Score Printing and Layout

CUBASE
VST

steinberg

- 2 -

Table of Contents

1

How the Score Editor works

In this Chapter you will learn:

- How the Score Editor and MIDI data relate.
- What Display Quantize is and how it works.

Welcome!

Welcome to Cubase Scoring! The Score Editor has been created to allow you to get any possible piece of music displayed as a score, complete with all the symbols and formatting needed. It allows you to extract parts out of a full orchestra score, to add lyrics and comments, create lead sheets, score for drums, create tablature, etc. In other words: just about any type of notation you could ever desire!

There are a few basic principles to how the Score Editor works, which you just have to understand to make full use of it. So please bear with us during this chapter, we'll try to be as concise as possible.

How the Score Editor operates

The Score Editor basically does the following:

- Reads the MIDI notes out of the Parts/Tracks.
- Looks at the settings you have made.
- Decides how the MIDI notes should be displayed according to the settings.

```
┌─────────────┐
│  MIDI Data  │
└─────────────┘
       │
       ▼
┌─────────────┐      ┌───────────────┐
│ Score Editor│─────▶│ Score Display │
└─────────────┘      └───────────────┘
       ▲
       │
┌─────────────┐
│Score settings│
└─────────────┘
```
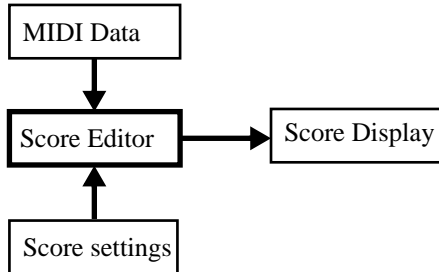
Score Edit takes MIDI data and settings as input and produces a Score as output.

Score Edit does all this in real time. If you change some of the MIDI data (for example by moving or shortening a note) this is immediately reflected in the score. If you change some of the settings (for example the time signature or key signature) this is also immediately apparent.

You should not think of Score Edit as a drawing program, but rather as an "interpreter" of MIDI data.

MIDI Notes vs Score Notes

Cubase MIDI and Drum Tracks hold MIDI notes and other MIDI data. As you may know, a MIDI note in Cubase is only defined by its position, length, pitch and velocity. This is not nearly enough information to decide how the note should be displayed in a score. The program needs to know more: What type of instrument are we talking about, Drums? Piano? What key is the piece in? What is the basic rhythm? How should the notes be grouped under beams? etc. You provide this information by making settings and working with the Tools available in the Score Editor.

An example of the MIDI/Score relation

When Cubase stores a MIDI note's position it makes the measurement in an absolute value, called ticks. There are "always" 15360 ticks to a quarter note. Have a look at the example below.

A quarter note at the end of a 4/4 measure.

The note is on the fourth beat of the measure. Now, let's say you change the Time Signature to 3/4. This shortens the length of a "measure" to only three quarter notes - 46080 ticks. Suddenly our quarter note is in the next measure:

The same note in 3/4.

Why? Because by changing the Time Signature you are not changing the MIDI data in the Track/Part (since that would ruin your recording!), the note is still at the same absolute position. It's just that now each "measure" is shorter, which effectively moves the note in the score.

What we are trying to get across here is that Score Editor is an "interpreter" of the MIDI data. It follows rules that you set up by making settings in dialog boxes, on menus, etc. And this interpretation is "dynamic", or in other words, it is constantly updated whenever the data (the MIDI notes) or the rules (the Score settings) change.

Display Quantize

Let's say you used the Arrange window to record a figure with some staccato eighth notes. When you open the Score Editor it displays it like this:

This doesn't look anything like what you intended. Let's start with the timing - obviously, you were off at a couple of places (the third, fourth and last note all seem to be a 1/32nd note late). You could solve this by Quantizing the figure, but this could make the passage sound too "stiff", and not fit in the musical context. To resolve this problem the Score Editor employs something called "Display Quantize".

Display Quantize is a setting which is used to tell the program two things:

- **How precise Score Edit should be when displaying the note positions.**

- **The smallest note values (lengths) you want displayed in the score.**

In the example above, the Display Quantize value seems to be set to 1/32nd notes (or a smaller note value). When reading the next chapter (and when following the Tutorials) you will find out how to set the Display Quantize value yourself.

Let's say we change the Display Quantize value to sixteenth notes in the example:

With Display Quantize set to sixteenth notes.

OK, now the timing looks right, but the notes still don't look like you intended. Maybe you can understand that from a computer's point of view, you did play sixteenth notes, which is why there is a lot of pauses. But that's not how you meant it. You still want the Track to play back short notes, because it is a staccato part, but you want something else "displayed". Try setting the Display Quantize value to eighth notes instead:

With Display Quantize set to eighth notes.

Now we have eighth notes, as we wanted. All we have to do now is to add staccato articulation which can be done with one simple mouse click using the Pen tool (you will find out about this in "Working with Symbols").

How did this work? By setting the Display Quantize value to eighth notes you give the program two instructions, that would sound something like this in English: "Please, display all notes as if they were on exact eighth note positions, regardless of their actual positions" and "Please, don't display any notes smaller than eighth notes, regardless of how short they are". Please note that we used the word display, which leads us to one of the most important messages of this chapter:

❒ **Setting a Display Quantize Value does not alter the MIDI notes of your recording in any way, as regular Quantizing does. It only affects how the notes are displayed in Score Edit (and nowhere else)!**

Choose your Display Quantize values with care

As explained above, the Note Display Quantize value puts a restriction on the "smallest" note value that can be displayed. Let's for a second look what happens if we set it to quarter notes:

With Display Quantize set to quarter notes.

Oops, this doesn't look too good. Well of course it doesn't! We have now instructed the program that the "smallest" note that occurs in the piece is a quarter note. We have explicitly told it that there are no eighth notes, no sixteenths, etc. So when the program draws the score on screen (and on paper) it quantizes the display of all our eight notes to quarter note positions, which makes it look like above. But again, please note that when you hit Play, the passage will still play as it originally did. The Display Quantize setting only affects the score image of the recording. One last important note:

❒ **Even if you enter notes using the mouse and input perfect note values, it is very important that you have your Display Quantize settings right! These values are not just used for MIDI recordings! If you for example set Note Display Quantize to quarter notes and start clicking in eighth notes, you will get eighth notes in the Track (as MIDI data), but still only quarter notes in the display!**

Using Rest Display Quantize

Above we use Display Quantize for notes. There is a similar setting called "Rest" Display Quantize which is used to set the smallest rest to be displayed. Often, this setting is very effective:

What if the original note example looked like this:

As you see, the first note is moved one sixteenth note later. If we change the Display Quantize value for the notes to eighth notes, the score will be displayed like this:

With Note Display Quantize set to eighth notes.

Unfortunately, this moves the first note to the same position as the second, since sixteenth note positions aren't allowed. We could solve this by inserting extra Display Quantize values within the bar with the Display Quantize tool, but there is a much easier way: Change the Display Quantize value for notes back to sixteenths, but set the Display Quantize value for *rests* to eighth notes! This tells the program not to display any rests smaller than eighth notes, *except when necessary*. The result looks like this:

With Note Display Quantize set to sixteenth notes, but Rest Display Quantize set to eighth notes.

How did this work? Well, you instructed the program not to display any rests smaller than eighth notes, except when "necessary". Since the first note appeared on the second sixteenth note position, it was necessary to put a sixteenth rest at the beginning of the figure. All other rests, however, could be hidden by displaying the notes as eighth notes, and were therefore not "necessary".

This leads us to the following general guidelines:

• **Set the Note Display Quantize value according to the "smallest note position" you want to be shown in the score.**
For example, if you have notes on odd sixteenth note positions, the Note Display Quantize value should be set to sixteenth notes.

• **Set the Rest Display Quantize value according to the smallest note value (length) you want to be displayed for a single note, positioned on a beat.**

A common setting would be to have Note Display Quantize set to 16 (sixteenth notes) and Rest Display Quantize set to 4 (quarter notes).

Handling exceptions

Unfortunately, the guidelines above won't work perfectly in every situation. You may for example have a mix of straight notes and tuplets of different types, or you may wish to display equally long notes with different note values depending on the context. There are several methods you could try:

Automatic Display Quantize

If your score contains both straight notes and triplets, you can use Auto Display Quantize. When this is activated, Cubase VST tries to "understand" whether the notes should be Display Quantized to straight notes or triplets (see page 71).

Using the Display Quantize Tool

With the "Q" tool, you can insert new Display Quantize values anywhere in the score. Inserted Display Quantize can either have a length (and thus affect only a few beats, for example) or affect the Staff from the insertion point onwards. See page 78.

Permanent Alteration of MIDI Data

As a last resort, you could resize, quantize or move the actual Note Events. However, this would result in the music not playing back like it originally did. Most often, it is possible to get the score to look like you want without altering any MIDI data.

Summary

This closes our discussion on the basic concept of Display Quantizing. There are a number of other special situations which require more advanced techniques, which you will find out about in the next chapters. You will also read about other settings which work along the same lines as Display Quantize but each with its own application. These are called "Interpretation Flags".

Entering Notes by hand compared with Recording them

Sometimes you will enter and edit notes by hand (or rather using the mouse and computer keyboard) and at other times you will record them from a MIDI keyboard. Most of the time, you will do a combination of both. In "Transcribing MIDI Recordings" you will find out how to make a recorded score as legible as possible without performing any permanent changes to the MIDI data. "Entering and Editing Notes using the Mouse" shows how to enter and edit notes using the mouse. In real life, even if you have recorded the piece perfectly, you will often have to do some permanent editing to your recording before printing. Which leads to this conclusion:

❑ **You will have to read both chapters in order to understand how to produce legible scores!**

2
Tutorials

In this Chapter you will learn:

- How to click in a simple melody and add some lyrics.
- How to transcribe an example recording using Polyphonic Voices.

Tutorial 1 – Entering Notes with the Mouse

In this short Tutorial you will find out how to open the Score Editor and enter some notes in Page Mode. The purpose is for you to get some understanding for how MIDI Data and the score relate.

Setting up the page

1. **Open the DEF.ALL Song that comes with the program.**

2. **Make sure the first MIDI Track is selected. Rename it to "Melody".**

3. **Create a Part between bar 1 and 5.**
   This is probably most easily done by double clicking in the Part Display between the Left and Right Locator.
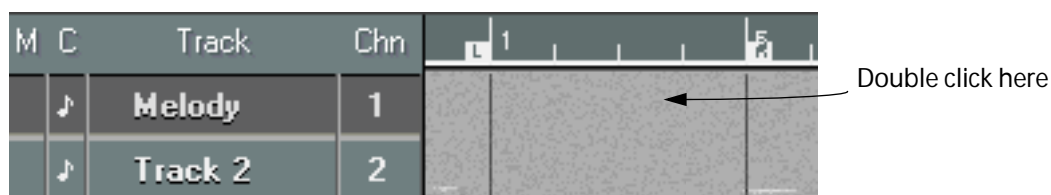
Double click here

Double clicking between the Locators creates a Part.

4. **With the Part selected, pull down the Edit menu and select "Score".**
   The Score Edit window opens.

5. **Pull down the Score menu and select Page Mode.**
   The Score is now displayed as it appears on a printed page. If the item on the menu says "Edit mode", you are already in Page mode and don't need to select anything.

Selecting Page Mode...
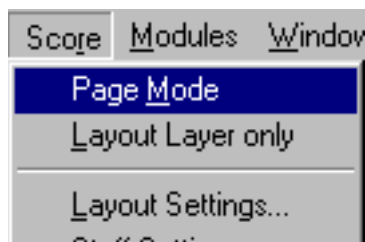
...makes the Score appear as on a page.
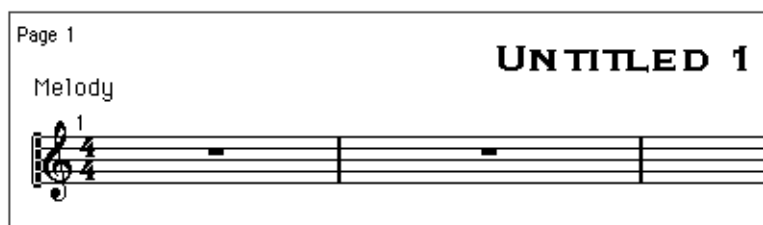
6. **Pull down the File menu and select Print & Page Setup.**
   The standard Page Setup dialog appears.
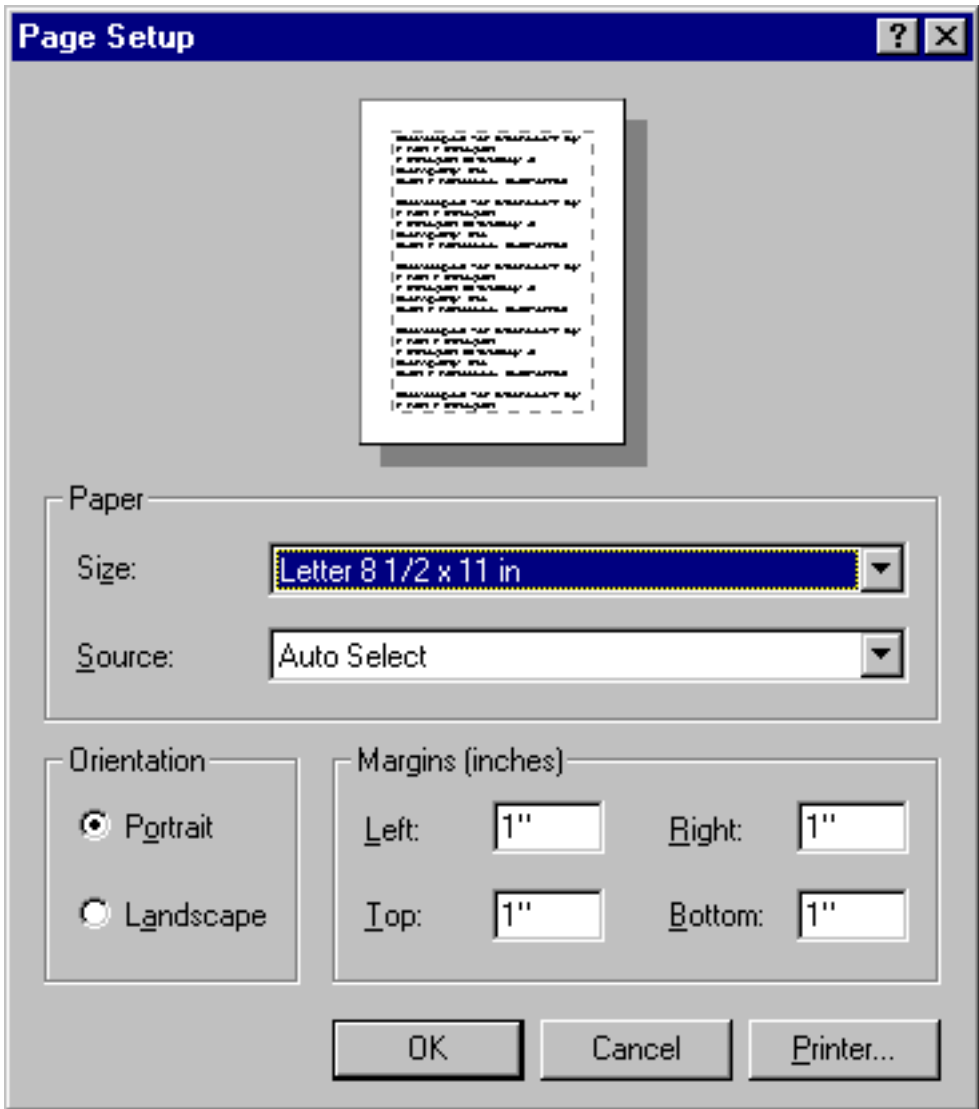
7. **Make sure all your Printer settings are correct.**

8. **Close the dialog by clicking OK.**

9. **Resize the window and/or use the horizontal scroll bar to make sure all four bars are visible on the screen at the same time.**

Making Staff Settings

The four bars we are supposed to enter into the score are this, the end of a well known song.
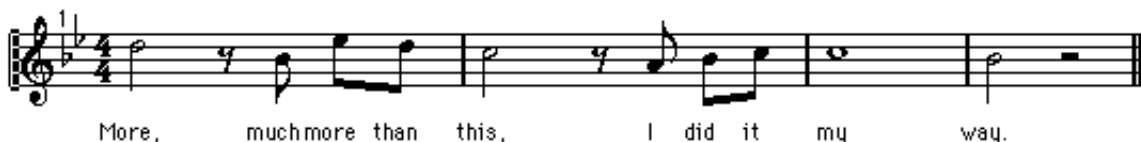
The Score you are about to create!

1. Pull down the Score menu and select "Staff Settings...".
A dialog box appears.
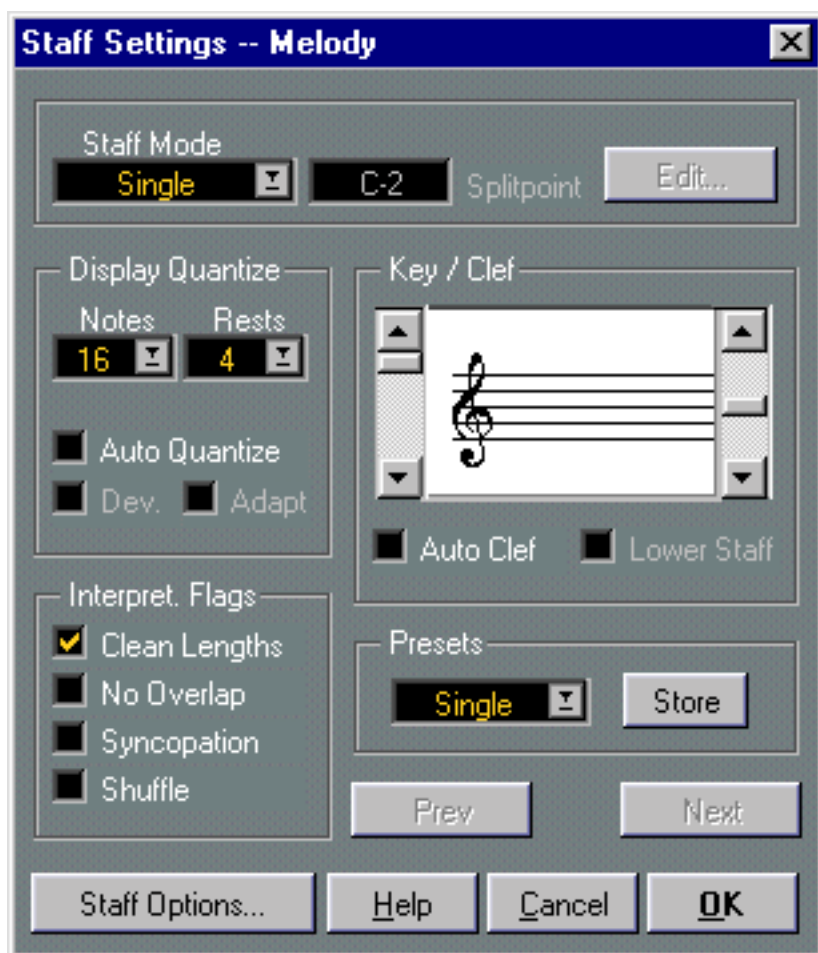
The Staff Settings dialog.

2. Since we are only entering a simple melody, we can leave the Staff Mode set to "Single".

3. In the Display Quantize section of the dialog, pull down the Notes menu and set it to "8".

If you examine the Score, you will see that the "smallest note position" that occurs, is eighth notes (i.e. there are no notes on odd sixteenth note positions or smaller). Furthermore, the smallest note value for a single note positioned on a beat is a half note. As described on page 12, this tells us the necessary Display Quantize settings. We will now "feed this information" into the staff.

4. **In the same section, pull down the Rest menu and set this to "4".**
Following the general guidelines, the value "2" (half notes) should be enough, but "4" is the largest Rest Display Quantize value available.

5. **Since the piece is simple, and doesn't contain any triplets, make sure "Auto Quantize" is deactivated.**

6. **As we will be drawing in notes with "perfect lengths", make sure Clean Lengths is turned off.**

7. **Make sure No Overlap, Syncopation and Shuffle are all turned off.**
The function of these flags is described in "Transcribing MIDI Recordings".

8. **The Clef is OK, so leave it as it is.**

9. **Use the scroll bar to the right of the Clef symbol to select the Key Signature "Bb" (two flats).**
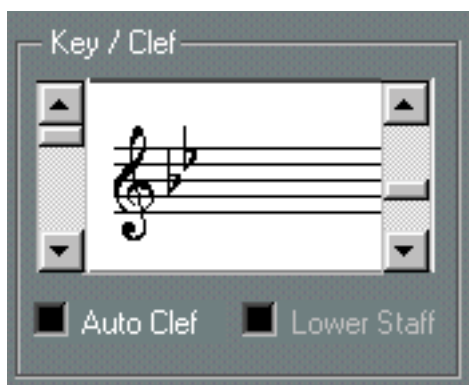
The Key Signature/Clef part of Staff Settings.

10. **Click OK to close the Staff Settings dialog.**

Using Undo

If something goes wrong when you proceed with the steps below, remember you can always Undo the last action.

Entering the Notes

1. **Since the "smallest position" we will enter any notes at is eighth notes, pull down the Snap pop-up menu and set it to "8".**
   This will restrict input to eighth note positions. Now you will not be able to input notes at sixteenth note positions, but that's exactly what we want, right?
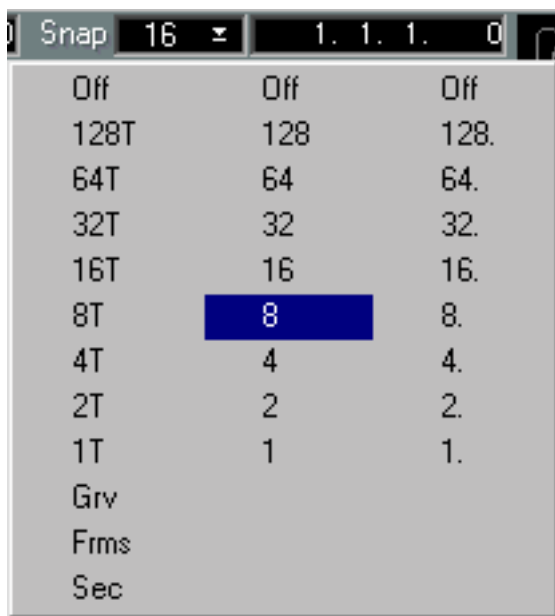
The Snap pop-up menu.

2. **The first note is a half note, so click on the half note symbol on the Score Toolbar.**
   The Score Toolbar is located just above the Score.

The Score Toolbar with the half note selected.

When you click on the note symbol and move the mouse pointer into the score, please observe that the program has now automatically selected the Note tool for you. This tool can also be selected "manually" from the Toolbox as in any editor.

3. Move the mouse pointer over the note lines and press the mouse button without releasing it.
A half note symbol appears "under" the pointer.
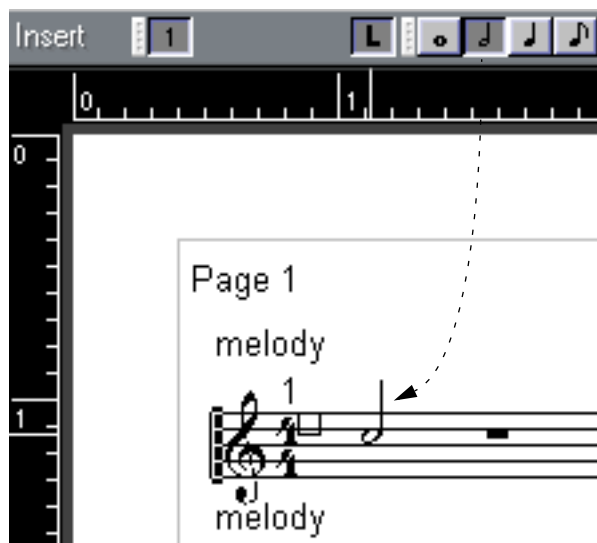
Dragging a half note in the score.

4. Since the note is supposed to be positioned at the beginning of the staff, drag the mouse all the way to the left of the staff.

5. When you have found the right horizontal position, drag vertically to find the right pitch.
You can check the pitch in two ways: directly in the score (accidentals appear as you drag) and in the mouse box on the Status bar. The pitch you are aiming for is D4.

The Status bar shows mouse position and current pitch.

6. Release the mouse button.
The note appears. It is selected and therefore has a black rectangle around its head.
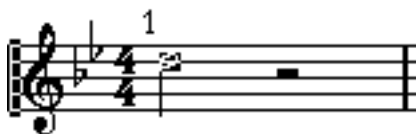
The first note entered!

7. The next note is an eighth note, so click on the eighth note symbol on the Score Toolbar.
The pointer takes on the shape of an eighth note.

8. Press the mouse pointer over the score as with the first note.

9. Drag the note back and forth without releasing the button.
You will notice that the note is 'magnetically' attracted to the eighth note positions within the bar. This is because we have Snap set to eighth notes. The position we are aiming for is the first upbeat after the half note rest's start position. You can also check the position by looking at the mouse box on the Status Bar (it should display "1.3.3.0").

10.When you have found the right position and pitch, release the mouse button.
The note now appears in the score, and the program automatically inserts the correct rest in front of it.
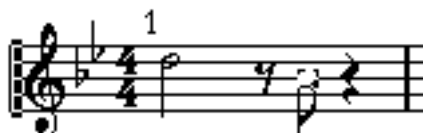
The first bar with the second note added.

If the note doesn't appear at the correct position, there are two ways to go:

• **Undo and try again.**

• **Select the arrow from the Toolbox, press the mouse button with the pointer over the note head and drag it to the correct position.**

11.Click to enter the next two eighth notes. If you think you can find the correct position immediately, just position the pointer and click briefly to make the note appear.
These two notes will automatically be grouped under a beam.

The first bar finished!

12.Enter the first note in measure two, with the current settings.

Oops, the note is of the wrong length, since you didn't change the note value. Of course, you could Undo and try again, but let's try another method, to change the length of the existing note:

13.Click on the half note symbol on the Score Toolbar.
The Mouse pointer takes on the shape of a half note.

14.Hold down the [Alt] key and click on the note with the wrong length.
Its length changes to a half note.

This way of changing the lengths of notes is probably something you will use a lot when you make mistakes entering notes and when you tidy up MIDI recordings.

15. **Continue entering the last notes in the remaining bars, using the techniques described above.**

The finished score.

Trying Display Quantize Settings

Let's check what Display Quantize can do with your piece as it is now.

1. **Play back the piece via MIDI to check that it is correct.**

2. **Open Staff Settings again and change the Note Display Quantize to quarter notes (4).**

With Display Quantize set to "4".

Oops again! As you can see, the eight notes are now interpreted as quarter notes. This is natural because by changing the Display Quantize value, you specifically instructed the program not to display any notes on anything other than quarter note positions.

