TGTools v1.88

Plug-In Collection

for Coda's Finale 97-2002

Documentation

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Please read the Licence Agreement at the end of chapter 1.

The latest information can be found at: http://www.tgtools.de

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Introduction

The software ***TGTools*** is a set of plug-ins for Finale. They extend Finale's capabilities by more than sixty new commands. These commands are available from a new menu that is installed in Finale's menu bar.

Most plug-ins do a specific job on a selected region within the document. Before selecting the commands, select a region with the mass mover tool. If no region is selected, they can automatically work on the whole score if the user so choses.

Entry-oriented commands

These commands operate on each note or rest entry separately, so that partial measure selections will be taken into account.

Measure-oriented commands

Measure-oriented commands will affect whole measures even if partial measures are selected. Currently these are most of the *(beat chart oriented)* Spacing Utilities.

Global commands

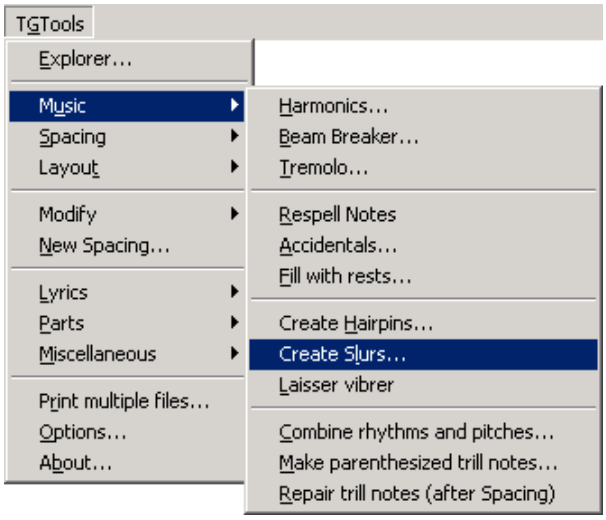
Globally operating plug-ins are independant of a selection. These are: Text Expression Sorter, Staff List Manager, the Layout Utilities, Character Set Conversion, and Font Info.

Mac vs. Windows

TGTools for Mac is almost identical to the Windows version. Missing are only the *Explorer for Text Expressions* and the *Keyboard Remapper*. As a substitute for first, there is '*Select Expression*' on Mac. Since stand-alone macro utilities seem to be more widespread on Macs than on PCs, there may be no need for a keyboard remapper plug-in for Mac.

TGTools Menu Screenshot

This is a sample screenshot as it looks on Windows.



Data Security Tips

Using plug-ins

There is practically no additional risk when using plug-ins with Finale. However, you may want to save your documents before applying plug-ins that you don't know well yet.

By using Finale's UNDO command, you can always undo whatever a plug-in has done.

Daily backups

For any important work that you do, whether you're using Finale or any other program, please make daily backup copies of your work.

Do not reuse the same disk for your daily backup, but use a different disk each day. Of course, you can reuse disks after, say, a week or a month has passed.

In addition to that, you can ultimately protect your work if you use the SAVE AS command to change your file name often – i.e. several times per day. This way you retain multiple copies and different versions of your work as it progresses.

Especially with scores, there may be situations where you wish you could gain access to an older version – for example, when a Finale command that you used on a particular region has had undesired side-effects on the rest of the score. This is often discovered when it's too late. For example, moving and copying partial measures can be dangerous.

PDKTools Helper Plug-In

Language Setting

TGTools is shipped with a required helper plug-in. PDKTools can, among others, provide for International English terms such as crotchet, bar, and anacrusis. If you'd like TGTools to use these terms in the dialogs, please set your language to International English in the PDKTools options (available in Finale's plug-in menu). Other languages are not currently supported, even though PDKTools lists them.

Other important options

PDKTools includes these options that can determine how TGTools dialog windows behave. It is important to be aware that this behavior is controlled from the PDKTools dialog. On Windows, some of these settings can also be specified on a per-dialog basis:

- automatic inactivation of TGTools dialogs after they have performed a task (*"return focus to Finale"*)

- “Collapse window when losing focus”. This option will result in TGTools dialogs that are not currently used to collapse so that only their title bar remains to be seen. Click on it to restore the complete dialog.

Overview

Explorer for Text Expressions *(Windows)* / **Select Text Expression** *(Macintosh)*

Music Utilities

- Harmonics
- Beam Breaker
- Tremolo

- Respell Notes
- Accidentals
- Fill with rests

- Create Hairpins
- Create Slurs
- Laisser vibrer

- Combine rhythms and pitches
- Smart Split Point
- Make / Repair parenthesized trill notes

Spacing Utilities

- Make/Remove space at end of measure
  (by compressing/expanding the measure's spacing)
- Add/Remove space in measure *(by making the measure longer/shorter)*

- Expand/Compress spacing *(for partial measures)*

- Measure Widths *(for empty measures or measures containing only one note, and multimeasure rests)*
- Modify a measure's leading white-space
  - helps if you experience extraneous white-space at the beginning of measures

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- Remove Extraneous Beat Chart Handles
  - tidies up your beat chart for quicker manual tweaking
- Proportionality
  - processes the measure's spacing after Note Spacing has been done to restore a certain proportionality

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Layout Utilities

- Staff List Manager *– powerful management tool for optimized staff systems*
- Join Two Staff Systems
- Split Staff System…

- Before Deleting Measures
- After Inserting Measures…
- Fit measures **–** *can fit measures into a given amount of systems*

- Update Groups
- Incipits

- Scale Staff Positions **–** *makes differently optmized systems have a uniform height*

- Shift System Optimization
- Copy System Optimization
  – *shift/copy optimization (including vertical spacing of staves) from one system to others*

Modify menu

- **Align/Move** dynamics or other expressions with hairpins or note-attached lines
- **Playback** makes hairpins, glissandi, and trills actually play back!

- **Remove** some Special Tools alterations, as well as **convert notes to rests**, or **remove stems and beams**.
- **Reset** slur positioning and/or contour, or make hairpins horizontal over system breaks
- **Special Modifications** allows individual combinations of search criteria and alteration 'actions'

- **Rests**
  - will provide for 'classical' rests in 3/8, 3/4, and 3/2 time signatures by splitting rests up
  - can minimize the number of rests by expanding preceding note values
- **Replace Pitches** performs user-defined pitch class substitution
- **Expressions**
  converts measure-attached expressions to note-attached ones, and perform other operations on expressions.
- **Slurs**
  - recalculates (resets) slur contour
  - converts measure-attached slurs to note-attached ones
  - resolves collisions between slurs and articulations
- **Enclosures**
  - copies enclosures between items in the expression selection list

- **Shift** whole notes, grace notes, and note-attached glissandi (these to avoid collisions with accidentals)
- **Transfer** beat charts, measure attributes, locked measure groups, system margins and attributes, metatools, and measure expressions between files, as well as within files.

New Spacing - ***runs Finale's note spacing with some special pre- and postprocessing to achieve better results. Currently, it mainly takes care of common lyrics problems. More features to come.***

Lyrics Utilities

- **Move** long syllables on beat 1 a bit to the right
- **Left-align** melisma syllables
- **Shift lyrics**
  Can shift lyrics in any direction. The default settings will automatically compensate for Finale's bad centering of syllables under whole and double-whole notes.
- **Remove** *lyrics adjustments and/or alignments*
- **Word Extensions** – corrected and revamped word extension plug-in

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Part Management Utilities

- **Process Extracted Parts** to select one note from multi-part staves

- **Smart Distribution of Parts** distributes/explodes groups which contain multi-part staves, or which don't have the parts fully separated yet due to optimized staff systems. It recognizes part specifications such as **1.**, **2.**, or **a2** and **solo**.
- **Smart Explosion of Multi-Part Staves** explodes staves similar to the previous command. However, it treats each staff a separate unit from which it extracts the voices onto multiple staves.
- **Add Cue Notes** is a modified plug-in from Coda Music Technologies with a few improvements.
- **Join rests of multiple layers**
- **Harp Pedaling** adds pedal diagrams and labels pedal changes

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Miscellaneous

- **Text Expression Sorter**
- **Custom Chord Styles** (such as DO RE MI and Bb/H)
- **Character Set Conversion** (such as Mac<>Windows)
- **Find** various kinds of things including text expressions and enharmonic oddities due to possible clef confusions
- **Analyze** finds parallelisms and marks all of them at once in the score! Can optionally find hidden parallelisms.
- **Compare Entries** finds differences between staves within a file as well as between different revisions of a file
- **Export to spreadsheet** saves note data as a text file which can be imported into spreadsheet programs
- **Import** Auricle files from the film music synchronisation software.
- **Font info** lists all fonts referenced in the document – whether they are actually used or not.

Keyboard Remapper *(Windows only)*

- *remaps any key to another key or to a menu command*
- *configured via the Options menu item.*

Print Multiple Files *(Windows only)*

- *something Macintosh users have always been able to do!*

Important Note on Finale 97/98

Due to the many plug-ins contained in TGTools, this may exceed the limit of plug-ins that will work with these older versions of Finale. If you experience problems accessing TGTools menu items (such as no reaction), you need to remove other plug-ins that you don't need from Finale's plug-in folder. In fact, you may need to remove quite a few of them, until all TGTools items work.

A better solution is in the works but not available yet.

Installation (Windows)

TGTools are contained in these files :

- TGTools*(.fxt)*
- PDKTools2000*(.fxt) or* PDKTools9798*(.fxt)*

Please copy these two files into your Plug-Ins folder, such as C:\Finale 2000\Plug-Ins. PDKTools is a required helper plug-in library.

Installation (Macintosh)

TGTools are contained in the file:

- TGTools
- PDKTools2000 *or* PDKTools9798

Please copy these two files into the Plug-Ins folder located within Finale's main folder. PDKTools is a required helper plug-in library.

TGTools Licence Agreement

By installing and/or using TGTools, you acknowledge to have read, understood and agree with the following terms:

1. One purchased copy of TGTools may normally be installed on one computer system only. However, you are allowed to install it on multiple computers if it is ensured that only one person will use it at any given time.
2. **NO WARRANTY**.

   The user of TGTools can expect good software, but there is no guarantee that TGTools are error-free, work uninterrupted, or that they may not have unwanted side-effects on the operation of other programs or the computer system's stability and security.

   Tobias Giesen expressly disclaims all other warranties.
3. This licence agreement cannot be limited, modified or extended by other oral or written information.
4. **NO LIABILITY.**

   In no event will Tobias Giesen be liable to customer or any other party for damages of any kind arising from downloading, installing, or using TGTools. As soon as you follow the link at the bottom of this page, you take over the full responsibility for the downloaded program.

Chapter Two

Music Utilities

Harmonics - Beam Breaker – Tremolo

Respell Notes – Accidentals – Fill With Rests

Create Hairpins – Create Slurs – Laisse Vibrer

Combine Rhythms and Pitches

Smart Split Point

Parenthesized Trill Notes

Harmonics Automation

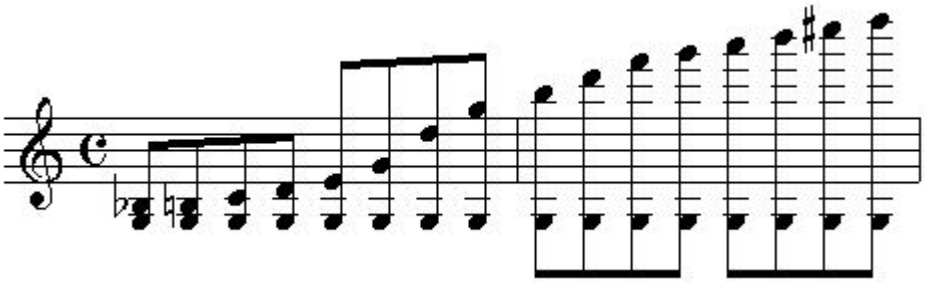
This is mainly for strings: when a harmonic is not played on an empty string, two notes are notated. The lower one has a normal notehead, while the upper one is a diamond.

This plug-in searches the selected region for intervals of two notes. When an interval that corresponds to the specification in the options dialog box is found, the upper note is turned into a diamond.

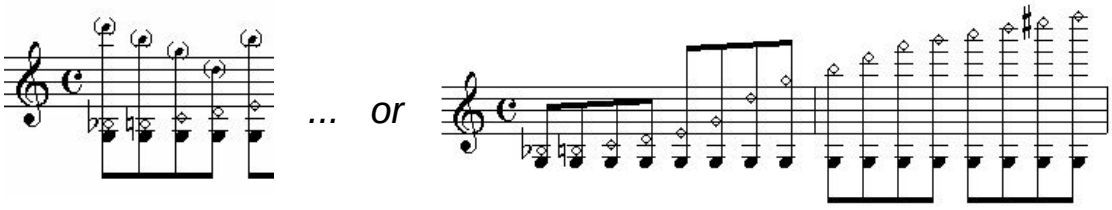
The selected region can include partially selected measures.

Example 1

before ...



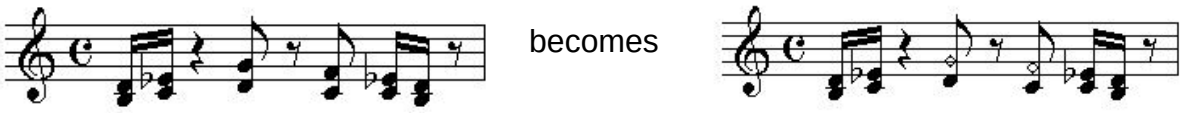
and after Harmonics automation with "*all theoretical harmonics*" selected:



TGTools Harmonics Automation automatically prepares the music for correct playback, so that you will here the actually sounding pitches. In addition, the sounding pitch can be added as a small parenthesized note.

Example 2

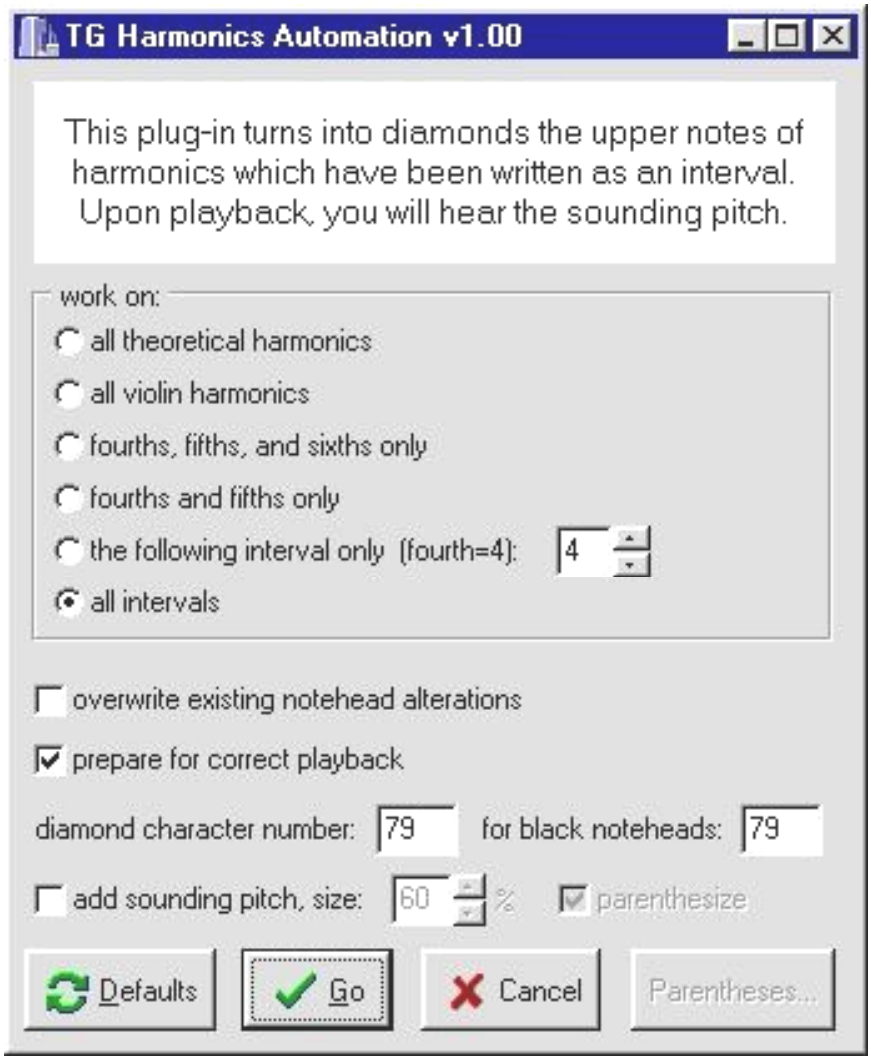
here the option "*only the specified interval (4)*" was selected:



becomes

This example shows how the harmonics to be modified can automatically found even within a musical context of other intervals.

Screenshot



Options

- **work on**: specify the intervals that should be turned into harmonics.
  All violin harmonics is currently set to thirds, fourths, fifths, and sixths; *all theoretical harmonics* are all harmonics that can be played on an empty string.

- **overwrite existing notehead alterations**: check this option only if you need to re-process existing harmonics – possibly to prepare them for playback or to change the diamond character.
- **prepare for correct playback**: this should always be checked, since it can do no harm. You will here the correct sounding pitches upon playing back the music.
- **diamond character number**: this defaults to 79 for compatibility with Petrucci, but if you're using Engraver or other newer fonts, try 225 which is a more beautiful one. You can differentiate between black and white noteheads, though by default a white diamond is added to all note durations.
- **add sounding pitch, size 60%**: check this to have the sounding pitch added as a small note and specify the size percentage for it.
- **parenthesize**: check this to parenthesize the small note that's added as the sounding pitch. You can customize these with the Parentheses button. See end of this volume.

Beam Breaker

This tool has two functions: breaking primary and breaking secondary beams.

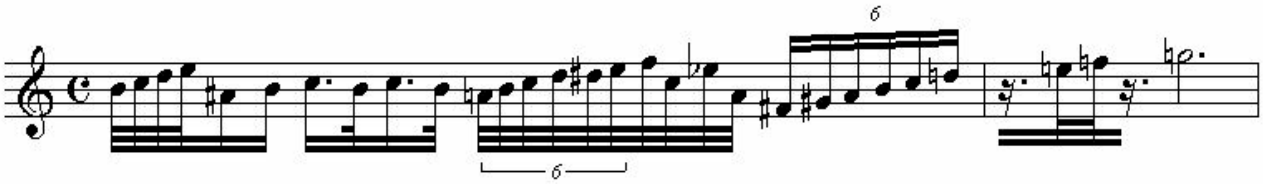
- Breaking primary beams helps you to unbeam rests, and to break up long beam groups on the beats, especially when shorter notes are involved (16th and smaller).
- Break secondary beams to make beamed rhythms clearer. Your piece nomally needs 16th-notes triplets or shorter durations for the effect to be seen. In many cases, the settings need not be altered.

