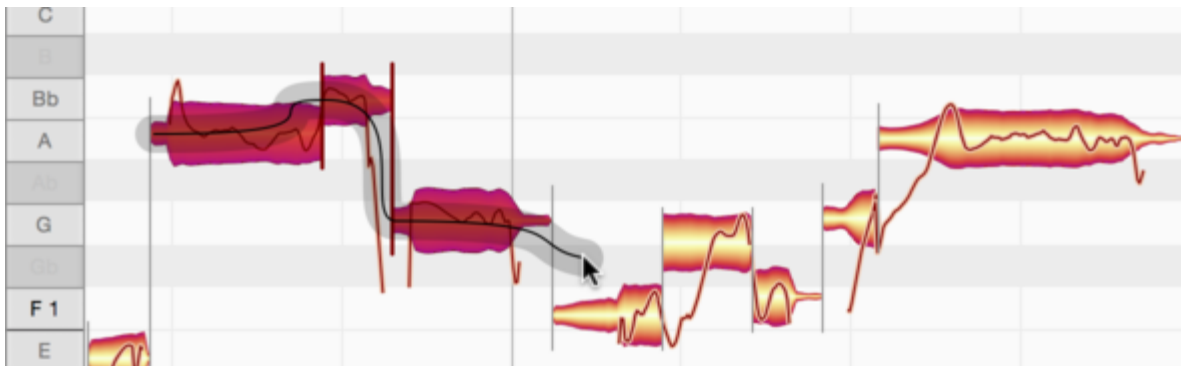
To select a passage (i.e. a series of notes), click the first note of the series and then [Shift]-click the last (or vice versa).

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.

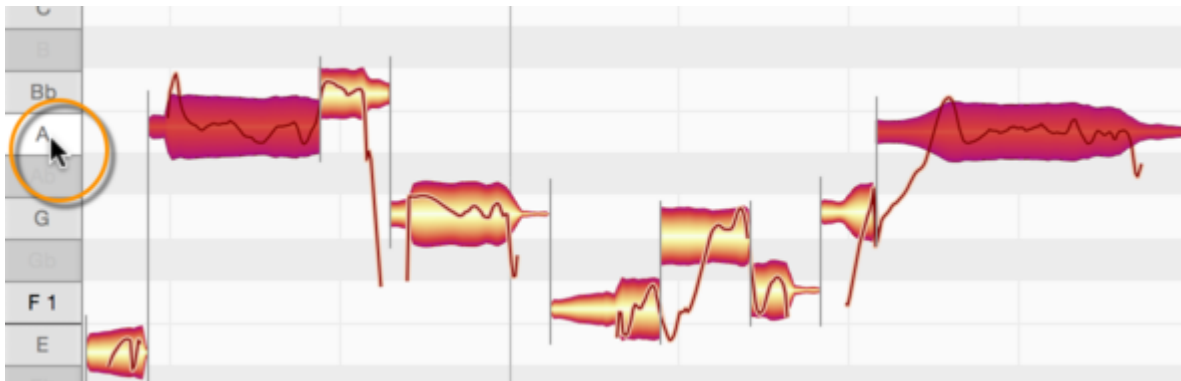


If you move the mouse (and thereby the snake) backwards again, you can remove notes previously painted over from the selection.



Selection using the Pitch Ruler

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

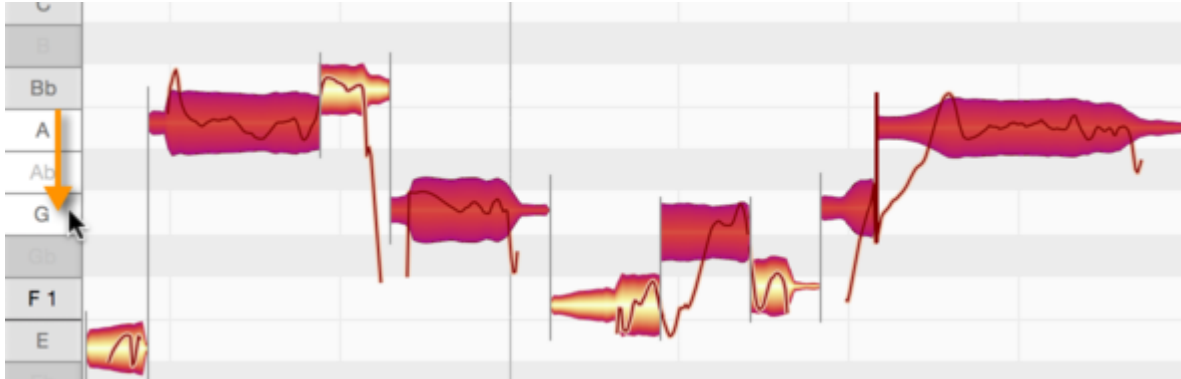


If cycle mode is active, the selection only affects such notes if they lie within the cycle range.