3. **Now try playing back.**

As you will note, playback is not affected. This is because Display Quantize, as set up in Staff settings, only affects how the score is displayed, not the MIDI data.

4. **When you are done, set Note Display Quantize back to eighth notes.**

Adding some Lyrics

1. **Pull down the Score menu. From the Symbol Palette submenu, select "Other".**
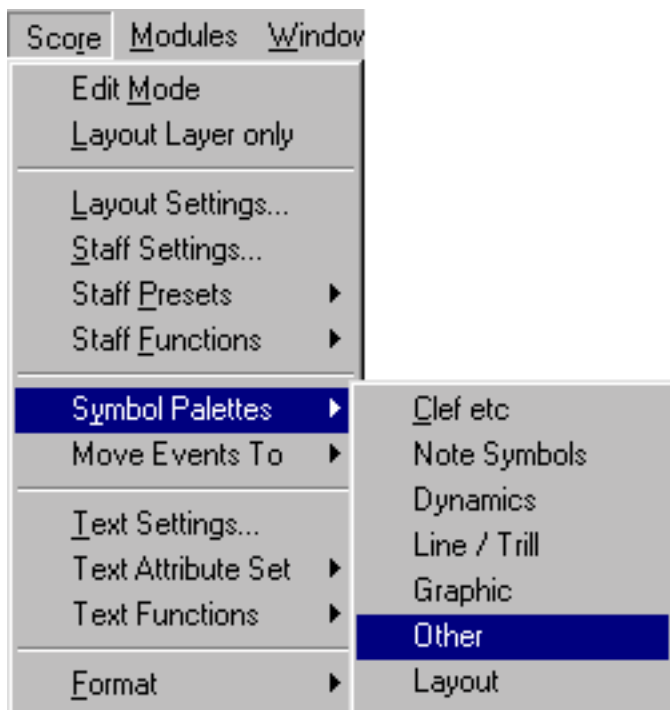
Selecting the "Other" Palette.

2. **In the Palette that appears, click on "Lyrics".**

The "Other" part of the Symbol Palette.

- **When you select a symbol like this, the cursor automatically switches to the Pencil tool.**
  If the Pencil tool doesn't appear, double click on the "Lyrics" symbol instead (there is a preference for this, as described later in this manual).

3. Move the pointer to a position straight below the first note.

Positioning the pointer under the first note.

4. Click once with the mouse.
A box appears.

Clicking brings up a box for the first word.

We shall now enter the text "More, much more than this, I did it my way!", with one word on each note.

5. Type in the first word ("More") and then press the [Tab] key.
More appears under the first note.

After hitting [Tab], the program moves on to the next note.

6. Type in the next word ("much") and hit [Tab] again.

7. Proceed like this for all notes except that last.

8. After typing in the text for the last note, hit [Return] instead of [Tab].
The lyrics appear under the notes.

The Score just after adding the last word.

The lyric blocks are spaced far too tightly, and also selected, which makes the score look very strange.

9. Select the arrow pointer from the Toolbox and click on a white area in the score.
All text gets deselected.

10. Pull down the Score menu. From the "Auto Layout" menu, select "Move Bars".

The measure spacing gets adjusted to make the lyrics readable.

Auto Layout and its submenu.

• **If you find that the lyrics are too close to the notes or too far below them, you can easily adjust this: Select all the words by enclosing them in a rectangle with the Arrow tool, and drag them up or down.**

The finished score.

11. Double click on the Score Title at the top of the screen.

The Score Title dialog appears.
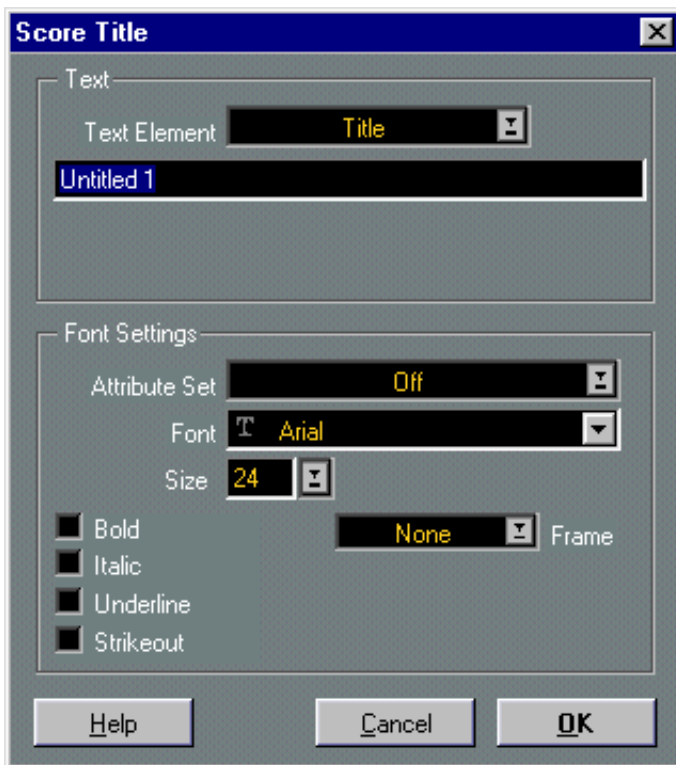
12. Pull down the Text Element pop-up menu and select "Title".

13. Type in your title of the "song" in the text field beneath the pop-up menu and click OK to close the dialog.

This finishes the first tutorial! Congratulations! You might want to proceed with the next tutorial directly if you wish, or dive into the program and get back to this one when you are ready to enter the world of Polyphonic Voicing!

Tutorial 2 – Converting a MIDI Recording

This tutorial is slightly more complicated than the previous one. It is mainly intended to give an introduction to Polyphonic voicing. You might want to study the first chapters of this Scoring manual before trying this tutorial out, since it assumes you are at least vaguely familiar with how to move notes etc.

On your Cubase VST CD-ROM, you will find a folder called "Score Tutorials". One of the files in this folder is called Tutorial 2. This is an Arrange file with a recording of three bars of piano music. To get this properly scored we need to use something called Polyphonic Voices. An introduction to this is found on . Below we will concentrate on how to use Polyphonic Voices rather than how they work.

Examining the recording

1. **Open the file.**

2. **Set up an instrument to play a piano sound on MIDI Channel 1. Play back the piece to listen to it.**
    Well it isn't really perfectly played, is it? But we won't correct it more than necessary, simply to show you don't need perfectly played MIDI recordings to get perfect scores.

3. **Open the Score Editor.**

4. **If you're not in Page mode already, select Page Mode from the Score menu.**

5. **If necessary, resize the window so that you see all four measures.**

6. **Examine the piece.**
    Right now it should look like this:

The score as recorded.

After we're done, it will look like this:

The score after formatting and editing.

Basic Settings

1. **Double click on the 4/4 symbol in the score, and in the dialog that appears, select the Cut Time symbol and click OK.**

The "Cut Time" time signature symbol.

2. **Select Staff Settings from the Score menu.**

3. **Select Polyphonic from the Staff Mode pop-up menu.**
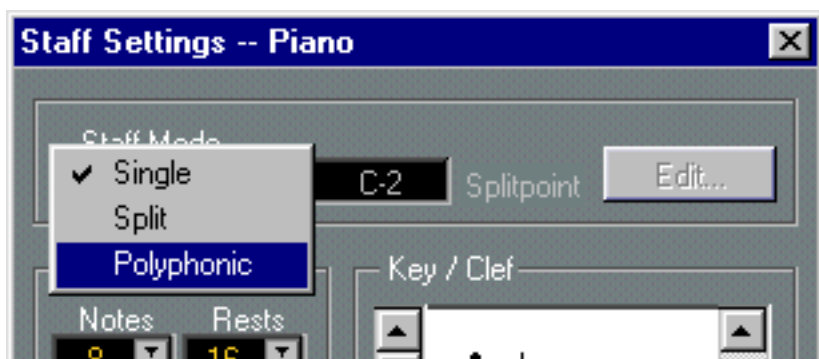
The Staff mode pop-up at the top of Staff Settings.

4. **Click the Edit button.**
The Polyphonic Settings dialog appears.
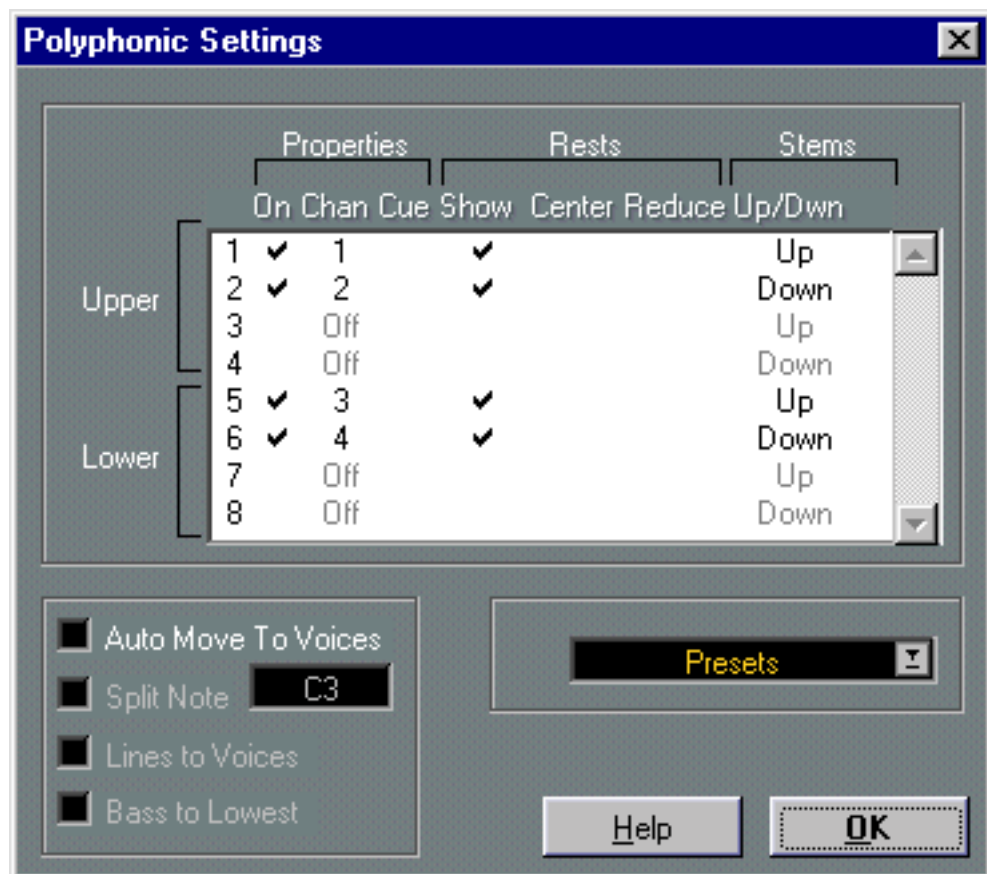
The Polyphonic Settings dialog.

We now have to specify the voices we need. Look at the picture of the finished score, above. You will see that there are at the most two notes sounding at the same time which are not part of the same chord (for example at the end of bar 1 and the beginning of bar 2, but also in many other places). To be able to score these separately and with different stem direction, we need a voice for each.

The dialog is already set up with two voices for the upper staff, one with stems up and the other with stems down, so let's leave that as it is.

Check the lower staff in the finished score above. There we have the same phenomenon, so two voices with different stems is fine there too.

Now we are going to use a feature called "Auto Move To Voices" which automatically puts notes into voices, saving a lot of time compared to performing it manually. One of the pieces of information we need to supply in this case is where we should initially split the system to create as little work as possible afterwards. The best point for this piece seems to be C#3.

5. **Activate Auto Move To Voices. Activate Split Note and set it to C#3. Make sure Lines To Voices and Bass To Lowest are turned off.**
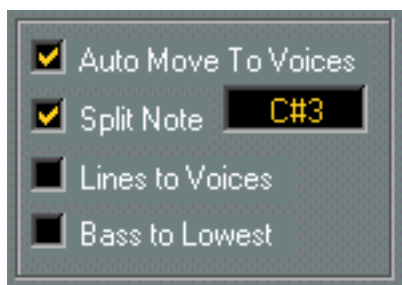
Set up Auto Move To Voices like this.

6. **Click OK.**

7. **Since the smallest note position in the score is eighth notes, set Note Display Quantize to eighth notes.**

8. **There are no rests at all, but set Rest Display Quantize to eighth notes too, anyway.**

9. **Make sure Auto Quantize is deactivated.**
   Auto Quantize is best used when you have mixed regular notes and triplets, which we don't in this example.

10. **Turn off all Interpretation flags.**
   In many cases you will need to use these, but you could always try with them turned off, first.
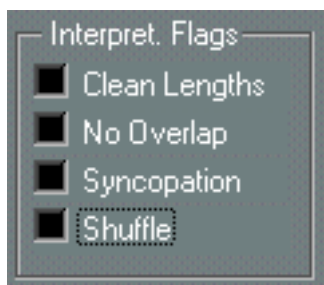
All Interpretation Flags turned off.

11.Use the right scroll bar in the Clef/Key section to set two flats.
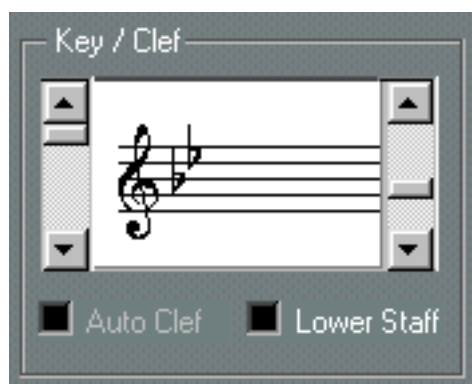
12.Activate the "Lower Staff" checkbox to check you have the right clef and key (bass clef – two flats) for the bass staff.

13.Click OK.

14.To get a more sensible measure width for this reasonably crowded score, click the Auto Layout icon on the Score Toolbar.

The Auto Layout button on the Score Toolbar.

The score should look like this:

The score after using "Auto Move To Voices".

Ok, it's closer but we still have quite a bit of work left to do.

Using Undo

If something goes wrong when you proceed with the steps below, please remember you can always press Undo to revert the last action.

Moving Notes to Voices and other basic editing

Please examine the Score. Notes on the treble clef with stems up are in Voice 1. Notes with stems down on the same clef are in Voice 2. The same goes for the bass clef, but notes with stems up are in Voice 5 and notes with stems down are in Voice 6.

Things seem to be completely wrong in the lower staff. Most notes are pointing up when we want them pointing down. Let's move a few of them right away, to get them in the correct Voice.

1. **Select notes in the lower voice by dragging a selection rectangle around them and then release the mouse.**
   The rectangle should look like this:

so that the following notes get selected:
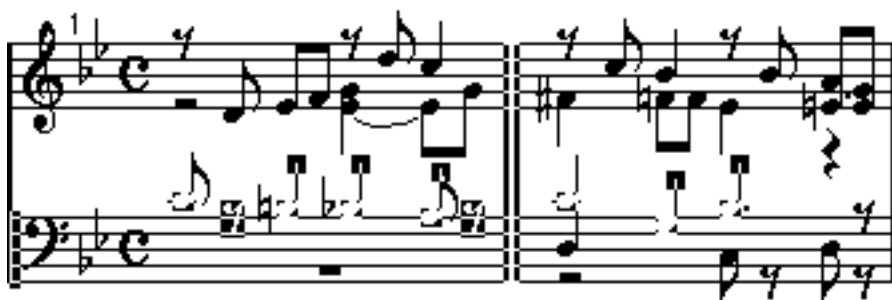
2. **Pull down the Score menu and select "Move To Voice" from the "Staff Functions submenu. Yet another submenu appears - select Voice 6 from this. Click in some white space in the score to deselect.**
   Many of the notes at the lower staff now have the correct stem direction.

The Score after moving the notes on the lower staff to a new voice.

There seems to be a note missing at the downbeat of the first bar. How can this be? Well, if you look in the score example, many notes occur in two voices, to make the score more legible. This first note is an example of this. It appears on the lower staff, but we need it on the upper too. We will now enter the note, but first we have to make sure it goes into the right voice.

3. **To make the Voice buttons on the Score Toolbar show Voice 1 to 2, click anywhere in the upper staff.**

4. **To make sure the note goes into the right Voice (Voice 1), click on the Voice 1 icon on the Score Toolbar.**

Voice 1 selected on the Score Toolbar.

5. **Click on the eighth note symbol on the Score Toolbar and enter an eighth note C3 at the beginning of the upper staff.**
Since it is in the same Voice as the next note, they get beamed automatically.

A note added at the downbeat.

Check the notes in the middle of the first bar. The lower of the two seems to be on the wrong staff. We want it pointing upwards, on the lower staff, which means we need to move it to the Voice 5.

6. **With the arrow tool, click on the note to select it.**

7. **Select "Move To Voice" from the Score "Staff Functions" submenu, and select Voice 5.**
The note appears on the lower staff.
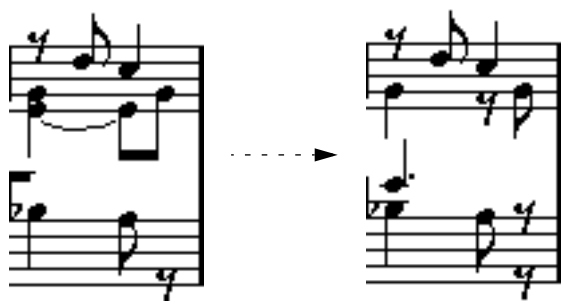
Before and after moving the note to a voice on the lower staff.

Using Clean Lengths

Check the note we just moved, it appears as a dotted quarter. We want a half note, right? So the note was played a bit too short. Of course, we could change the note's length, but there's a better way. Cubase knows that notes are often played shorter than scored and has a special feature for this:

1. **Open Staff Settings again.**

2. **Turn On Clean Lengths.**

Clean Lengths activated.

3. **Click OK.**
The note is now shown as a half note, but when you play back, it still has the same sounding length. Clean Lengths is yet another example of a function that only affects the display of notes.
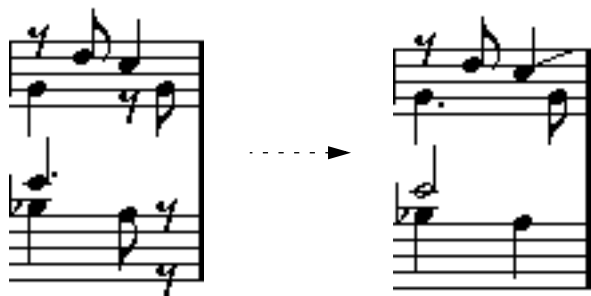
The same part of the score with Clean Lengths Off and On.

More Editing and Voice moving

Let's again examine the middle of the bar on the upper staff. There seems to be a note missing now. As you can see we want two notes with the same pitch at the same position, but with different stem directions. The one we have goes down, so we need one that goes up. This means we have to insert it into Voice 1.

1. **The Voice button on the Score Toolbar may show 5 to 6. If it does, use the Arrow Tool to click in the upper Staff.**

2. **Click on the Voice 1 button on the Score Toolbar.**

3. **Click on the eighth note on the Score Toolbar and use the Note Tool to enter the missing note at exactly the same position and pitch as the existing one.**

A new note added at the same position and pitch as an existing.

Oops, it wound up just before the other one, not on top of it. This is OK for now though, and is even acceptable notation. But we will go back and make it even better later!

When we turned on Clean Lengths we fixed the dotted quarter on the bass clef. But we gave ourselves a new problem. A C4 on the last quarter on the upper staff is now displayed as too long. In fact it was played a little bit too long. Let's shorten it.

4. **Click on the quarter note on the Score Toolbar.**

5. **Hold down [Alt] and click on the note.**
   The tie goes away.
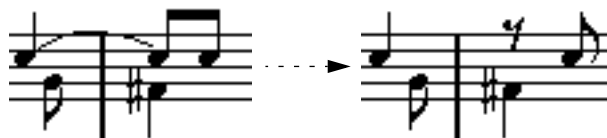
Before and after changing the length of the note.

6. **At the downbeat of bar 2, enter an eighth note F#3 into voice 1, just as you did above.**
   Watch the pitch box on the Status Bar while entering the note so that you get the pitch right.

Again, adding a new note with the same pitch and position as an existing.

Oops, we got two notes, on top of each other, with a sharp each! Doesn't look too good.

7. **Select the new note, if it isn't already selected. Then click on the "No" button among the accidentals in the Score Toolbar.**
The accidental of the note is hidden.

8. **Change the length of the Bb3 at the second beat to the eighth note it should be.**
This time we could try another way of changing lengths of notes: Hold down [Ctrl], point at the note with the arrow tool and press the mouse button. A "length slider" appears.

The length is displayed in sixteenth notes and ticks. Since we want an eighth note, you should drag the slider so that the length is "2.0" (two sixteenth notes and zero ticks).

9. **Move the second F3 in measure two, from Voice 2 to Voice 1.**
This time you might try using the keyboard. You can move notes to Voices by holding down [Alt] and pressing a number key on the typewriter part of the keyboard. For example, to move a note to Voice 1, select it and press [Alt]-[1].

❐ **As always in Cubase VST, you can change these key commands in the Preferences–Key Commands dialog.**

10. **The note you just moved seems to be too long, so shorten it to an eighth note.**

11. **There's a Eb3 eighth note missing on the third quarter, in Voice 1. Draw it in.**
Don't forget to select Voice 1 before you click.

12. **The E3 at the end of the bar seems to be in the wrong voice. Move it to Voice 2.**
Again, a quick way is to select it with the arrow tool, hold down [Alt] and press [2].

The Score should now look like this.
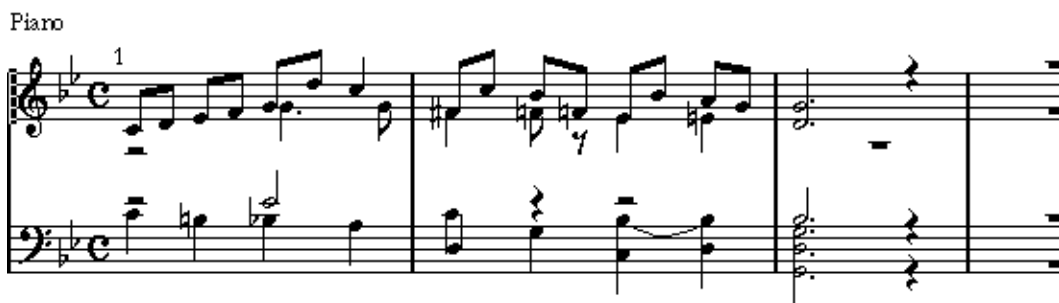
The Lower Staff

At the beginning of bar two, the notes in the lower staff are both pointing in the wrong direction. Remember that notes pointing up in the lower staff are in Voice 5 and notes pointing down are in Voice 6.

1. **Select each of the two notes and move them to the other voice.**

Before and after shifting the voices of the notes.

2. **The C3 is too short, make it a half note.**
   The rest after it disappears.

   In the second half of the bar, the A#2 seems to have been played tied when it should have been two notes. Let's split it up.

3. **Select the Scissors from the Toolbox.**

The Scissors tool in the Toolbox.

4. **Click on the tied Bb2.**
   It is split into two notes.

Before and after splitting.

5. **The Bb2 in the last bar should be on the upper staff. Move it to Voice 1.**

   All the notes in the last bar are too short. Let's lengthen them all at once.

1. **Drag a selection rectangle around all the notes in the last bar.**
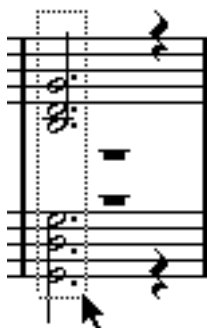
A selection rectangle to select all the notes in the last bar.

2. **Hold down [Ctrl] and click on the whole note on the Score Toolbar.**
   All selected notes are set to the note value you clicked.

The notes in the last bar lengthened to whole notes.

Removing Rests and setting the Length of the piece

There are far too many rests. If you look at them they seem to appear in voice 2 and 5. Actually we don't need any rests at all.

1. **Open Staff Settings.**

2. **Click on the Edit button.**

3. **For Voice 2 and 5, deactivate the "Rests–Show" column.**
   The rests will now be hidden for these two voices.
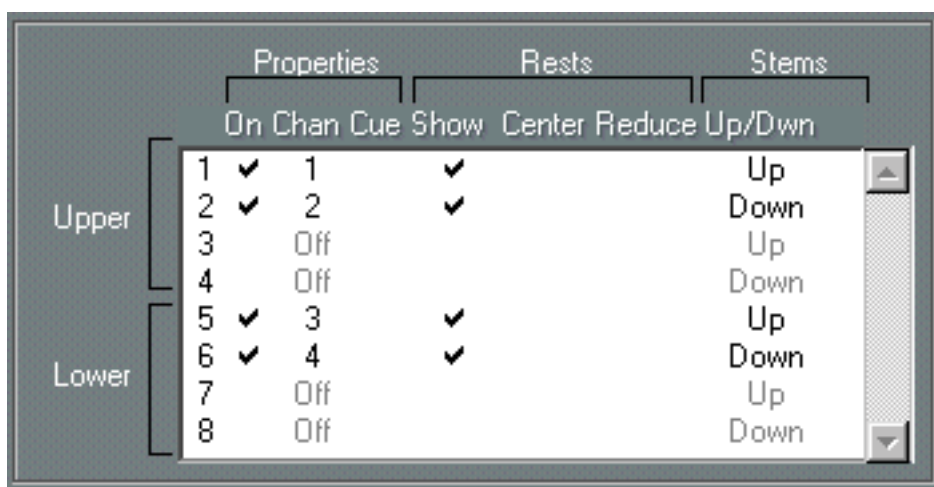
4. **Make sure Auto Move To Voices is not activated, and click OK in this dialog and the one behind it.**
   Auto Move To Voices should be turned off since we don't want to move any notes to new voices at this point when we're almost done!
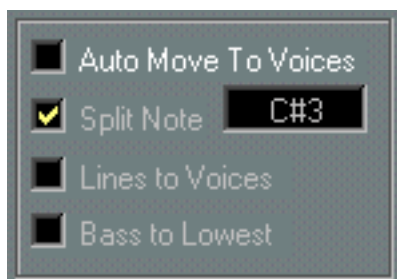
Auto Move To Voices should be turned off.

There's one measure too many at the end. This is simply because the Part we recorded into is too long! We could shorten the Part in the Arrangment, but it's even easier to remove the last bar from within Score Edit:

5. **Make sure the Arrow tool is selected, hold down [Alt] and [Shift] and click on the barline before the last bar.**
   This moves the Song Position to the beginning of the fourth bar - check the Transport Bar, it should show "4.1.1.0".

6. **Pull down the Score menu and select "Remove Bar" from the Format submenu.**
   The bar is removed!

The score as it should look at this point.

Measure Widths and Note Positions

1. **To adjust measure spacing, click the Auto Layout icon on the Score Toolbar.**

    ← The Auto Layout button on the Toolbar.