Breaking Primary Beams

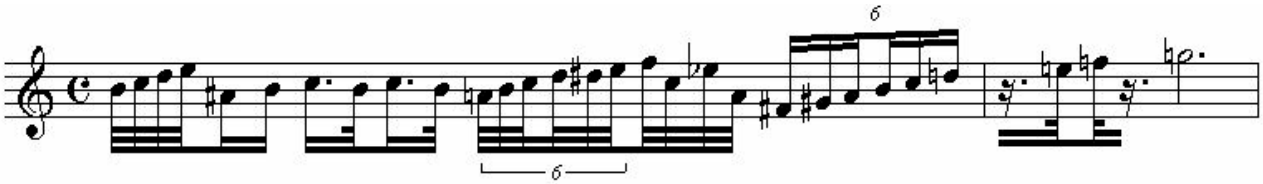
This music was set to a ¾ time signature equivalent to a dotted half note so that Finale beams the whole measure as one group. **Beam Breaker** will break the beam group on the beats in those measures where appropriate, depending on the options that you choose.

Breaking Secondary Beams - Example 1

This example illustrates the main purpose of this plug-in: there are many secondary beams to break here. Note that this music has Finale's document option "**Include rests in beam**

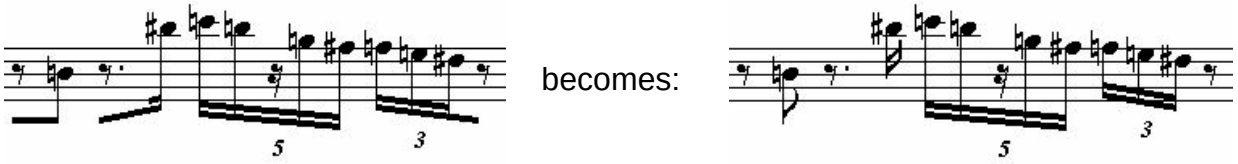


groups" on.
becomes:



Example 2

This example shows an additional feature of the plug-in: **simplify beamed rests** can exclude rests from beam groups where appropriate. This is only needed when Finale's document option "Include rests in beam groups" is on.



Breaking into two or three

The most important option is whether you want to break sixtuplets into three or into two groups.

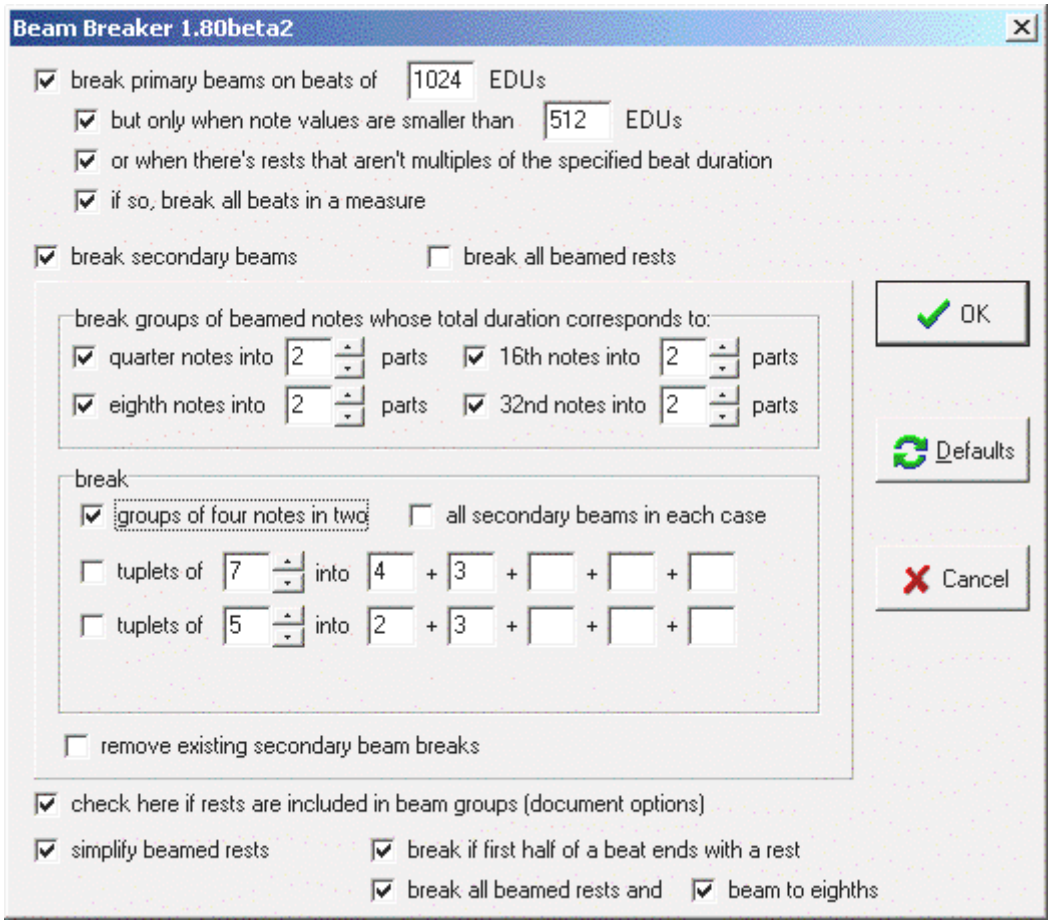
Whenever 16th note sixtuplets are to be divided into **two** groups of three notes, then set the first "**break into**" option to **2**.

Whenever 16th note sixtuplets are to be divided into **three** groups of two notes, then set the first "**break into**" option to **3**.

See Options.

Screenshot

The options dialog currently looks much different on the Mac, and many of the "break into" options are not included since they are almost never used. They will be added later.



Options

Explanations of the most important **secondary beam breaker** options:

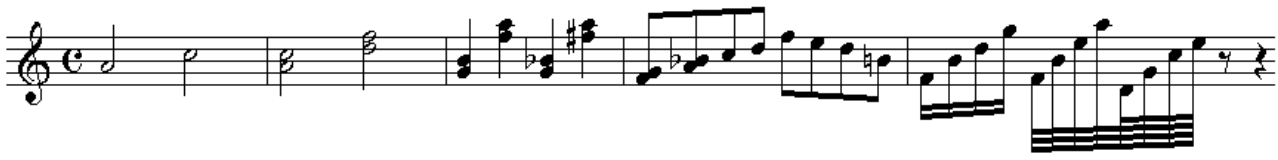
- **break groups of beamed notes whose total duration corresponds to X into y parts:** here you specify whether, say, quarter notes are divided into two or three or any other number of groups. See Breaking into two or three above.

- **break**
  - **groups of four notes in two:** check this if you even want to subdivide, say, four subsequent 16th notes into two groups.
  - **all secondary beams in each case:** normally unchecked – TGTools intelligently determines the number of secondary beams to break. However, if you always want to break all secondary beams, then check this option. It's only relevant when you have 32nd or shorter notes.
  - **tuplets of X into a+b+c+d+e:** this rarely used option (currently available on Windows only) provides for custom subdividing of X-tuplets.
- **remove existing secondary beam breaks:** when this option is checked, TGTools start the breaking of secondary beams all over, so that no existing breaks can confuse them.
- **rests are included in beam groups:** it is important to check this option if and only if you also checked the option in Finale's **document options**. If this is not checked, TGTools have to break the first and only beam in some cases where rests are part of a complex rhythm.
- **simplify beamed rests:** see Example 2

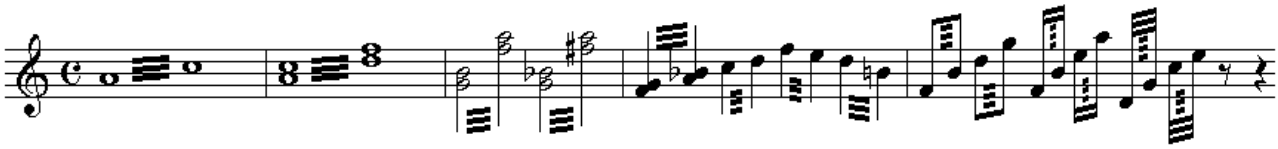
Tremolo

This plug-in facilitates tremolo notation.

First, the music is entered so that it fits into the measures without tremolo. TGTools then convert all two consecutive identical pitches into a tremolo. The tremolo's note durations are doubled:



becomes:



Some options enable fine-tuning tremolo notation (such as the number of beams).

If you want to convert a specific pair of notes or chords within a measure, use Finale's option **Partial Measure Selection** (*Finale 2000*: in the **Edit** menu). Now any pair of notes regardless of their duration can be selected before invoking the plug-in.

Respell Notes

This plug-in will remove double sharps and flats, and will try to optimize the melodic enharmonic spelling to avoid augmented or diminished intervals. There are no options yet, but it will be enhanced to allow for various spelling philosophies.

Accidentals

This command is used to add accidentals according to various options. It is aimed mainly at 20th century music where almost all notes have accidentals.

Fill With Rests

Use this feature to fill measures with rests according to the time signature. Each beat will have its own rest, in the same way Finale's Time Signature dialog displays notes symbolizing the beats.

Create Hairpins

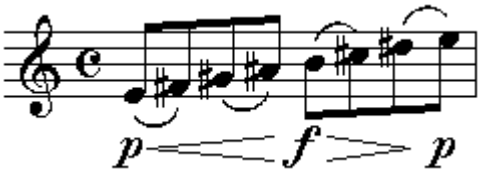
This plug-in will mass-create hairpins based on existing dynamic markings. Both measure and note-attached text expressions are interpreted. The plug-in automatically detects the necessary direction of the hairpin! However, it will not create a hairpin between one note-attached and one measure-attached expression.

A problem here is the distance from the dynamic markings that the hairpin should have. It needs to be specified in EDUs, where 1024 equals one quarter note (crotchet). However, it is sometimes necessary to compromise when mass-creating hairpins because a quarter note does not always take up the same amount of space, so that any given value entered here will effectively result in varying actual distances.

If you want to confine the hairpins to be between specific kinds of dynamic markings only, you can specify, for example, that the 'left marking must be: fff'. Enter normal letters here to specify the dynamic, such as: fff, p, pp, fp, sfz.

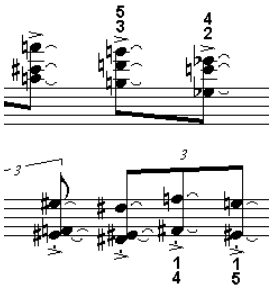
Create Slurs

This plug-in can mass-create slurs, as long as you want them to be over the same number of notes for each slur. Also, it will not create slurs across barlines. You can either choose to use the standard slur positioning and/or contour settings, or you can override them – for example, in order to leave room for articulations.



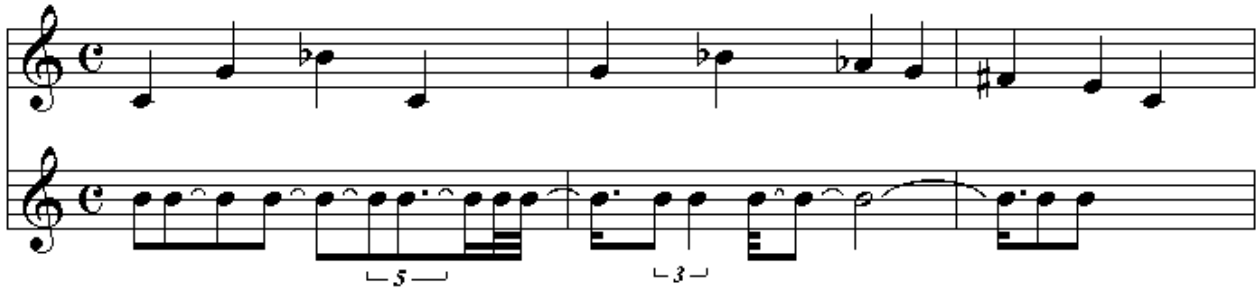
Laisser Vibrer

Using the Exgraver Font Set as music font, this plug-in can automatically choose the correct *laisser vibrer* noteheads:

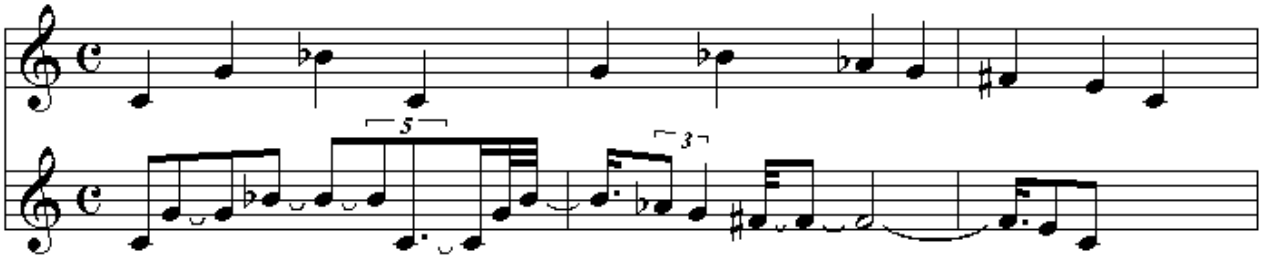


Combine Rhythms and Pitches

This plug-in copies pitches from one staff to another staff which contributes the rhythm. Thus, the result of the combination is always put into the former rhythm staff.



becomes:

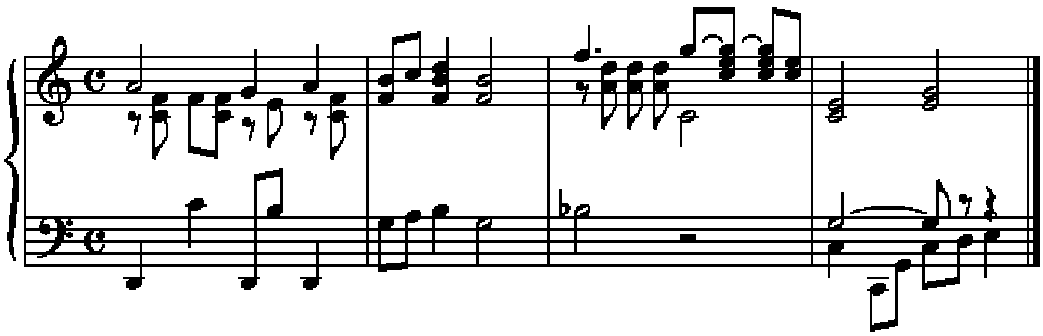


Smart Split Point

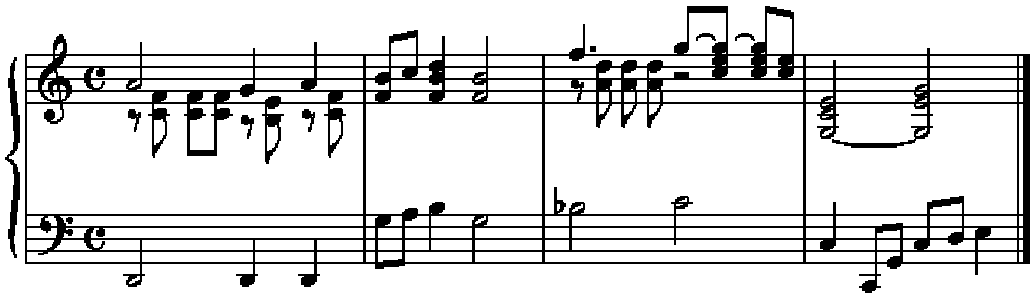
(preview – available only in versions 1.904 and above)

This plug-in operates on piano music where some notes have been put into the wrong staff, for example, by Hyperscribe. It tries to guess which notes need to be moved and does this all-automatically. Some options can be set to customize the behavior.

Example

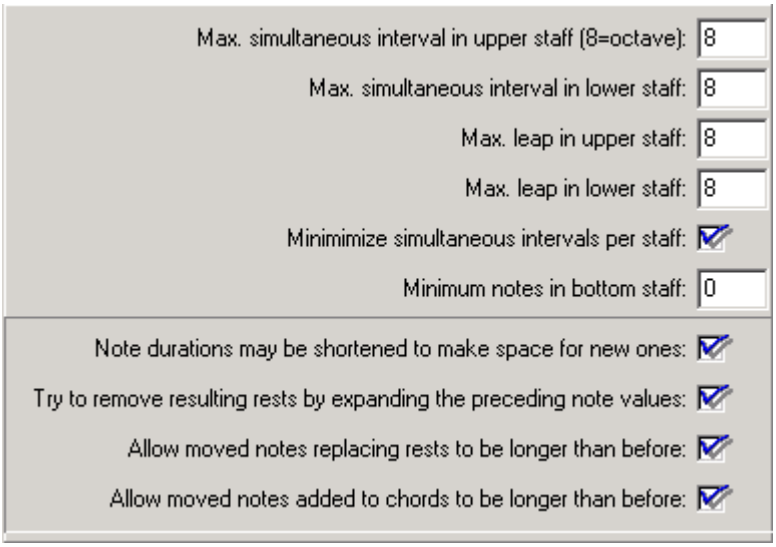


becomes



Option Settings

To obtain the best possible results, you may have to make one or two changes to the option settings. They are described here:

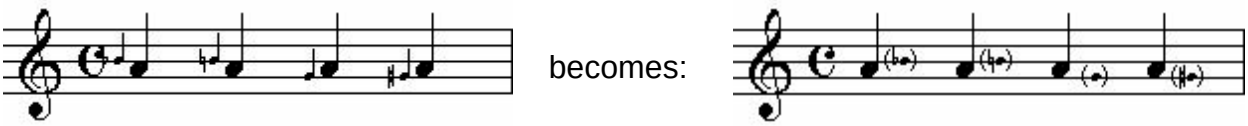


- **Max. simultaneous interval in upper staff (8=octave):** this option should be set according to the music being processed. Specifying the maximum interval that can be found in the correctly notated music will produce better results.
- **Max. simultaneous interval in lower staff:** same as previous option, but for the lower staff.
- **Max. leap in upper/lower staff:** this information can also help the plug-in to make the correct educated guesses in terms of which notes should be moved.
- **Minimize simultaneous intervals per staff:** this option will move notes even though the maximum interval in a staff is not exceeded. You can uncheck it if it produces incorrect results.
- **Minimum notes in bottom staff:** if you would like to ensure, for example, that no rests remain in the lower staff, you can make use of this option and specify the minimum number of simultaneous notes in the bottom staff.
- **Try to remove resulting rests by expanding the preceding note values,**
  Allow moved notes replacing rests to be longer than before,
  Allow notes added to chords to be longer than before:
  These options will help making the output of the plug-in clearer. Uncheck any one of them if they produce incorrect results.

Make parenthesized trill notes

This plug-in introduces a new method of entering trill notes. The notes to trill with will appear as small parenthesized notes directly following the main note.