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.

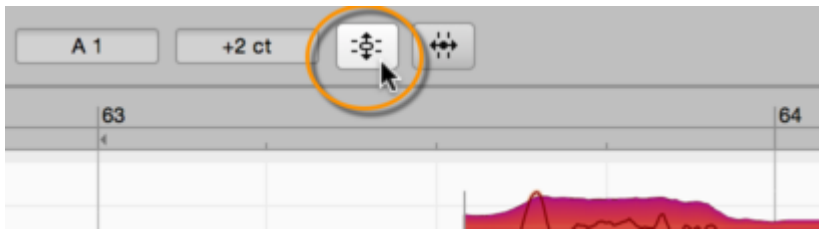
Correct Pitch Macro

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.

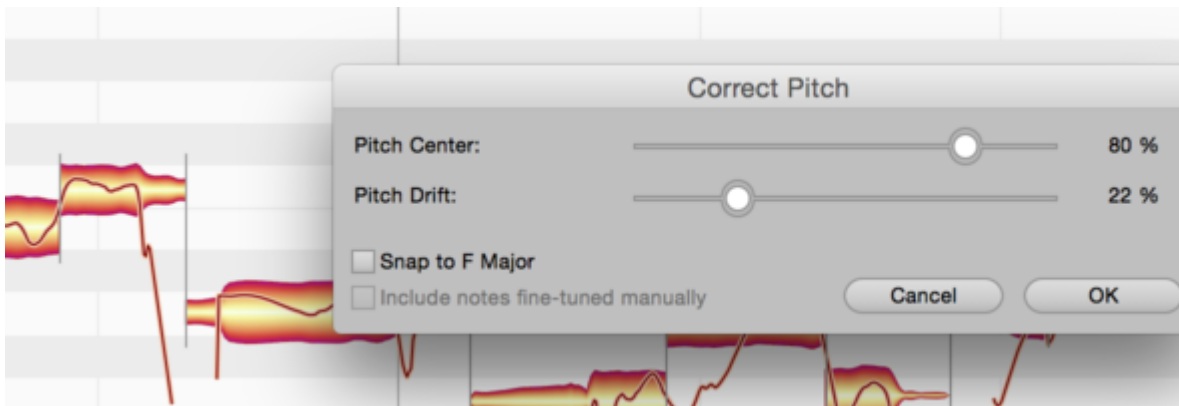


Here, with the upper slider, you can apply a degree of correction ranging in intensity from 0% (no influence) to 100% (full power) to the pitch center of the notes selected. By default, such notes are moved towards, or to, the nearest semitone, but if you check the option “Snap to (the selected scale)”, 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

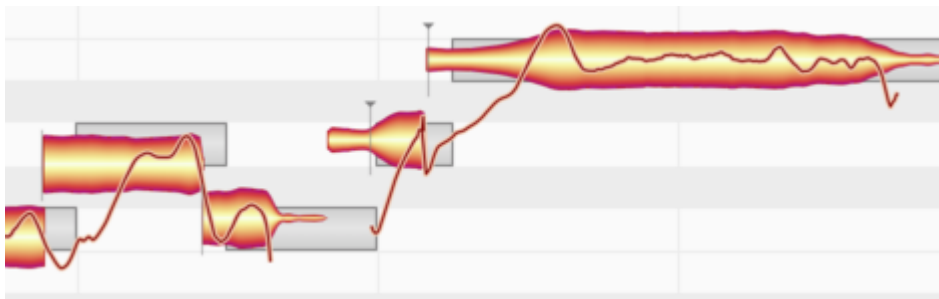
In this tour, you will learn how to work with the Quantize Time Macro, which makes it possible to correct the timing of notes swiftly and effortlessly.

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.