   The program selects widths for the bars, depending on their "density" of notes. Maybe you would like the bars to be a little wider, to make the piece even easier to read?

2. **If you don't have the regular arrow pointer selected, select it.**

3. **Position the pointer over the last bar line, press the mouse and drag a couple of centimeters to the right.**
   All the bars get proportionally expanded.

4. **To adjust the width of the last bar only, hold down [Ctrl] and drag the last bar line again.**
   Give it some space, we need room for the arpeggio.

The last bar shortened by dragging.

We will now use the Layout Tool. This allows you to move notes graphically, without affecting their "musical" position. In other words, moving notes with the Layout Tool doesn't affect playback.

5. Select the Layout Tool from the Toolbox.

The Layout Tool in the Toolbox.

6. Select 200% from the Scale pop-up menu to the right of the horizontal scroll bar.

The magnification pop-up is to the right of the scroll bar.
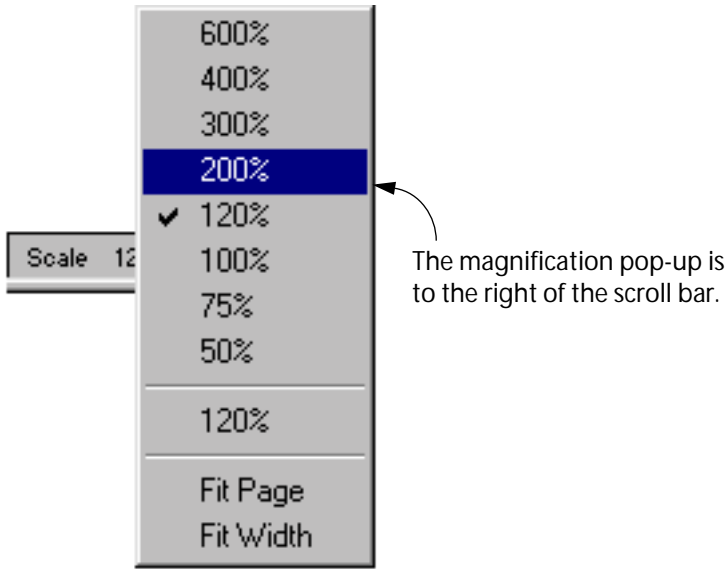
7. Use the scroll bar so that you can see the upper staff and the middle of measure 1.

The score in 200% magnification.

8. **Drag the dotted quarter note to the left so that it winds up on top of the note just to the left of it.**
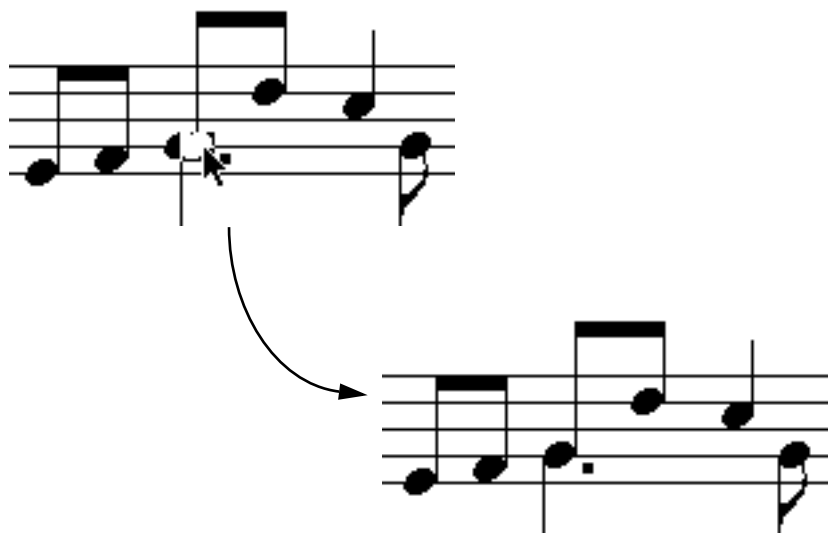
Dragging the note with the Layout Tool. The second picture shows the final result.

9. **Select 100% again.**

Inserting Symbols

1. **Pull down the Score menu, select "Symbol Palette" and from the submenu that appears, select "Dynamics".**
   The Dynamics symbols palette appears.

2. **Click on the mf symbol in the palette.**
   The Pencil tool is automatically selected. If the Pencil tool doesn't appear, double click on the symbol instead (there is a preference for this, as described later in this manual).
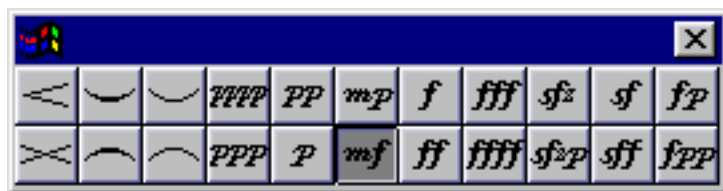
The "Dynamics" part of the Symbol Palette, with the mezzo forte symbol selected.

3. **Move the pointer into the score and click where the "mf" should be.**
   The mezzo forte symbol appears.

4. **Select the arrow tool.**

5. **Select the first five notes in Voice 1 in the first bar.**
   You can do this by dragging a rectangle, or by holding down [Shift] and clicking.

6. **Pull down the Do pop-up menu and select Insert Slur.**
   A slur is automatically created, spanning the selected notes. But it would look better if the slur was on the downside of the notes instead.

7. **With the slur symbol selected, pull down the Do pop-up menu and select "Flip", until the slur is positioned right.**

The slur as it should look.

8. **Click or double click on the crescendo symbol in the Dynamic symbol palette so that the Pencil tool is selected again.**

9. **Point at the position where you want the crescendo to start, drag to the right and release the mouse button.**
Repeat this for the other crescendo symbol, according to the picture on

10. **From the Palette's pop-up menu at the top, select "Note Symbols".**
The Palette window switches to show the Note Symbols palette.

11. **Click or double click on the fermat we need, so that the Pencil tool is selected.**

A fermat selected in the Palette.

12. **Make sure Voice 1 is selected on the Score Toolbar.**

13. **Move the pointer into the score and click on the top note in the last chord in the upper staff.**
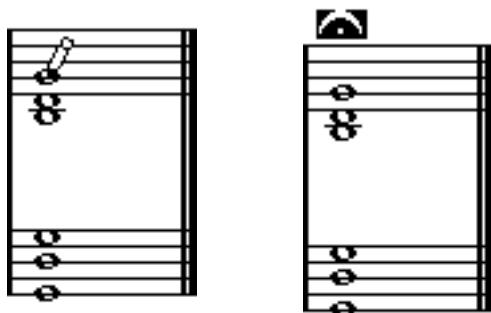
Clicking on the note adds the fermat above it.

14. **Select the regular arrow pointer and click on the top note on the lower staff. Move it to Voice 5, so that the other fermat that we are about to enter, will wind up above the note, not below.**
Fermats are positioned after stem direction for the voice.

15. **Click the fermat again in the Palette and click on the top note in the lower staff.**

16. From the Palette's pop-up, select Line/Trill.

17. Click on the "arrow up" arpeggio.

18. Click just before the notes in the last measure.
The arpeggio appears.

An arpeggio with default length and handles visible.

19. To change the height and position of the arpeggio, drag the upper and lower handles.
If you can't see any handles, click on the arpeggio using the regular arrow tool.

The final score.

Congratulations!

This completes the second tutorial which has introduced you such advanced topics as Polyphonic voicing, adding Symbols of various types and using the Layout Tool. If you understood the purpose of the steps above, you'll have no problem getting the most out of Cubase Score's many additional features!

Other Score Tutorials

The "Score Tutorials" folder contains several other files as well. These are Song files, each describing some aspect of the Score Editor. Exactly what is demonstrated in each tutorial is described in the Song's Notepad (opened from the Edit menu). We recommend that you check out these tutorials, and use them in parallel with the manual, because some features are more easily demonstrated within the program, than in words.

3
The Basics

In this Chapter you will learn:

- How to open the Score Editor.
- How to set up the Page Size and Margins.
- How to switch between Page and Edit Mode.
- How to hide and show the Symbols Palette, the Status bar and Score Toolbar.
- How to set up the Ruler.
- How to set a magnification factor.
- How to use the Score Preferences.

Preparations

1. **In the Arrange window, create a Track for each Instrument.**
   Please note that you can prepare a piano (split) staff from a single Track, there's no need to create one Track for the bass clef and one for the treble clef.

2. **Name each Track after the Instrument.**
   This name can later be used in the Score if you like.

3. **Record into the Tracks or create empty Parts on all Tracks.**
   You can make very long Parts that cover the entire piece, or you can start out with shorter Parts to begin with. If you choose the latter option, you can always go back and add new Parts or copy existing Parts later.

Opening Score Edit

Editing one Track

1. **In the Arrange window, make sure no Parts are selected.**
   This is most easily done by clicking somewhere in an empty section of the Part display.

2. **Click on the Track (in the Track list) so that it gets selected.**

3. **Select Score from the Edit menu or use a key command (by default [Ctrl]-[R]).**

Editing several Tracks

There are two ways to do this:

From the Arrange Window:

1. **Select all Parts on the Tracks you want to work on in the Score.**
   If you know you want to work on them all, you can use Select All on the Edit menu. You can edit up to 64 Tracks at a time.

2. **Open the Score Editor.**
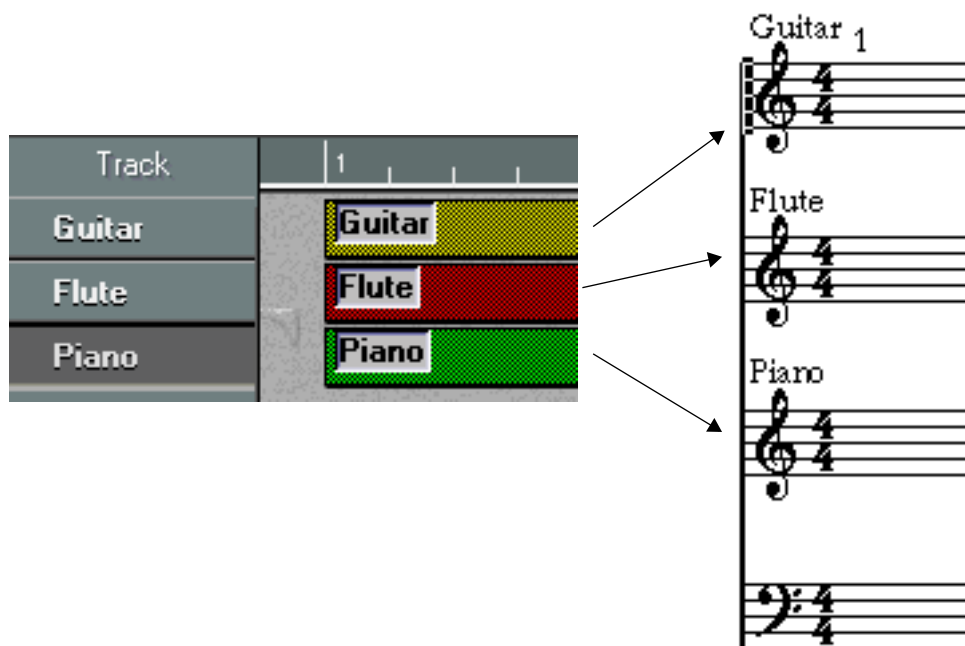
With three Tracks, you get three instruments in Score Edit. Note that Tracks can be split into two staves, as is the case of the Piano Track in the picture above.

You will get one Staff for each Track, and you might create a split staff for one or more Tracks. In this way you can think of the Arrange windows as an overview of your entire score and the Tracks as representing one instrument each.

From Score Edit

1. **Open the Score Editor for a single Track.**

2. **Pull down the Score menu and open the "Display Tracks" submenu.**
   This submenu contains all non-empty MIDI and Drum Tracks in the Arrangement.

Score
- Edit Mode
- Layout Layer only
- Layout Settings...
- Staff Settings...
- Global Settings ▶
- Export ▶
- Force Update
- Display Tracks ▶
  - ✔ Guitar
  - ✔ Flute
  - ✔ Piano
  - Track 4
- Display Layout ▶
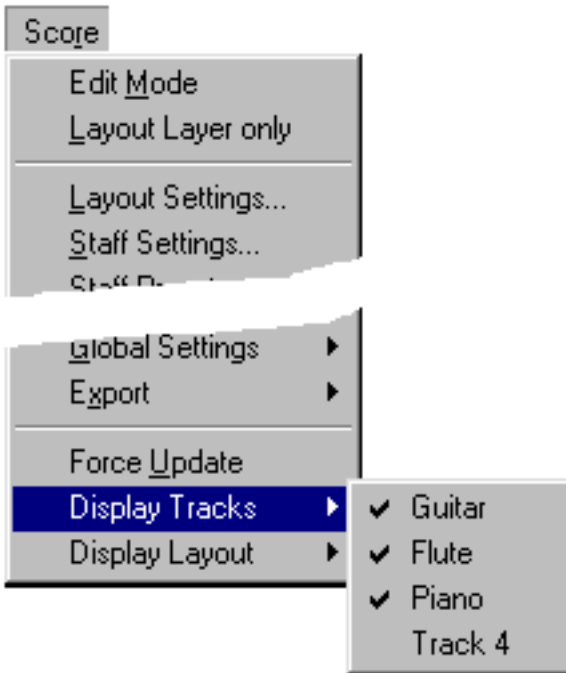
3. **To display a Track in the Score Editor, select it from the submenu.**
   Displayed Tracks are indicated by a check mark in the list. You can remove Tracks from the display by selecting them again from the submenu.

   This method allows you to work with different Track configurations without having to leave the Score Editor at all!

Editing one or several Parts

1. **Select the Parts you want displayed in the Score.**
   You can select Parts freely on a Track if you want to work on a certain section. You can also select arbitrary Parts on several Tracks. Each Track will then be displayed on its own staff.

2. **Select Score from the Edit menu or use a key command (by default [Ctrl]-[R]).**
   If you have selected "Score" on the "Double click opens" pop-up menu in the Preferences–General–Editors dialog, you can also double click on one of the selected Parts to open them in Score Edit.

Editing predefined combinations of Tracks

The Song Position

The Song Position appears as a vertical line across the staff.

The Song Position pointer

When you open Score Edit, the view is automatically scrolled so that the Song Position is visible in the window. This means you don't always see the beginning of the Track/Part when you first open Score Edit.

• **You can move the Song Position by dragging it around.**

• **You can also hold down the "Set Position" modifier keys (by default [Shift]+[Alt]) and click anywhere in the score to move the Song Position there.**
This is handy if the Song Position pointer isn't visible. You assign modifier keys for "Set Position" in the Preferences–General–Modifiers dialog.

Page Mode

When you are preparing a score for printout, you should set the Score Editor to Page Mode. This is done by selecting Page Mode from the Score menu (if you cannot select "Page Mode", you already are in page mode).
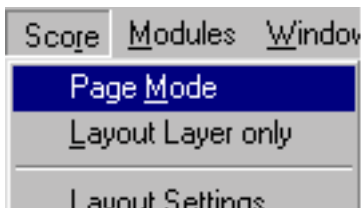
Selecting Page Mode.

When you do this, the window switches to show you one page at a time, as it will appear on printout.
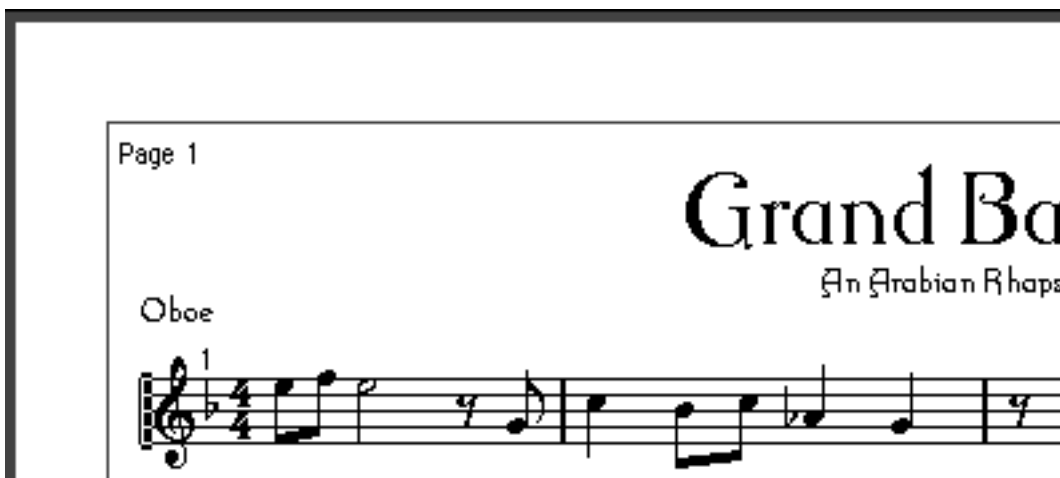
The lines around the score are the Printer margins, see below.

Page Mode vs Edit Mode

All you can do in Edit Mode, you can do in Page Mode. But Page Mode offers a myriad of additional features. For one thing, all the Tools are available.

The Toolbox in Page Mode.

❒ **This section of the manual assumes you are in Page Mode. It will be mentioned explicitly if something in this text specifically relates to Edit Mode.**

Using the Scroll Bars in Page Mode

In Page Mode, the scroll bars are used to scroll the image of the page inside the window.

Moving between pages in Page Mode

If your score takes up more than one page, you can skip between the pages in two ways:

• **By using the page number indicator in the lower right corner.**
The number can be scrolled, or you can double click and enter a new page number.
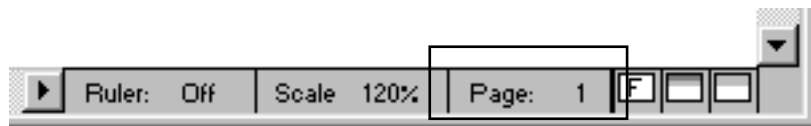
The Page Number indicator – scroll or double click to move to another page.

• **By using the key commands assigned for "Move to Next Page" and "Move to Previous Page" in the Preferences–Key Commands–Score dialog.**

Playing Back and Recording

This is done exactly as in Edit mode (see the Getting Started book and the Score Edit chapter in the Getting into the Details document).

Changing Magnification

There are two general ways to change the magnification in Page Mode: by setting a magnification factor on the Scale pop-up menu or by using the Magnifying Glass tool.

Using the Scale Pop-up Menu

To the left of the Page Number Indicator you will find a pop-up allowing you to set the magnification factor.
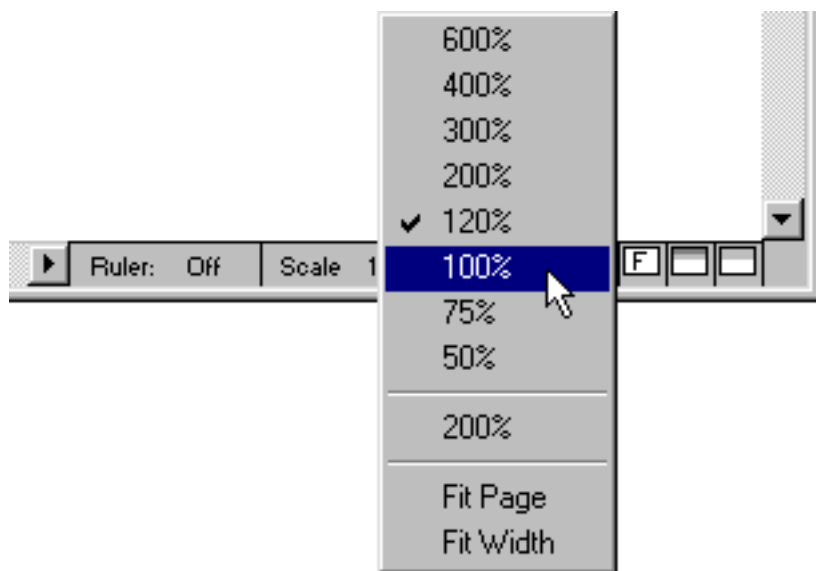
The magnification pop-up.

By zooming in you will be able to make detailed adjustments to symbols etc. By zooming out you will get a better overview.

- **You can double click and type in a custom magnification factor.**
  This custom magnification factor will remain on the pop-up menu until you specify a new one.

- **If you select "Fit Page", the magnification factor will be adjusted according to the window size, so that the whole page is visible.**

- **If you select "Fit Width", the magnification factor will be adjusted according to the window width, so that the full width of the page is visible.**

Using the Magnifying Glass tool

The Magnifying Glass tool in Score Edit works much like in the Arrangement:

- **Click once with the Magnifying Glass to zoom in one step.**

- **Hold down [Ctrl] and click once with the Magnifying Glass to zoom out one step.**
  When you press [Ctrl], the Magnifying Glass is shown with a minus sign, to indicate that it will decrease magnification.

- **Drag a rectangle with the Magnifying Glass to set a custom magnification.**
  The section encompassed by the rectangle is magnified to fill the window.

The Active Staff

One thing to note when you are working with multiple staves is the Active Staff. Only one staff at a time can be active, and is indicated by a black rectangle to the left of the clef symbol.

This staff is active.
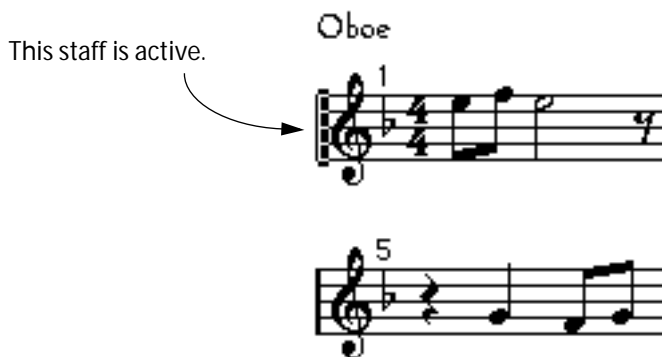
Later on you will find out how to make settings that apply specifically to the active staff.

Making a Staff Active

There are two ways to make a staff active:

• **Click anywhere in it.**

• **Use the up and down arrows on the computer keyboard to step through the staves.**

About the Link button

The Link button.

At the upper left corner of the Score Edit window, you will find a button labelled Link. When this is activated, all other open editors will follow the Active staff selection in Score Edit. In other words, if you make a staff Active, the corresponding Part (or Track) will be automatically displayed in the other open editors as well.

Making Print and Page Setup settings

Before you start preparing the Score for printout, you will want to make some Printer and Page settings for your Song. You don't have to do this as the first thing you do, but it's a good working habit.

1. **Select Print and Page Setup from the File menu.**
   The Print and Page Setup dialog box appears. This is the regular Windows Print & Page Setup dialog box, described in detail in the Windows documentation. The only things that Cubase adds to this are the margin settings.

2. **Select the preferred printer, paper size, orientation, etc.**

3. **If you need to, change the margins by setting the Left, Right, Top and Bottom settings.**

* **To make the Settings permanent, save the Song.**
   If you want new Songs to always start with certain Print and Page Setup settings, set up your Def.all Song as desired and Save it to make the change permanent.

Designing your Work Space

Some of the areas in the window can be hidden or revealed. Exactly which areas you wish to see depends on what kind of work you are doing, and how big a monitor you have.
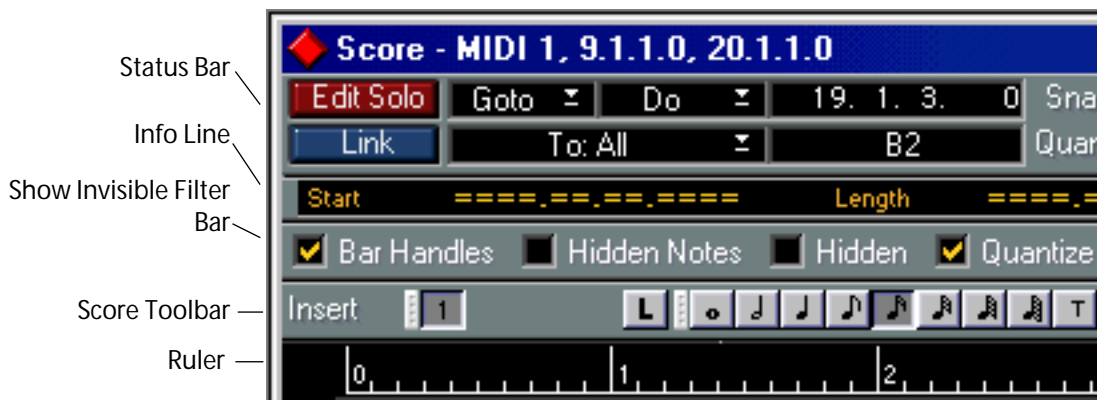
These areas can be hidden/revealed.

The Info Line

The Info line displays information about the currently selected note. It can be hidden/revealed by clicking the Info button on the status bar, or by using the key command for "Note Info on/off" (set in the Preferences–Key Commands–Arrangement/Editors dialog; by default [Alt]-[I]).

The Score Toolbar

The Score Toolbar can be revealed/hidden by clicking the button to the right of the "F" button on the horizontal scroll bar.
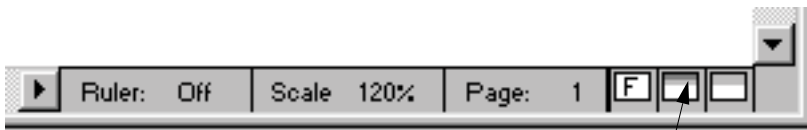
Click this button to hide/show the Score Toolbar.

The "Show Invisible" Filter Bar

This area contains checkboxes for determining which indicators, handles and other "Invisible" elements should be shown in the score. You hide and show the Filter Bar by clicking the "F" button on the horizontal scroll bar.
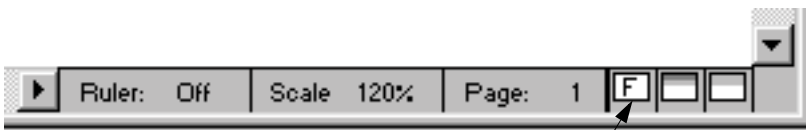
Click this button to hide/show the Filterbar.

The Status Bar

The Entire Status Bar (including Score Toolbar, Info Line and "Show Invisible" Filter Bar) can be hidden with the button at the far right on the horizontal scroll bar.
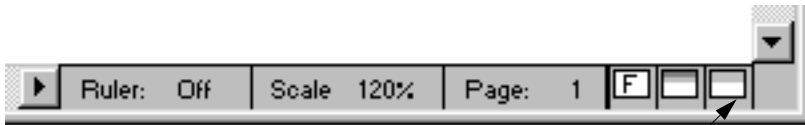
Click this button to hide/show the Statusbar.

If you set the magnification to 50%, hide the Transport Bar (using the Windows menu) and hide the Status Bar, an entire page fits on a standard "800x600" monitor.