First, these notes are entered as grace notes **preceding** the main note. Then, the plug-in is invoked:



Advantages:

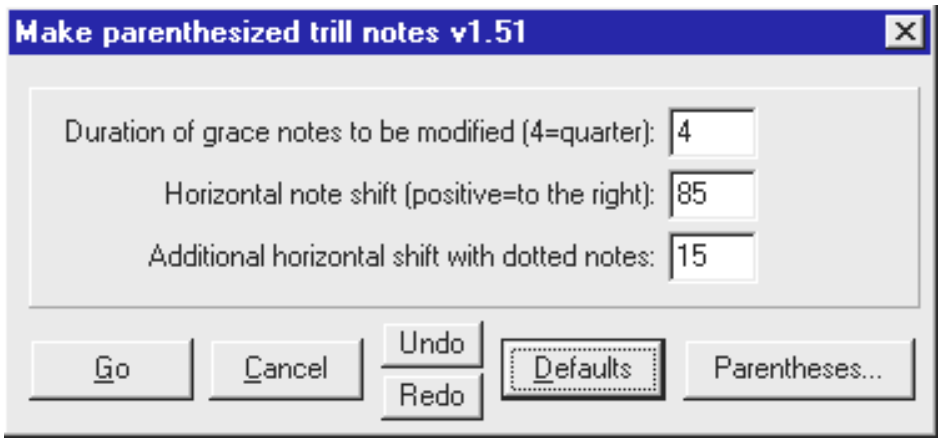
- the trill note can be **transposed** and will transpose automatically in extracted parts
- the trill note can have **quarter tone** accidentals or any other special treatment available for normal notes
- the trill note will always **stick close to the main note** – even if the measure is expanded or contracted on the page layout.

Drawbacks:

- Finale's Note Spacing naturally allocates space for grace note at the original position, and not at its intended position. In scores, however, this is rarely a problem since trilled notes are mostly longer notes so that there is enough room for the trill note.
- Note Spacing, if applied after using this plug-in, will restore the original grace note positions. When this occurs, use the Repair trill notes (after Spacing) command described below.

In most cases, the advantages outweigh the drawback by far. Also, I'm planning to extend Finale's Note Spacing so as to handle these trill notes properly.

Options



- **Duration of grace notes to be modified:** you can use any grace note duration to

create trill notes. Recommended is using fourth or eighth notes.

For trill notes within or after **beam groups**, use an **eighth** grace note for the trill note so that the beam is not interrupted. Enter an **8** into this option field.

- **ID number of empty shape to replace note stem and flags:** to remove the grace note's stem and flag, Finale's C*ustom Stem* special tool is used. By using a non-existant shape ID such as 1000, the stem and flag become invisible.
- **Horizontal note shift:** this is the EVPU shift that moves the grace note from the left to the right of the main note. May have to be adjusted depending on your music font.
- **Additional horizontal shift with dotted notes:** when the main note is a dotted note, the trill note has to be shifted a bit more, as specified in this option.
- The **Parentheses...** button will show an additional dialog with options on how the parentheses are applied to the grace note. See Parentheses on page 23.

Repair trill notes (after Spacing)

This simple command is used when Note Spacing has reset the trill notes to their original grace note position.

There are no options since the options are taken from Make parenthesized trill notes.

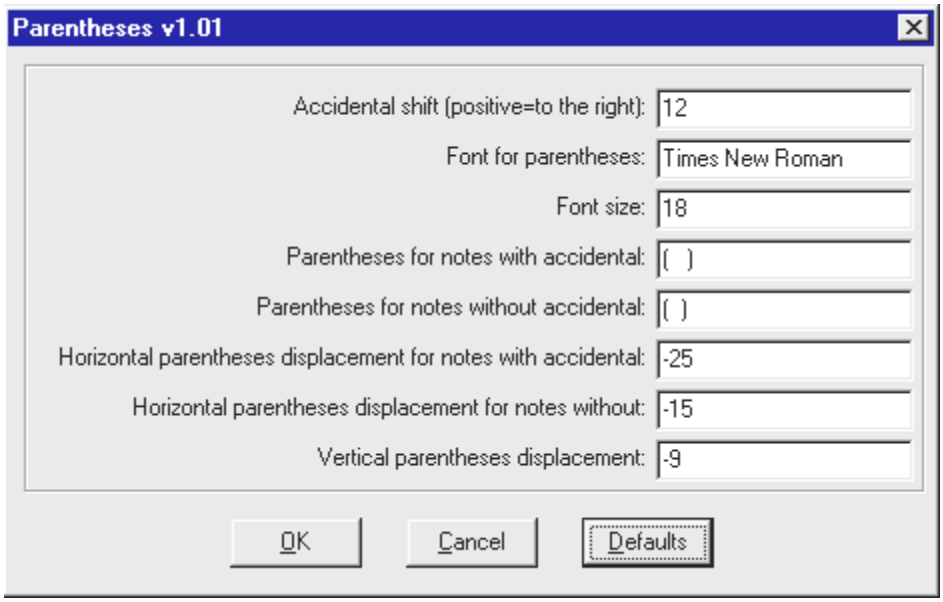
Parentheses

Parenthesized notes are used by Harmonics Automation and Make parenthesized trill notes.

Parentheses are added as text expressions. A new text expression is created only if the required expression does not already exist.

Some of the options in this dialog may have to be adjusted for different music fonts or grace note size percentages.

For options, see the next page.



- **Accidental shift:** to save space, accidentals on parenthesized notes can be shifted to the right. Enter the EVPU amount or modify the default value if needed.
- **Font for parentheses:** you can enter your preferred font used for the parentheses text expressions. On Windows, this defaults to Times New Roman, and on the Macintosh, it is Times.
- **Font size:** this is the size used for the parentheses text expressions. It may have to be adjusted, too.
- **Parentheses for notes with/without accidental:** these two fields contain the actual text that is used to create a pair of parentheses with enough space in between to contain the note with or without accidental, respectively.
- **Horizontal parentheses displacement for note with/without accidental:** These two fields contain the horizontal offsets to the note. They're negative, since the parentheses start to the left of the note.
- **Vertical parentheses displacement:** this value is also negative, since the parentheses' origin is below *(and left to)* the note.

Chapter Three

Spacing Utilities

Make or Remove space at end of measure

Add or Remove space in measure

Expand or Compress Spacing

Measure Widths

Modify a measure's leading white-space

Remove extraneous beat chart elements

Proportionality

Spacing Utilities

These commands work on the spacing of notes within a measure. Finale's spacing data is contained in *beat charts*. Thus, all that these utilities do is to modify the beat chart and the measure's length.

You can use these utilities without caring about beat charts at all. However, to fully understand their function it may be helpful to check out the beat charts yourself – you can access them from Finale's Measure Attributes tool. Click the second of the two or three handles that appear at the top of any barlines.

Not all measures have these beat charts. Usually, apply Note Spacing from Finale's MassEdit menu to create an individual beat chart for each measure. *See the following page for a screenshot of a measure along with its beat chart.*

Note: Most of the spacing utilities work with measures that have been note-spaced only. You can try them out with beat-spaced measures also, but they may or may not have any effect on such measures.

The Spacing Utilities usually work on all measures within the selected region, whether they have been selected partially or completely. Only the tool **Expand/Compress Spacing** has been designed especially for partial measure selections.

The exact internal proceedings of how the beat chart data is interpreted for displaying and printing a measure are one of Coda's well-kept secrets. I have found out, say, 95% of it, and thus my Spacing Utilities work well and act as desired in the vast majority of cases.

However, there may sometimes be minute side-effects on the part of a measure which wasn't supposed to be changed. In most cases, this will not disturb you. I'm working on reducing these side-effects as much as possible.

Overview

Make *or* Remove space at end of measure by compressing or expanding the measure's spacing

Add *or* Remove space in measure leaving the existing spacing untouched.
The added space can be inserted at the beginning or the end of the measure.

Expand *or* Compress Spacing – mostly used for partial measures.
This will widen or tighten whatever you selected with the mass mover tool.

Measure Widths – sets the widths for multimeasure rests, empty measures, and measures containing only one entry.

Modify a measure's leading white-space is used to set or limit the space between a measure's barline and its first note.

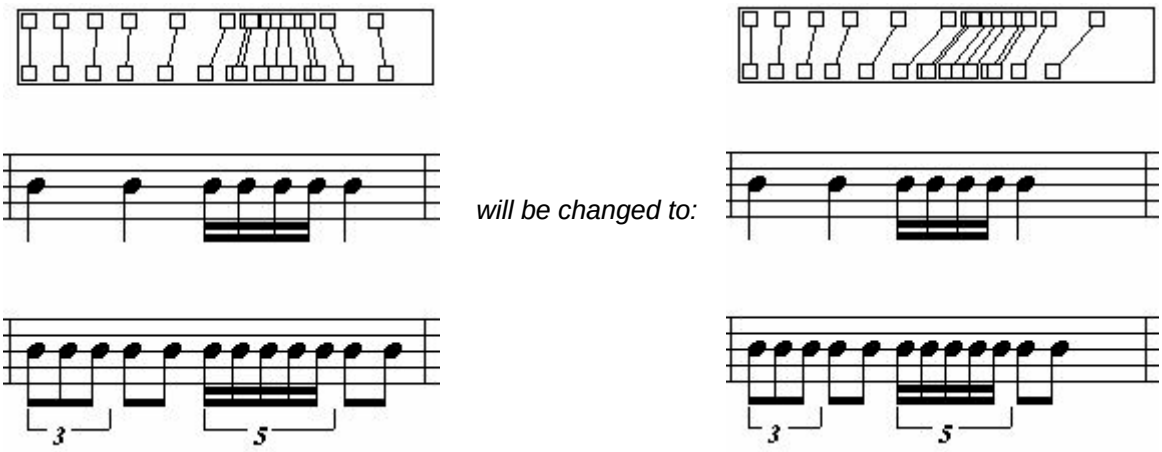
Remove extraneous beat chart elements can tidy up your beat charts. It leaves only those handles in the beat chart that are actually required to achieve the correct spacing. This can be helpful for subsequent manual tweaking.

Proportionality (after Note Spacing)
This command will try to improve the proportionality of a measure's spacing. Use it after Note Spacing has distorted the measure's proportions.

Make or Remove space at end of measure

by compressing or expanding the measure's spacing

This command will not change the width of a measure, but it will widen or tighten the measure's spacing – so that space is added or removed at the end of the measure:



Options

There is only one option to set:

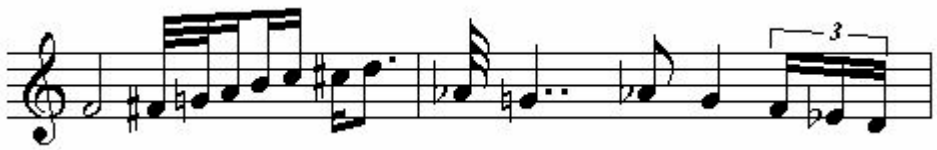
To make free space, compress measure by %:

Here, you specify the percentage of free space that will be freed at the end of the measure. If a negative percentage is specified, the spacing will be expanded – it can even be made to extend beyond the measure's right barline.

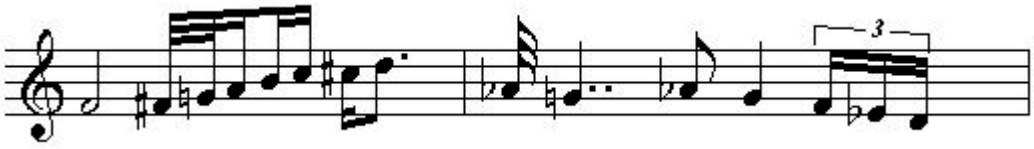
Add or Remove space in measure

Sometimes, you need more space within a measure so that you have room for beat chart modifications. Or, you want to get rid of superfluous space. That's what this command is for – it adds or removes space to or from the measure. It can do so either at the end or the beginning of the measure.

Example

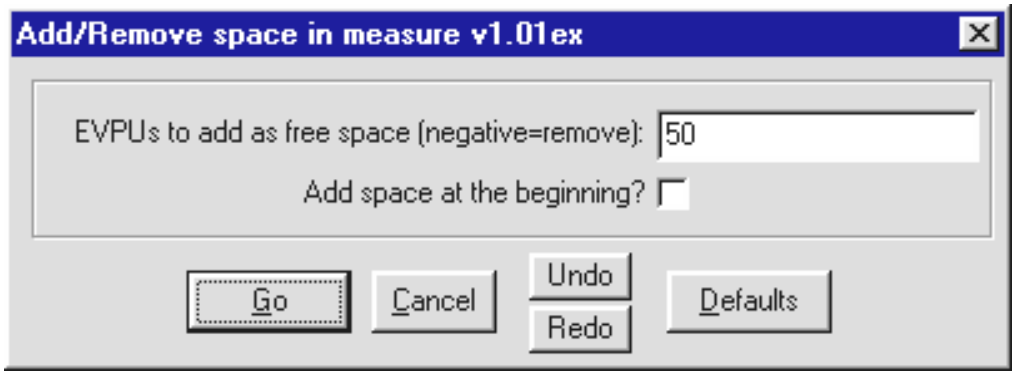


after adding some space:



As you see, the new space has been added mainly to the end of the measure. However, a slight widening of the music can also occur. I'm trying to optimize this in future versions, even though it already does a good job in most cases.

Options



- specify the **EVPU** amount of free space to add or remove
- check whether to add the space at the **beginning** of the measure. If unchecked, it will be added at the **end**.
- **Undo / Redo** will trigger Finale's undo and redo commands from the Edit menu.

Expand / Compress Spacing

Another feature that's missing from Finale's beat chart editor is the ability to expand or compress partial measures. Very often, a few notes should be spaced a little narrower, or sometimes, a little wider.

No matter how many notes you want to widen or tighten horizontally, this is the command that can do it. Select any part of a measure - although you can select multiple measures, too, whether they include partial selections or not.

On Windows, **expand** and **compress** can also be triggered via Shift-Gray + and -, respectively – without showing a dialog box. (The Gray keys are on the numeric keypad.)

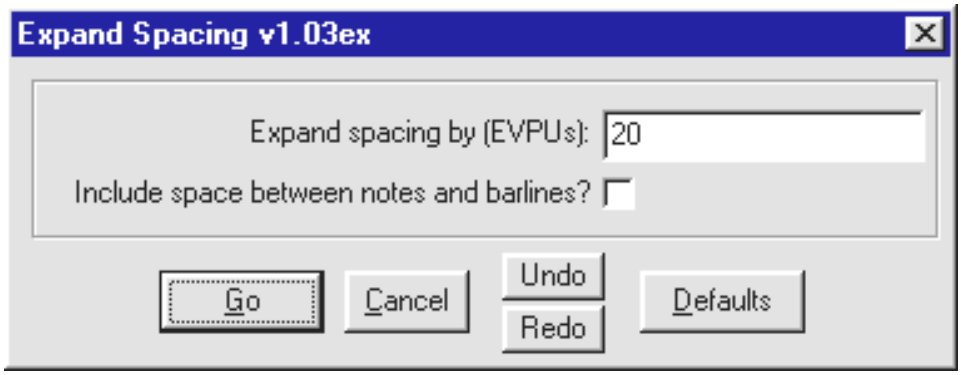
On the Mac, we have no shortcuts yet – but you could use a macro program for it. I do intend to program shortcuts for the Mac, too.

Example

On the left, you see Finale's default spacing. On the right, the four 16th notes have been made tigher using *Compress Spacing* with the fourth beat selected.

This example shows that the change has affected *almost* only the fourth beat which had been selected. However, as a side-effect, the distance beween the 3rd and 4th beat has been increased. Which, in this case, has even been quite desirable ☺ .

Options



- **Expand spacing by:** EVPU amount for the expansion or compression of the selected region. Use a negative number to achieve the opposite of the dialog box's title.
- **Include space between notes and barlines?** Usually, this option is off because the space between notes and barlines should be kept constant.

Measure Widths

This command sets the width for special kinds of measures:

- multimeasure rests
- empty measures
- measures with only one entry (note or rest); i. e. measures that are filled with one note or rest equal to the measure's total rhythmic duration

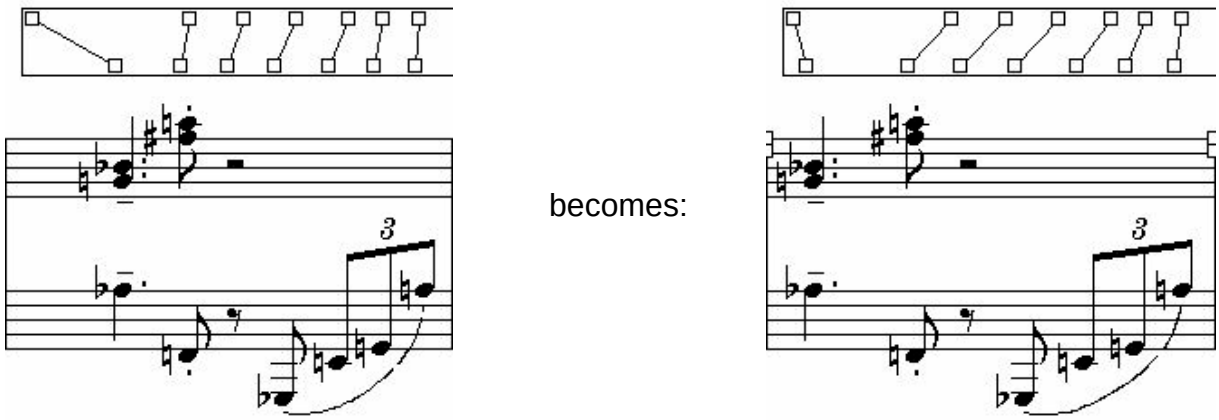
Also, the width of the width of the two latter kinds of measures can be dependent on their rhythmic duration, and a **scaling factor** is used to determine how this is done:

- 0% produces measures of equal length,
- 50% will set a 2/4 measure to ¾ of the specified length (which is for 4/4 measures).
- 100% will set a 2/4 measure to half the normal length.

Modify a measure's leading white-space

Sometimes, Finale's spacing seems to allocate superfluous white-space at the beginning of measures. Or, you want to set the initial white-space of a region of measures to a specific amount. Note that since this change is applied to the beat chart, it affects all instruments within a score no matter how many staves were selected.