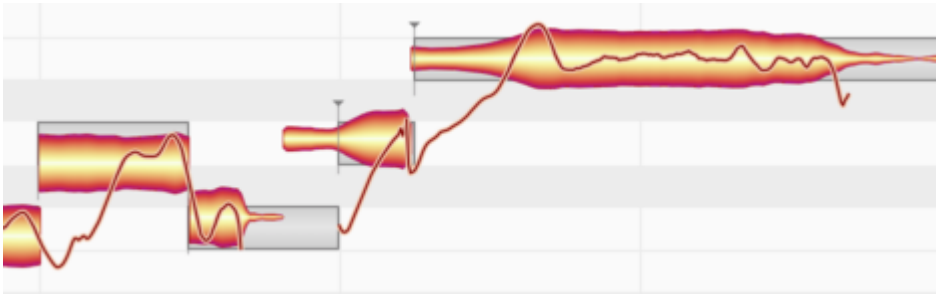
The first is the intended musical beat of the note; this is indicated by the start of the gray frame enclosing the blob. As you can see, the start of the frame invariably coincides with a grid line.

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

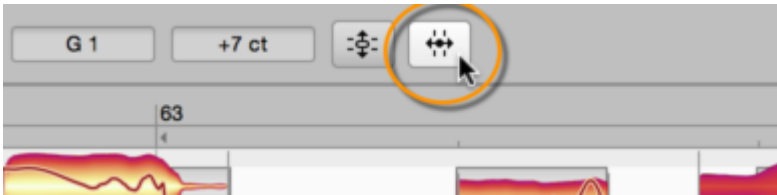
frame. The quantization intensity slider determines whether it goes all of the way, or only part of the way, to the beat assigned it.



Opening the Quantize Time Macro and setting the parameters

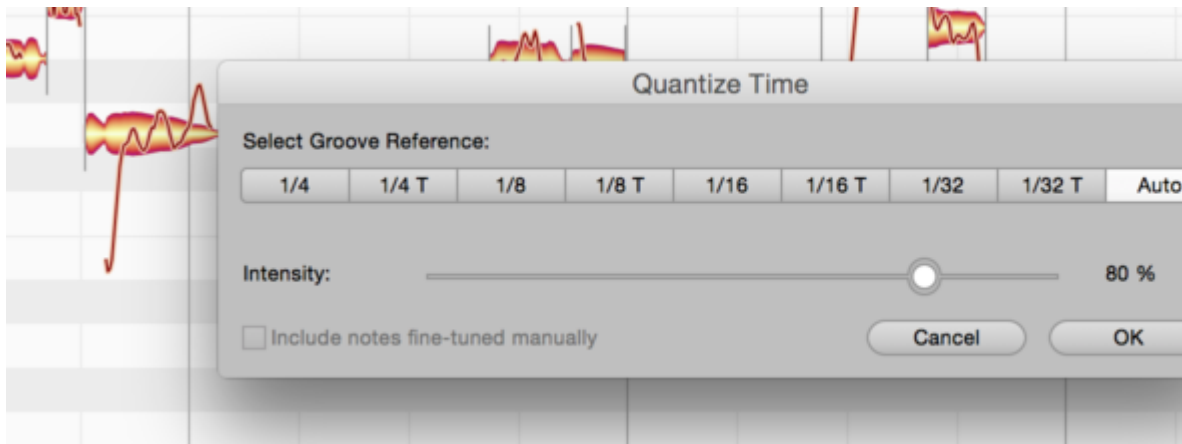
Select the notes you wish to edit. If no notes are selected, macro editing will by default affect all notes.

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

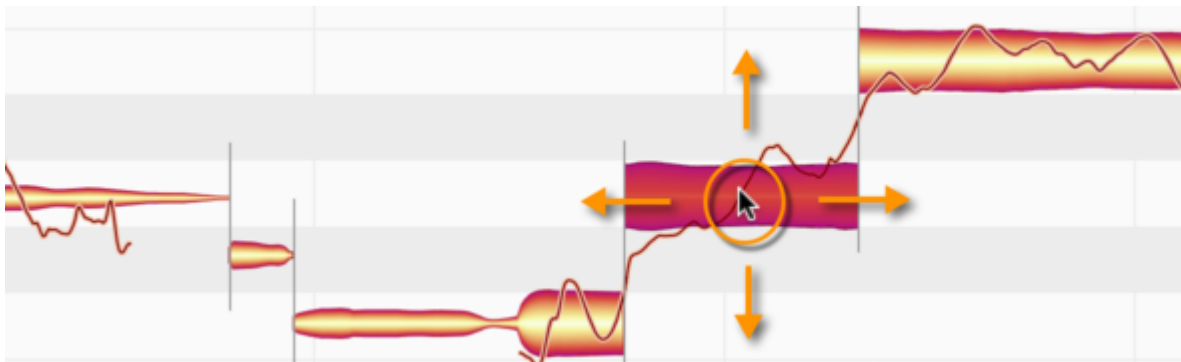
Melodyne's Main Tool is context-sensitive, its exact function at any given moment depending upon its position relative to the selected blob.