"Tearing Off" the Score Toolbar

It is possible to "tear off" sections of the Score Toolbar and move them around as separate palettes on the screen:

1. Point at the handle next to a section and press the mouse button.
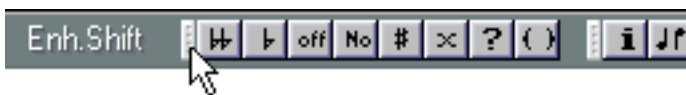
2. Drag the section off the Toolbar.
It appears as a separate Palette window.
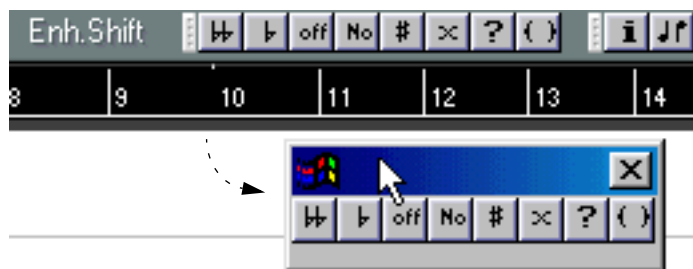
3. To close a Toolbar Palette window, click on its close box.

The Ruler

In Score Edit there are no Meter/Time Position Rulers as in the other editors. Instead, there are horizontal and vertical "Graphic Rulers" in Page Mode. These help you position symbols and graphical objects in the scores.
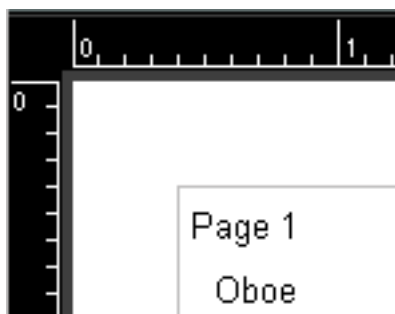
- **To set which units should be used on the Rulers, pull down the "Ruler" pop-up menu at the bottom of the window.**
Choose between inches, centimeters or points.
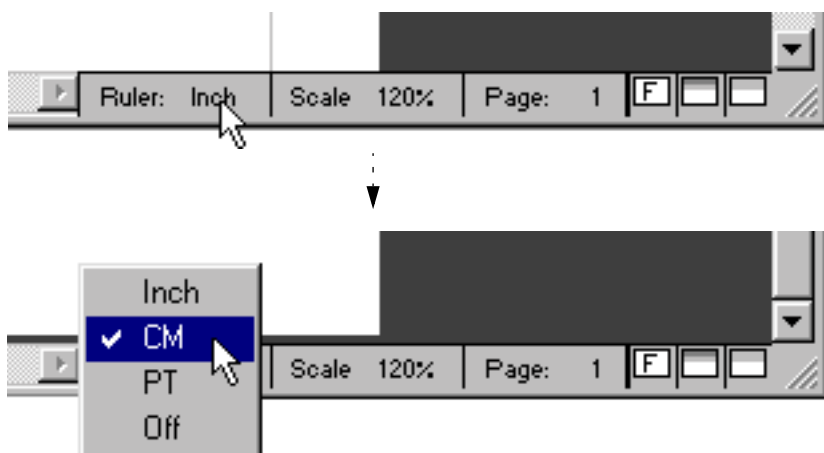
- **To hide the Rulers, select "Off" from the pop-up menu.**

The Position Window

To help you further when positioning objects in the scores, Page Mode has a special Position Window, in which you can view and adjust object positions numerically, in the unit selected for the Rulers. To show or hide the Position Window, click in the Ruler.
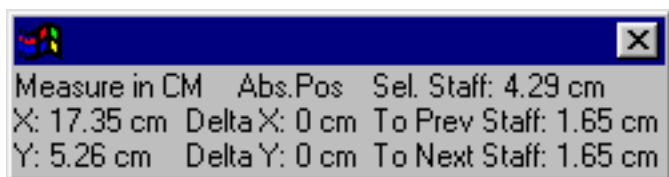
The Symbol Palettes

The Symbol Palettes, which are used to add symbols to the Score, can be displayed by selecting any of the "Symbol Palettes" options from the Score menu.
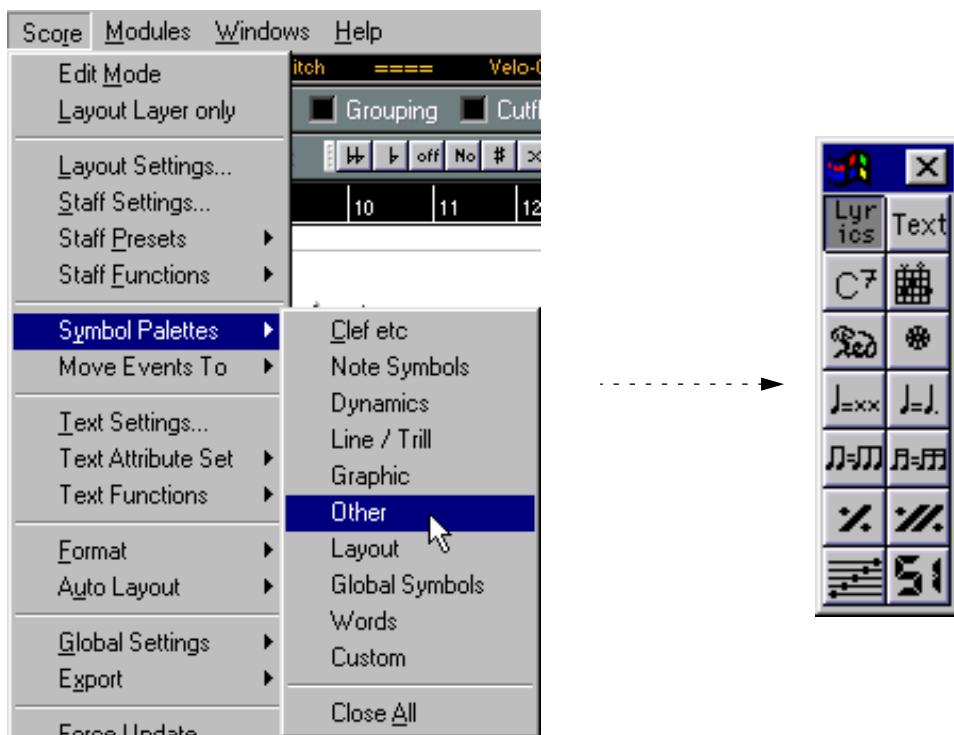
- You can choose whether you want the Symbol Palette to be vertical or horizontal by clicking on the "Windows" icon in the upper left corner of the palette, and selecting "Flip Direction" from the pop-up menu that appears.
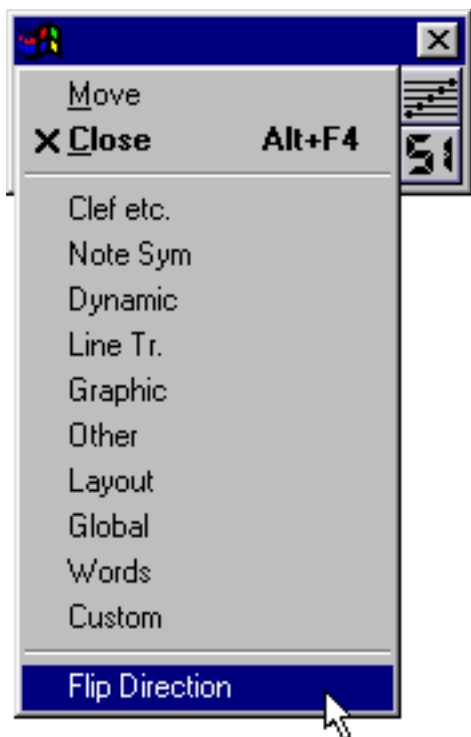
- The same pop-up menu also allows you to open other Symbol Palettes (replacing the current one).
  If you hold down [Ctrl] and select a palette from the pop-up menu, the current palette remains open as well.

- You close a Symbol Palette by clicking on its close box button.
  If you want to close all open Palettes, select "Close All" from the Symbol Palettes submenu.

Showing and Hiding "Invisible" Elements

Some of the elements in the score will not be printed, but rather serve as indicators for layout changes, handles, etc. These elements can be hidden or shown in any combination. There are two ways to do this:

- **In the Show Invisible dialog, accessed from the Global Settings submenu on the Score menu.**
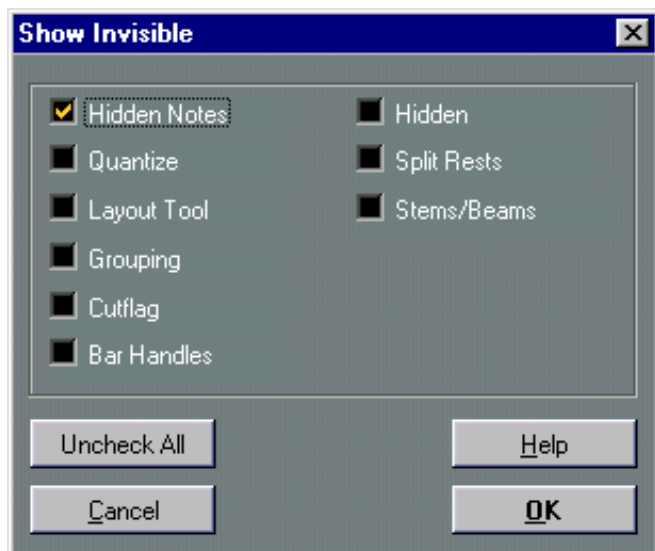
- **By using the Filter Bar above the Score Toolbar.**
  The Filter Bar is displayed or hidden with the "F" button (see page 51).

The Show Invisible dialog and the Filter Bar have the same checkboxes:

Option:	Description:
Hidden Notes	Reveals any notes you might have hidden (see page 266).
Quantize	Displays markers in the score where you have made Display Quantize "exceptions" (see page 78).
Layout Tool	Displays markers in the score where you have made adjustments with the Layout Tool (see page 171).
Grouping	Displays markers in the score where you have made beam groupings (see page 162).
Cutflag	Displays markers in the score where you have inserted Cutflag Events (see page 170).
Bar Handles	Reveals the bar handles, used for copying bars (see page 205).
Hidden	Displays markers in the score for each hidden element (notes excepted). See page 266.
Split Rests	Displays markers in the score wherever you have split multiple rests (see page 269).
Stems/Beams	Displays markers in the score where you have made any stem or beam adjustments (see page 149 and page 168).

- **You can check/uncheck all options by clicking the "Check/Uncheck All" button in the Show Invisible dialog.**
  In the Filter Bar, this is done by [Alt]-clicking one of the checkboxes.

Setting Key, Clef and Time Signature

When preparing for entering notes into a score, you will probably want to start out by setting the desired Key, Clef and Time Signature for the Staff. The text below assumes you are working on one Track only. If you have multiple Staves, you either make this setting independently for each Staff or for all staves at once. See page 68 for details.

Normally, all these symbols appear at the beginning of each staff. However, you can control this by using the Real Book option (see page 265) and by Hiding (see page 266).

Setting the Initial Time Signature

From within the Score

1. **Double click on the Time Signature symbol at the beginning of the Staff.**
   A dialog box opens.
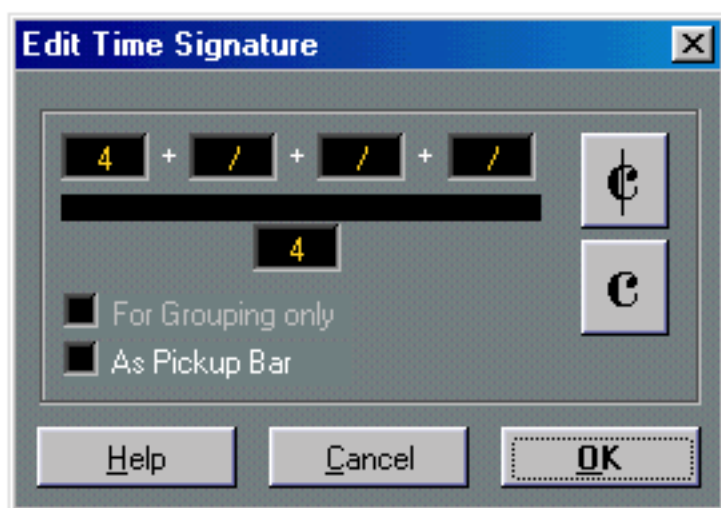
The Time Signature dialog with a 4/4 signature.

2. **If the piece is in 4/4 or 2/2, you can select common time/cut time directly by clicking one of the two symbols at the right side.**
   This will set the Time Signature to 4/4 or 2/2, respectively, but also give you a common/cut time symbol on the staff.

3. **If the piece is in any other time, set the numerator and denominator above and below the line, respectively.**
   The Numerator can consist of several numbers for composite Time Signatures. However, if the piece is in a simple time signature you only need to fill in the first number above the line. The more advanced options are described below.

• **The "As Pickup Bar" option is described on page 271.**

4. **Click OK or press [Return].**

❒ **All Tracks share the Time Signature! In other words, when you set the Time Signature, you do this for all Tracks in the Arrangement.**

If you need to enter half a bar somewhere (for example) you have to make a Time Signature change (for example from 4/4 to 2/4 and back again). On you will find out how to input Time Signature changes.

Composite Time Signatures and the Grouping Option

For Composite Signatures, the Numerator can be made up of up to four groups. For example, "4+4+3+/" on the upper line and 8 on the lower, means the Time Signature is 11/8.

The reason for dividing the Numerator into several numbers is to get beaming and tied notes displayed correctly automatically. This does not affect the Metronome or anything else, only beams and ties. For more information on Beaming, see .

If "For Grouping Only" is not activated, the numerator will show all the numbers entered. If it is activated, it will show the sum of the numbers entered, as for "simple" Time signatures.
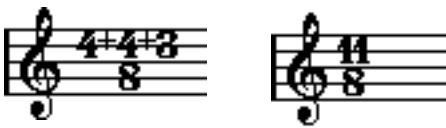
"For Grouping Only", Off and On.

Note that Cubase VST tries to preserve the denominator when you insert a composite signature with "For Grouping Only" activated. This means that if you have a 4/4 Time Signature, and change it to a composite value (3+3+2 eighths for example), the Time Signature will still be displayed as 4/4 instead of 8/8.

Setting the Time Signature from the Transport Bar

The Time Signature on the Transport bar.
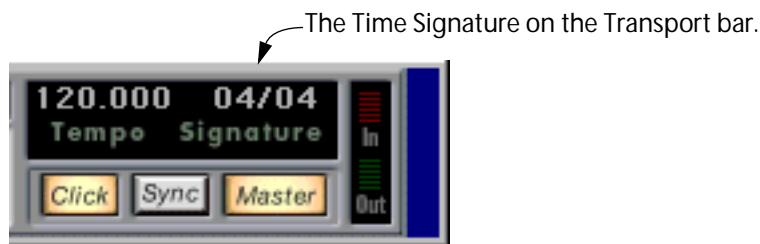
You can also set the Time Signature directly on the Transport Bar, as described in the main Cubase manual. Please note the following:

• The Time Signature box on the Transport Bar always displays the first Time Signature Event in the Master Track. When you change this value you are in fact editing the first Time Signature event in the Master Track.
• You can not create composite Time Signatures from the Transport Bar.

Setting the Time Signature by editing the Master Track

You can also add, edit and delete Time Signatures by editing the Master Track (which is described in its own chapter). Please note the following:

• The Score always shows the Time Signature events in the Master Track, regardless of whether or not the Master Button is activated. Likewise, any Time Signatures you create in the Score Edit will be shown in the Master Track.
• You can not create composite Time Signatures from the Master Track.

Setting the Initial Clef

Directly in the Score

1. **Double click on the current Clef.**
   A dialog appears.

Double clicking on a clef brings up the clef dialog.

2. **Use the scroll bar to select one Clef.**

❑ **This does not work if Auto Clef is activated in the Staff settings dialog box, see below.**

3. **Repeat the steps above for all staves in the system.**

In the Staff Settings Dialog Box

1. **Double click just to the left of the Staff, or select Staff Settings from the Score menu.**
   A dialog box appears showing the current settings for the active Staff.

2. **Locate the Key/Clef section.**
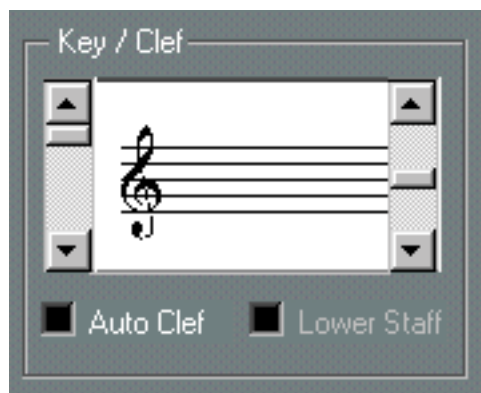
The Key/Clef section of Staff Settings.

3. **Use the left scroll bar to select one of the available Clefs.**
   You will find out how to insert Clef changes on .

4. **Click the "Prev" and "Next" buttons or use the Up and Down arrow keys on the computer keyboard to step around among the staves and make settings for each one.**
   The name of the Track you currently make settings for is displayed in the window title.

5. **Click OK or press [Return], to close the dialog.**

In a Split System

If you have a Split System (see and) you can of course set differ-
ent Clefs for the Upper and Lower Staff.

1. **Open Staff Settings.**

2. **Select a Clef for the upper staff.**

3. **Activate the "Lower Staff" check box.**

4. **Set a clef for the Lower Staff.**

   Using Auto Clef

Auto Clef activated in Staff Settings.

In the Staff settings dialog you will also note one option called Auto Clef. If this is
activated, the program will automatically select a Treble Clef or a Bass Clef for the
Staff, depending on in which range the notes in the Part fall.

Setting the Initial Key

In the Staff Settings Dialog Box

1. **Double click just to the left of the Staff, or select Staff Settings from the Score menu.**
   The Staff settings dialog box appears.
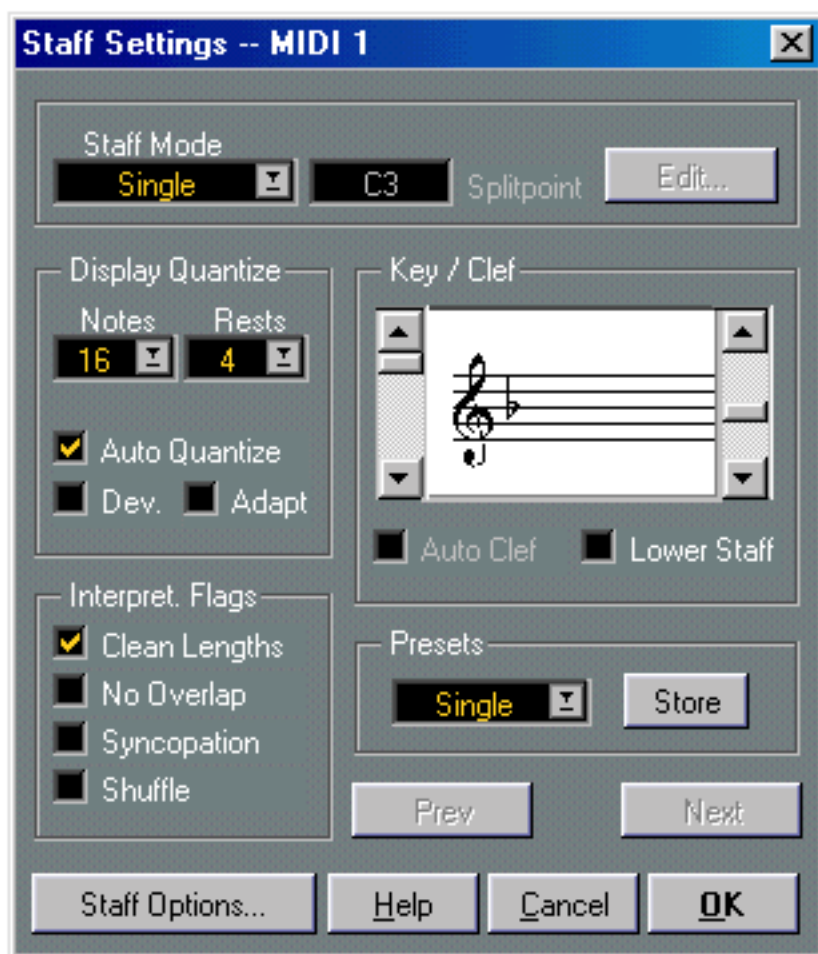
The Staff Settings dialog box.

2. **Use the right scroll bar in the Key/Clef section of the dialog box to select one of the Keys.**

3. **Click the "Prev" and "Next" buttons or use the Page Up and Page Down keys to step around among the staves and make settings for each one.**
   The name of the Track you are currently making settings for is displayed in the window title.

4. **Click OK or press [Return] to close the dialog.**

❑ **If you want to set all staves in the Score to the same key (which you probably do), there's a short-cut: Select the desired key for one of the staves, hold down [Alt] and click OK.**

Setting The Key For A Split System

You might have a Split System (see and) with two staves.

1. **Open Staff Settings.**

2. **Set a Key for the upper staff.**
   This will make the Lower staff automatically be set to the same key.

3. **If you need to set a different key for the Lower staff, activate the "Lower Staff" check box and set a clef for this.**

The Lower Staff check box.

Directly in the Score

If the current key is anything but C major/A minor (no accidentals) you can set the key directly in the Score:

1. **Double click on one of the current accidentals at the beginning of a staff.**

Double click in this area

A dialog appears.

2. **Use the scroll bar to select a key.**

• **If you wish, you can set a Display Transpose value in this dialog.**

3. **Repeat for all staves.**
   You will find out how to insert Key changes on .

Working with Transposing Instruments

Some instruments, for example a lot of brass instruments, are written transposed. For this purpose, there is a Display Transpose function in the Score Editor. By setting this, you transpose the notes in the score, without affecting how the notes play back. This allows you to record and play back a multi stave Arrangement, and still score each instrument according to its own transposition.

Setting Display Transpose

1. **Double click just to the left of the Staff, or select Staff Settings from the pop-up Staff menu.**
A dialog box appears showing the current settings for the active Staff.

2. **Click the "Staff Options..." button.**
The Staff Options dialog appears.

3. **Select your instrument from the pop-up below the text "Display Transpose" or scroll the value directly.**
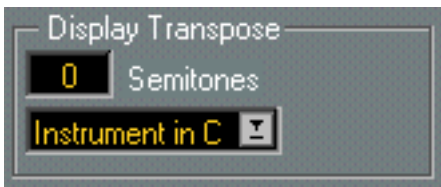
The Display Transpose section in the Staff Options dialog.

4. **Click Exit.**
Note that the key signature is automatically adjusted to fit the transposition.

5. **Repeat to set the Display Transposition for other staves, as needed.**

6. **Click OK or press [Return] to close the Staff Settings dialog.**

❐ **Display Transpose does not affect MIDI Playback!**

Display Transpose in the Key dialog

If you want to change the Display Transpose setting in the middle of the score, you can do this by inserting a Key change (see page 116). In the Key dialog you will find a Display Transpose field, in which you can enter a transposition value in semitones. This is handy, if you are writing a saxophone part and want the player to switch from alto to soprano sax, for example.

Working Order

When you prepare a Score we suggest you do things in the following order, because it will minimize the time needed if you make a mistake somewhere and need to redo a step. Try our suggestion first, and if you think another method suits your particular working situation better, go ahead and do it!

- **Preferably work on copies of recorded Tracks.**
  If the parts are fairly complex you might need to make permanent editing after which they don't play back as they originally did.

- **If memory is short, break the score up into segments.**
  You might for example use Split at Locators to split the Parts across all Tracks.

- **Put the Tracks in the Arrange window in the order you want them in the score.**
  You cannot rearrange the order of systems in the Score Editor. However, you can go back and change the order in the Arrange window.

- **When you open Score Edit, start by making the adjustments described in this chapter.**
  You should always begin by setting page margins, etc.

- **If you have recorded music into Tracks already, try adjusting the score "picture" as much as possible without permanently editing the notes.**
  Use Staff settings, Display Quantize, Grouping etc.

- **If the Tracks are empty, make basic Staff settings, enter the notes and then make detailed adjustments, add Display Quantize etc.**

- **If needed, use Polyphonic Voicing to resolve overlapping notes, to create piano systems, to handle crossing voices etc.**

- **When all this is done, decide if you need to perform "destructive" editing.**
  You might for example have to permanently alter the length of some of the recorded notes.

- **Hide unwanted objects and add note dependant and note related symbols.**
  This includes accents, dynamic symbols, crescendo, slurs, lyrics, "graphic rests" etc.

- **Work through the score and adjust the number of bars across the page.**

- **Adjust the vertical spacing between staves and grand staves.**
  Both the steps above can be performed automatically by the program using the Auto Layout features.

- **Add Layout symbols like endings, page text, etc.**

- **Print.**

- **Go back and create alternative Layouts to extract voices etc.**

Force Update

If for some reason, the screen isn't redrawn properly (as a result of the computer's recalculation of the page's appearance), this menu item on the Score menu forces a total redraw of the whole page. You can also force an update by clicking on the Update button on the Tool Bar.

 ———— The Update button
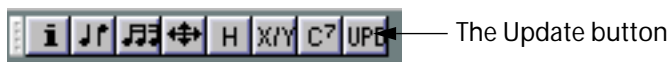
About the Score Preferences

There are a lot of settings which affect the look of the scores as well as the working techniques in Score Edit. These settings are gathered in the Preferences–Score dialog on the Edit menu.

Use the buttons to change page.
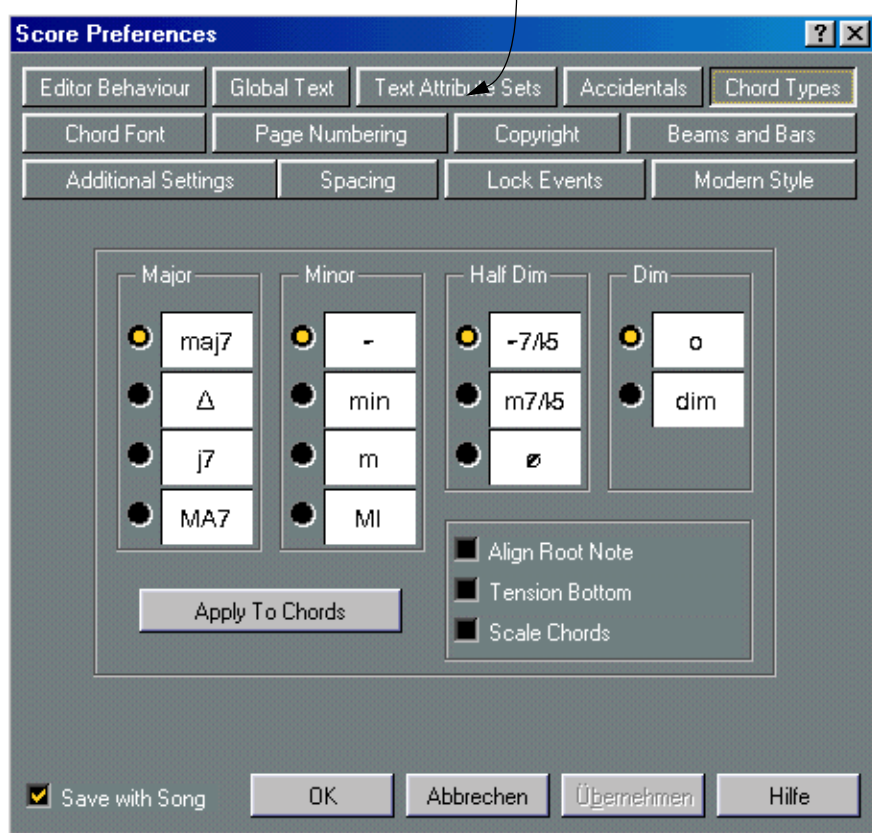
The Preferences-Scores-Chord Types dialog box.