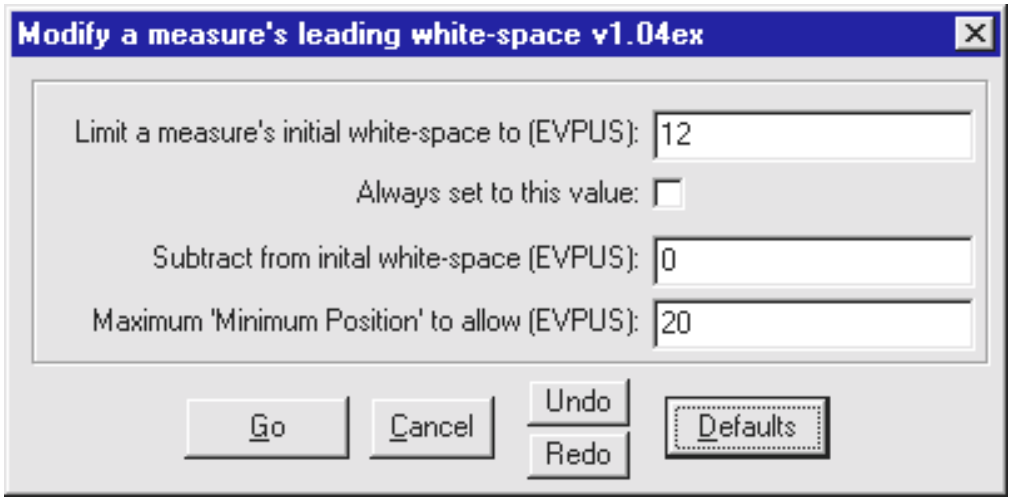
Example



The plug-in tries to move the first beat chart handle to the left without modifying the remaining part of the measure. In this case, a side-effect was a slight widening of the rest of the measure.

A future revision will have less of a side-effect and will include an option to move the whole measure to the left, not just the first beat chart handle. That way, the measure could actually be shortened.

Options



- **Limit a measure's initial while-space to:** EVPU value of the maximum white-space to allow. Note that Finale also stores Minimum Position values in the beat chart, which may result in more white-space even though this option has been set to a comparatively low value - *see the last option*.

- **Always set to this value:** if checked, all measures will receive this value as their initial white-space. If unchecked, only the measures with more initial whitespace will be modified.

- **Subtract from initial white-space:** a value entered here will be subtracted from a measure's initial white-space. This can be used to take away some initial space if you don't want to set all selected measures to the same value.

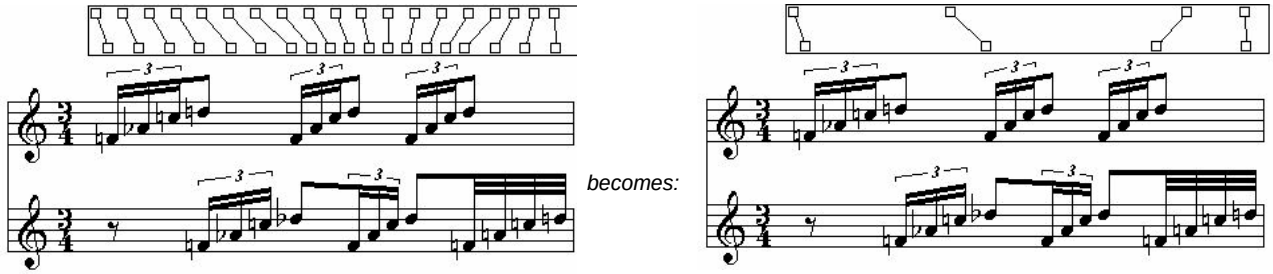
Maximum 'Minimum Position' to allow: to avoid collisions, Finale stores a 'Minimum Position' value in addition to the position of each beat chart handle. Since this 'Minimum Position' may be responsible for wasted initial white-space, it is good to specify a limit here which should be a little higher than the value specified in the first option field – or just leave the default setting as it is.

Remove extraneous beat chart elements

Through Finale's note spacing, each rhythmical position on which there is a note will get its beat chart handle. Some of these handle are *required* - to achieve the desired spacing and to avoid collisions. Others may be extraneous with regards to spacing – 'their' notes would be positioned in the same horizontal location even if these beat chart handles were deleted.

Sometimes, it is desirable not to have so many handles in the beat chart. For example, with only one handle starting a group of 16th notes, it is easy to widen or tighten them using the beat chart editor.

Example



If you find that you need more handles than this plug-in will leave you with, you'll have to double click within the beat chart to insert a handle. Unfortunately, this is currently only possible on regular metric positions – 16th or 32nd notes positions are possible, but exact positions of notes within tuplets cannot be created.

Options

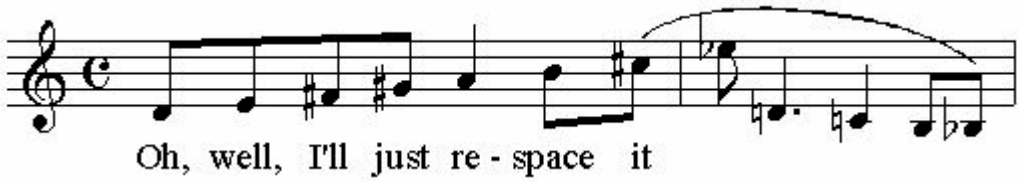
The only option to set is the **maximum deviation** (per thousand). The default value of 50 (=5%) would allow for slight changes in the spacing produced by removing beat chart handles. If you require the spacing not to be altered at all by this process, you can go down to 1% which should result only in invisible differences.

Proportionality

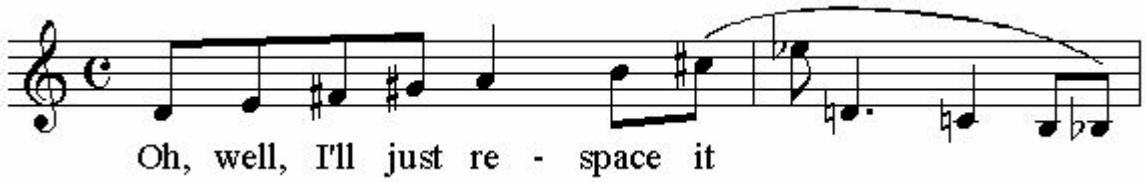
Restore proportionality in horizontal spacing after Finale's Note Spacing has been applied.

Depending on the allotment library used, Finale may make a measure's spacing quite disproportional – the opposite of Time Signature Spacing. This command is intended to restore a desirable percentage of proportionality.

Example



is improved to:



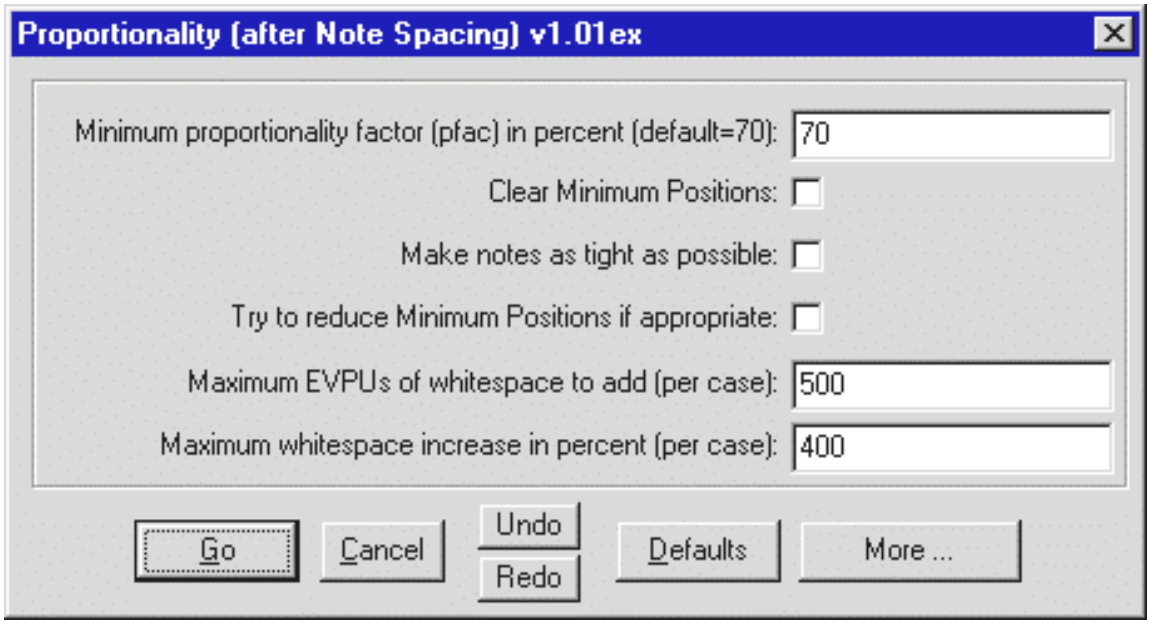
In the upper screenshot, the distances between the notes are almost completely independant of their duration. After applying the Proportionality tool, the quarter notes and the

dotted quarter note have received their appropriate space.

This could not have been easily achieved with an allotment library since the lyrics make the eighth notes very wide. Thus, an allotment library normally wouldn't assign enough space to the quarter notes.

If the result seems to widely spaced, the measure can easily be made tighter using Finale’s Measure Attributes tool.

Options



- **Minimum proportionality factor in percent:** using this setting, you can specify how proportional the spacing should be. 100% delivers a similar result to Time Signature Spacing, while the default value of 70% leaves a reasonable amount of flexibility.
- **Clear Minimum Positions:** this option is normally off. Use it when you want to make a measure's spacing quite tight while maintaining proportionality, and when the other options don't result in the required density. Rarely used.
- **Make notes as tight as possible:** this option is the first to try when you want a tighter spacing. The tool will ignore any of Finale's spacing that goes beyond avoidance of collisions.
- **Try to reduce Minimum Positions if appropriate:** another option for making the spacing tighter – can especially be used in conjunction with the preceding option. This option can remove superfluous space allocated to ledger lines or measures with accidentals.
- **Maximum EVPUs of whitespace to add:** this is the maximum space to be inserted between two notes. You may want to reduce this limit.
- **Maximum whitespace increase in percent:** the maximum percentage by which two notes' distance may be increased.

Chapter Four

Layout Utilities

including

Staff List Manager
Join Two Staff Systems
Split Staff System

Before Deleting Measures
After Inserting Measures
Fit measures

Update Groups
Incipits
Scale Staff Positions

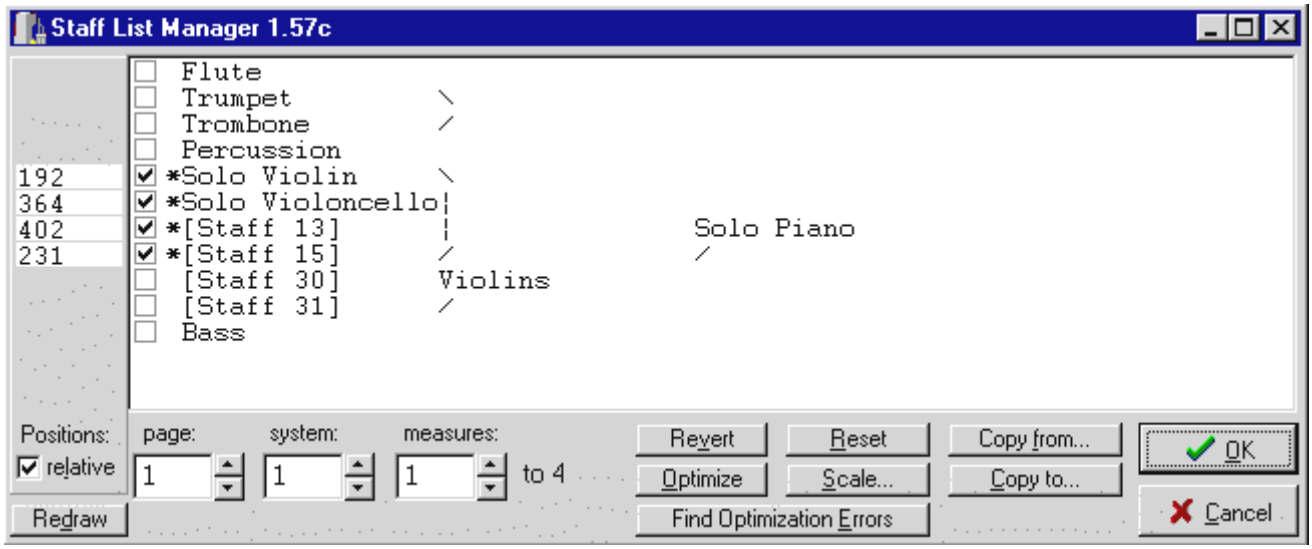
Shift System Optimization
Copy System Optimization

Staff List Manager

This is a power tool for scores that work with optimized staff systems, i. e. scores where not all instruments appear on all pages, or where staff distances vary. Finale already provides a mechanism to create optimized systems, to remove optimization, and to remove single staves from a page. TGTools Staff List Manager adds the following capabilities:

- Paging through the score with an overview of the staves in each system, and asterisks next to all instruments that have notes within the system's measures,
- Re-including or adding instruments without having to start over with the optimization,
- Fine-tuning staff distances using the EVPU column on the left.
- One-click optimizing of a staff system,
- One-click resetting of a staff system to the non-optimized version while retaining the added features of optimized staff systems,
- Check for optimization errors.

Screen shot



Description

The main part of the dialog box is the selection list in which you see the names of all staves. When a staff is checked, it is included in the system that's currently displayed. Staves with an asterisk have notes within the measure range of that system.

Groups are displayed to the right of the staff names: at the beginning of a staff group, you see the group name or a backslash \ if there is no group name. If the group is longer than two instruments, a vertical line | continues it downward. A slash / marks the end of a group.

On the left, you will find the EVPU positions of the staves. By default, the checkbox 'relative' is checked so that these figures represent the distances from each staff to the preceding one. When 'relative' is unchecked, you'll see the absolute positions from the top

of the system.

Checking and unchecking instruments is quite flexible – staff positions and group assignments are automatically handled for each system. Note that there is a minimum distance to avoid collisions of staves which may not currently be suitable for working with single-line staves. Also, hidden staves are shown as normal staves and may result in staff collisions when the staff list is modified.

Paging through the score

There are three fields which assist you in finding the right position within the score: page, system, and measure number.

Warning: Staff List Manager currently does not take into account your current position within Finale, nor any selection of measures. Please be careful to go to the correct staff system before applying any modifications.

Whenever the information needed for page or measure specification is not available from Finale, you will see a question mark in those fields. Using Finale's **Update Layout** command may help to provide more information here. By default, Update Layout is invoked automatically (can be disabled in TGTools Options).

Powerful button commands

- **Redraw:** makes Finale show the current system (if you're in page view), and you can immediately verify the changes made.
- **Revert:** undo changes to the currently displayed system and reload the system's data.
- **Optimize:** optimize the system so that all staves with asterisks are checked.
- **Reset:** makes the system appear exactly as in scroll view. However, the system has all advantages of an optimized staff system – only no optimizations have been applied yet.
- **Scale...** activates TGTools Scale Staff Positions which can make several staff systems have the same total height.
- **Copy from...** *and* **Copy to...** activate TGTools' Copy System Optimization with which you can copy the staff list with all positioning from another system or to other systems.
- **Find Optimization Errors**: scans all systems starting with the currently displayed system for staves that have notes but are not displayed within the system.
- **OK:** dismisses Staff List Manager and saves all changes made.
- **Cancel:** dismisses Staff List Manager and cancels any changes made to the currently displayed system. Changes made to other systems were saved when you paged through the score and cannot be canceled (use Finale's undo feature instead).

Join Two Staff Systems

Used to combine the measures of two systems (in page view) into one system. This plug-in will ensure that the measure layout of the remaining piece remains intact, as well as the system optimizations.

You need this command only if you want to make adjustments to the measure layout that involve a change in the number of systems.

Split Staff System

This is the opposite of the previous command. It will split a staff system into two or more systems.

When the measure layout gets too tight, you can use this plug-in to insert a new staff system while preserving layout and optimization in the rest of the piece. After the split, you can shuffle measures around as needed.

Before Deleting Measures

This command will enable you to preserve measure layout and system optimization when deleting measures from within a piece. You need to select the measures to be deleted, invoke this plug-in, and finally perform the deletion using the Delete key or the Measure Tool's Delete command.

This command is not needed for Finale 2001 and above!

After Inserting Measures

This command works similarly to the previous one. After inserting measures, leave the first of these measures selected and invoke the plug-in. It will distribute the new measures on the number of systems that you want, while preserving the measure layout and system optimization in the rest of the piece. The command should also be used after inserting music via Edit->**Copy** and Edit->**Insert**.

This command is not needed for Finale 2001 and above!

Fit Measures

This plug-in will fit a specified measure region into a desired number of systems. Currently, it cannot fit them into **more** systems than before. It will try to distribute the measures as evenly as possible throughout the available systems. It can handle multi-measure rests automatically.

In order to be able to save space with empty measures, especially when laying out parts, this plug-in can automatically invoke the **Measure Widths** plug-in. This is also used in order to be able to make multimeasure rests shorter.

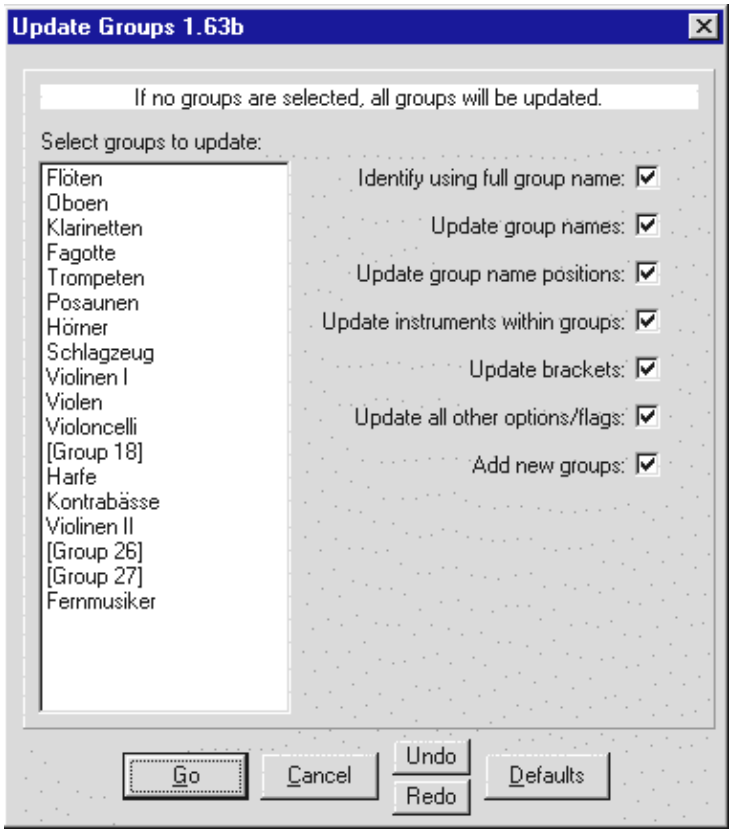
Normally, the resulting systems should be **locked**, so this is the default option setting. If

you should ever need to avoid locked systems, you need to be aware that the result of this plug-in may not have a chance to become visible, since Finale's Update Layout may immediately reflow all measures (see Finale's Update Layout options).