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.

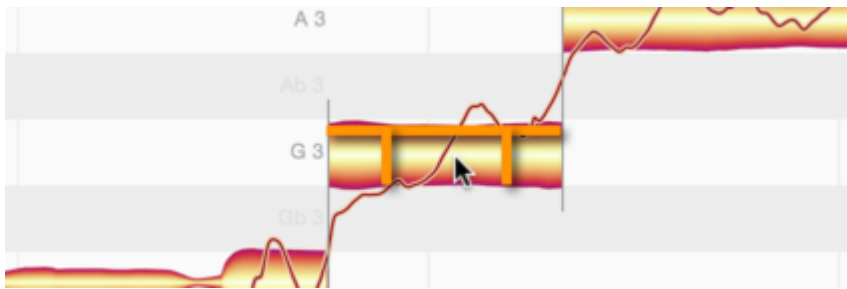


While you are dragging a note up or down, you will hear the frozen sound of the note at the point where you clicked. If, whilst dragging, you move the mouse to the right or left, you can put other parts of the note under the acoustic microscope. If you do not wish to monitor pitch changes in this way, 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.

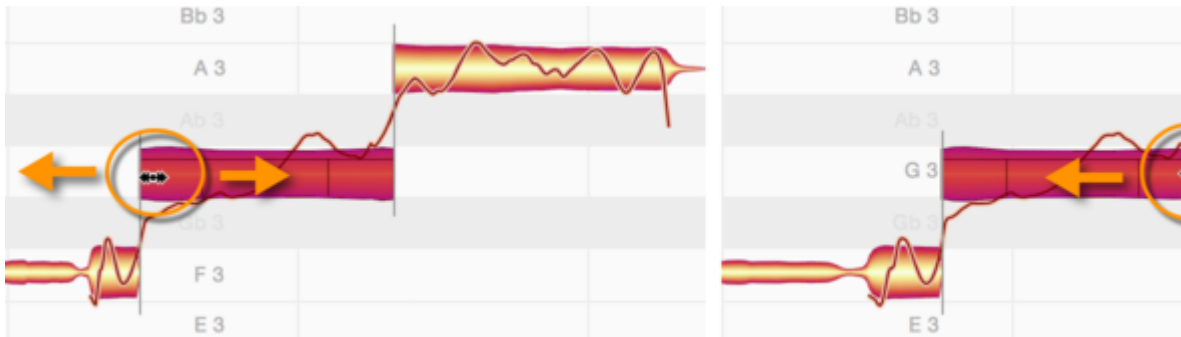
Modifying note lengths

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.

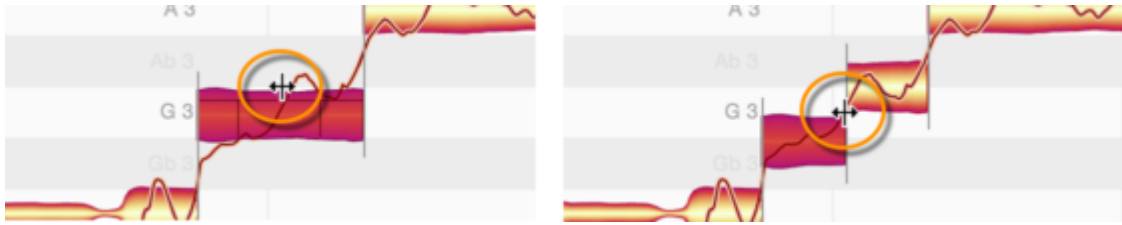


In the same way, you can move only the rightmost part of the blob (corresponding to the end of the note).