As with other Preferences, the Score Preferences are divided into several pages, accessed by using the buttons at the top of the dialog. When we refer to the Preferences in this manual, we use the following syntax: *Preferences–Score–Page name.*

For most of the settings, you can decide whether you want to save them with the Song or in the Cubase VST preferences, by activating or deactivating the checkbox "Save with Song" (see the Getting Started book).

❑ **For a complete listing of the Score Preferences, see the online help.**

4
Transcribing MIDI Recordings

In this Chapter you will learn:

- How to make initial Staff Settings to make a Score as legible as possible.
- How to use the Display Quantize Tool to handle "exceptions" in the score.
- How to resolve parts that contain mixed notes and triplets.

About Transcription

This chapter assumes you have a MIDI recording which you want to transform into a printable score. However, if the parts are fairly complicated, you will probably need to perform some manual editing of the notes. Hence you will need to read the next chapter too!

❐ **Before starting, make sure you understand the basic principles behind the Score notes/MIDI notes relationship and also what Display Quantize is, as described in "How the Score Editor works".**

Getting the Parts Ready

1. **Record the music.**
   You must definitely play in time with the Click.

2. **Play back to check that the music got recorded as intended.**
   If not, you might need to re-record or perform some editing.

3. **Decide how much permanent alteration to the recording you can accept to make the score look good.**
   If the answer is "none", you should prepare your score from a copy of the Track. See the "Strategies" section below.

4. **Select all Parts (on all Tracks) that you wish to work on.**
   It is also possible to add and remove Tracks from within Score Edit using the Display Tracks function on the Score menu.

5. **Select Score from the Edit menu.**

6. **Switch to Page Mode.**

Strategies: Preparing Parts for Score Printout

Below follow a few tips that you might want to refer to when preparing a piece for printout:

- If a part is complex, you might possibly have to do some "manual" editing of notes, like for example moving them or changing their lengths (see next chapter). This means that the recording will then not play back exactly as it originally did. If this is a problem, we suggest you work on a copy of the recording. Use Track copying to create a version of the Track for scoring. Rename the Track and mute the original Track while you are preparing the score. If you prefer to work on a copy of the entire Arrangement, save the Arrangement and reopen it (that way, your Song will contain two Arrangements, the "play version" and the "print version").
- For reasons described in the previous chapter, quantizing the Track might be a good idea. This will reduce the amount of detailed adjustments needed in Score Edit. Remember that you can always prepare the score from copies of the original Tracks, as described above.
- If you need to quantize, always play back your Tracks afterwards to make sure timing wasn't disrupted due to an inappropriate Quantize value. You might have to quantize some sections with one value and others with another.
- If the piece contains many repetitions, it might be quicker to initially just record one instance of them each. If you then finish the Score work on each section, you can assemble the entire piece by working with Parts in the Arrange window. This might save you some time since you might only have to perform detailed adjustments to each section once.
- A similar approach can also be used when you are creating sections where several instruments play the same rhythm (a horn section, for example): Record the first instrument and make adjustments so that it looks like it should in Score Edit. Then copy the Part to the other Tracks, and change the pitches of the notes using MIDI Input. Finally, go through the copied Parts and make fine adjustments, change Display Transpose settings, etc. This can be a very fast way to create polyphonic parts with complicated rhythms.
- There may also be situations when the quickest way to record a part for several instruments, is to simply record it in one go, by playing the chords on your MIDI instrument. If you later want to split the recording into separate Tracks or Polyphonic Voices, you can use the Explode function, as described on .

Staff Settings

The first thing you do after opening the Score Editor is to make some initial Staff settings.

Opening the Staff Settings Dialog

There are four ways to display the Track Staff settings:

- **Make the staff active and select Staff Settings from the Score menu.**

- **Double click to the left of the staff.**

- **Make the staff active and select "Get Info" from the Edit menu.**

- **Make the staff active and click on the "i" button on the Score Toolbar.**
  If you use the last two methods, make sure no notes or symbols are selected!

Either way, the Staff settings dialog appears and shows the current settings for the Staff:
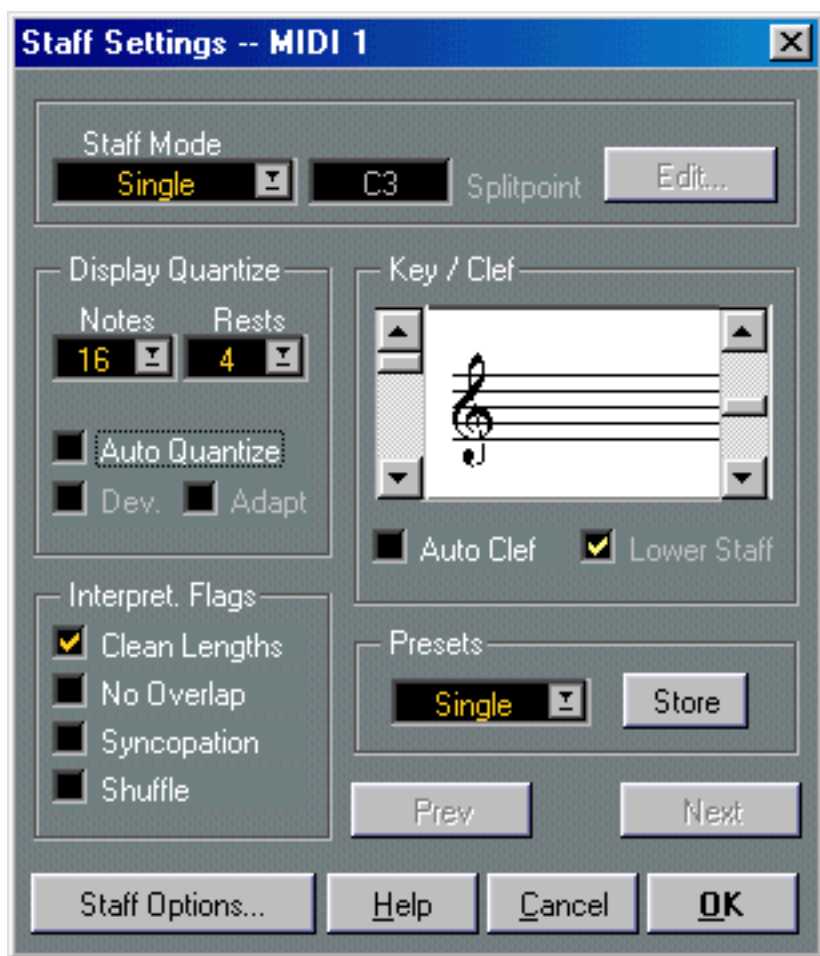
The Staff Settings for a Track called "MIDI 1".

Stepping between Tracks/staves

If you have multiple staves you might want to move the Staff settings indicator up and down without closing the dialog:

1. **Note in the title of the dialog box which Staff/Track is currently selected.**

2. **To move the Staff settings indicator one staff down, click the Next button or press [Page Down] on the computer keyboard.**

3. **To move it one staff up, click the Prev button or press the [Page Up] key on the computer keyboard.**
   If there's no staff above/below the current, one or both the buttons may be greyed out.
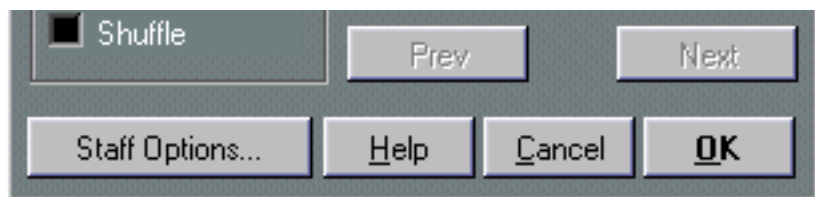
In the lower right corner of Staff Settings you find the Next and Prev buttons.

When you step through the staves, the dialog gets updated to show the settings for the Track. However, it always shows the Staff settings (the ones valid for the entire Track), never the "exceptions" you might have inserted using the Display Quantize tool (see page 78).

❐ **Stepping between Staves this way is the same as clicking "OK" and opening Staff Settings for another Staff. This means that any settings you have made to a Staff is made permanent when you select another Staff - pressing Cancel will only restore the settings for the last selected Staff.**

Making Settings for Multiple Staves at once

If you hold down [Alt] when you click OK to close Staff settings, the settings you have made are copied to all staves currently in the score. This can be used for quickly making settings that are common to all staves on a grand staff.

1. **Open Staff Settings.**

2. **Adjust all the parameters that are common to all Staves.**
   This might for example be Key Signature, Display Quantize, Syncopation handling, Shuffle, Beaming etc.

3. **Hold down [Alt] and close the dialog.**

4. **Open Staff settings again for each staff and make the adjustments particular to that staff.**
   This might for example include Clef and Display Transpose (for brass, etc).

5. **Close by clicking OK.**

Staff Presets

When you know you will reuse settings made for one Track in other Tracks, you will save some time by creating a Staff Preset. This is described on .

Key And Clef

The basic Key and Clef Track Staff settings are described in detail on . There is also a Lower Staff check box which is only used in conjunction with Piano (Split) Staves and Polyphonic Voicing. This is described on .
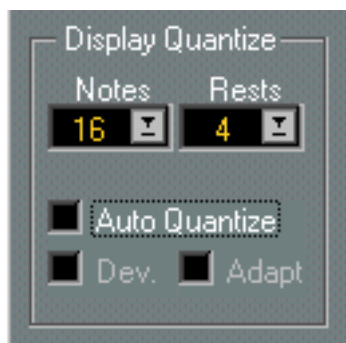
Display Quantize

The Display Quantize settings.

This is where you give the program basic information about how to interpret your playing. There are "fixed" Display Quantize values plus an "Auto" option which should only be used when your music contains mixed straight notes and triplets. For background information about Display Quantize, see .

If your music only contains "Straight" Notes or Triplets

1. **Set the Note Quantize value according to the "smallest note position" you want to be shown in the score.**
   For example, if you have notes on odd sixteenth note positions, the Note Display Quantize value should be set to 16 (sixteenth notes). The "T" values on the pop-up are for triplets.

2. **Set the Rest Quantize value according to the smallest note value (length) you want to be displayed for a single note, positioned on a beat.**
   For example, if you want a single short note on a beat (quarter note position) to be displayed as a quarter note, set the Rest Quantize value to 4 (quarter notes).

3. **Deactivate the Auto Quantize option.**

4. **Set all the Interpretation Flags.**
   These are described in detail below.

5. **Examine the score.**

6. **If necessary, use the Quantize tool to insert "exceptions" to the Staff settings.**
   See .

If your music contains Mixed Straight Notes and Triplets

1. **Examine the score and decide if it mainly contains triplets or mainly "straight" notes.**

2. **Set the Note Quantize Value accordingly.**
   If the score is mainly triplets, select the smallest triplet note position used in the score. If it is mainly straight notes, select the smallest "ordinary" note position.

3. **Set the Rest Quantize value.**
   This is done according to the same rules as above.

4. **Activate the Auto Quantize option.**

5. **Turn on the Deviation ("Dev.") and Adapt flags if you need them.**
   When Deviation is activated, triplets/straight notes will be detected even if they are not exactly "on the beat". However, if you know your triplets/straight notes are perfectly recorded (quantized or entered by hand), turn this off.
   When Adapt is activated, the program "guesses" that when one triplet is found, there are probably more triplets surrounding it. Turn this on if not all of your triplets are detected.

Interpretation Flags

The Interpretation Flags

Clean Lengths

When this is turned on, the program interprets the length of your notes differently than otherwise. A note's length (in the display only) might be extended to the beginning of the next note or to the next Rest Quantize "position". An example:

- If a note is too short, you will get a rest just after it.
- When Clean Lengths is turned on, the rest will disappear.
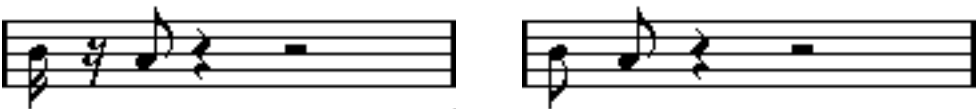
A slightly short eighth note with Clean Lengths off and on.

If using Clean Lengths doesn't help in a particular situation, you will have to manually resize the offending note(s) or use the Display Quantize tool (see page 78).

No Overlap

When notes starting at the same position have different lengths, the program generally adds more ties than you may want. This can be avoided by using No Overlap.
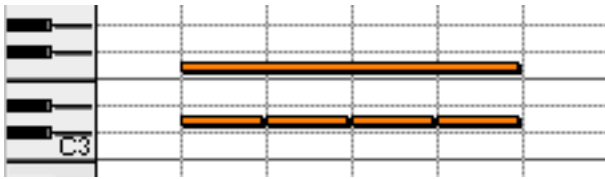
This recording in Key Edit...

...will be displayed like this when No Overlap is off...

...and like this when No Overlap is On.

You can insert "exceptions" to the No Overlap setting in Staff settings, by using the Display Quantize Tool.

❒ **Please note that there will probably be situations when neither of these alternatives is ideal. If you run into such a situation, it can probably be resolved by using Polyphonic Voices, see .**

Syncopation

When syncopation is off, the program generally adds ties to long notes crossing beats. There are a few exceptions to this. For example, a half note starting at "2" in 4/4 is always displayed as a half note, never as two tied quarter notes.

If you want more "modern" notation of syncopated notes, turn on Syncopation.

Syncopation off, and on.

Again, Syncopation off, and on.

Please note that you can insert "exceptions" to the Syncopation setting in Staff Settings, by using the Display Quantize Tool. You could also create tied notes in various combinations by using the Cutflag tool.

Shuffle

In jazz it is very common to score a shuffled beat as straight notes, simply to make it more legible.

When the Shuffle flag is turned on, Cubase searches for groups consisting of a quarter note triplet followed by an eighth note triplet or groups of an eighth note and a sixteenth note triplet. If it finds one, it displays the group using regular eighth notes or sixteenths.

Shuffle Off and On.

Staff Options
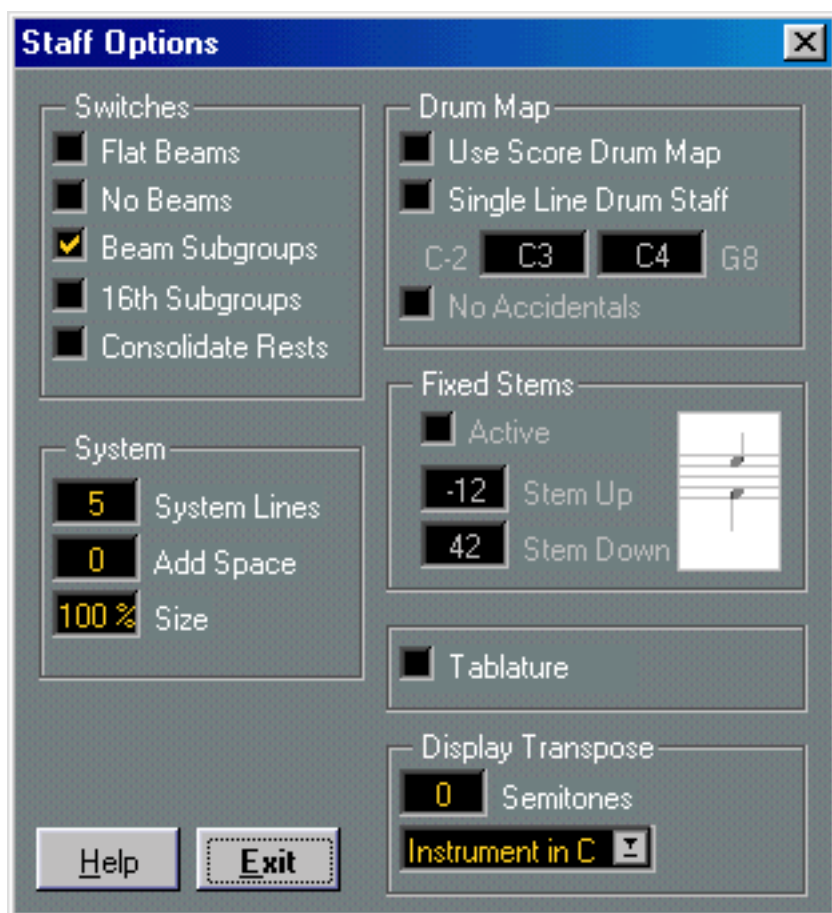
The "Staff Options" dialog.

When you click the "Staff Options" Button in the Staff Settings dialog, another dialog opens up with additional Staff Settings (which can be made part of a Staff Preset just as the other settings). Below follows a brief description of these, with references to more detailed explanations:

Staff Options Switches

Activate This:	When:
Flat Beams	When you want the beams over notes to be flat (as opposed to slanted). See page 167.
No Beams	When you don't want any beaming at all on the staff (for example for vocal scoring). See page 161.
Beam Subgroups	When you want sixteenth notes displayed under a beam to be divided into groups of four notes. See page 167.

Beam Subgroups Off and On

Activate This:	When:
16th Subgroups	When you want even smaller subgroups of sixteenth notes. This setting has no effect if Beam Subgroups is turned off.

As above, but with 16th Subgroups activated.

Consolidate Rests	When you want small consecutive rests joined into one (an eight note rest and a sixteenth note rest joined to a dotted eighth note rest for example).
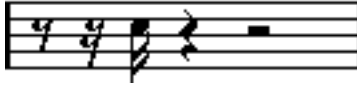
Consolidate Rests Off and On.

System

This section allows you to set the number of system lines and to control spacing between the lines. See page 300 for an example of how this can be used with Tablature.

Fixed Stems

Activate this if you want all note stems to end at the same vertical position.

Drum Map Options

These settings are all described in the chapter "Drum Scoring".

Tablature

Activate this to create tablature scores.

Display Transpose

· The numerical setting is used to transpose the score up or down without affecting playback and without actually transposing the MIDI data.
· The pop-up menu contains a number of preset transposition values for common instruments which are scored transposed.

More details on page 62.

Situations which require Additional Techniques

The notes may not always appear in the score as you expect them to, initially. This is because there are a number of situations which require special techniques and settings. Below follows a list of some of these and where to find more information about handling them:

- Notes at the same position are considered parts of a chord. To get independent voicing (for example notes with different stem directions), such as for vocal material, you need to use the special Polyphonic Voicing feature described on .

Without and with Polyphonic Voicing.

- If two notes beginning at the same position have different lengths, the longer one will be displayed as a number of tied notes. To avoid this, you will either have to use the "No Overlap" feature (see) or polyphonic voicing (see).
- For details of handling crossing voices, see .
- One note will often be displayed as two notes with a tie. This is only how the program displays the note, there is still only a single note "stored".
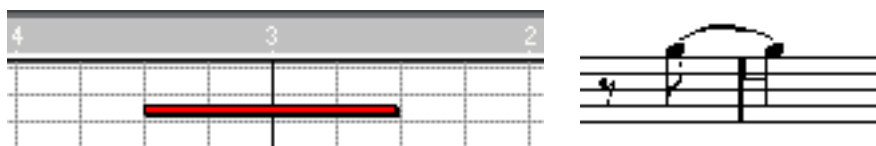
This single note in Key Edit is displayed as two tied notes in Score Edit.

- Generally the program adds ties where necessary (if a note stretches over a beat), but not always. For more "modern" notation of syncopated notes (less ties), you will need to use the Syncopation feature described on .

The same note, without and with Syncopation.

- If you find that you want a long note to be displayed as two or more tied notes, you can achieve this with the Cutflag tool. See .
- If two notes on the same position are too close to each other or if you want their order in the part reversed, you can do this without affecting playback. See .
- If a note has the wrong accidental, this can be changed. See .
- Stem direction and length is automatic, but you can change it manually if you wish. See .
- If you are scoring for piano and therefore (or for other reasons) need a split staff. There are special techniques for this, described on and .

If you run into Trouble

Below you find a few simple troubleshooting steps that will help you pinpoint other common problems:

- **The note I recorded is displayed with the wrong length. For example, I recorded a sixteenth and got a quarter note.**
You probably have the wrong Display Quantize value set, see page 70 for details. If you feel insecure about what Display Quantize is, and how it works, please read "How the Score Editor works". If Overlap is on, you might want to turn it off.

- **There is a pause after a note that I don't want.**
The note is probably too short. This can be adjusted in two ways, by using Clean Lengths (see page 71) or by manually lengthening it (see page 110). If this problem occurs a lot in your score, try selecting a larger Rest Display Quantize value (see page 12).

- **There is no pause after the note although there should be one.**
Either the note is too long (use Clean Lengths or change the current note's length). Or, your Rest Display Quantize value is set too high. Open Staff Settings and lower it.

- **The note has an accidental when it shouldn't, or it doesn't when it should.**
Enharmonic shifting is discussed on page 154.

- **Notes are not grouped under beams the way I want it.**
Normally the program groups eighth notes, sixteenths etc. under beams. This can be turned off. There is also detailed control of which notes are grouped under a beam. This is all described on page 161.

Inserting Display Quantize Changes

There are instances when you will want different Staff Settings on different sections of the Track. The Staff Settings are valid for the entire Track, but you can insert changes wherever you like. There are two ways to do this:

By using the Display Quantize Tool

1. **Select the Display Quantize Tool from the Toolbox.**

The Display Quantize Tool in the Toolbox.

2. **Move the mouse over the Staff where you want to insert a new Display Quantize value.**

3. **Use the mouse position box to find the exact location.**
    The vertical position is of no relevance as long as you click somewhere in the staff.

Only horizontal position matters when you use the Display Quantize Tool.

4. **Click the mouse button.**
    The Display Quantize dialog appears.

5. **Activate the flags you need and set the Quantize values as desired.**
Details are found on and . Additional hints below.

6. **If you want to restore the settings to the ones used in the Staff Settings, click on "Restore to Staff".**

7. **Click OK (if you use Polyphonic Voices, see below).**
The new Quantize Settings are now inserted into the Staff at the position indicated in the dialog. The settings are valid until a new change is inserted. You will see a text "marker" below the notes that indicates that a Display Quantize change has been inserted (if you don't see this, check the Show Invisible settings, as described below).

Using the Do Pop-up Menu

When using this method, there is one important difference: The Display Quantize Events have a *length*. That is, the settings you make will affect a finite section of the score only. After the "end" of such a Display Quantize Event, the Display Quantize settings are restored to the Staff Settings.

1. **Select the notes that you want to be affected by the Display Quantize settings.**
This selection is used to automatically set the "Length" of the Display Quantize change. In other words, it is really only the first and last selected notes that count - all notes in between these will be affected.

2. **Pull down the Do pop-up menu and select "Insert Quantize...".**
The Display Quantize dialog appears.

3. **Make the desired Display Quantize settings.**

4. **Click OK (if you use Polyphonic Voices, see below).**
A Display Quantize Event is inserted, encompassing the selected Events.

Display Quantize and Polyphonic Voices

If you use Polyphonic Voices (see) you can choose whether you want to apply the settings to all Voices or only to the one that is currently selected.

• If you click on the "All Voices" button, one event is inserted for each Voice.
• If you click OK, only one event is inserted, into the current Voice.
For more details see .

❐ **Note that if the option "Display Quantize Tool affects All Voices" is activated in the Preferences–Score–Additional Settings dialog, all voices will be affected even if you click OK.**

Hiding Display Quantize Events

When you insert Display Quantize events, text "markers" appear below the notes as an indication. These will not be printed, but you might want to hide them anyway:

1. **Select "Show Invisible" from the Global Settings submenu on the Score menu.**
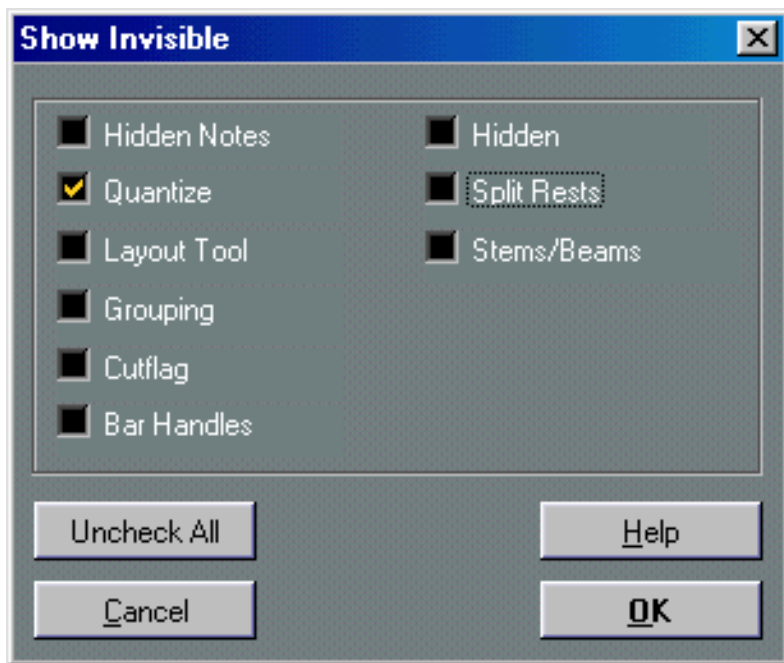
The "Show Invisible" dialog.

2. **In the dialog, turn off "Quantize".**

3. **Close the dialog.**

If you later want to view the Display Quantize indications in the score, simply check this option.

❑ **If you want to be able to edit or delete your inserted Display Quantize values, the markers need to be visible.**

You can also hide and show "Invisible" elements using the "Show Invisible" Filter Bar, as described on .

Editing Display Quantize changes

1. **Make sure the Display Quantize changes are visible in the score.**
   See above.

2. **Double click on a Display Quantize indication.**
   The Insert Quantize dialog box appears.

3. **Change the settings in the dialog box as described above.**

• **If the edited Display Quantize Event was created using the "Insert Quantize" command on the Do pop-up menu, the dialog will contain a "Length" field.**
   This allows you to adjust the length of the Display Quantize Event, i.e. how large a section it should encompass. Setting Length to 0 effectively converts the Event to a "standard" Display Quantize Event, i.e. an Event without Length (valid until the next Display Quantize Event).

4. **Click OK.**

Deleting Display Quantize changes

1. **Make sure the Display Quantize changes are visible in the score.**
   See above.

2. **Click on a Display Quantize with the Eraser or select it with the arrow tool and hit [Backspace] on the computer keyboard.**

A selected Display Quantize event.