After fitting the measures, this plug-in invokes the Update Layout command. This cannot be turned off since it is an absolute necessity.

Update Groups

When modifying groups and brackets in scroll view, these changes will only be made for staff systems that have not been optimized. Use this plug-in to update optimized systems so that they have the same groups as in scroll view. Select the groups to be updated, or make no selection in order to update all groups:



- **Identify using full group name:** it is important to understand that the plug-in needs a way to match the existing groups in the optimized staff systems with the scroll view groups. With this option on, the full group name must be identical for the group to be identified. If the full group name has changed and needs to be updated, this option must be turned off. When the option is off, other attributes are used for identification – most importantly the instruments included in the groups. However, this option should be on whenever possible because it makes identification more reliable.

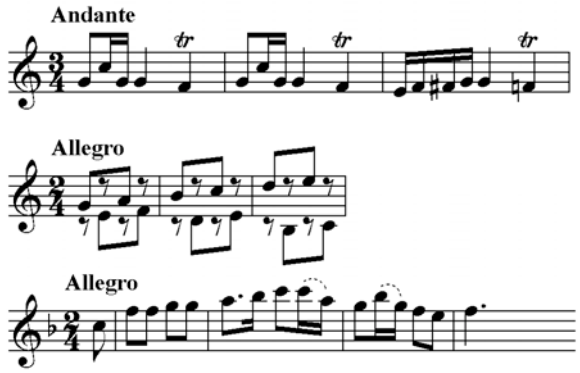
- **Update group names:** if checked, group names will be updated if they aren't identical. If the full group name has changed and needs to be updated, turn off the previous option.

- **Update instruments within groups:** if checked, group instrument ranges will be updated. For this to work well, the dialog's first option should be on.

Groups cannot be removed yet – this feature will be included in a future version.

Incipits

In certain cases you will want the measures to have exactly the same width on the page that they have in scroll view. For example, in order to make a table of contents showing the beginnings (incipits) of several pieces:



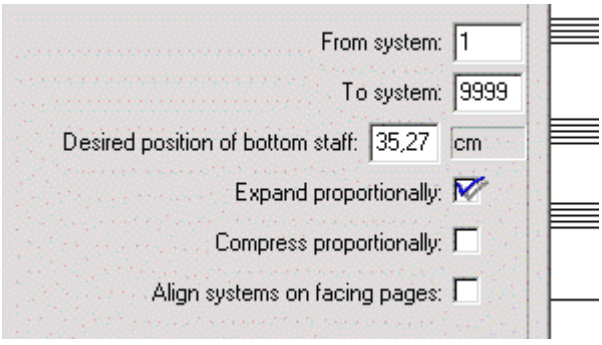
The Incipits plug-in will set the margins for staff systems in page view in such a way that most closely resembles scroll view in terms of measure widths. Just select the measures to affect and invoke the menu item ‘Incipits’.

Scale Staff Positions

This plug-in is used for optimized staff systems only. It will expand or compress the vertical spacing of staves so that each system has the same total height. Alternatively, it can try to match two optimized systems on facing pages so that each instrument ‘flows’ from the left page into the right page at the exact same vertical position. Blank space is inserted into both pages to leave room for instruments that are used on the repective other page.

Regular Scaling

Through scaling the staff positions, systems with a differing number of staves can maintain a uniform total height, which is sometimes desired in scores. This function is in effect when “Align systems on facing pages” is not selected (the default). Only the following options are used (please ignore the staff selection list which is visible on Mac):



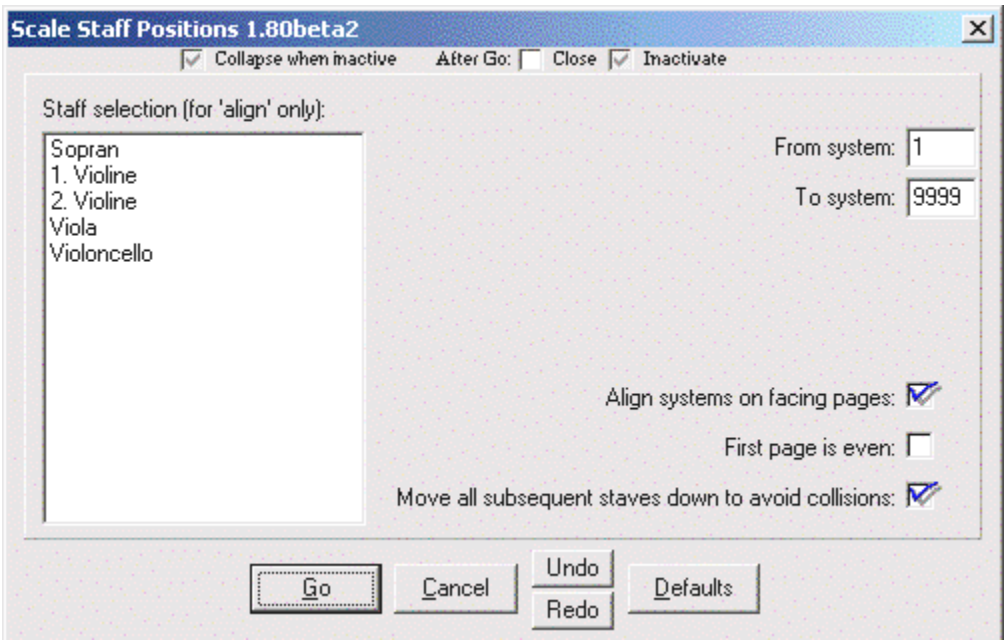
- **Desired position of bottom staff** (EVPUs): To specify the desired height of the system, the bottom staffs EVPU distance from the top of the system is used.

This EVPU value has to be obtained from a system in the score that already has the desired height. This should be done using Staff List Manager, with the option “relative” unchecked so that absolute EVPU positions are displayed.

- **From / To system:** specify the range of staff systems (not pages) to be scaled to a uniform height.
- **Expand spacing:** with this option checked, shorter systems will be expanded to the specified EVPU height *(the default)*.
- **Compress spacing:** with this option checked, taller systems will be compressed to the specified EVPU height. This may result in collisions.

Aligning systems on facing pages

This option is intended for scores with one system per page. To align each staff within systems on facing pages so that each staff is printed at the same vertical position on both the left and right page, use this sub-function of the Plug-In. The following options are used from the dialog, including the staff selection list – in case you don’t want to align all staves:



- **First page is even:** This needs to be set if the first page is a left page (i.e. it has an even page number). Uneven document page numbers such as 1,3,5 etc. are then considered left pages. This is OFF by default, so that page number 1 is not adjusted because it has no facing page.

  checked: facing pages are numbers 1 & 2, 3 & 4 etc.

  unchecked: facing pages are numbers 2 & 3, 4 & 5 etc.

- **Move all subsequent staves down to avoid collisions:** Checked by default, this is the ***strict*** alignment mode. Instruments that occur on one of the facing pages only will always result in whitespace on the other page. If the instruments shown on the two facing pages are very different, this can result in systems that are too high. In that case, try unchecking this option to save some space. Unchecked, the option will allow two different instruments to be in the same vertical position if both are shown on one of the two facing pages only.

Shift System Optimization

This command will shift the staff configuration, groups, and positioning left or right within the sequence of staff systems. You may need this to resync the systems with the correct measures after adjustments to the measure layout.

Note that if you use **Before Deleting Measures**, **After Inserting Measures**, **Split Staff System**, and **Join Two Staff Systems**, then the layout should never become out-of-sync.

Copy System Optimization

This command will copy staves, groups, and positioning from one optimized system to another or many other systems.

This can be a very powerful utility, since it can automatically select only those systems as destinations that have the same set of staves (instruments). Thus, within a larger score, you could adjust all pages or systems where a certain instrumentation is used – make the adjustments on one page, and copy its optimization to all others.

On the other hand, you can also copy the optimizations to systems that have not been optimized yet. This is currently a little dangerous because there may be notes in instruments that are hidden by this command.

Options

- **Copy system optimization FROM system no**: specify the source system – the one whose optimization is to be copied to other systems.
- **TO system range** – **first / last**: specify the destination system range. If you want only one system as destination, specify, for example, 5 to 5.
- **Copy to systems containing the same set of staves only**: *(default: checked)*
  This option ensures that the optimization is copied only to systems with the same instruments. To be safe, this should be checked. If the source system is optimized correctly, no staves with notes on other systems can unintentionally be hidden.
- **Copy to systems that have not been optimized:** *(default: not checked)*
  This will use the optimization of the source system for any unoptimized systems within the specified range. If the source system does not contain all of the document's staves, this can be dangerous because staves with notes could be hidden.

Note: To copy the optimization unconditionally to all destination systems, check the second option only. This may hide notes.

Chapter Five

Modify menu

including

Align/Move dynamics etc.
Playback

Remove
Reset
Special Modifications

Rests
Replace Pitches
Expressions
Slurs
Enclosures

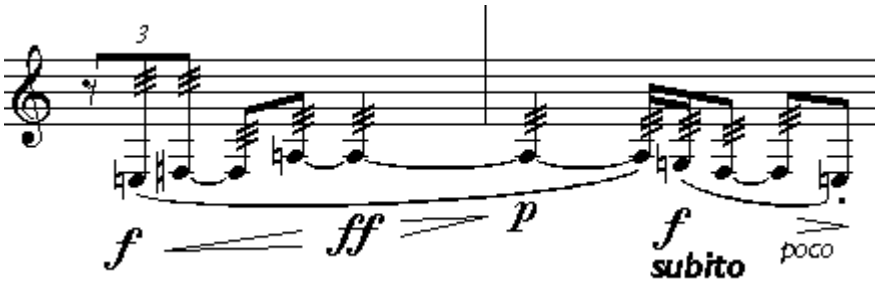
Shift
Transfer

Modify-Align/Move

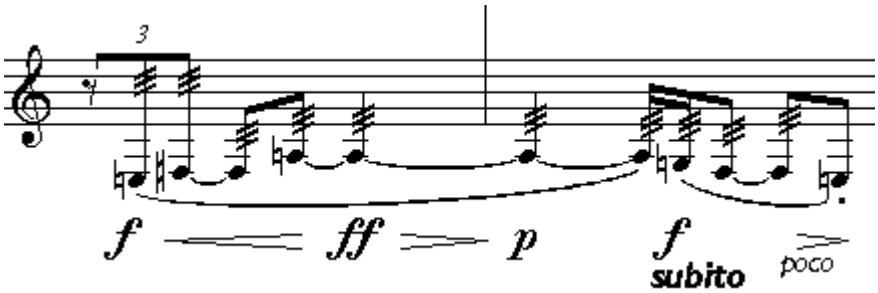
This plug-in will (vertically) align dynamics, including staff and score expressions, and hairpins. Hairpins will in fact be straightened since begin and end point are both vertically aligned.

Other features:

- automatically enables **individual positioning** of score expressions so as to make independent alignment in each staff system possible
- moves other expressions along with the dynamics, but does not align them: note the word "subito" and "poco" in the example below.
- especially useful with transposed parts



will be aligned to:



Hotkeys

- select a region, then press Alt-Gray Plus and Minus to align and move dynamic marks up and down, with hairpins.
- press Alt-Gray Multiply to align only.
- The Gray keys are on the numeric keypad. On the Mac, use the Cmd or Apple key instead of Alt.

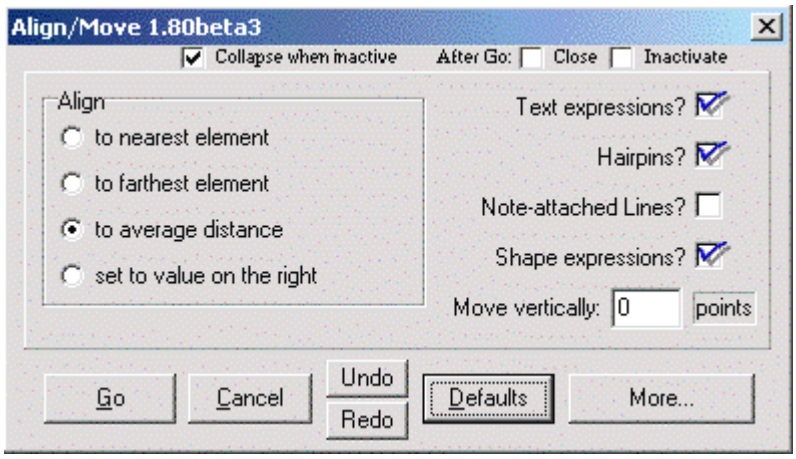
Transposed score vs. concert pitch

When hairpins don't seem to be aligned with note-attached expressions, it may be because TGTools don't know whether the music is transposed or in concert pitch. When turning the score's display in concert pitch on and off, the plug-in cannot immediately recognize this. The same applies to switching between files that differ in this respect.

To make the change detectable to TGTools, please enter the Options menu once more

(without selecting any item) after having changed this option or loaded a file.

Options



- **Align**: select how the desired vertical position should be calculated. You can align to the element that's nearest or farthest to the staff, or align to the average distance of the objects within the selected region. Also, you can chose to set a specific distance, '**set to value on the right** (side of the dialog box)'
- **Text Expressions**: checked by default, this will include text expressions in the objects to align.
- **Hairpins**: select whether you want them to be affected.
- **Note-attached Lines**: these are smart shapes created with the tab slide or custom line tool.
- **Shape expressions**: select this to have them aligned with the text expressions and hairpins
- **Move vertically**: enter a vertical offset by which the aligned objects are shifted.

More Options

- **Align what's below the staff**: normally selected because dynamics go below the staff
- **Align what's above the staff**: select this to align objects above the staff. If you want to align non-dynamic markings, you have to also deselect an option further down (Align only 'dynamical' text expressions).
- **Align above/below separately**: if you're aligning objects both above and below the staff lines, you can either align the two areas independently, or move them all to the same vertical position.

- **For positioning, consider**: when items are aligned, there are various possible ways to determine the desired vertical position. The basic strategy is specified in the main dialog (furthest/nearest/avarage/specific position). In addition, you can specify here which kinds of items should be taken into account at all in the

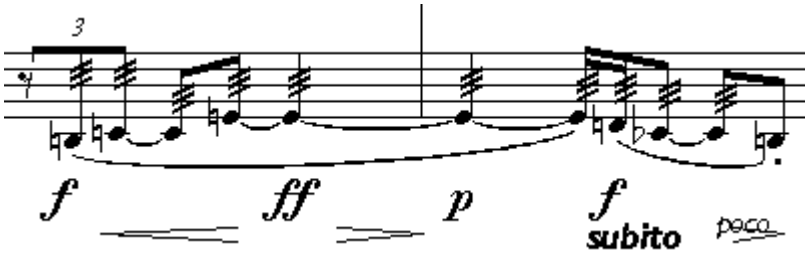
positioning strategy. These needn't be the same items that are *affected* by the alignment.

See 'repairing transposed parts' for an example.

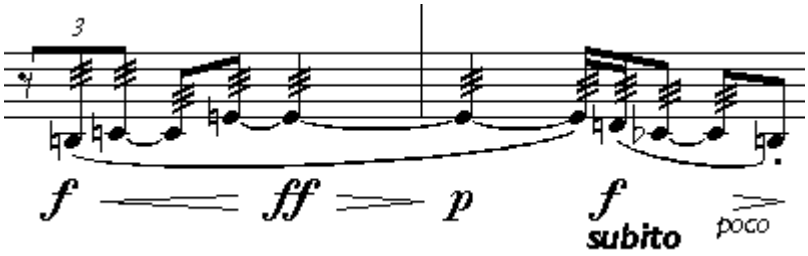
- **Adjust other expressions appropriately**: normally selected so that expressions that go with the dynamics are moved also - but not **aligned**. For example, when a hairpin with the text "poco" is moved, the word is moved with it, but not on it. *See the example above*.
- **Avoid collisions with staff lines**: will prevent dynamics from being moved up too far. You may need to deselect this for one-line staves.
- **Align each system independently**: when a larger region or a whole document is aligned, each staff system can be processed separately since the alignment is normally only needed within a system.

  Note: this option is turned off when the hotkeys are used for invocation.
- **Restart alignment after how many measures without dynamics**: this option tries to divide the selected measure region into several sub-regions, which are aligned independently. For example, when aligning dynamics to the farthest element, this can cause them to be positioned very far away from the staff – possibly just because of the original position of one of the markings. To prevent that the whole document's dynamics is positioned so far away from the staff, this position will not be applied after some measures without dynamics.
- **Additional music fonts to align**: if you have dynmic markings that this plug-in doesn't recognize as such and which it doesn't align, then you may have to enter the music font used for these into this field.
- **Align only 'dynamical' text expressions**: this option makes sure that only the desired objects which deal with dynamics are aligned and/or moved. This should normally be left on - unless you discover that not all the text expressions that you want aligned are actually processed.
- **Vertical hairpin adjustment:** here, you can adjust the positioning of hairpins in relation to other objects, such as text expressions.

Repairing transposed parts



is repaired to:



There's two possible things you may want to do in this case:

1. **Move hairpins to align with expressions** *(as in the example)*
   turn off "For positioning, take into account: Hairpins?"
   turn off "Adjust other expressions appropriately"
   otherwise stick to the defaults

or

2. **Move expressions to align with hairpins**
   turn off "For positioning, take into account: Staff expressions?"
   otherwise stick to the defaults

Modify-Playback

Some musical items don't automatically play back in Finale. **TGTools->Modify->Playback** can prepare the following items for playback:

- note-attached **glissandi** (via pitch-bend or fingered)
- **hairpins**
- **trills** (requires articulation **or** smart shape trill: )
- articulation **tremolos** and **percussion diddles**
- Make sure you read the comment on **Playback Notes** on this page. They need to be hidden ...

Glissandi

- Whereever possible, glissandi should be **note-attached**. Use **measure-attached** glissandi if the glissando goes into a different direction from the following note.
- After you've created them all, run the plug-in. Choose whether they are to be **fingered glissandi**, or (if unchecked), they are **pitch-bended** glissandi.

Pitch-bended glissandi

- The plug-in adds pitch bends as **continuous data.** To see the results, use Finale's MIDI Tool, and set it to display continous data (**Pitch Wheel**).
- For the glissandi to play back correctly, the synthesizer's or sound card's **bender range** needs to be set. With the default options, the plug-in will add the required MIDI events automatically. Since this is necessary only once per staff in a file, you can turn the option off for the second and following glissandi. The bender range is normally **12** so that each glissando's **maximum range is one octave**.
- To **remove** pitch-bend playback data and undo the effect of this plug-in, use the Mass Mover tool's menu command Clear Items->Only Selected Items->Measure Items->Continuous Data.