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

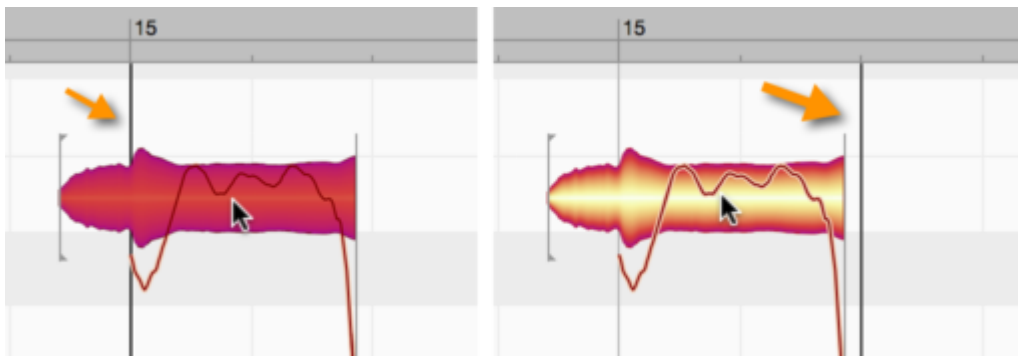
To copy notes in Melodyne, first select the desired notes, then choose Copy from the Edit menu or the context menu of the Note Editor. To insert them, use the Paste command. The following points here need to be noted.

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.

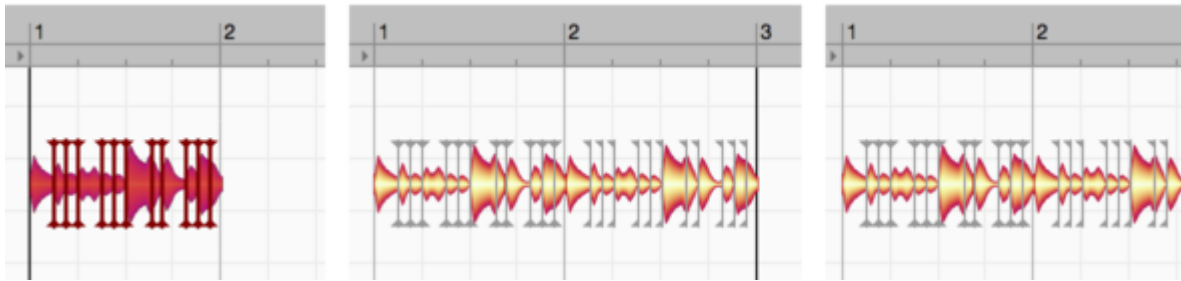
If, with the notes still selected, you use the Paste command, all that appears to happen is that the notes that were selected prior to the paste are now no longer selected and the cursor is now located just after the last of them.

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.



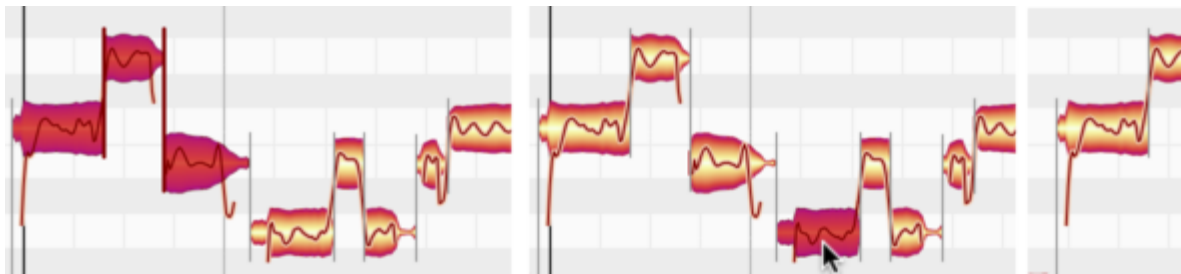
If you now execute a further Paste, the notes on the clipboard will be pasted a second time. This time, however, since no notes were selected, nothing will be replaced. Instead, the newly pasted notes will end up just after those that replaced the originals the first time round.

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.