Strategies: Adding Display Quantize changes

Very often, the score will be fine except for a few bars somewhere. Select the bars in question and insert a Display Quantize from the Do pop-up menu, to remedy the problem.

If you have mixed triplets and straight notes, it can be tempting to insert many display Quantize changes. Before you do so, try the Auto Quantize options and their additional settings. See page 71.

The Explode Function

This function allows you to "split" the notes on a staff into separate Tracks. It is also possible to use this function to convert a polyphonic staff into Polyphonic Voices. However, in that case, the functionality is in many ways identical to that in the Polyphonic Voices dialog, therefore we refer to page 134. Below follows only a description of how to split the notes on a staff into several Tracks.

❑ **You may want to create a copy of the original Track first, since this will be changed by the operation.**

1. **Pull down the Score menu and select "Explode..." from the Staff Functions submenu.**
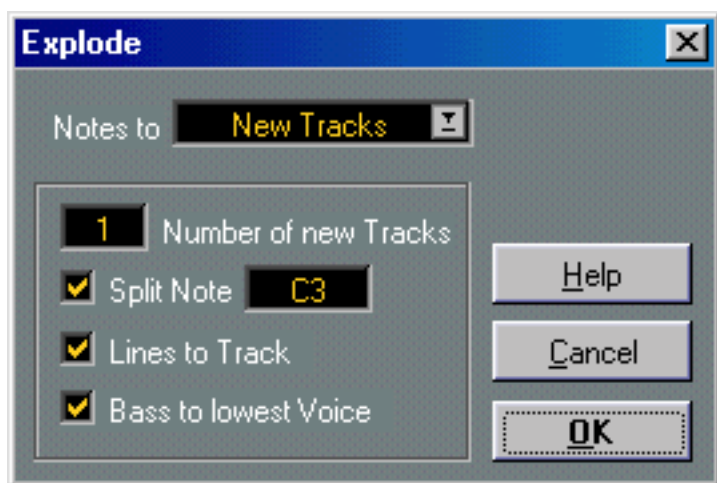
The Explode dialog, set to create Tracks.

2. **Make sure "To New Tracks" is selected at the top of the dialog.**

3. **Select the number of new Tracks desired, in the value field just below this.**
Note that this is the number of *new* Tracks to be created! For example, if you have a three-part polyphonic section and want to split this into three separate Tracks, you should specify 2 new Tracks, since the original Track will hold one of the parts.

4. **Use the lower half to set up the criteria for the split.**
Choose from the following options:

Option:	Explanation:
Split Note	Use this to move all notes below a certain pitch to another Track. When this is selected, it is pointless to specify more than 1 new Track.
Lines To Track	Use this when you want all musical "lines" to be put on one Track each. The notes with the highest pitch will remain on the original Track, the notes with the second highest pitch will be put on the first new Track, and so on.
Bass To Lowest Voice	When this is activated, the lowest notes will always end up on the lowest Track.

5. **Click OK.**
A number of new Tracks are now added to the Score and the Arrange window. The names of the new Tracks are derived from the name of the processed Part. "Vocal" might for example become "Vocal_1", "Vocal_2" and "Vocal_3".

Using "Score Notes To MIDI"

For very complicated scores, there might be situations where you have tweaked the parameters for Display Quantize and Interpretation best you can, and you still can't get the score exactly as you want it. Perhaps one setting works fine in one section of the Track and another is needed for another section.

In this case, "Score Notes To MIDI" will help you out. It changes the lengths and position of some or all the MIDI notes in the Track so that they have exactly the values currently shown on screen.

1. **For safety, go back to the Arrange window and make a copy of the Track.**

2. **Open the Track again, in the Score Editor.**

3. **Make sure the notes you want to affect are not Hidden (see).**

4. **If you want only a part of the score "converted", use the To pop-up menu.**
   By setting this up and perhaps selecting some notes, you can "convert" only the selected notes, only the notes inside the Cycle, etc. If you want all notes affected, make sure the menu says "All".

5. **Select "Score Notes To MIDI" from the Format submenu on the Score menu.**
   The notes are now "converted".

6. **Make whatever adjustments that are needed to make the score read back as intended.**

   Now that the notes have the exact lengths and positions that were previously only displayed, you can probably turn off many of the options in Staff settings and delete Display Quantize settings etc.

   If you find the operation didn't give you the result you were after, you can go back to the original Track, make a copy of that, and start over.

Entering and Editing Notes using the Mouse

In this Chapter you will learn:

· How to make various settings for how notes are displayed.
· How to enter notes by using the mouse.
· How to use tools and settings to make the score as legible as possible.
· How to set up a split (piano) staff.
· How to work with multiple staves.

Staff Settings

Before you start entering notes, you need to make some initial Staff settings in addition to those described in "The Basics". In order for you to understand why, and how these settings and the note data in the score interact, please read "How the Score Editor works".

Opening the Staff Settings Dialog

There are four ways of displaying the Staff settings for the Active staff.

· **Make the staff active and select Staff Settings from the Score menu.**
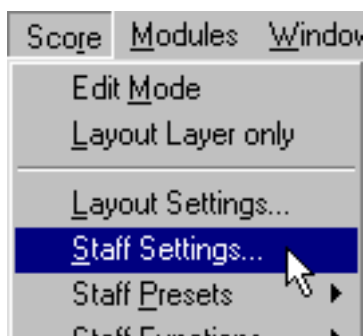
Opening Staff Settings from the pop-up menu.

· **Double click to the left of the staff.**

Double click in this area
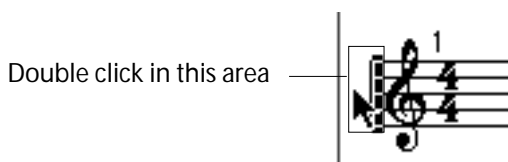
· **Make the staff active (with no objects selected) and press [Ctrl]-[I] on the computer keyboard.**
This is the default key command for "Get Info" - as always, you can choose another key command for this if you like.

· **Make the staff active (with no objects selected) and click on the "i" icon on the Score Toolbar.**

Either way, the Staff settings dialog appears and shows the current settings for the Staff.
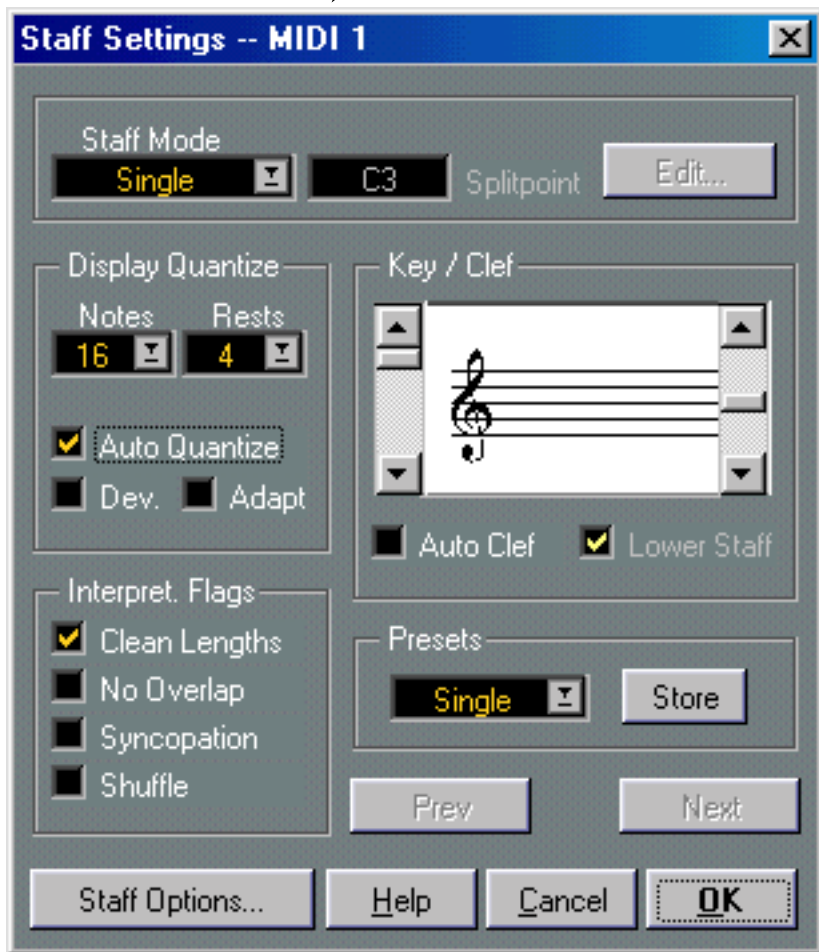
The Staff Settings dialog box.

Stepping between Tracks/staves

If you have multiple Staves, you might want to move the Staff settings indicator up and down without closing the dialog:

1. **Note in the title of the dialog box which Staff/Track is currently selected.**

2. **To move the Staff settings indicator one staff down, press the Next button or press [Page Down] on the computer keyboard.**

3. **To move it one staff up, press the Prev button or use the [Page Up] key on the computer keyboard.**
   If there's no staff above/below the current, one or both the Next/Prev buttons may be greyed out.

When you step through the staves, the dialog gets updated to show the settings for the Track. However, it always shows the Staff settings (the ones valid for the entire Track), never the "exceptions" you might have inserted using the Display Quantize tool.

Staff Presets

If you know you will reuse the settings you now make, on other Tracks, you should probably take the time to turn the settings into a Staff Preset. This is described in detail on .

Suggested Initial Settings

When you start out entering notes using the mouse, you should set up the Staff settings to make your score display the notes as entered. We suggest the following:

Parameter:	Setting:
Staff Mode	Single (for split staves, see page 114)
Display Quantize: Notes	64
Display Quantize Rests	64
Auto Quant	Activated only if you have mixed "straight" notes and triplets.
Clean Lengths	Off
No Overlap	Off
Syncopation	Off
Shuffle	Off
Key	As desired
Clef	As desired
Auto Clef	Activate this if you want the program to select a treble or bass clef automatically.
Staff Options...	As is

You will later find out how to adapt these settings in detail to make the score read as you wish it to be.

❒ **It is "extremely important" that you understand how Note and Rest Display Quantize interact with the score. If you select too large a note/rest value, the notes you "click in" will not appear as intended. Please read the chapter "How Score Edit works". If you have mixed triplets and straight notes, please refer to page 70.**

Note Values and Positions

Two of the most important settings for entering notes (and the ones you will change most often) are the length of the note (the Note value) and the minimum spacing between notes (the Snap value).

Selecting a Note Value for Input

This can be done in one of three ways:

- **By clicking the note symbols on the Score Toolbar.**
  You can select any note value from 1/1 to 1/128th and turn on and off the dotted and triplet options by clicking the two boxes to the right of the regular note values. The selected note value is always displayed in the Quant box and in the Note Tool cursor shape.

The Note Value is reflected in the Score Toolbar, the Quant Box and the Note Tool shape.

- **By selecting a Quantize value from the Quant pop-up.**
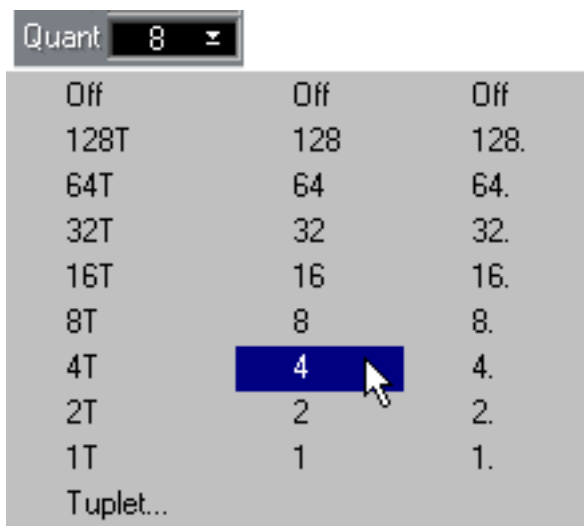
- **By pressing numeric keys on the typewriter part of the computer keyboard.**

This last method also sets the Snap (see below) to the same value, which may not always be desired. The default key commands are:

Key:	Note Value:	Key:	Note Value:
1	1/1	6	1/32
2	1/2	7	1/64
3	1/4	8	1/128
4	1/8	T	Turn on/off triplet
5	1/16	.	Turn on/off dotted

❐ **The keys referred to above are the numeric keys on the typewriter keyboard (above the letters), not those on the numeric key pad (to the right of the typewriter keyboard).**

- **You can also use key commands to "step" between the Quantize values.**
  Assign key commands for this in the Preferences–Key Commands–Score dialog ("Next/Last Quantize Value").

About unusual Note Values

Not all note values can be selected directly, for example double dotted notes. Such notes are created by changing the length of the note after you have put it in (see page 110), by gluing notes together (see page 111) or by using the Display Length feature.

Selecting a Snap Value

Snaps and Note Positions

When you move the mouse pointer over the score, you will see that the position box on the Status Bar tracks your movement and shows the current position in bars, beats, sixteenth notes and ticks. As described later, when drawing and moving notes, the positions on screen are restricted in the same way.

Positioning on screen is controlled by the current Snap value. If you for example set Snap to "8" you can only insert and move notes to eighth note positions, at quarter notes, at half bars or at bar positions. It is a good strategy to set Snap to the smallest note value in the piece. This doesn't stop you from inputting notes at "coarser" positions. However, if you set the Snap value to too small a note value, it is easier to make mistakes.

With Snap set to "8", you can only
input notes at eighth note positions.

Setting the Snap Value

The Snap value can be set in one of two ways:

- **By Selecting a value from the Snap pop-up.**
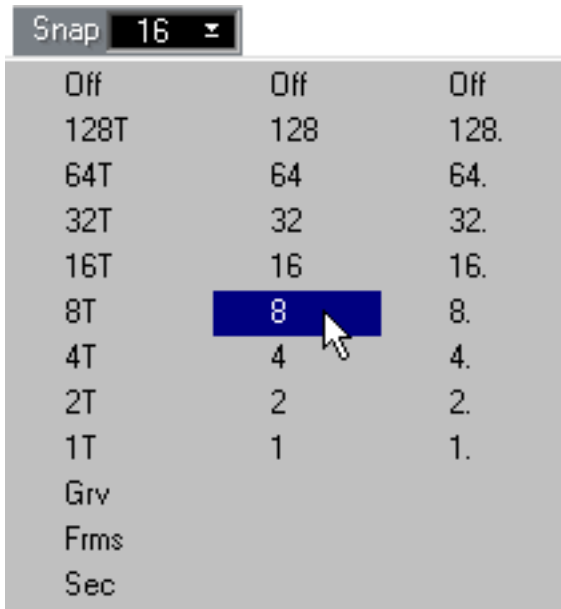
- **By pressing numeric keys on the typewriter part of the computer keyboard.**
  This sets the Quantize to the same value. Which keys select which Note values is described above.

❑ **Using the Snap pop-up menu, it is also possible to snap to frames, seconds or to the selected Groove. However, this is not often used when inputting score notes.**

The "Mouse Position Box"

While you might most often use the graphical position in the actual score to determine where the notes go, there are instances when you will want to verify the position numerically by looking at the mouse position box:

❒ **This assumes that the mouse position box displays meter position. If it shows time position, just click on it to switch back to meter position.**
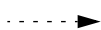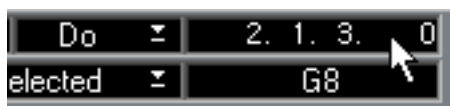
- The first number is the Bar.
- The second number is the beat. In 4/4 there are 4 beats to a measure. In 8/8 there are eight, in 6/8 there are six, etc.
- The third number is the sixteenth note within the beat. Again, the time signature determines the number of sixteenth notes to each beat. In a quarter note based time signature (4/4, 2/4, etc) there are four sixteenth notes to each beat, in an eighth note based time signature (3/8, 4/8, etc), there are two sixteenth notes, etc.
- The last value is in ticks. As everywhere in Cubase VST, the number of ticks depends on the Display Resolution setting in the Preferences–General–General dialog. The figures below show the meter position values as displayed when the maximum Display Resolution (15360) is selected:

2/2	1.1.1.0	1.1.5.0	1.2.1.0	1.2.5.0
4/4	1.1.1.0	1.2.1.0	1.3.1.0	1.4.1.0
8/8	1.1.1.0	1.3.1.0	1.5.1.0	1.7.1.0

Quarter Note positions.

2/2	1.1.1.0	1.1.3.0	1.1.5.0	1.1.7.0	1.2.1.0	1.2.3.0	1.2.5.0	1.2.7.0
4/4	1.1.1.0	1.1.3.0	1.2.1.0	1.2.3.0	1.3.1.0	1.3.3.0	1.4.1.0	1.4.3.0
8/8	1.1.1.0	1.2.1.0	1.3.1.0	1.4.1.0	1.5.1.0	1.6.1.0	1.7.1.0	1.8.1.0

Eighth Note positions.

2/2	1.1.1.0	1.1.2.1280	1.1.3.2560	1.1.5.0	1.1.6.1280	1.1.7.2560	1.2.1.0 etc.
4/4	1.1.1.0	1.1.2.1280	1.1.3.2560	1.2.1.0	1.2.2.1280	1.2.3.2560	1.3.1.0 etc.-
8/8	1.1.1.0	1.1.2.1280	1.2.1.2560	1.3.1.0	1.3.2.1280	1.4.1.2560	1.5.1.0 etc.

Eighth Note Triplet positions.

2/2	1.1.1.0	1.1.2.0	1.1.3.0	1.1.4.0	1.1.5.0	1.1.6.0	1.1.7.0	1.1.8.0	1.2.1.0 etc.
4/4	1.1.1.0	1.1.2.0	1.1.3.0	1.1.4.0	1.2.1.0	1.2.2.0	1.2.3.0	1.2.4.0	1.3.1.0 etc.
8/8	1.1.1.0	1.1.2.0	1.2.1.0	1.2.2.0	1.3.1.0	1.3.2.0	1.4.1.0	1.4.2.0	1.5.1.0 etc.

Sixteenth Note positions.

Adding and Editing Notes

Entering one note by dragging

To add a note to the score, proceed as follows:

1. **Make the Staff Active.**
Notes are always put in on the active staff. See page 49 for details.

2. **Select the type of note by selecting a note value.**
This is described in detail above.

3. **If you selected the note value by clicking on a symbol on the Score Toolbar, the Note tool was automatically selected - otherwise select the Note tool from the Toolbox.**

The Note Tool in the Toolbox.

4. **Select a Snap value.**
Described above. The Snap will determine the spacing between notes. If you have Snap set to "1" you will only be able to add notes at downbeats. If you set Snap to "8" you will be able to add notes at all eighth note positions etc.

5. **Position the mouse pointer over the note lines.**
A note appears under the mouse pointer.

6. **Press the mouse button without releasing it.**

7. **Move the mouse horizontally to find the correct position.**
The note is "magnetically" attracted to the divisions defined by the current Snap value. This allows you to easily find the correct position.

8. **Move the mouse vertically to find the correct pitch.**

The Pitch is shown here.
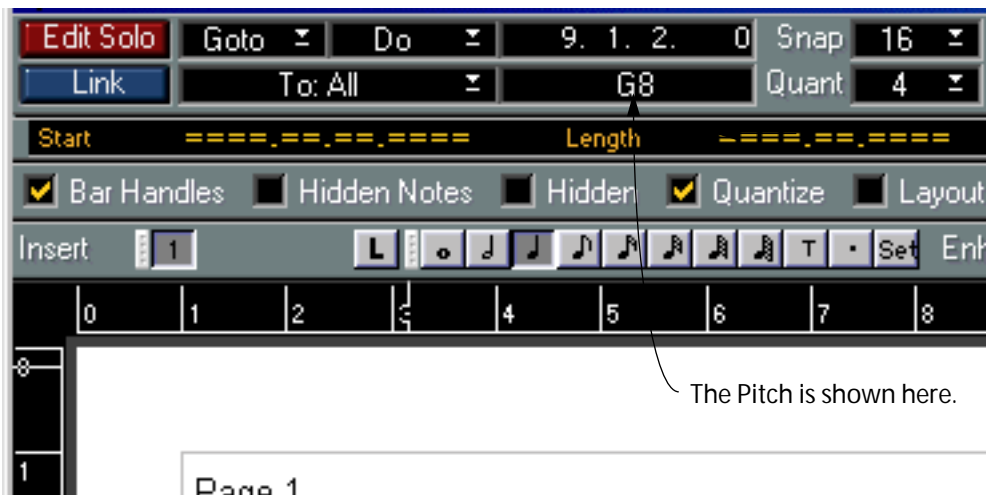
9. **Release the mouse button.**
The note appears in the score.

Clicking Directly

When you get better acquainted with the Score Editor and find it easy to aim at the right position directly, you don't need to drag the note around as described above. Simply aim at the correct position and click once.

If you have Problems getting the Pitch right

- Normally, you are allowed to "draw" notes with any pitch. But if the option "Keep moved notes within key " is activated in the Preferences–Score–Editor Behaviour dialog, the pitches are restricted to inside the current key only.
- When you drag the mouse up and down before releasing the button, accidentals are shown beside the note to indicate the current pitch. This helps you verify the vertical position before releasing the mouse button.

Adding more Notes

1. **If the next note is of another note value, select a new note value.**
   A quick way to do this is to use the number keys on the keyboard, see above. However, this also changes the Snap value.

2. **If you need finer positioning, or if the current is too fine, change the Snap value.**

3. **Move the mouse to input the new note, and click.**
   Notes input at the same position are automatically interpreted as chords, see below.

About the Interpretation

The notes may not always appear in the score as you expect them to, initially. This is because there are a number of situations which require special techniques and settings. Below follows a list of some of these and where to find more information about handling them:

- Notes at the same position are considered parts of a chord. To get independent voicing (for example notes with different stem directions), such as for vocal material, you need to use the special Polyphonic Voicing feature described on .

Without and with Polyphonic Voicing

- If two notes beginning at the same position have different lengths, the longer will be displayed as a number of tied notes. To avoid this, you will either have to use the "No Overlap" feature (see) or polyphonic voicing (see).
- One note will often be displayed as two notes with a tie. This is only how the program displays the note, there is still only a single note "stored".
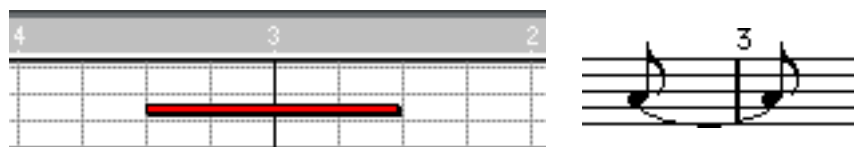
This single note in Key Edit is displayed as two tied notes in Score Edit.

- Generally the program adds ties where necessary (if a note stretches over a beat), but not always. For more "modern" notation of syncopated notes (less ties), you will need to use the syncopation feature described on .
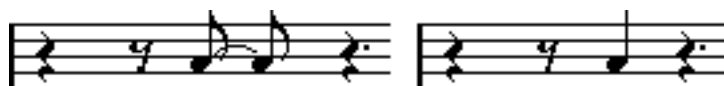
The same note, without and with Syncopation.

- If you specifically want a long note to be displayed as two (or more) tied notes, you can use the Cutflag tool for this.
- For details of handling crossing voices, see .
- If a note has the wrong accidental, this can be changed. See .
- If two notes on the same position are too close to each other or if you want their "graphical order" in the score reversed, you can do this without affecting playback. See .
- Stem direction and length is normally automatic, but you can set it yourself. See .
- If you are scoring for piano and therefore (or for other reasons) need a split staff, there are special techniques for this, described on and .

If you run into Trouble

Below follow a few simple troubleshooting steps that will help you pinpoint some common mistakes:

• **The note I put in has the wrong length. For example, I added a sixteenth and got a quarter note.**
You probably have the wrong Display Quantize value set. Open the Staff Settings. If Auto Quantize is on, turn it off, unless you have mixed triplets and regular notes. Also check the Note and Rest Quantize. If the settings are too "coarse", change them to a smaller note value. If you for example need the program to display an eighth note rest, Rest Quantize must be set to "8" or a smaller note value. (Please refer to "How the Score Editor works".) If Overlap is on, you might want to turn it off.

• **There is a pause after a note that I don't want.**
You probably added a note with the wrong note value. Either lengthen the note (physically or graphically - see page 110) or delete the one you have (see page 99) and add a new one with the correct note value.

• **There is no pause after the note although there should be one.**
Either the note is too long (delete and enter a new one or change the current note's length, physically or graphically). Or, your rest Rest Display Quantize is set to too large a note value. Open Staff Settings and lower it.

• **The note has an accidental when it shouldn't, or it doesn't when it should.**
Maybe the note is simply of the wrong pitch? Click on it (using the arrow tool) and look at the Note Info Line (if this is turned on, see page 50). Move it to the correct pitch (see page 108). If this is not the reason, maybe you have the wrong key set? And last, enharmonic shifting is described on page 154.

• **Notes are not grouped under beams the way I want it.**
Normally the program groups eighth notes, sixteenths etc. under beams. This can be turned off. There is also detailed control of which notes are grouped under a beam. This is all described on page 161.

Adding Rests

You can add rests to the score. This is done as with notes, but with one major difference. Rests are always "inserted" into the score, that is, they "push" the notes that come after, to the right.

1. **Select the rest value by selecting a Note value.**
   This is described in detail above.

2. **Select a Snap value.**
   Also described above. The Snap will determine where you are able to insert the rest, as with notes.

3. **Select the Rest symbol from the Toolbox.**

The Rest Tool in the Toolbox.

4. **Position the mouse pointer over the note lines.**

5. **Move the mouse horizontally to find the correct position.**
   Use the position box if you are unsure about the correct position.
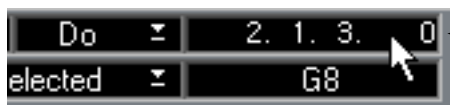
The position is shown here.

6. **Click with the mouse button.**
   The rest appears in the score and all the notes after it on the staff are moved "to the right".

Before and after an eighth note rest was inserted at the beginning of the bar.

Selecting Notes

In the operations described in the rest of this chapter, you will often work on selected notes. The text below describes how to select notes in various ways:

By Clicking

1. **Make sure you have the Arrow pointer selected.**

2. **Click on a note head.**
   The note head gets inverted to indicate that it is selected.

3. **To select more notes, hold down [Shift] and click on them.**

Selected Notes

4. **To deselect notes, hold [Shift] down and click on them again.**

- **If you hold down [Shift] and double click on a note, this note and all the following notes in the same staff are selected.**

Using a Selection Rectangle

1. **Press the mouse button with the arrow pointer in some free (white) space in the score.**

2. **Drag the mouse pointer**
   A rectangle appears. You can drag to select voices on several voices or staves if you wish.

3. **Release the mouse button.**
   All notes with their note heads inside the rectangle get selected.

If you want to deselect one or more of the notes, hold down [Shift] and click as described above.