Fingered glissandi

- For playing back fingered glissandi, the plug-in adds **playback notes** to another layer. These notes are visible by default, and it's currently up to you to hide them. They cannot be hidden individually using the speedy entry command because then they're not played back. Make sure the option to 'individually hide playback notes' is **off** *(it's in the More... dialog)*.
- Playback notes can be hidden in one of several ways:
  - **Finale 97/98**: Apply Alternate Notation/Invisible Notation
  - **Finale 2000+**: Apply a Staff Style with invisible layer
  - **or**, in any version of Finale, if you only want to see notes in layer one in the whole document, select "Show active layer only" from the View menu. Note that this option applies to printing as well.
- You should uncheck some of Finale's **Layer Options** so that the playback notes don't affect your music's stem directions and rest placement.

Hairpins

- This plug-in makes smart shape hairpins play back regardless of any text expressions. In other words, dynamic markings other than hairpins do not play a role for this plug-in.
- Hairpins will play back thru MIDI **volume changes**, while dynamic markings usually affect **key velocity**. When the file is played, both these layers work together to form the actual loudness of a tone.
- After you've created the hairpins, run the plug-in.

Volume Changes

- The plug-in adds gradual volume changes as **continuous data.** To see the results, use Finale's MIDI Tool, and set it to display continous data (**controller no. 7 / volume**).
- To **remove** volume changes and undo the effect of this plug-in, use the Mass Mover tool's menu command Clear Items->Only Selected Items->Measure Items->Continuous Data.

Notes

- The plug-in tries to guess the optimal volume change values automatically. The underlying principle is this: a crescendo from **p** to **f** will usually result in the volume going from 64 to 127. **But**, the final note that has the **f** attached is set back to a volume of 64 because it's strengthis given by the key velocity that is programmed in the **f** expression. It doesn't need a volume of 127 in order to sound loud. When, after this crescendo, another crescendo starts, say, from **f** to **ff**, the volume changes will again go from 64 to 127.
- This strategy might not always give optimum results since the interaction of volume and key velocity is a complex one. Let me know if you have a file where it doesn't.

Trills, Tremolos, Percussion Diddles

- Trills require smart shape trill symbols above the notes:  , or a **tr** articulation.
- Set these options before applying the plug-in:
    - are **three-slash** tremolos **unmeasured** (like trills)?
    - **Trill speed** (trill notes per quarter note - only for unmeasured tremolos and trills)
    - **Start trill after what percentage of duration** - only for unmeasured tremolos and trills:
      (set to zero if you want the trill to start immediately)
    - **Start trill with upper note?** - only for trills
    - **Force trill interval (semitones)** - only for trills
      If this field is empty, a diatonical trill will be made. If you want to force a

semitone trill, enter the number **1** here. It supports trills with lower notes (-1, -2 etc.), as well as repetitions (interval 0).

Playback notes

- For playing back trills and tremolos, the plug-in adds **playback notes** to another layer. Since Finale 2002, these notes are hidden automatically.
- In previous versions, they can be hidden in one of several ways:
  - **Finale 97/98**: Apply Alternate Notation/Invisible Notation
  - **Finale 2000+**: Apply a Staff Style with invisible layer
  - **or**, in any version of Finale, if you only want to see notes in layer one in the whole document, select "Show active layer only" from the View menu. Note that this option applies to printing as well.
- You should uncheck some of Finale's **Layer Options** so that the playback notes don't affect your music's stem directions and rest placement.

Modify-Remove

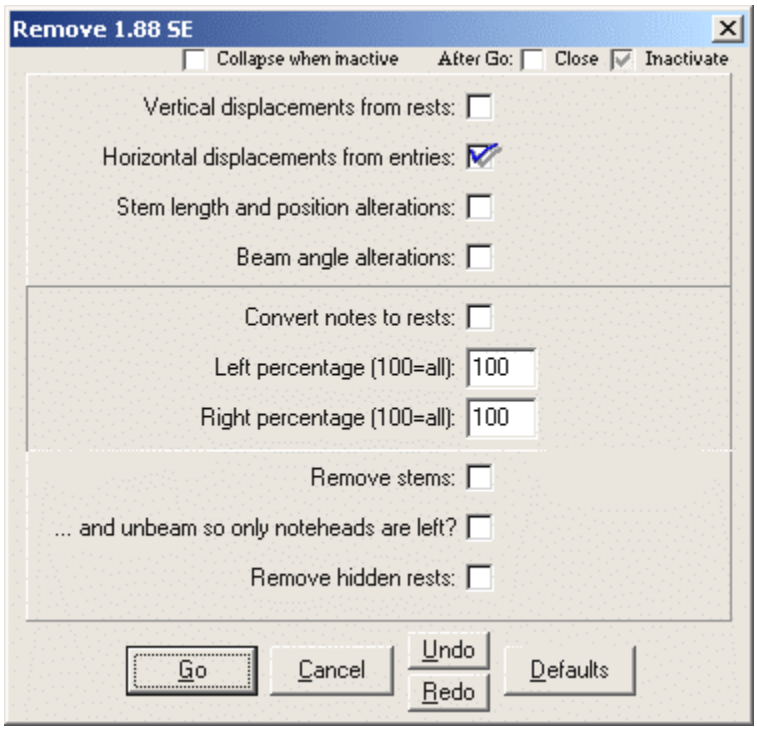
Sometimes it is desirable to remove certain items or properties from a selected region, without removing any notes or text. In fact, it is possible to remove only one specific characteristic and leave all other properties and items alone. If you're not removing concrete visible items, you're removing properties or adjustments in order to reset them to their default states.

Options

This command opens the **Remove** dialog box which provides some options that are not available in Finale's **MassEdit ⇒ Erase...** command. It works similar to Finale's command, but it offers different things to remove from the selected document region.

All the 'items' offered here are properties – when you remove them, they will be reset to their default appearance. In addition, it can **convert notes to rests** and **remove stems and beams**. It can also **remove hidden rests**, which can be used to clean up SmartScore files.

For **Convert notes to rests**, you will find two additional options: **left/right percentage**. 100 means all notes are converted. Lesser percentages determine the likelihood at which notes are randomly removed. Separate options for the left and right ends of the selected measure region enable you to program a development from one state into another.



Modify-Reset

This plug-in can reset the following smart shape properties to their defaults:

- **note-attached slurs' positioning** can be reset to match Finale's default positioning. This will not result in any slurs being flipped.
- **select 'make horizontal over system break' for hairpins**
  This is useful, because by default broken hairpins become diagonal if one half is dragged vertically (in page view).
- **repair smart shape / measure expression bits:** try this when you feel there should be either of these items in your measures but they're not visible.

Modify-Special Modifications

This is a generic plug-in where you can select between several **search criteria** and combine these with certain **actions** that you want to be performed on the notes that match the criteria.

For example, you can perform these tasks:

- look for all C4's and remove them
- look for every chord's second note from top, and change its notehead size to 70%
- look for rests, and hide them
- look for notes with sharps (=alteration 1) and erase them

For playback of complex quarter tone scores, this last option can be used in order to create two different files from the main score; one with all the 'straight' notes, and another one with all the quarter tone pitches. These could be fed into two separate synthesizer channels for playback. To do this, you need to remove all even alterations from one file (-2, 0, 2) and all uneven alterations from the other copy (-3,-1,1,3).

Modify-Rests

- will provide for 'classical' rests in 3/8, 3/4, and 3/2 time signatures by splitting rests up
- can minimize the number of rests by expanding preceding note values

Modify-Replace Pitches

allows you to replace pitches in specific octaves. Examples:

- change D#4 into D4,
- and D##5 into Dbb5
- and B4 into B6.

Modify-Expressions

This plug-in allows you to make certain manipulations with expressions. Some of this were formerly impossible to do at all.

The main function is to **convert measure-attached expressions into per-staff ones:** this will make an individual copy of the expression for each staff that it appears on. The conversion will enable you to copy music along with the expressions within a file.

Additional options are available:

- **Leave these on one staff only:** this will change a measure-attached expression so that it appears on the selected staff only.
- **Make them note-attached:** this will convert measure-attached expressions into note-attached ones. It works with measures with notes only. Slight horizontal inexactness is possible.
- **Align with nearest note:** this option is used when making expressions note-attached. You can have the horizontal position changed by aligning the expression with the nearest note, and specify a **horizontal offset** from the note that the expression should have.

A completely separate feature is the **multiplication of horizontal positions of measure expressions**. This does not work together with the conversion described above. It is a very rarely used feature.

Modify-Slurs

This plug-in can perform the following modifications on slurs:

- **convert measure-attached slurs to note-attached ones**
- **Recalculate note-attached slurs' contour** to match the current contour settings. This can be useful if your contour settings have been changed, or if note spacing has changed (for example, after extracting a part). Note that resetting the slur contours can result in collisions.
- **Increase slur height** by a fixed number.
- **Reset positioning for note-attached slurs** to Finale's defaults**.**
- **Resolve collisions with articulations** (see next paragraph).

Resolving slur collisions with articulations

Finale 2002's **Engraver Slurs** can now avoid collisions with articulations that have the option '**Inside Staff**' checked. If you use that option, the only reason you might still need this plug-in is to move other articulations such as accents **outside** the staff.

- **Adjustment type 1**
- **Adjustment type 2**

  TGTools divides the articulations into two groups: articulations with a small height such as **staccato, tenuto**, etc. – adjustment **type 1** (flat), and ones with a bigger height such as **accents** – adjustment **type 2**. Two different adjustment values are specified for each type.

- **Recognize articulation types automatically?** Should normally be checked.
- **but ignore these articulation numbers:** here, you can specify the numbers (from Finale's articulation selection dialog) of any articulations to be ignored. Separate numbers with a comma.
- **Set these articulation numbers to adjustment type 1/2:** to override the automatic recognition of an articulation height, specify its number in one of these fields. *Rarely needed!*
- **Move these articulation numbers above the slur tip:** this is the main option that you might still want to use with Finale 2002. Specify the number of your accent articulation slot here (for example), and the accents will be moved outside the slurs.
- **Ignore manually or plug-in positioned slurs:** using this option, you prevent the plug-in to change the positioning of slurs that have already been positioned manually or via this plug-in. To reposition all slurs that start or end on notes with articulations, uncheck this option.
- **Articulations with vertically off-center handles:** some articulations are defined in such a way that their handle is off-center. TGTools usually recognizes these automatically, but you may have to specify an articulation number here if you're using an unusual one. *A rarely changed option.*
- **Correct off-center handles by:** off-centered articulations have to be treated differently when above the staff from when they're below the staff. The amount of difference is specified here. *A rarely changed option.*

Modify-Enclosures

This feature can copy or remove text expression enclosures. On the left side of the dialog box, you will find a list of all expressions in the document. Currently, all expressions are displayed using the same text font, so that you need to identify 'musical' expressions such as dynamics by the characters typed into Finale's Expression Designer dialog box.

In the list, expressions that have keyboard shortcuts are displayed with the shortcut in parentheses. In addition, an asterisk is shown next to expressions with enclosures.

Choose between three possible actions before clicking on **Go**:

- **Remove enclosures:** to remove enclosures, select the expressions from the list, place the checkmark next to this option, and click Go.
- **Get enclosure (=Copy):** to pick up an enclosure from an enclosed expression, select the expression, place the checkmark here, and click Go.

- **Put enclosure (=Paste):** to add (paste) an enclosure that you have just picked up (copied), select the destination expression(s), place the checkmark next to this option, and click Go.

Modify-Shift

This plug-in currently shifts either of these items:

- **whole notes**. You may want to do this in order to make their alignment appear centered above or below other notes. Notes longer than whole notes are also affected.
- **grace notes**. In case you don't like how Finale positions them.
- **note-attached glissandi before accidentals** in order to avoid collisions.

Modify-Transfer

This plug-in enables you to transfer (copy & paste) things that Finale can't normally copy itself. Most of these items are intended for copying from one file to another. The process involves these steps:

- place checkmarks next to the items that you want to transfer
- go into the source file. If needed, select a measure region. Make sure '**Read now**' (=copy) is checked, and hit **Go**.
- now go to the destination file. If applicable, make your measure selection there. Make sure '**Write now**' (=paste) is checked, and hit **Go**.

You can write (paste) multiple times without having to read (copy) the data each time. Just make sure 'Write now' remains checked (uncheck 'Automatically switch …').

Check out the dialog box for the many different things that can be transferred in this way. The list is continuously being expanded.

Chapter Six

New Spacing

Lyrics Utilities

New Spacing

This command invokes Finale's Note Spacing. However, to achieve better results, a range of preporcessing and postprocessing tricks are performed. Current improvements are designed to improve handling of **lyrics**.

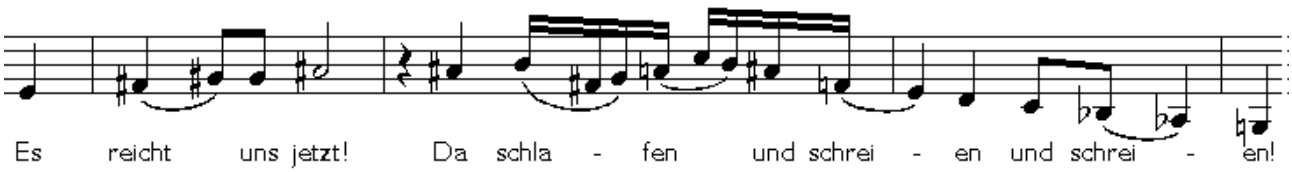
The following problematic items are addressed by New Spacing:

- Melismas,
- Notes that exceed a measure's length
- Centering of syllables under whole and double-whole notes
- Long syllables on beat one
- Complementary rhythms

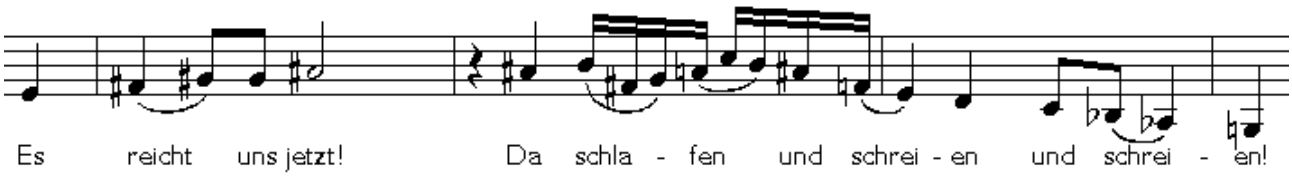
Some of these are also available as separate plug-ins. However, it is often useful to have all necessary preparations, including Note Spacing, done by a single command.

Example

This is the normal result of Finale's Note Spacing:



With New Spacing, it looks a little different:



Note

Since some of the functionality is achieved by automatically invoking other TGTools plug-ins, these may need to be tested and configured separately before New Spacing can produce optimum results. The separate plug-ins are:

- Left-align melisma syllables (should rarely need modification of options)
- Shift lyrics - for whole and longer notes (may require tweaking of options since they depend on music font preferences)
- Move long syllables on beat 1 a bit to the right (options may require modification according to text fonts and taste)

Lyrics Utilities

These commands will help you in handling lyrics. There are many situations where Finale cannot (yet) handle lyrics automatically, so that manual tweaking is necessary. While TGTools cannot relieve you from this, there are a few things that can be automated now.

Common lyrics problems include:

- **Melismas.**
  Both alignment and note spacing for melismas must be improved.
- **Lyrics at the beginning of measures.**
  Syllables should often be shifted to the right, and less space be allocated at the beginning of measures.
- **Syllable centering under whole and double whole notes**.
  Finale's default behavior is not to center these syllables correctly – especially with recent music fonts.
- **Centering of syllables with punctuation marks**.
  Syllables followed by any of .,-?! don't look well centered.
- **Word Extensions**
  Finale's word extension could be improved in some aspects.

Of these, TGTools helps you with the first three problems. TGTools Lyrics Utilities currently include:

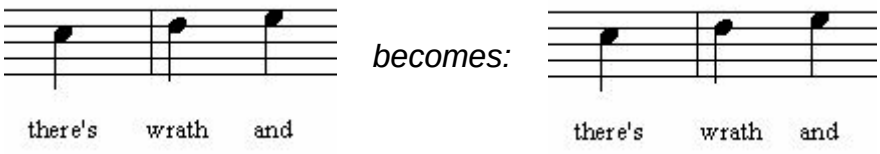
- **Move long syllables on beat 1 a bit to the right**
- **Left-align melisma syllables** *(on Finale 98), or*
  Move melisma syllables to the right *(on Finale 97)*
- **Lyrics-Remove ...** lyrics adjustments, alignment and/or justification settings
- **Shift Lyrics**
  for example, to properly center them under whole and double whole notes
- **Proportionality**
  Please see chapter 3 for documentation on this feature.

By using TGTools **New Spacing**, you can solve many problems with one quick command.

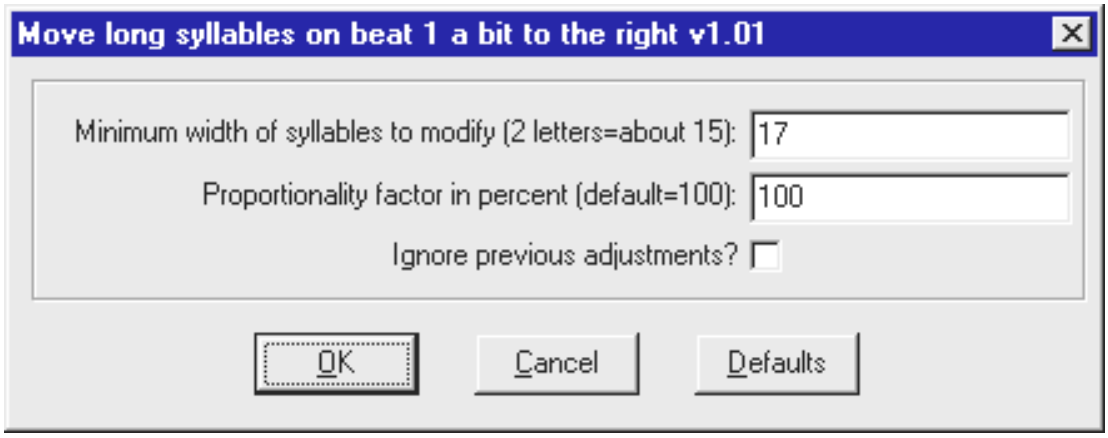
Move long syllables on beat 1 a bit to the right

This will make slight adjustments for longer syllables at the beginning of a measure. Moving them to the right a bit will prevent the empty space between the barline and the first note from becoming too large when Note Spacing is applied.

The example shows the music before Note Spacing was used:



Options



- **Minimum width of syllables to modify**: Since only longer syllables should be shifted to the right, a minimum width is specified (in points). The default is 17, which means that most syllables that have at least three letters will be affected.

- **Proportionality factor**: This should only be modified if you find the the adjustment is not as you would like it. If you think the syllables are moved to far to the right, use a lower value than 100.