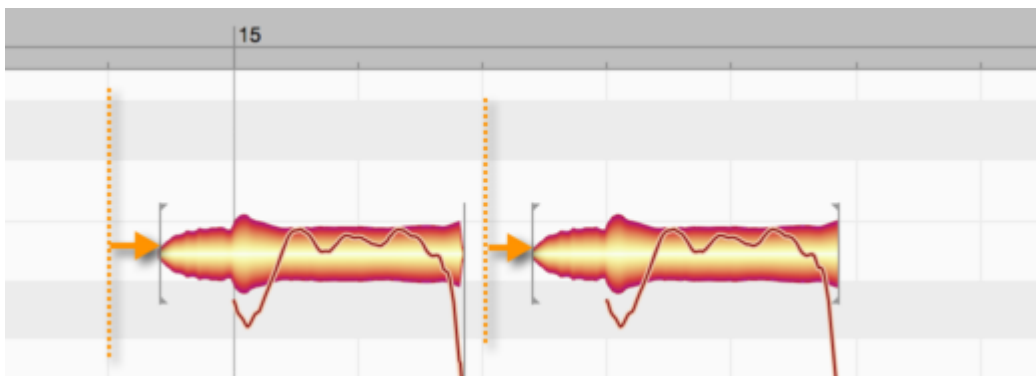


Based on what we have just seen, we can formulate the following rules:

- 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.



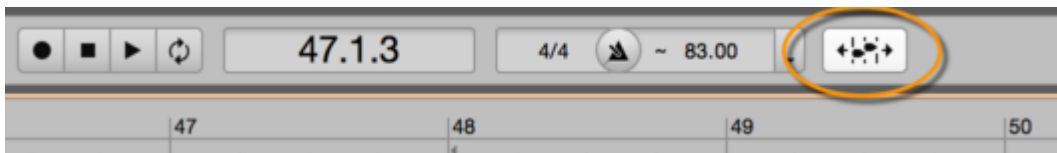
In other words, notes in Melodyne are not copied in such a way that they necessarily coincide with gridlines, because then the subtleties of expression would be lost. Instead, the notes copied retain

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.

Tempo detection and Auto Stretch

Melodyne is capable of recognizing not only the notes but also the prevailing tempos and time signatures within a recording.

Introduction

Melodyne's tempo detection and tempo adjustment functions are used often and to great effect, yet they execute for the most part quietly in the background. Example: Drag a recording, a phrase or a loop into a document in the stand-alone implementation of Melodyne. Melodyne detects the tempo of the music and adjusts it to that of your project (even if this includes gradual tempo changes). The audio file runs in sync without your having to give it a moment's thought.

No tempo detection is performed in two cases:

- When an assignment file containing the results of a previous detection and any editing thereof has already been saved for the new audio file – here the tempo has been detected already so there is no need to repeat the process;
- When Apple loops are imported, as these already contain information regarding their tempo – here, again, further analysis of the tempo would be pointless.

People often record to a click so that a timing reference will be available later. Often this metronomic click is felt to be constraining: Without the click, there is greater freedom and the music that results sounds more dynamic and vibrant; it is capable of 'breathing'.

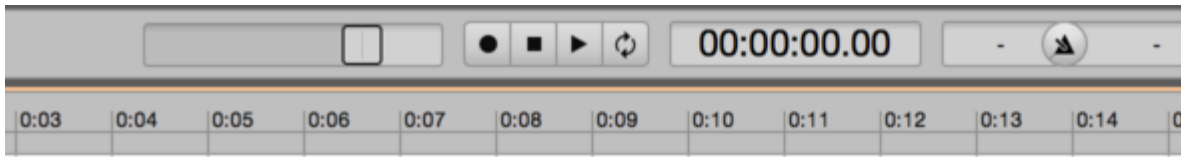
With Melodyne, you can dispense with the use of a click when recording and still retain a timing reference. The trick is simple: Instead of playing to the click resulting in a rigid timeline, with Melodyne you can simply adopt the tempo map of the actual recording – with all the minor fluctuations in tempo, sudden or gradual tempo changes, and changes in time signature it contains. The music, in other words, dictates to the timeline – not the other way around.

Tempo in the stand-alone and plug-in implementations

Melodyne's tempo detection only plays a role in the stand-alone implementation of the program; not in the plug-in. The reason is simple: The plug-in operates within a DAW from which it adopts not only the audio material but also all tempo information.

Determining the tempo in the stand-alone implementation

In the stand-alone implementation of Melodyne, with a new document the tempo and time signature fields are initially empty; instead of a value in each case a simple dash ("—") is displayed.



The Time Ruler, initially, is calibrated in seconds. So you begin with a blank sheet and can either enter the tempo and time signature for the Melodyne project manually or allow Melodyne's tempo detection routines to do their work.