Using the Keyboard

- **You can step through the notes in the Staff using the [←] and [→] keys.**

- **You can hold down [Shift] to select the notes as you step through them.**

- **If you have Polyphonic Voices turned on, you will only step through the notes in the current Voice.**

Selecting Tied Notes

Longer notes are often displayed in the score as one note with a tie. When you intend to select the entire note for deleting etc, you should select the first note, not the tied note.

❑ **There is a preference for this in the Preferences–Scores–Editor Behaviour dialog: If you activate "Tied notes selected as Single Units", the whole note will be selected, even if you just click on one of the tied notes.**

Deselecting Everything

• **To deselect everything, simply click with the arrow pointer in some "free" (white) space in the score.**

Selecting notes in one Voice only

If you are using Polyphonic Voices (see "Polyphonic Voicing"), you can select all notes in one of the Voices, by using the Select submenu on the Edit menu. This is described on page 137.

Selecting notes with Equal Pitch

❑ **Note that this selection is based on the actual pitch of the notes - notes on different staves may be displayed differently if you have made Display Transpose settings.**

1. **Select one (and only one) note.**

2. **Pull down the Edit menu and open the Select submenu.**

3. **Point at the "Equal Pitch" option.**

4. **Select one of the options from the submenu that appears.**

Edit			
Undo	Ctrl+Z		
Cut	Ctrl+X		
Copy	Ctrl+C		
Paste	Ctrl+V		
Delete Events	Del	Del	
Select	▶	Select All	
Get Info	Ctrl+I	Invert	
Edit	Ctrl+E	From Song Position	
List	Ctrl+G	Overlap	
Drum	Ctrl+D	Same Type	
Score	Ctrl+R	Inside Locators	
Controller		Outside Locators	
Graphical Mastertrack	Ctrl+M	Muted Notes	
List Mastertrack	Ctrl+Shift+M	Equal Pitch ▶	In Same Octave
Notepad	Ctrl+B	Voice ▶	In All Octaves
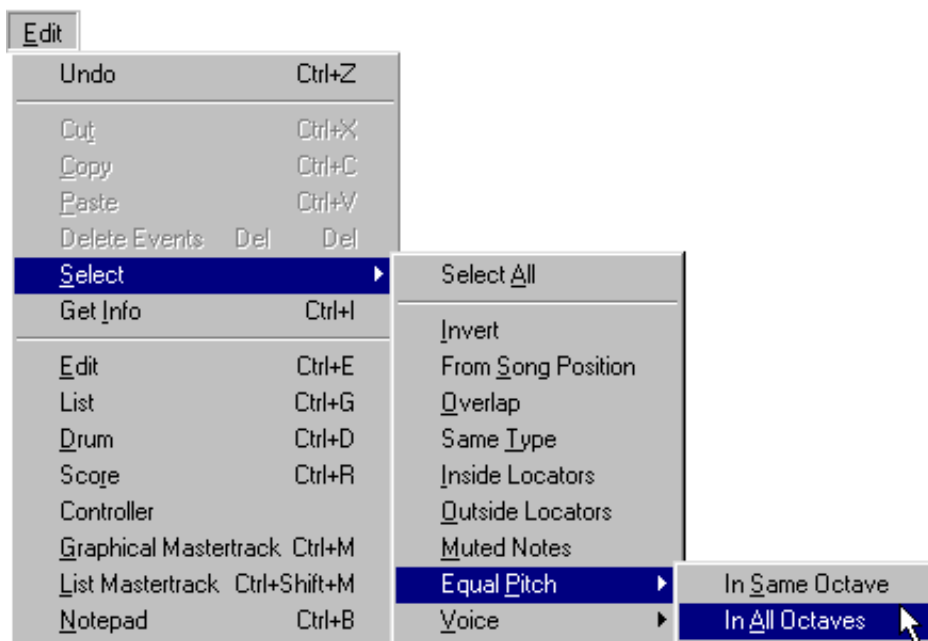
You can choose whether you want to select notes in all octaves or in the same octave only. If you for example had an "F" selected and you opt for the "In All Octaves" alternative, then all F0, F1s, F2s etc will get selected. In either case, notes with the same pitch as the initially selected, on all staves and voices, are selected.

There are also keyboard equivalents for both options:

- **To select all notes of the same pitch in the same octave, hold down [Ctrl] and double click on one note.**

- **To select all notes of the same pitch in all octaves, hold down [Alt] and double click on one note.**

Either way, notes on all staves and in all voices are selected.

Selecting notes with the Equal Pitch and Accidental

In some situations, you may want to select all notes that have the same pitch and are shown with a certain accidental. This allows you to select all F# notes but not the Gb notes, for example:

1. **Select a note with the desired pitch and accidental.**

2. **Pull down the Edit menu and open the Select submenu.**

3. **Select "Same Enharmonic".**
   All notes with the same pitch and accidentals, in all voices but in the active Staff only, are selected.

❐ **The other items on the Select submenu are described in the online help.**

Deleting Notes

Notes can be deleted in two ways:

Using the Eraser Tool

1. **Select the Eraser Tool from the Toolbox.**

The Eraser Tool in the Toolbox.

2. **Click on the Note(s) you want to erase, one at a time or drag over them with the mouse button pressed.**

Using the Keyboard or Delete Menu item

1. **Using the Arrow Tool or the computer keyboard, select the notes you plan to delete.**

2. **Select Delete from the Do menu, or Press [Delete] or [Backspace] on the computer keyboard.**

Moving Notes

About the Lock Layers

When you are moving and editing notes in the score, you might accidentally move other objects near by. To avoid this, you can assign different types of objects to different "Lock Layers" (up to three) and instruct Cubase VST to "lock" one or two of these layers, making them unmovable.

• **To set up which type of object should belong to which Lock Layer, double click on the Lock Layer button on the Status bar.**
A dialog opens, where you can select a Lock Layer (1 to 3) for each object type.

The Lock Layer button.

• **To lock a layer, click on its number on the Lock Layer button, so that it goes dark.**
You can only select or move objects whose layer number is lit. For more detailed information, see .

Activating Auditioning

Auditioning activated

If you want to hear the pitch of the note while moving, activate the Speaker Icon on the Status Bar. When it is on, you will hear the current pitch of the "dragged" note, as described below.

Moving in any direction

1. **Set the Snap value.**
The Snap value will restrict your movement in time. You can not place the notes on note values smaller than the Snap value. If Snap for example is set to "8", you will not be able to move the notes to a sixteenth note position. However, you will be able to put them on any eighth note, quarter note, half note or whole note position.

2. **Select the note(s) you plan to move.**
You can select across several staves if you wish.

3. **Position the pointer over one of the selected notes, press the mouse button and keep it down.**

4. Move the mouse.
The horizontal movement of the note is "magnetically attracted" to the current Snap value. The position box shows what the new position for the dragged note will be. The Transpose box shows how much you have transposed the note(s).

Select one or several notes and hold down and drag the mouse button to the new position.
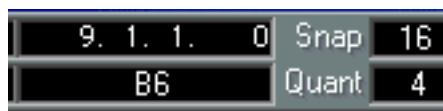
The Transpose box will show you how many semitones you move your note(s)...
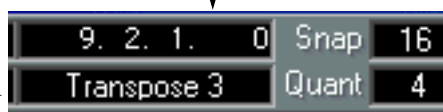
...and then transpose them when you release the mouse button.

Note Position ——————

Amount of Transposition ——————
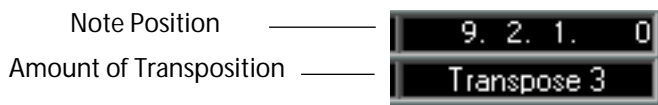
5. Release the mouse.
The notes appear at their new position.

Moving Vertically or Horizontally only

By using the [Shift] key, you can decide to only transpose notes or to only move them in time.

1. Perform steps 1 to 3 above.

2. Hold down [Shift] and move the mouse (with the mouse button still held).
Depending on in which direction you start to drag, the movement will be locked to horizontally or vertically only. You may at any time release [Shift] to be able to move in any direction, and then press it again to lock the movement once more.

3. Release the mouse.
The notes appear at their new position.

▢ **If you move notes vertically and the option "Keep moved notes within key" is activated in the Preferences–Score–Editor Behaviour dialog, the notes will be transposed within the current key only.**

Moving by using the Arrow Keys

Instead of dragging the note with the mouse, you can use the computer keyboard to move it:

1. **Select one or several notes.**

2. **Set the Snap value.**
The notes will be moved in steps according to the set Snap value.

3. **Hold down [Ctrl] on the computer keyboard.**

4. **Use the arrow keys to move the note(s).**
The left/right keys move notes sideways in Snap value steps. The up/down keys transpose notes in semitones steps (see page 108 for more info).

Moving across Staves - the Lock button

If you are editing several Tracks, you may want to move notes from one staff to another. There are two ways to do this:

By dragging

1. **Set Snap and select the notes as described above.**
You may select notes from several staves, but only the ones on the stave from which you actually dragged will be moved, so this is probably best avoided.

2. **Make sure the "L" (Lock) button on the Score Toolbar is deactivated.**
When this button is activated, you cannot move notes and other objects from one staff to another, which is handy if you for example need to transpose a note very high or low.

3. **Click on one of the note(s) and drag them to the new system.**
The Active Staff rectangle indicates which staff the dragged note(s) will appear on.

By using key commands

1. **Select the notes.**

2. **Use the key commands for "Next/Last Dynamic/Text Size/String" to move the notes to the next or previous Staff.**
By default, these are [+] and [–] on the typewriter part of the computer keyboard.

❒ **Moving notes from one system to another actually moves the MIDI data between the Tracks.**

Duplicating Notes

1. **Set Snap and select the notes, as for moving.**
   You can duplicate any block of notes, even on several systems at the same time.

2. **Before starting to drag, hold down [Alt].**

3. **With [Alt] still pressed, move the notes as described above.**

- **If you want to restrict movements to one direction only, hold down [Shift].**
  This works just as for moving, as described above.

- **If you want to restrict the pitch to inside the current key only, make sure the option "Keep moved notes within key" is activated in the Preferences–Score–Editor Behaviour dialog.**

4. **Release the mouse button and all keys.**
   The new notes appear in the Score.

The "Move Events To" function

This function allows you to move or copy notes and other Events between staves, or even between Tracks not displayed in Score Edit:

Setting Up

First you need to make Tracks "available" for moving or copying Events to:

1. **Pull down the Score menu and select "Edit..." from the Move Events To submenu.**
   A dialog appears, listing all Tracks in the Arrangement.
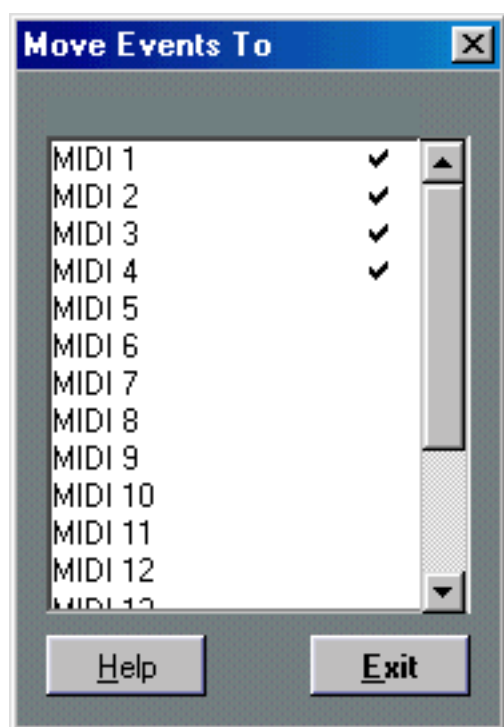
2. **Locate the Tracks to which you want to be able to move or copy Events, and click in the "In Menu" column for these Tracks.**
You will be able to move or copy Events to any Track with a check mark in this column, regardless of which Tracks you are editing at the moment.

3. **Click Exit to close the dialog.**
If you now pull down the Move Events To submenu, you will find the Tracks you selected listed there.
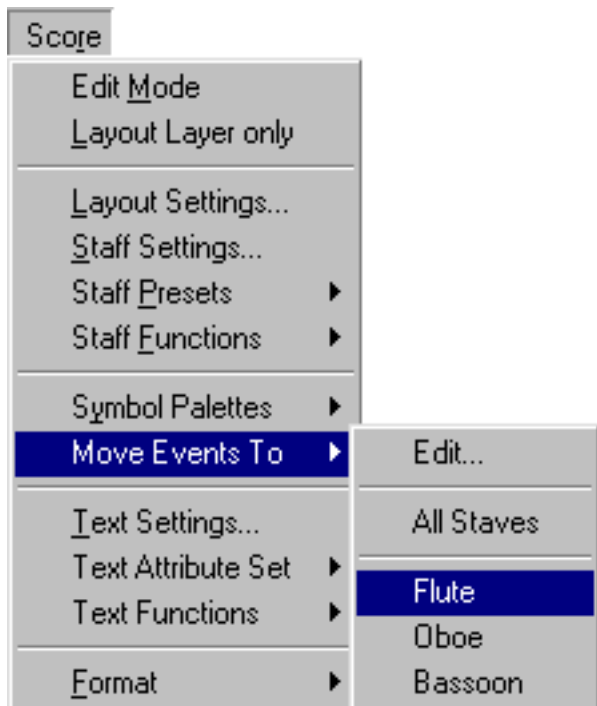
* **If you are editing more than one Track, these will also be listed on the submenu, even if they are not checked in the Edit dialog.**
This makes it possible to move or copy Events between staves, without having to add Tracks to the list first. Likewise, the "All Staves" option is always available.

Moving Events

1. **Select the Events you want to move.**

2. **Pull down the Move Events To submenu on the Score menu, and select the Track to which you want to move the Events.**
The Events are removed from the current Track and inserted at the same positions on the Track you selected.

Copying Events

This is done just as moving Events, except you hold down [Alt] when you select the destination Track from the Move Events To submenu.

Copying Events to All Staves

By using the "All Staves" option, you can quickly copy the selected Events to all staves currently being edited. This is useful if you want to quickly duplicate phrases, dynamics or text comments to all staves in a score, etc.

1. **Make sure the desired Tracks are opened in the Score Editor.**
   A quick way to add or remove Tracks from the Score Editor is to use the "Display Tracks" function on the Score menu, as described on .

2. **Select the Events you want to copy.**

3. **Pull down the Move Events To submenu on the Score menu, and select the "All Staves" option.**
   The Events are copied to all Staves in the Score Editor. Note that a split staff (e.g. a piano staff) is considered to be a single staff.

Moving using the Bar Handles

You can move or copy whole bars by dragging the bar handles. This is described on .

Cut, Copy and Paste

Cutting Notes

1. **Select the Notes.**

2. **Select Cut from the Edit menu or press [Ctrl]-[X].**
   The notes are now removed from the score and put in an invisible place called the Clipboard. Below we describe how to put notes that are on the clipboard into the score.

   ❏ **The Clipboard can only hold one set of notes. If you Cut and then Cut again (or Copy, see below), the set of notes that were on the Clipboard first, will be lost.**

Copying Notes

1. **Select the Notes.**

2. **Select Copy from the Edit menu or press [Ctrl]-[C].**
   A copy of the notes is made, and put in an invisible place called the Clipboard. Below we describe how to put notes on the clipboard back into the score.

   ❏ **As described above, the Clipboard can only hold one set of notes.**

Pasting Notes

Notes that you have put on the Clipboard using Cut or Copy, can be placed into the Score again, in the following way:

1. **Make one staff active.**

2. **Set the Song Pointer to the position where you want the first note to appear.**

3. **Select Paste from the Edit menu or press [Ctrl]-[V].**
   The notes are Pasted in, beginning at the Song Position. If the Cut or Copied notes come from different staves, they will be Pasted into their original staves. Otherwise, the notes are put in on the active staff. They keep the pitch and relative positions they had when you Cut or Copied them.

Using Drag and Drop

If you have notes or other score objects that you want to copy, you can also use drag and drop for this. This method allows you to use the computer desktop as one big Clipboard with multiple entries!

1. **Make sure you have an empty section of the desktop visible.**

2. **Select the notes you want to copy.**

3. **Drag them to the desktop.**
   A Part file is created, with the name of the currently edited Part. If you drag several objects out of the same Part, the file names will be separated by numbers. You may want to rename the Parts if you intend to keep them a longer time.

4. **Locate the position in your scores where you want to insert the copied notes.**
   This may be on other Tracks or even in another Arrangement or Song.

5. **Drag the Part file into the score and drop it at the desired position.**
   If you are editing several Tracks, make sure that the correct Staff is selected.

Editing Pitches of Individual Notes

By Dragging

The most basic way to edit the pitch of a note would probably be to drag it up or down as described on page 101. Remember to hold down [Shift] to avoid moving the note sideways as well.

• **If the option "Keep moved notes within key" is activated in the Preferences–Score–Editor Behaviour dialog, notes will be transposed within the current key only.**

• **To avoid accidentally moving the note into another staff, activate the Lock button as described on page 102.**

Using the arrow keys

You can use the up and down arrow keys on the computer keyboard to transpose notes, in the following way:

1. **Select the note(s) you want to transpose.**

2. **Hold down [Ctrl].**

3. **Use the up and down arrow keys to transpose the note(s) up or down, in semitone steps.**

• **If you hold down [Shift] and [Ctrl] in step 2 above, the notes will be transposed in octave steps instead.**

Using the Info Line

You can use the Info Line to change the pitches (and other properties) of one or several notes numerically, as described in the Getting Started book.

• **If you have several notes selected and change the pitch on the Info Line, the changes will be relative.**
That is, all selected notes will be transposed by an equal amount.

• **If you have several notes selected, hold down [Alt] and change the pitch on the Info Line, the changes will be absolute.**
That is, all selected notes will be set to the same pitch.

Via MIDI

1. **Activate the MIDI In button and the Pitch button.**
   This is done by clicking. If you also want to change the note-on and/or note-off velocity of the notes via MIDI, this can be done by also activating the corresponding velocity buttons, as described in the chapter "The MIDI Editors - General Information" in the Getting into the Details documentation.

   To edit pitches only, via MIDI, set up the buttons like this.

2. **Select the first note you want to edit.**

3. **Press a key on your synthesizer keyboard.**
   The note takes on the pitch of the key you pressed. The program then selects the next note.

4. **To change the pitch of the now selected note, simply press the corresponding key as for the first note.**
   In this manner you can change the pitches of as many notes as you wish, by simply pressing the relevant keys. You can also use the [←] and [→] keys to step around among the notes. If you for example made a mistake, you can step back to the previous note with [←].

Changing the Length of Notes

When it comes to note lengths, Score Edit is special in that it doesn't necessarily display the notes with their actual length. Depending on the situation, you may want to change the "physical length" of the notes or the "display length".

Changing the "Physical" Length

This will change the actual length of the notes. The change will be reflected when you play back the music.

☐ **Remember that the appearance of notes and rests in the Score is determined by the Display Quantize settings in the Staff Settings dialog. Depending on the Display Quantize "Notes" and "Rests" values, notes may be displayed as if they were longer than they really are (see page 10).**

By using the Note Tool

1. **Select a Note value that you wish to apply to the Note.**
   This can be done by clicking a note value icon in the Score Toolbar, by selecting a new Quant value or by pressing keys on the computer keyboard.

2. **Select the Note Tool if it isn't already selected.**

3. **Hold down [Alt] and click on the Notes you wish to set to this length.**
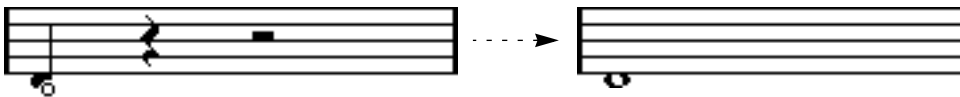
By using the Arrow Tool

You can set the length of notes without switching to another tool. This method also allows you to set a note to an "uneven" length (five sixteenth notes, nine eighth notes, etc). Proceed as follows:

1. **Set the Snap value to the smallest "denominator" of the length you wish to set.**
   For example, if you want to change the length to five 1/16th notes, you would set Snap to 16.

2. **If you want to set the length of several notes at the same time, select the notes.**
   For this to be possible, the option "Tools work on all selected Events" must be activated in the Preferences–General–Editors dialog.

3. **Hold down [Ctrl], point on a note with the arrow tool and press the mouse button.**
   A small length slider appears.

The length is shown to the right, as sixteenth notes and ticks.

4. **Drag the slider to the desired length value.**
   The Snap value determines which lengths you can select.

5. **Release the mouse button.**

By using the Score Toolbar

Using the Score Toolbar is another quick way to set a number of notes to the same length:

1. **Select the notes you want to change.**

2. **Hold down [Ctrl] and click on one of the note "buttons" on the Score Toolbar.**
   All the selected notes are now given the length of that note "button".

By using the Info Line

You can also edit Length values numerically on the Info Line. The same rules apply as when changing the pitch of notes (see).

Lengthening a Note by Gluing two Notes together

You can create unusual note length values by gluing notes of the same pitch together.

1. **Insert the notes you want to glue together (if they don't already exist).**

2. **Select the Glue Tool from the Toolbox.**

The Glue Tube in the Toolbox.

3. **Click on the first note.**
   This note will now be tied to the first note after it, that has the same pitch.

❒ **Make sure you have a display note/rest quantize value that allows you to display notes of the created note value.**

4. **If you want to glue more notes, click again.**

By gluing together a quarter note, an eighth note and a sixteenth note...
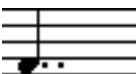
...you get a double dotted quarter note.

Changing the length by using Functions

If you pull down the Functions menu and open the MIDI Functions submenu, you will find another submenu called "Note Length". This contains various Functions for changing the length of notes, as described in the Menu and Dialog Reference document.

• **As with all editing functions, the To pop-up menu and/or selection determines which notes are affected.**

Changing the Display Length

If you want to change the displayed length of notes without affecting how they play back, the first thing to try is to adjust the Display Quantize, either for the whole Staff or for a separate section, using the Quantize tool (see page 78). But you can also make length adjustments to individual notes in the Note Info dialog:

1. **Double click on the head of the note.**
   The Note Info dialog opens.

2. **Locate the "Display Len" setting.**
   By default, this is set to "Auto", meaning that the note will displayed according to its actual length (and the Display Quantize settings).

3. **Set a new length value (displayed in sixteenth notes and ticks).**
   To set the Display Length to "Auto" again, scroll the value down to zero.

4. **Click OK to close the dialog.**
   The note will now be displayed according to it's Display Length setting. However, the Display Quantize settings still apply!

Splitting a Note in two

If you have two notes strung together by a tie, and click on the "tied" note head with the scissor tools, the note will be divided into two, with the respective length of the "main" and the tied note.
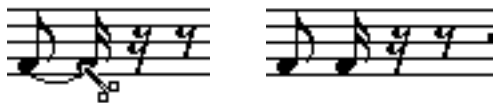
Before and after splitting a tied note.

Muting Notes

If you want to display notes without having them played back, you could use the Graphic symbols. An easier way however, might be to insert the notes as usual and then mute them:

1. **Select the notes you want to mute.**

2. **Pull down the Do pop-up menu and select "Mute Selected".**
   The notes are muted.

3. **To unmute the notes, select them and select "Unmute Selected" on the Do pop-up menu.**

Finding Muted notes

There are two ways to distinguish muted notes:

• **If the option "Use Colors for Additional Meanings" is activated in the Preferences–Scores–Editor Behaviour dialog, muted notes are displayed in grey.**

• **If you select the notes, you will notice that they are displayed with a small "frame" instead of the regular inverted note head.**

Unmuting all notes

1. **Pull down the Edit menu and select "All" from the Select submenu.**
   All notes are selected.

2. **Pull down the Do pop-up menu and select "Unmute Selected".**
   All selected notes are unmuted.

• **If you want to unmute all notes after a certain position, you could instead hold down [Shift] and double click on the first note after that position.**
   All following notes would be selected, and you could use the "Unmute Selected" command without affecting any notes before that position.

Working with the Quantize Tool

There are instances when you will want different Staff Settings on different sections of the Track. The settings in the Staff Settings dialog are valid for the entire Track, but by using the Display Quantize Tool you are able to insert changes and exceptions wherever you like. This is described in detail on .

Split (Piano) Staves

Setting up the Split Staff

1. **Make a staff active.**

2. **Open the Staff Settings dialog for the staff.**

3. **From the Staff Mode pop-up, select Split.**

4. **Set up the Split Point field.**

The Split Note setting in Staff Settings.

All Notes below this will be put on the lower clef, all above will be put on the upper clef.

5. **Select a Clef and Key.**
   When you set a key for the upper staff, this setting is automatically copied to the lower staff. To set a separate key for the lower staff, activate "Lower Staff" and then change the key.

6. **Make whatever additional Staff settings you need.**
   These will apply to both the upper and lower clefs.

7. **Close the Staff Settings Dialog.**

Before and after setting a Split at C3.

Adding Notes

This is done just as on a single system, see page 92. Please note the following:

- When you enter a note, use the pitch box (on the Status Bar) to determine the pitch. Whether it winds up on the upper or lower staff has nothing to do with where you aim with the mouse. The Split Note setting always decides if a note goes on the upper or lower clef. If you change the split point, this will affect existing notes, see below.
- Sometimes a fixed split point isn't good enough. You might want to put two notes with the same pitches on different clefs in different parts of the piece. To achieve this you need to use Polyphonic Voicing, see page 128.

Changing the Split Point

1. **Open the Staff settings dialog for the system you are working on.**

2. **Change the Split Note value.**

3. **Close the dialog box.**

   Now, some notes that were previously on the lower staff will be on the upper, or vice versa.

Strategies: Multiple Staves

As described above, when you have Parts on several Tracks selected in the Arrange Window, these will be put on one staff each, when you open the Score Editor. This allows you to work on several staves in parallel.

Working with several staves is not much different from working with one. Below follow some guidelines that apply specifically to working with Multiple Staves.

Staff Settings

- As described above, the settings in the Staff setting dialog are local to each staff. By using the Prev and Next buttons or the [Page Up] and [Page Down] keys you can set up all staves as needed, without closing the dialog box.
- If several staves share settings, you will save some time by using Staff Presets. Set up the Staff settings for the first staff, then make those settings a Preset. This Preset can then be applied to any of the other staves, one at a time. See page 121 for details.

Selecting Notes

- You can select notes from one or several staves at the same time, using any method of selection, as described on page 97.