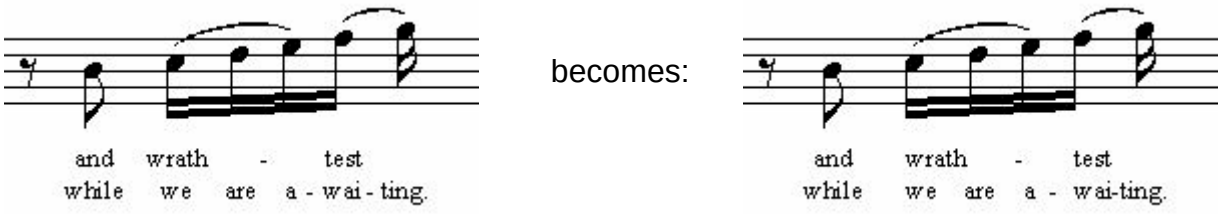
- **Ignore previous adjustments?** If checked, the command will ignore and discard any previous horizontal adjustments to longer syllables on beat 1. If unchecked, then syllables that already have been adjusted won't be touched at all.

Note: Use this plug-in *before* applying Note Spacing.

Left-align melisma syllables

or, on Finale 97: **Move melisma syllables to the right**.

The melisma problem is not solved by this plug-in alone (better as part of New Spacing), but it may be helpful. You should use it after Note Spacing – otherwise Finale will allocate even more extraneous space between the first two melisma notes.

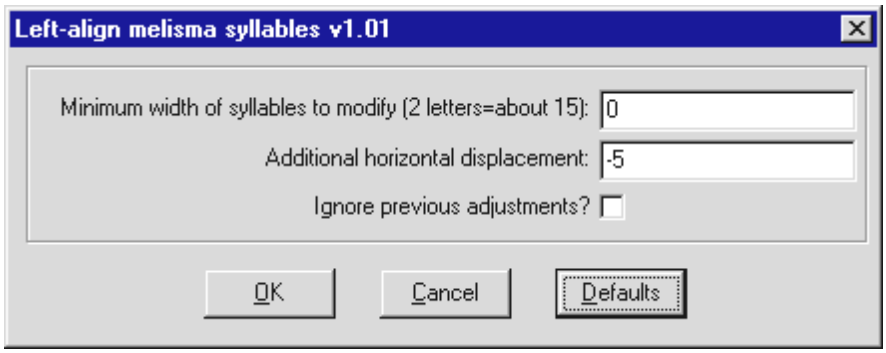


In Finale 98 and above, the melisma syllables are left-aligned and left-justified. This alignment change will always affect all verses.

In Finale 97, the melisma syllables are shifted to the right which can be less precise.

Options (Finale 98 and 2000)

The options dialog as it appears in Finale 98 and above:



- **Minimum width of syllables to modify:** normally, there is no minimum width (0). However, if you wanted to process only longer syllables, you could increase this value. It is measured in points.
- **Additional horizontal displacement:** the additional shift will make the syllables *look* properly aligned. You may want to adjust this value to your personal taste.
- **Ignore previous adjustments?** If checked, the command will ignore and discard any previous horizontal adjustments to melisma syllables. If unchecked, then syllables that already have been adjusted won't be touched at all.

Options (Finale 97)

In Finale 97 they are the same as the Options described on the previous page. The only difference is that the default minimum width is zero.

Lyrics-Remove ...

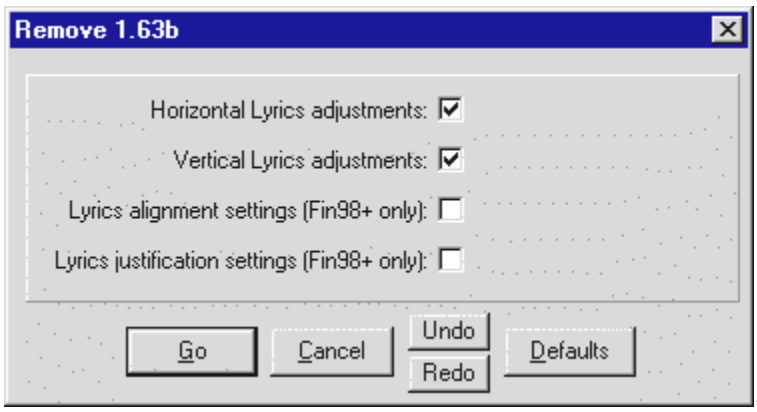
Sometimes it is desirable to remove certain items or properties from a selected region, without removing any notes or text. In fact, it is possible to remove only one specific characteristic and leave all other properties and items alone. If you're not removing concrete visible items, you're removing properties or adjustments in order to reset them to their default states.

This command triggers the **Remove...** dialog box which provides some options that are not available in Finale's **MassEdit** ⇒ **Erase...** command. It works just like Finale's command, but it offers different things to remove from the selected document region.

All the 'items' offered here are properties – when you remove them, they will be reset to their default appearance.

This dialog is going to be extended by many new items in the future. Currently the removable items are:

Options



- **Horizontal lyrics adjustments:** this option will reset any horizontal tweaking of syllables within the selected region. Thus, it will also remove the adjustments made by TGTools' Move long syllables on beat 1 a bit to the right.

- **Vertical lyrics adjustments:** this option will reset any vertical tweaking of syllables – it will not remove lyrics baseline adjustments, but only modifications of the vertical position of single (or multiple) syllables.

- **Lyrics alignment settings** (Fin98 only): will reset syllable alignment to *Default*.

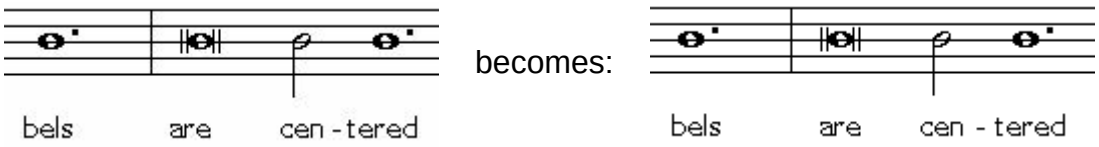
- **Lyrics justification settings** (Fin98 only): will reset syllable justification to *Default*.

Note: this dialog box is accessible from the **Lyrics Utilities** submenu and the **Miscellaneous** submenu, with different default option settings.

Shift Lyrics

This tool can be used to shift syllables within the selected region in both horizontal and vertical directions.

Its original intention is correcting Finale's centering of lyrics under whole and double-whole notes. This will be done when using **Shift Lyrics** with the default options settings:

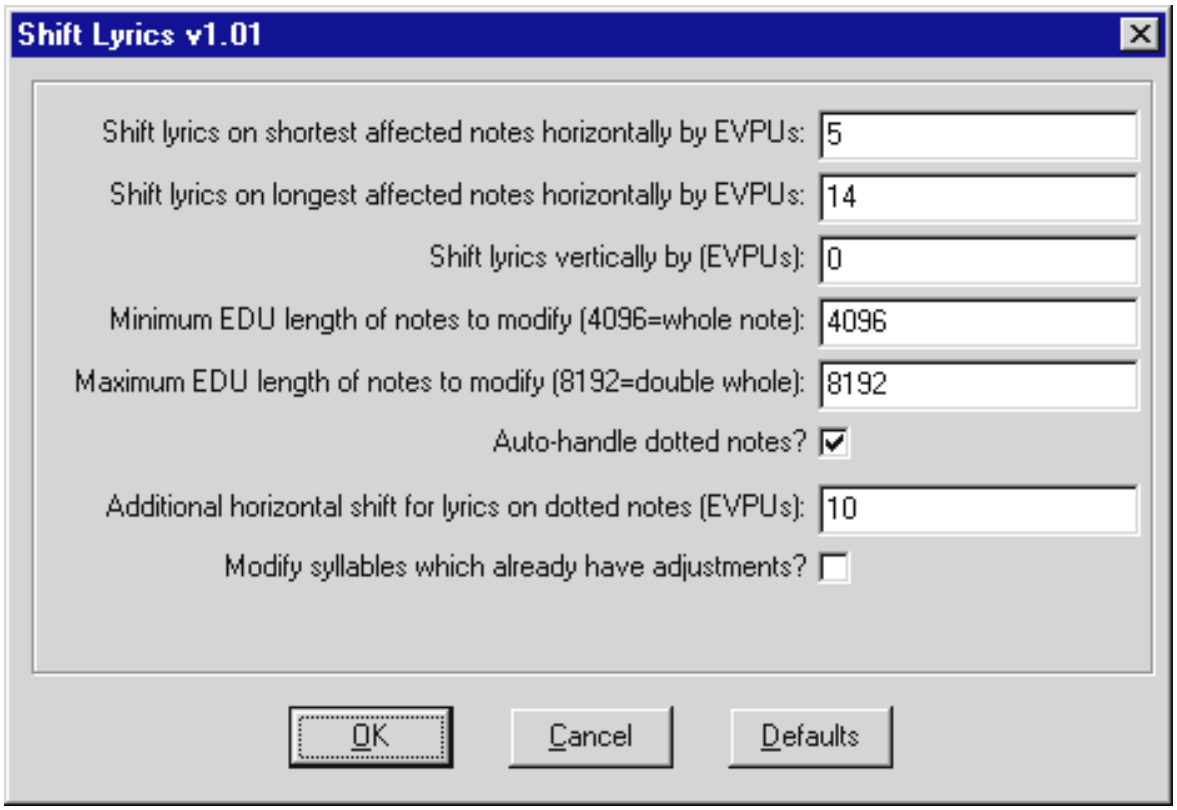


To achieve this result, quite a few options are provided so as to:

- affect notes within a specific range of durations only
  (such as whole and double-whole notes)
- program different horizontal shift values for different note durations
  (since the required compensation for double-whole notes is wider than for whole notes)
- handle dotted notes correctly

Note: the default option settings will correct Finale's centering of lyrics under whole and double-whole notes as shown in the example. The first two options may require slight modifications depending on the music font used.

Options



- **Shift lyrics on shortest affected notes horizontally by:** here, you specify the horizontal shift (in Finale's EVPU measurement) which is used for the shortest notes within the range of durations that are modified.

  With the default settings, this is the horizontal correction applied to **whole notes**.

- **Shift lyrics on longest affected notes horizontally by:** here, you specify the horizontal shift which is used for the longest notes within the range of durations that are modified.

  With the default settings, this is the horizontal correction applied to **double whole notes**.

- **Shift lyrics vertically by:** use this field for vertical shifts. It is not used by the default settings (0).

- **Minimum EDU length of notes to modify:** this specifies the shortest note duration whose lyrics are to be shifted. The default value of 4096 will require notes to be at least as long as a whole note.

- **Maximum EDU length of notes to modify:** this specifies the longest note duration whose lyrics are to be shifted. The default value of 8192 corresponds to double whole notes.

  This value must not be increased without increasing the second option (from top) also since these value correspond to each other.

  However, if the following option is on, syllables under dotted whole notes are also corrected:

- **Auto-handle dotted notes?** when checked, TGTools will use an additional horizontal shift for dotted notes, and it will also include dotted whole notes even though they are longer than the specified maximum EDU value.

- **Additional horizontal shift for lyrics on dotted notes:** this value is used to make syllabled look well-centered under dotted whole and dotted double-whole notes.

- **Modify syllables which already have adjustments?** if this option is not checked, the plug-in will not touch syllables that already have horizontal or vertical adjustments, whichever applies.

- **Ignore these previous adjustments?** this option is only available if the previous option is checked. If this option is selected also, then previous positioning adjustments will be reset prior to shifting.

  With the default purpose of the plug-in, it is recommended to have this option checked when the previous option is selected. This will cause TGTools to start over with the corrective horizontal syllable adjustments.

Chapter Seven

Part Management Utilities

Process Extracted Parts

Smart Distribution
- of grouped parts
- of multi-part systems

Add Cue Notes

Join rests of multiple layers

Harp Pedaling

New way of score and part creation

Using the new TGTools Part Utilities is a whole new approach:

1. No special tricks in the score.

When the score is entered, we don't have to think about having to extract parts.
We can do all we want to have a beautiful optimized score with constantly
variable usage of the various staves.

2. Smart Part Distribution

which recognizes how we notated the various parts throughout an instrument group's systems.

This part assignment may change often, and everything is allowed:
- separate parts on separate staves,
- chords within one layer of a staff
- several layers per staff
- using Finale's 2nd voice mechanism - all can be mixed within the same score!

3. Keyword recognition

Smart Staff Distribution recognizes staff expression keywords such as "a 2", "1.", "tutti", "solo".

It automatically copies the according notes to the correct parts.

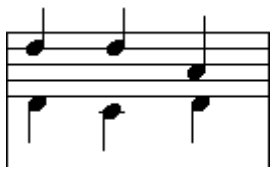
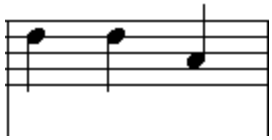
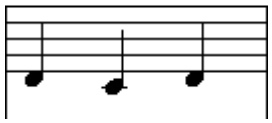
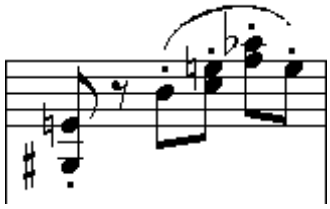
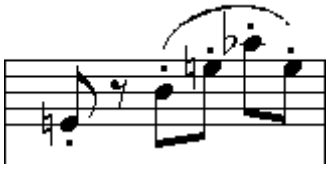
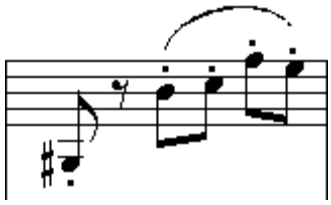
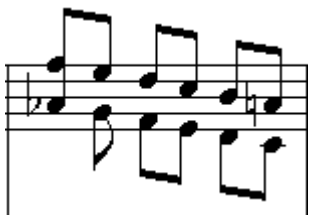
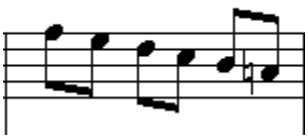
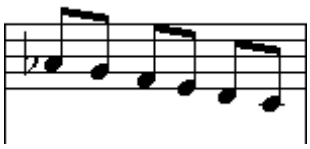
"1." through "9." are optionally removed from the parts since they are only needed in the score.

Process extracted parts

The processor for extracted parts chooses the right notes for one part from a system in which multiple parts have been notated.

This processor has to be run separately on each part and is automatically invoked from another plug-in: Smart Distribution of Parts.

Examples:
all these were within the same score and the part extraction was done by one command per part.

	score	part 1	part 2
using 2 2layers:			
using piano (chord) notation:			
using voice 2: (note that the inconsistency in the score has no negative effect on the parts)			

Using multiple layers or voices

In the case of multiple layers or voices, it can occur that the second part gets no articulations, slurs, staff expressions and the like.

The option "Secondary parts inherit..." will create 2nd parts with everything copied from the first layer or voice.

Smart Distribution of Parts

This plug-in will explode various parts from multi-part staves. It will recognize specifications such as 1., 2., tutti, or a2.

There are two menu items for this funtion:

- **Smart Distribution of grouped parts**
  lets you select from a list of ***groups*** to process.

  It will process the group as a whole, and the way the various parts are entered within the group may vary as needed. Sometimes several instruments are combined on a staff, sometimes each part is on its own staff - all possible cases will be detected and exploded correctly.

- **Smart Explosion of multi-part staves**
  lets you select from a list of ***staves*** to process.

  Each staff is processed separately and the number of parts contained each staff is considered to be constant throughout the selected measure region.

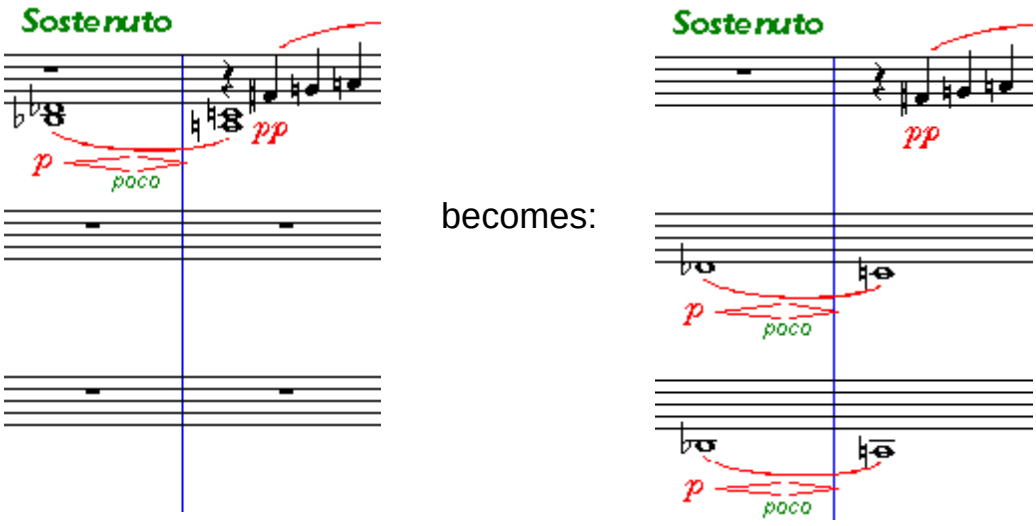
Note: a few things are required for this plug-in to work properly.

1. You need to tell the plug-in whether Finale is showing “Defined Measure Numbers” or “Actual Measure Numbers” which is set in Finale’s program option. The bottommost option of the plug-in’s dialog has to be set accordingly.