To enter the tempo manually, proceed as follows (the default values, unless others are entered by hand, are 120 BPM for the tempo, 4/4 for the time signature, and quarter note (crotchet) intervals for the Time Grid):

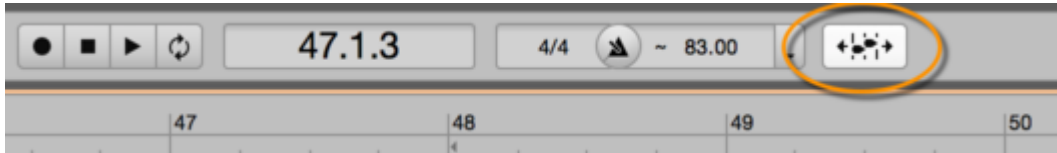
- Enter the desired value in beats per minute (BPM) in the tempo field
- Enter the desired values for the numerator and denominator of the time signature
- Enter a musical note value instead of seconds in the menu for the Time Grid
- Click on the button between the time signature and tempo fields in the transport bar to activate the metronome. If you are used to working with a DAW, you may prefer to set the tempo manually before beginning work on your project. Since Melodyne is extremely good at detecting the tempo, it is in many cases easier and more practical simply to allow Melodyne's tempo detection routines to determine the tempo for you.

To allow Melodyne's tempo detection routines to determine the tempo, proceed as follows:

- Instead of initializing the tempo, time signature and Time Grid values manually, as just described, begin recording with the tempo and time signature fields empty. Now you no longer need a click to listen to as you record because Melodyne will detect the tempo and tempo fluctuations within the recording and adjust the grid lines and subsequent click accordingly. Instead of entering a numerical value for the tempo, in other words, you are determining the tempo through your performance.
- Melodyne's tempo detection routines work in an analogous fashion when, instead of recording, you import previously recorded audio. The same condition applies here: you must begin with a blank sheet i.e. you must leave the tempo and time signature fields and the Time Grid menu untouched. To determine the tempo by means of an audio file, you must load it either by choosing File > Import Audio from the main menu or by drag 'n' drop. Melodyne will then detect the tempo of the file, set the project tempo accordingly and position the file in such a way that its musical content begins at Bar 1. As a rule, the first note of the music appears in Bar 1, with any silence in the recording that precedes the first note falling in the negative zone of the Time Ruler. If the music begins with an anacrusis, however, (i.e. one or more unstressed notes that precede the first bar line), Melodyne places this in Bar -1, so that the stress falls on the downbeat at the start of Bar 1.

Auto Stretch when importing additional audio files

Once the tempo has been determined, by whichever means, your project will have a tempo map with a time signature, an appropriately spaced grid and a tempo curve tracing any fluctuations in tempo it contains. The presence of this tempo map introduces new possibilities when additional files are imported; possibilities that were not present when we were working with a blank sheet. The Auto Stretch Switch, for example, which was grayed out before, now offers you two choices:



- With Auto Stretch switched on, every new file imported into the project will be adjusted to ensure it conforms to the tempo map in place and replicates any tempo changes it contains. To make this possible, Melodyne first analyzes the tempo of the material to be imported and then squeezes or stretches it wherever necessary to match the tempo of the project.
- With Auto Stretch switched off, no attempt is made to adjust the tempo of the imported file to that of the project; so initially, it simply plays back at its original speed. You are perfectly free, of course, once the material has been imported, to stretch or squeeze notes to your heart's content as you edit the material. All turning off the Auto Stretch switch does is prevent the tempo of the imported file adjusting *automatically* to the tempo map of the project.

Where on the Time Grid the file is initially positioned depends upon the procedure used to import it:

- If you choose File > Import Audio from the main menu, the physical start of the file (i.e. the first sample) will be aligned with the "0:00" seconds mark on the Time Ruler, which may be, but is not necessarily, the beginning of Bar 1. If the Auto Stretch Switch is on, the file will adjust to the project tempo; otherwise not.
- If you import the file by dragging it to a particular point on the Time Ruler (the "dropping point") and Auto Stretch is switched on, the file will be aligned such that the first beat of the first complete bar coincides with the dropping point; if Auto Stretch Switch is off, the physical start of the file will be aligned with the dropping point. When this procedure is used, the file will snap to whichever line on the Time Grid is closest to the dropping point, so your Time Grid setting (quarter notes, eighth notes, sixteenth notes...) is of importance here – unless, of course, you wish the grid to be disregarded, in which case hold down the [Alt] key as you drag and drop the file onto the Time Ruler.

If, instead of a time value, the Time Ruler is calibrated in seconds, the Auto Stretch function is automatically disabled; the Auto Stretch Switch is grayed out and no attempt is made to adjust the tempo of the imported file to that of the project.

Auto Stretch when notes are moved or copied

The Auto Stretch Switch plays a role not only when audio is imported but also when notes are moved or copied.

If at the destination (i.e. the point to which the notes are moved or pasted) the tempo differs from that of the source (i.e. the place from which they are taken), depending upon whether Auto Stretch is switched on or off they either adopt the tempo of the destination or retain that of the source. As a general rule, before copying or moving notes you will want to switch Auto Stretch on, so that they adjust to the tempo of the destination.

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](#).

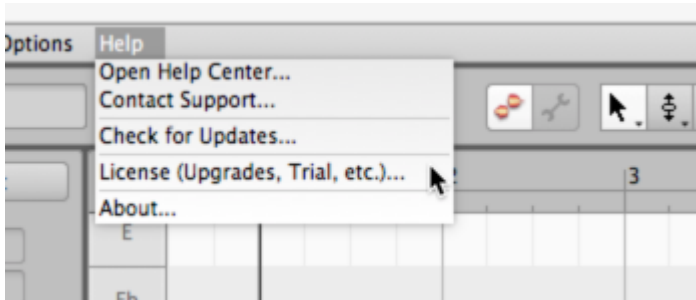
Switching to trial mode

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.

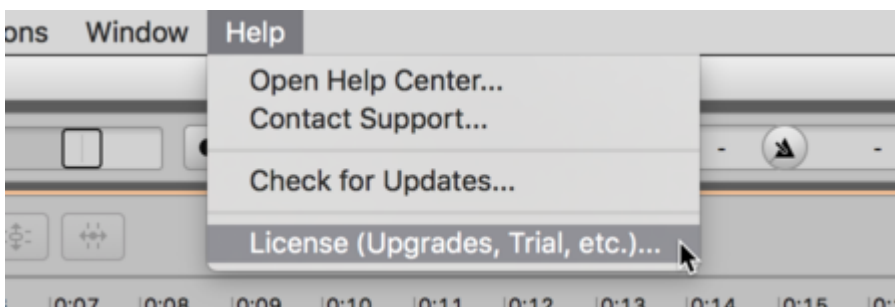
Here's how to activate trial mode:

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

In the plugin:

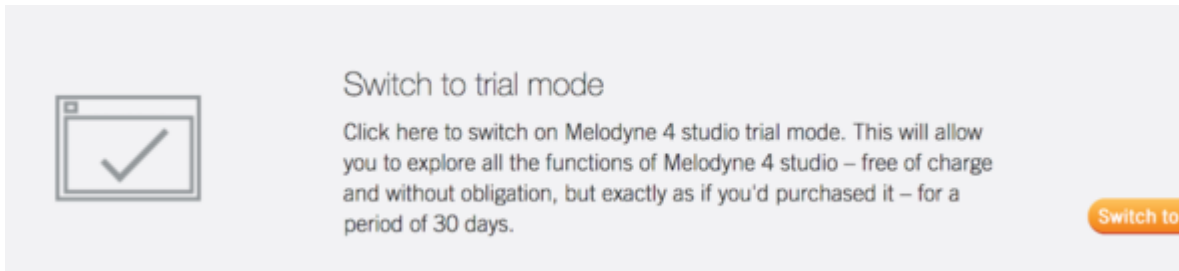


In the stand-alone implementation:



- 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:

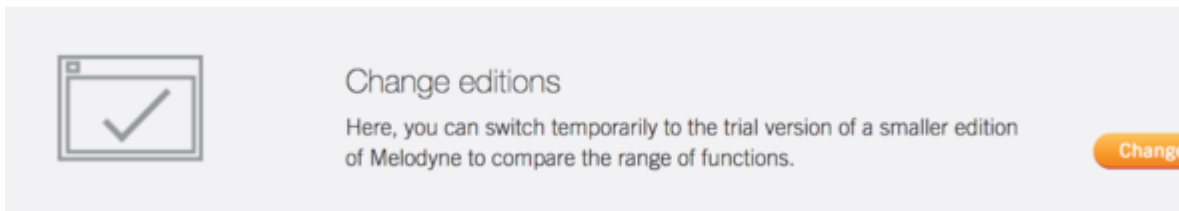


That's all there is to it. Trial mode will remain active for 30 days, so when you return now to Melodyne you will see that the "Melodyne studio" edition is running.

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. 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 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).

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).

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. 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.

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.