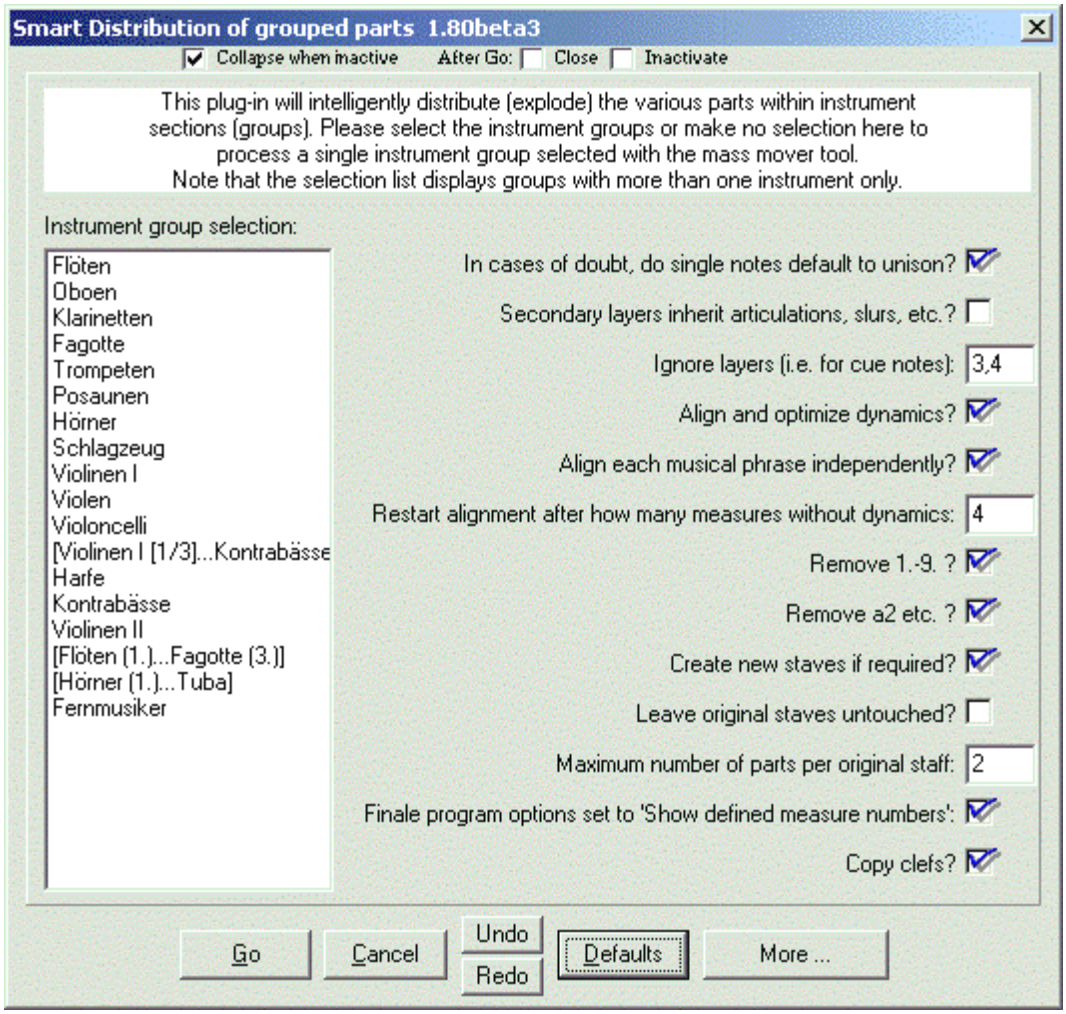
2. In the view menu, “Show Active Layer Only” needs to be turned **OFF**.

3. Pickup bars can be a problem. If you get an error message, please make sure that the pickup definition in Finale’s Document Opions → Music Options is correct, or distribute the pickup measure manually.

Short Example



Screenshot & Options

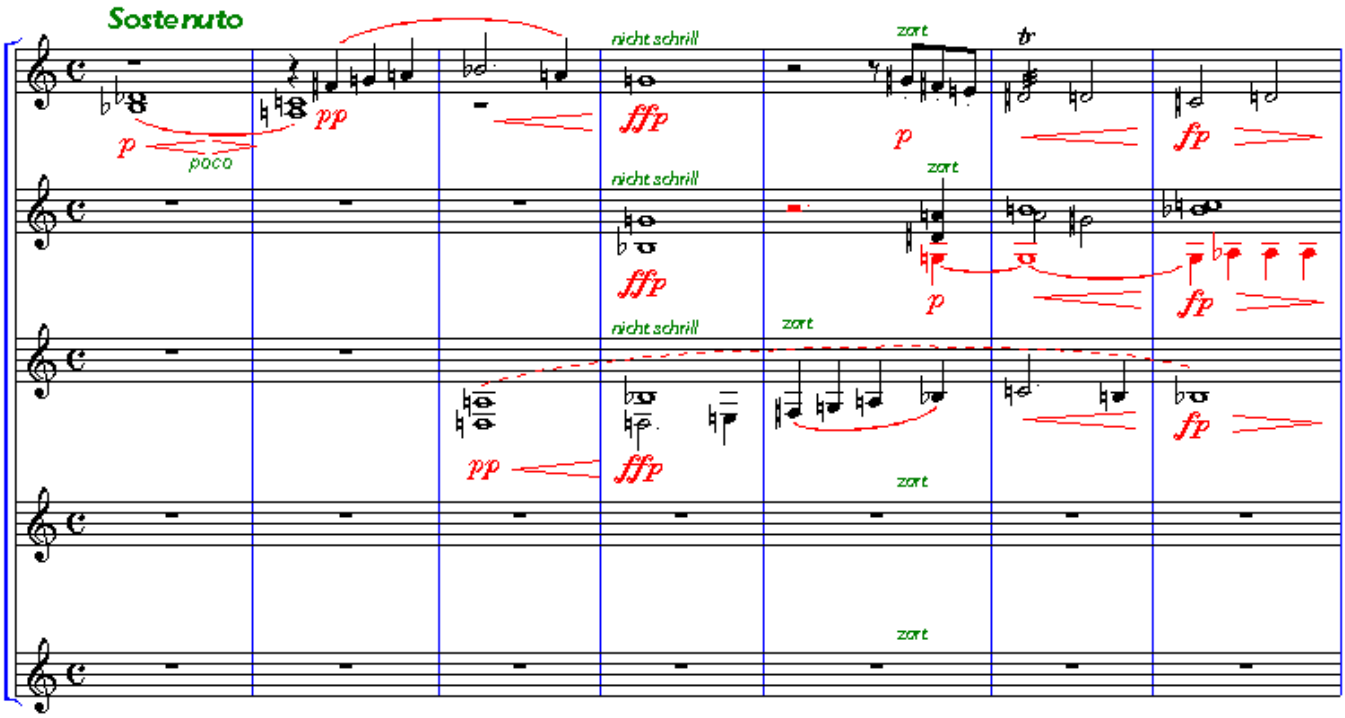


- In cases of doubt, do single notes default to unisono?
  Normally on. Note that you have to specify "1." or "2." etc. only very rarely because it can normally be guessed from the stem directions. So, when there are no a2's, single notes can be set to be interpreted as unisono.
- Secondary layers inherit articulations, slurs, etc.
  When two or more parts have been entered in separate layers, this option will enable inheriting of articulations, slurs, and note-attached expressions. Note that this option will affect only measures in which the inheriting layer doesn't already have any of these note-attached elements.
- Ignore layers (i.e. for cue notes)
  The layers specified here are ignored, but they are copied to the exploded staves, too.
- Align and optimize dynamics
  When on, dynamics are aligned and sometimes shifted up a little.
- Align each musical phrase independently
  Since dynamics alignment is oriented on the farthest element within each alignment region, this option tries to treat musical phrases separated by rests independently.
- Restart alignment after how many measures without dynamics
  To achieve smaller regions for aligning dynamics, the default of 4 can be reduced. See previous option for more information on alignment regions.
- Remove 1.-9.
  Will remove 1., 2. etc. from the part after having interpreted these specifications.

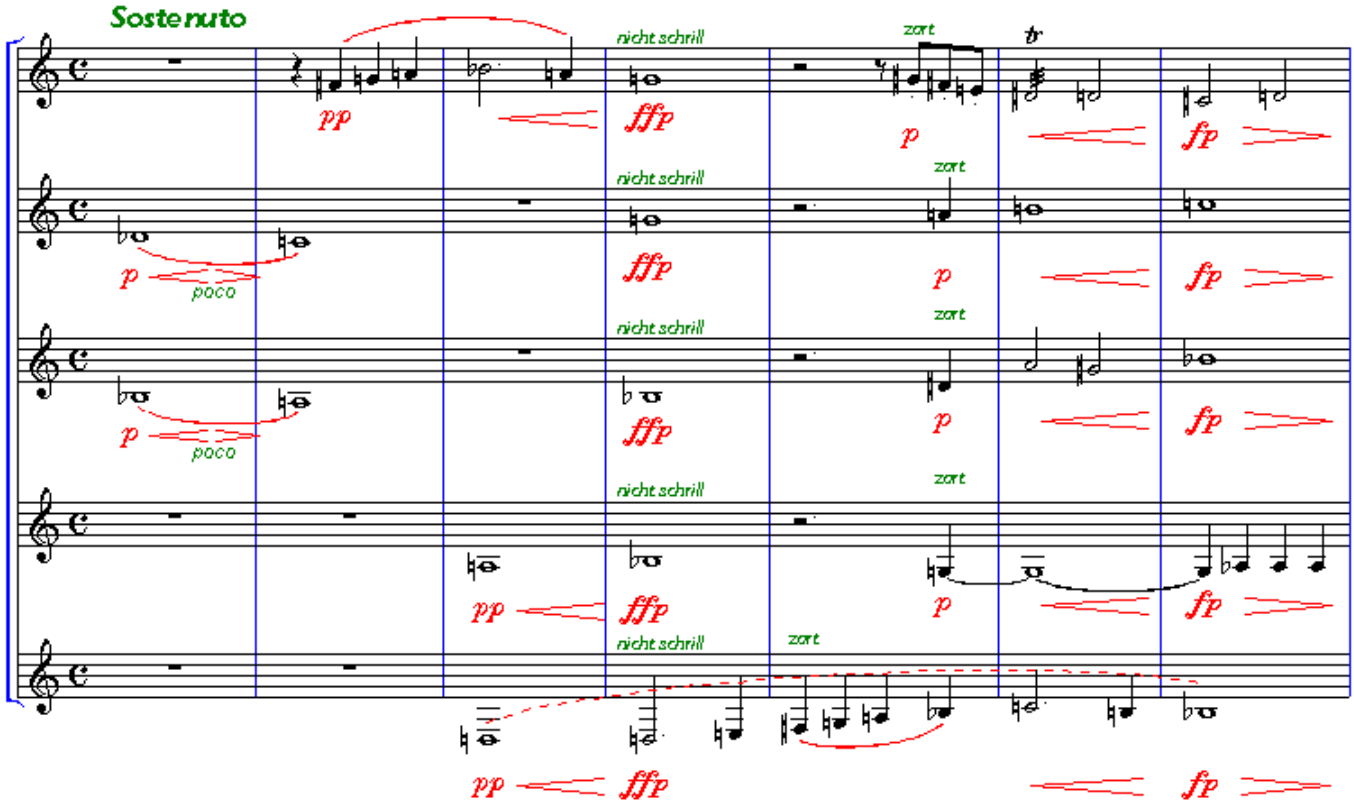
- Remove a2 etc.
  Will remove a2, a3 etc. from the part after having interpreted these specifications.
- Unfreeze slur directions
  This enables note-attached slurs to recalculate their position (below or above). Will probably result in collisions which have to be cleaned up manually.
- Create new staves
  Normally ON since new staves are often required for the explosion.
- Leave original staves untouched
  With this option selected, the exploded parts are put into new staves. Otherwise, the original staves will be used, too, and fewer new staves are inserted.
- Maximum number of parts per original staff
  Sometimes the plug-in may think that there are more parts in a staff than you actually put in. To prevent this misunderstanding, this option puts a limit to the number of parts per staff. Sometimes, it must be increased.
- Finale's program option is set to 'Show defined measure numbers'
  It is very important to set this option according to Finale's program options. See Note**.**
- Copy Clefs
  Uncheck this if you don't want clefs to be altered in staves where music is exploded to.

The complete sample score

with five parts notated in a constantly varied manner (for demonstration purposes)

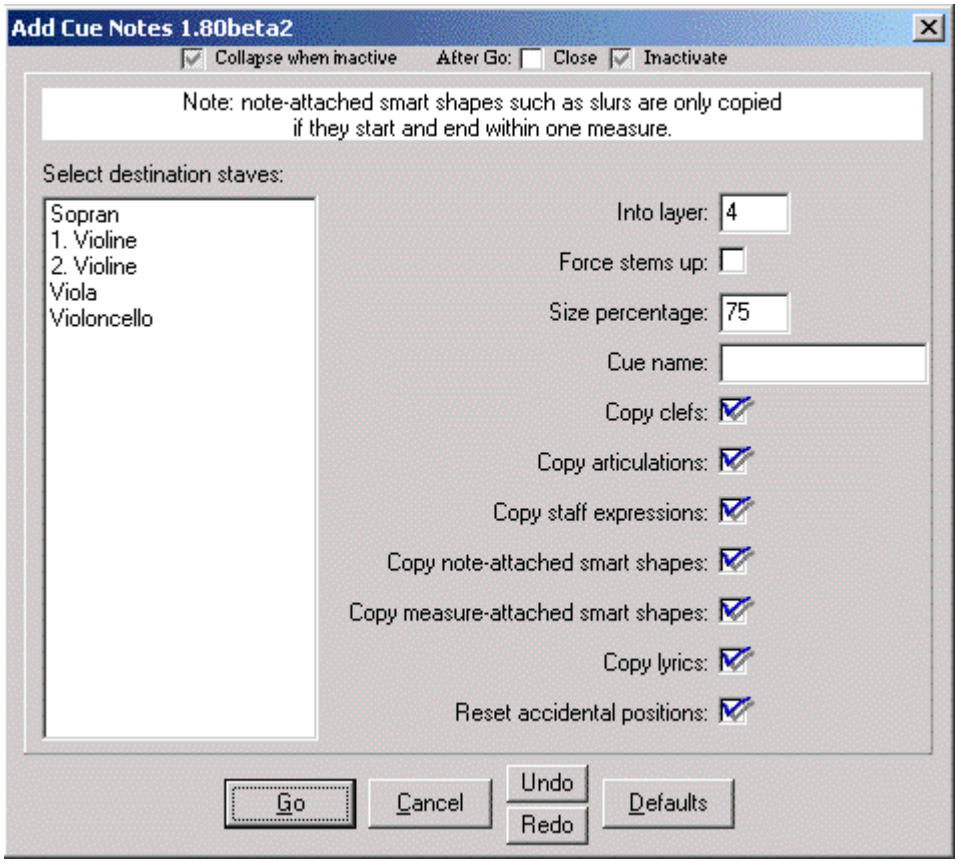


And this is the output of the all-automatic Smart Part Distribution:



Add Cue Notes

This is an improved version of Coda's original plug-in.



Improvements

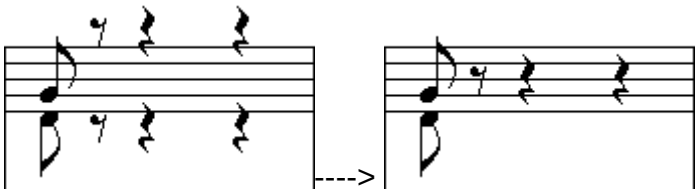
- Copies clefs, lyrics, smart shapes, expressions, articulations, and special tools alterations.
- Modeless dialog - the window can be kept open, and you need to access the menu only once.
- Taller staff selection list
- Places whole note rests into empty measures regardless of time signature
- Settings are remembered

Note:
The "Cue name" **field** is normally left blank - it does not show the selected instrument because the selection may change while the dialog box is open. Leave the field blank if you want the selected staff's name as the cue name.

Join rests of multiple layers

Depending on Finale's layer options, rests in multiple layers may be positioned at different vertical positions to show each layer's independent rhythm.

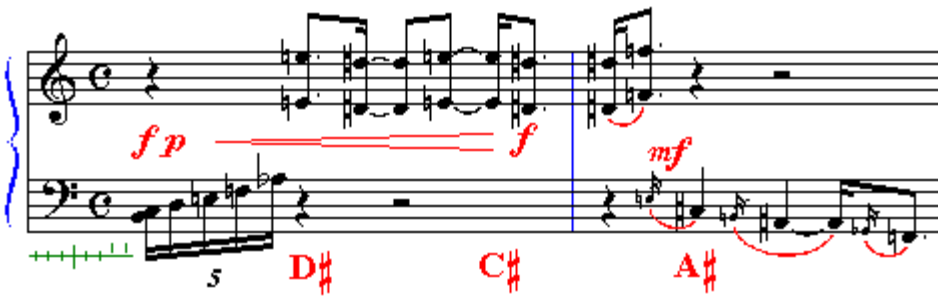
This command will join these rests where appropriate:



(no options to set)

Harp Pedaling

- adds pedal diagrams
- adds pedal changes as note-attached text expressions.
  These have to be moved left to the desired location manually
- now supports Matthew Hindson's Harp Pedal font v1.1:
  -v-|^v--
  (available for download on the TGTools web site)
- it can also **respell notes** in order to optimized pedal usage. This feature is not highly developed yet so that manual verification and optimization is necessary.



Chapter Eight

Miscellaneous Utilities

Text Expression Sorter

Custom Chord Styles

Character Set Conversion

Find

Analyze

Compare Entries

Export to Spreadsheet

Import Auricle Files

Font Info

Text Expression Sorter

This will sort your text expression library. Alternatively, you can display an instantly sorted list with Explorer for Text Expressions (Windows) or Select Text Expression (Macintosh). These are the first menu item in the TGTools menu, but there is currently no PDF documentation on them.

In addition to sorting, this plug-in can delete unused text expressions.

Custom Chord Styles

With this plug-in, you can convert chords entered in a Finale document to various different chord styles that itself Finale does not support:

- a style where the letters Bb (for B flat), H (for B natural), and H# are used.
- Italian style: DO RE MI HA SOL LA SI
- or user-defined style.

The conversion is done by having Finale not display the chord root, and moving it converted into a newly created suffix. Converted chords do not transpose!

Character Set Conversion

This plug-in will convert the special characters between the Windows and Macintosh character sets. You can also define your own conversion. Click the default button to fill the dialog with the necessary Mac and Win characters.

Find

A useful utility that displays measure areas where certain items are found. You can look for:

- **all measures with entries** (for example, to instantly find and jump to the measures where a given instrument is used in the score)
- **Enharmonic oddities** (the same pitch repeated, but notated differently, which may indicate wrong clefs).
- **Text Expressions** – just enter part of or or the complete expression. You can also specify that it must be a music font.

When measures have been found, click on them in the selection list to jump to that location in the score.

Analyze

This musical analysis plug-in currently finds parallelisms. With Finale 2000 or newer, it can mark them in the score using note-attached glissandi. Older versions of Finale will show

the parallelisms using diamond noteheads. Various options control what kinds of parallisms are detected.

Compare Entries

This utility can compare music in two different staves or different files. It is mostly used to find the differences in two versions of the same file.

When differences have been found, click on them in the selection list to jump to that location in the score.

You can also have the changes/differences marked in the score. There are several different abbreviations that are used, they are pretty technical:

FEWER – fewer enties

MORE – more entries

DUR – duration

NOTE – note

ARTIC – articulation

EXPR – text expression

DIFF – other differences

EF – entry flag (entry properties)

NF – note flag (notehead properties)

Export to Spreadsheet

This plug-in will create a text file with a numeric representation of the music. That text file can be imported intro spreadsheet applications in order to perform numerical analysis of the music.

Import Auricle Files

This imports information from Auricle cue files saved as text. Needed only if you're using the film synchronization software Auricle.

Font Info

Shows all fonts referenced in the document. Note that some fonts will probably be listed that are referenced but not actually used.