Adding Notes

- You can add notes to any staff by just clicking inside it. The active staff rectangle will move to the staff where you input the note.
- If you need to put in a note with a very high or low pitch, which makes it wind up on the wrong staff when you click, first enter a note with the wrong pitch, and then edit its pitch as described on page 108.
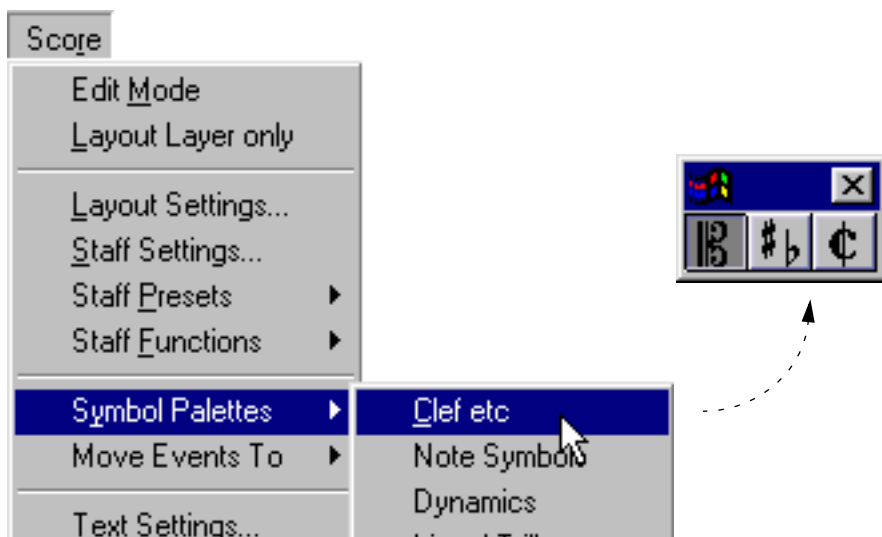
Inserting and Editing Clefs, Keys or Time Signatures

It is possible to insert a change of key signature, clef, or time signature anywhere in the score:

Inserting a Symbol on one Staff

1. **Select "Clef etc" from the "Symbol Palettes" menu on the Score menu.**
   This opens up the "Clef etc" Palette, which contains Clef, Key and Time Signature symbols.

The Symbol Palettes menu and the "Clef etc" palette.

2. **From the Palette, select the symbol you wish to insert into the score.**
   The Pencil tool is automatically selected (see also page 189).

The Clef symbol selected in the Palette.

3. **Move the mouse over the Staff where you want to insert a new symbol.**

4. **Use the mouse position box to find the exact location.**
   The vertical position is of no relevance as long as you click somewhere in the staff. Time Signature changes can only be inserted at the beginning of a bar.

5. **Click the mouse button.**

• **If you have inserted a new Clef, a dialog with the available clefs appear.**

• **If you have inserted a new Key Signature, a dialog with the available keys appears.**
   Inserting a key change on the upper staff of a split system automatically inserts the same key change on the lower.

• **If you have inserted a Time Signature, the Time Signature dialog box appears.**
   The Time Signature dialog box is described in detail on page 56.

6. **Select an option from the dialog.**
   The symbol appears. If there is room for it in the bar, the notes are moved to make room for it. If not, you will have to use Auto Layout or make manual adjustments (see Moving Clefs below).

❑ **Inserting a symbol at position 1.1.1.0 is the same as changing the Staff settings which are stored in the Track. Inserting anywhere else adds the change to the Part.**

Inserting a Symbol on all Staves

If you hold down [Alt]+[Ctrl] while inserting any of the symbols above, the symbol will be inserted at this position on all staves currently being edited in the Score Editor.

❑ **For Key Signatures, Display Transpose is taken into account. This allows you to set all staves to a new key and the staves set to Display Transpose will still show the correct key after the key change.**

Editing Keys, Clefs and Time Signatures

If you double click on a symbol, the same dialog appears as when you inserted it. This allows you to change the settings for it.

If you hold down [Alt]+[Ctrl] when double clicking, all symbols at the same position are changed accordingly. With Key Signatures, the Display Transpose value is taken into account as described above.

• **You will find several options for how Key, Clef and Time Signature changes should be displayed in the Preferences–Scores–Additional Settings dialog.**
  You can also adjust the automatic spacing between these symbols in the Preferences–Scores–Spacing dialog. See the Menu and Dialog Reference document for details.

Moving Clefs

Clefs inserted into the score have an effect on how notes are displayed. If you for example insert a bass clef in the middle of a treble staff, the staff switches to show bass pitches. Therefore it is very important where you insert the clef.

However, you might want to move the clef graphically, without disturbing this relation between the clef and the notes. Proceed as follows:

1. **Select the Layout Tool from the Toolbox.**
   This is available in Page Mode only.

2. **Click on and move the clef just as with the normal arrow pointer.**
   Now the clef is moved, but the score is still interpreted as if it remained in its original position.

6
Staff Settings

In this Chapter you will learn:

- · How to make Staff settings.
- · How to work with Staff Presets.

Staff Settings

Below follows a run-through of all Staff settings, more detailed information about the ones already described and references to other places in the manual for some options.

Use this section to set up Split Staves and Polyphonic voices

The name of the active Track

Use this section to select keys and clefs

Use this section to set up how the display should be quantized

Use this section to make additonal settings for how the notes are displayed

This button opens up yet another dialog with additional settings

Use these buttons to step between the staves

Use this section to turn the current settings into a preset

The Staff Settings dialog box.

Making Settings

Making Settings for Multiple Staves – one at a time

1. **Open the Staff Settings dialog.**

2. **Use the Prev and Next buttons or the [Page Up] and [Page Down] keys to step to the right staff.**
   The title shows which Track is selected. The dialog shows the settings for the current staff.

3. **Make whatever settings you need to do.**
   You might for example click the "Staff Options..." button to display the additional options available.

4. **Step to the next staff and make settings for this.**
   Repeat this until all staves have the right settings.

5. **Press [Return] or Click OK.**

Making Settings for Multiple Staves – all at once

1. **Open the Staff Settings dialog.**

2. **Make whatever settings you need to do.**

3. **Hold down [Alt], and hit [Return] or Click OK.**
   The settings you made will now apply to all staves currently visible in the Score Editor. By opening different combinations of Tracks, this can be used as a powerful way of making groups of Tracks get identical settings.

Working with Staff Presets

You will spend some time making Staff Settings for your scores. Staff Presets allow you to reuse those settings whenever you work with a staff similar to one you have worked on before.

❐ **A Staff Preset contains all the settings in the Staff Settings dialog except the Key Signature.**

Creating a Staff Preset

1. **Set up the Staff Settings as you want them.**
   This includes the Staff Options dialog, see below.

2. **If you want a new item, select the last item on the Presets menu.**
   This item is always called "empty".
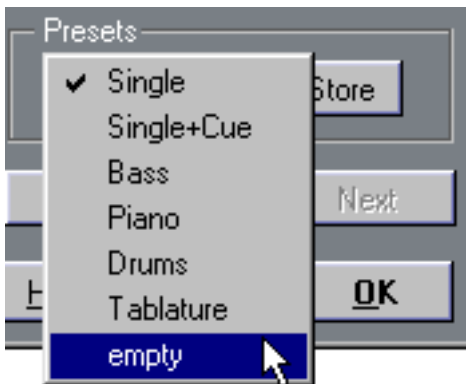
At the bottom of the Preset menu you will always find the item "empty".

3. **If you instead want to overwrite an existing Preset, hold down [Alt] and select any other memory location from the Presets menu.**

4. **If you wish to change the name of the Preset, double click on it.**
   The name is entered as usual.

5. **Click the Store button.**

The Store button is in the Preset section of the dialog.

Applying a Staff Preset

1. **In Score Edit, activate a Staff.**

2. **Select Staff Presets from the Score menu and then select one of the Presets from the submenu that appears.**
   All the settings in the Preset are now applied to the Active Staff.

• **If you hold down [Alt] and select a Preset from the Staff Preset submenu, the settings in the Preset will be applied to all Staves opened into Score Edit.**

Renaming Staff Presets

1. **Open the Staff Settings dialog box.**

2. **Select the Preset.**

3. **Double click on it and enter a New name as usual.**

4. **Click Store.**

Copying a Preset

1. **Open the Staff Settings dialog box.**

2. **Select the Preset.**

3. **Hold down [Alt] and select another Preset.**

4. **If you wish to change the name, double click on it and enter a new name as usual.**

5. **Click Store.**

How Staff Presets are stored

The Staff Presets are stored in the Cubase preferences. This means that once you have created a set of Staff Presets, they are available for selection in any Song you create or edit.

Staff Mode
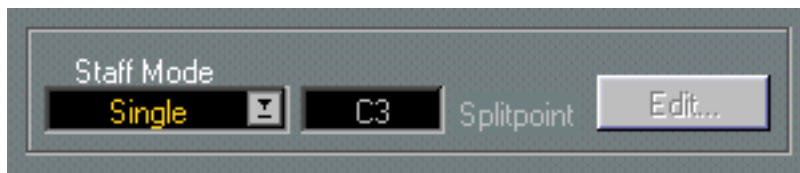
The "Staff Mode" part of the "Staff Settings" dialog.

This setting is used to create different types of staves:

Select This:	When You Want To:
Single	Score a simple "one voice" or chord part.
Split	Score a Piano (or other) keyboard part (see page 114 for details).
Polyphonic	Score a complicated part with polyphonic voicing on a single or split staff (see page 128 for details).

Key and Clef
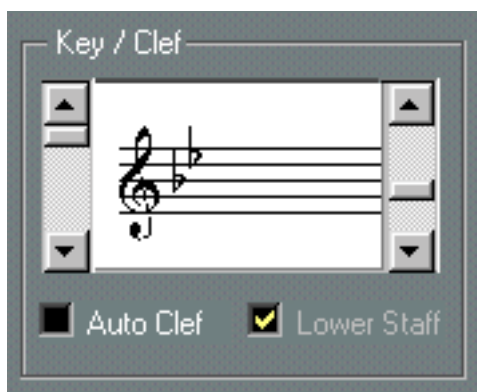
The basic Key and Clef Track Staff settings are described in detail on page 56. There is also a Lower Staff check box which is only used in conjunction with Piano Staves and Polyphonic Voicing. This is described on page 59.

Display Quantize and Interpretation Flags
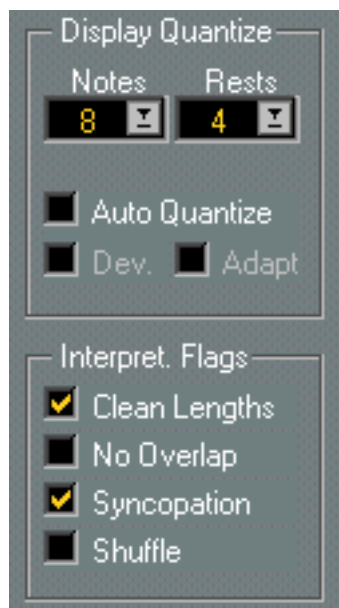
These two sections of the dialog contain a number of settings used to determine how the notes should be interpreted. While these settings are more critical to making MIDI recorded music appear as legible as possible it is still important to have them set correctly when entering notes using the mouse. Below you will find a brief summary of the settings - for more details, see page 70.

Notes and Rests Quantize values

- Generally, the Note Quantize value should be set to a value equal to, or smaller than, the "smallest note position" you want to be shown in the score.
- The Rest Quantize value should be set to a value equal to, or smaller than, the smallest note value (length) you want to be displayed for a single note, positioned on a beat.
- If the score contains only triplets, or mostly triplets, select one of the Triplet options.

Auto

- If the piece contains no triplets or only triplets, deactivate this option.
- If the piece contains mixed triplets and straight notes, activate this option (the additional options are described in detail on page 71).

Interpretation Flags

Activate This:	When:
Clean Lengths	When you find the program generally interprets your notes as shorter than you expect. See page 71.
No Overlap	When notes starting at the same position, but having different lengths, give you more ties than you want. See page 72.
Syncopation	When the program adds more ties to notes crossing beats and bar lines than you prefer. See page 72.
Shuffle	When you have played a shuffle beat and want it displayed as straight notes (no triplets). For details see page 73.

Staff Options
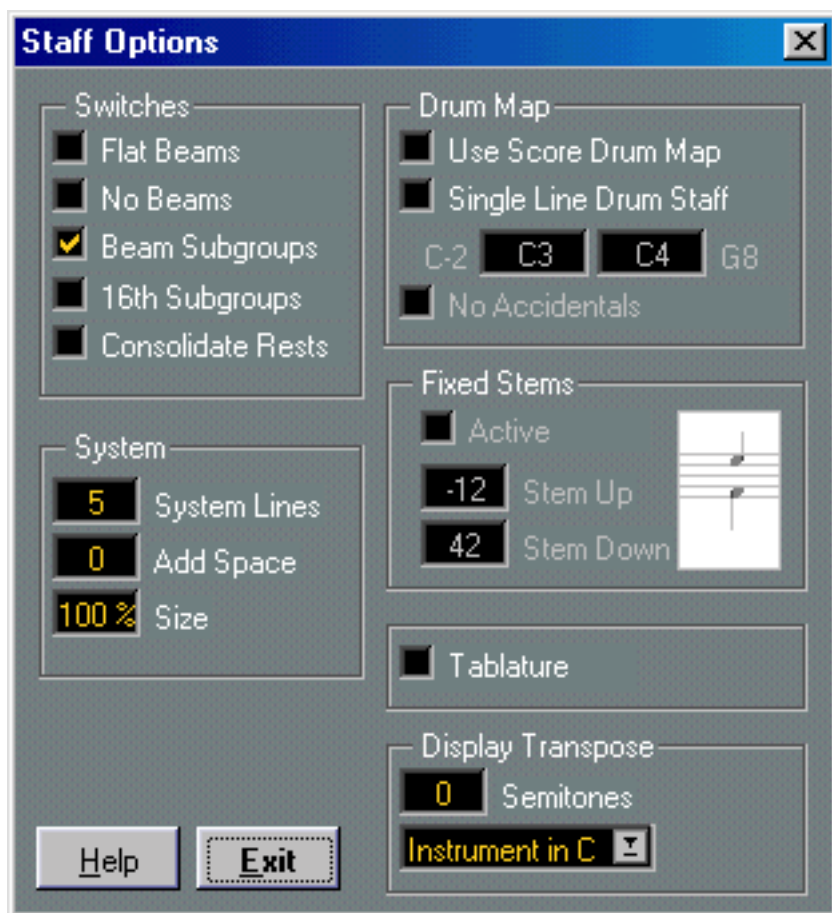
When you click the "Staff Options..." Button in the Staff Settings dialog, another dialog opens up with additional Staff Settings (which can be made part of a Staff Preset just as the other settings). Below follows a brief description of these, with references to more detailed explanations.

Switches

Activate This:	When:
Flat Beams	When you want the beams over notes to be flat (as opposed to slanted). See page 167.
No Beams	When you don't want any beaming at all on the staff (for example for vocal scoring). See page 161.
Beam Subgroups	When you want sixteenth notes displayed under a beam to be divided into two groups of eight notes. See page 167.
16th Subgroups	When you want even smaller subgroups of sixteenth notes. This setting has no effect if Beam Subgroups is turned off.
Consolidate Rests	When you want two rests joined to one (for example an eighth note and a sixteenth note rest displayed as a dotted eighth note rest). See page 75 for an example.

System

This section allows you to set the number of system lines and to control spacing between the lines:

Setting:	Description:
System Lines	The number of lines in a system. For regular scoring, this should be set to 5.
Add Space	Allows you to increase or decrease the space between the lines in a system.
Size	Allows you to set a size for the systems, as a percentage (with 100% being the default value). In effect, this setting scales the score vertically.

See page 300 for an example of how this can be used with Tablature.

Drum Map

These settings are all described in the chapter "Scoring for Drums".

Fixed Stems

If you activate this checkbox, the stems of all notes will end at the same vertical position. This feature is perhaps most often used when scoring for drums (see page 294).

A drum pattern with Fixed Stem Length activated.

The values determine which position (relative to the top of the staff) should be used for up and down stems, respectively. The graphical display helps you get your settings right.

Display Transpose

· The numerical setting is used to transpose the score up or down without affecting playback and without actually transposing the MIDI data that is the basis for the score.
· The pop-up menu contains a number of preset transposition values for common instruments which are scored transposed.

More details on page 62.

Tablature Mode

This option is described in the chapter "Creating Tablature".

Staff Settings and General MIDI Instruments

If you are working with General MIDI compatible instruments, you can get a lot of score formatting "for free":

1. **Open the Preferences–Scores–Editor Behaviour dialog.**

2. **Activate the option "Staff Settings adapt to General MIDI rules".**

3. **Close the dialog.**

   Now, Program Change numbers and MIDI Channels set for the Tracks in the Arrange window will be linked to certain properties in the score:

- Tracks set to Program Change 1 to 8 will automatically be set to a Piano staff (since these Program change numbers correspond to piano instruments in General MIDI).
- Tracks set to play bass sounds, tuba and trombone will appear on a bass clef.
- Tracks set to play viola sounds will have an alto clef.
- Tracks set to play Trumpet will have a Display Transpose setting of +2.
- Other brass and woodwind instruments will also have Display Transpose settings: soprano sax +2, alto sax +9, tenor sax +14 baritone sax +21, piccolo and pan flute -12.
- All Tracks set to MIDI Channel 10 will be set to a drum clef with two voices, and a default mapping of the drum notes (which can be changed, see).

7
Polyphonic Voicing

In this Chapter you will learn:

- How to decide when to use polyphonic voicing.
- How to set up voices.
- How to automatically convert your score to polyphonic voicing.
- How to enter and move notes into voices.

Background: Polyphonic Voicing

Polyphonic voicing allows you to resolve a number of situations impossible to score properly otherwise:

- Notes starting at the same position, but with different lengths. Without polyphonic voicing you get unnecessary amounts of ties.
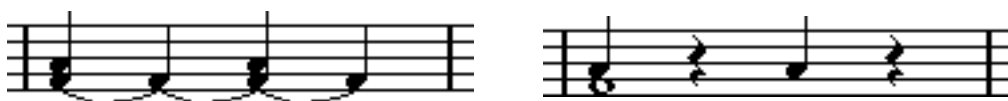
Without and with polyphonic voicing.

- Vocal scoring and similar. Without polyphonic voicing, all notes starting at the same position are considered parts of a chord. With Polyphonic voicing you can give each voice a stem direction, you can have individual rest handling for each voice etc.

Without and with polyphonic voicing.

- Complicated piano systems. Without polyphonic voicing you have to resort to a fixed split note setting to decide which notes go on which clef. With polyphonic voicing the split point can be "floating". The program can even automatically put a bass line on the lower clef for you!

With a Split system and with polyphonic voicing.

How Voices are Created

There are eight voices. The first thing you do is to set them up. This includes "telling" the program which voices belong to the upper clef and which belong to the lower, how you want rests displayed for each voice, etc.

The second thing you do is to move or enter notes into the voices. If you have a recording done already, the program can do much of this work for you, automatically. You might then want to fine tune by moving one or more notes into another voice, or you might want to add notes to a certain voice.

❑ **Each Voice is polyphonic. In other words, one Voice can contain chords.**

Overlapping Notes

Throughout this chapter you will encounter the term "Overlapping Notes". Two notes are considered overlapping when they are on the same staff and:

• They start at the same position, but have different note values (for example whole note and a quarter note both at the beginning of a bar), or...
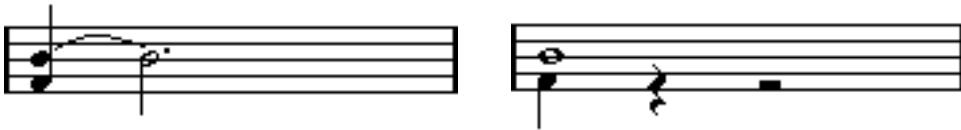
Notes starting at the same position, without and with polyphonic voices.

• One note starts before another has ended. For example a half note at the beginning of a bar and an eight note at the second beat.
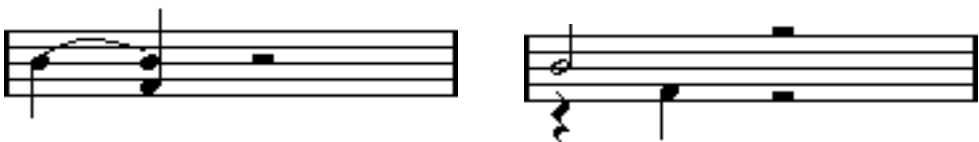
A note that starts before another has ended, without and with polyphonic voices.

Voices and MIDI Channels

Internally the program organizes the Notes into Voices by changing their MIDI Channel values. Normally you set it up so that notes with MIDI Channel 3 belong to Voice 3 etc. Most of the time the link between MIDI Channels and Voices will be totally transparent to you as a user. But sometimes you can take specific advantage of this relation, as described later in this chapter. There is also a few other important things to note:

❑ **When you make a note part of a voice, you are in fact changing its MIDI Channel value. However, when you change the Voice's MIDI Channel values in the setup dialog, this does not affect the notes' MIDI Channel setting. This can lead to serious confusion, since the relation between the notes and the voices is affected. It might even make notes disappear (the program will warn if this happens). In other words, don't change the MIDI Channels in the polyphonic voices dialog after you have put your notes into voices, unless you are absolutely sure of what you are doing.**
Also please note that when you open a Part that contains notes on different MIDI Channels, these notes are de facto already assigned to voices (since notes are assigned to voices using their MIDI Channel setting). While this fact can be put to good use, it can also create confusion, and even disappearing notes, as described above.

Setting up the Voices

This text describes the Polyphonic Settings dialog, in general. Below you will find more detailed explanations on how to select from the multitude of options.

❒ **You can also convert existing Tracks into polyphonic voices automatically, using the Merge All Staves function.**

1. **Open the Staff settings dialog for the staff.**

2. **Select Polyphonic from the Staff Mode pop-up.**

3. **Click the Edit button.**
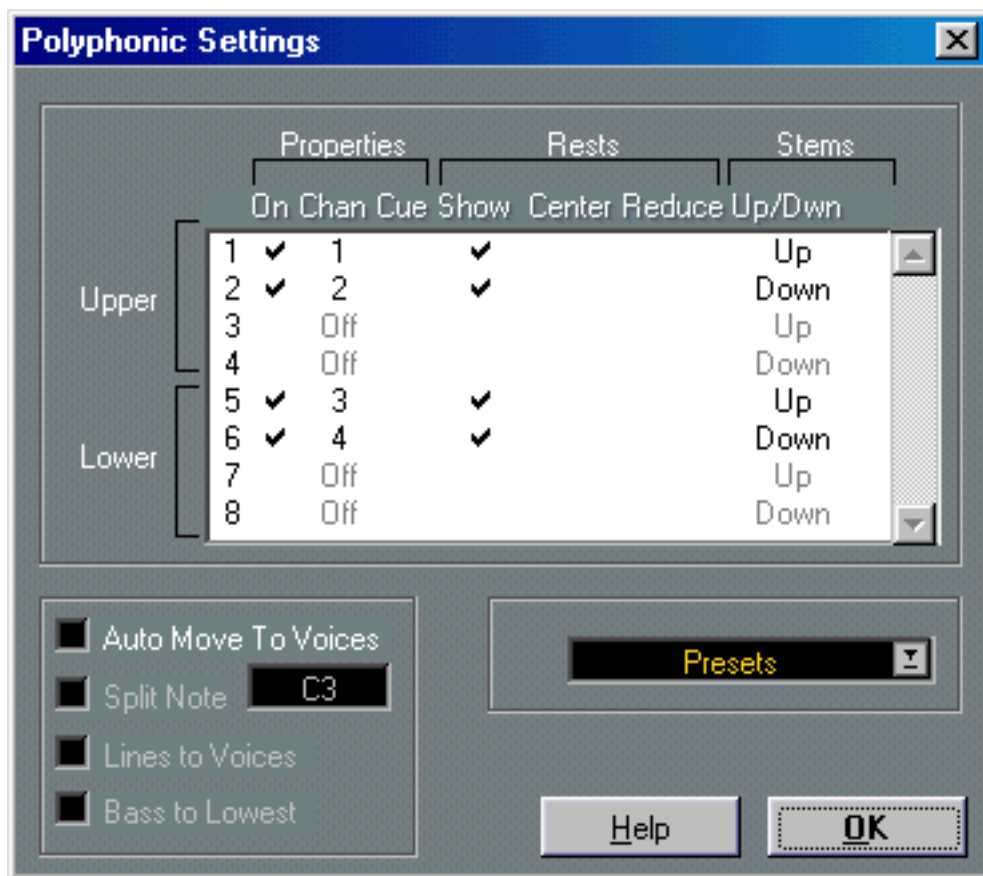
The Polyphonic Settings dialog.

The Polyphonic Settings dialog appears. It consists of eight rows with one voice in each. They are numbered and therefore we refer to them as voices 1 to 8.

❒ **Do not confuse the voice numbers with the MIDI Channel setting for each voice.**

4. **To activate a voice, click in its "On" column, so that a tick mark appears.**
   There are four voices on each staff, for a total of eight. If you activate at least one "upper" voice and one "lower" voice, you will get a split (piano) staff.

5. **If you have particular reasons to use specific MIDI Channels, change the "Chan" settings for the voices.**
   The program automatically sets each voice to a different MIDI channel. If you don't have good reasons to make changes, leave the settings as they are.

❑ **Please note the warnings about changing the MIDI Channel settings, on** **. Also note that if two Voices are set to the same MIDI Channel, the lower will be treated as if it was turned off.**

6. **Click in the "Rests–Show" column to decide for which voices you want rests displayed.**
   A tick mark indicates that rests will be shown for a voice. Often you will only want rests to be shown for one voice per staff, see below.

7. **If you have activated "Rests–Show" for a voice, but don't want rests to be shown in empty bars, click in the "Rests–Reduce" column for that voice.**
   This is especially useful for Cue Voices, see .

8. **Click in the "Rests–Center" column to determine at which vertical positions rests should be shown (for voices with "Rests–Show" activated).**
   When this option is activated for a voice, the rest will be put in the vertical center of the staff, when it is not, the rest will get a vertical position based on the pitch of the notes.

9. **Decide for a stem direction for each voice, by selecting from the pop-up in the Stems column.**
   If you select Auto, the program will make decisions about which stems go in which direction (just as when not using polyphonic voices). Regardless of which option you show, you can always force stem direction for individual notes by using the Flip Stem function, see .

❑ **There is a special Stem feature for voice 1: If you set this to Auto, the stem direction will depend on the pitch of the note as usual - except if there are voice 2 notes in the bar, because then the voice 2 stems will automatically be set to Up!**

10. **If you want the notes in a voice to be smaller than regular notes, put a tick mark in the Cue column for the voice.**

11. **Decide if you want to use Auto Move To Voices.**
    This is described in detail below. If you want to use it, activate one or more of the options below.

12. **Close the dialog box and the Staff settings dialog.**

    If the "Some Notes Do Not Belong To Voices..." Dialog appears

    When you close Staff settings, a dialog box may appear saying "Some notes do not belong to any voice and may be hidden, Correct/Ignore".

    This dialog appears when you have set up polyphonic voices without using "Auto Move To Voices", and there are notes with MIDI Channel settings which do not match any of the active Voices.

    If you click the "Correct" button, these notes will be moved to active voices. If you click "Ignore", nothing will be changed, and some notes will be hidden. However, they are not lost, they appear in all other editors and will appear again in Score Edit if you for example use "Auto Move To Voices".

About the Polyphonic Presets
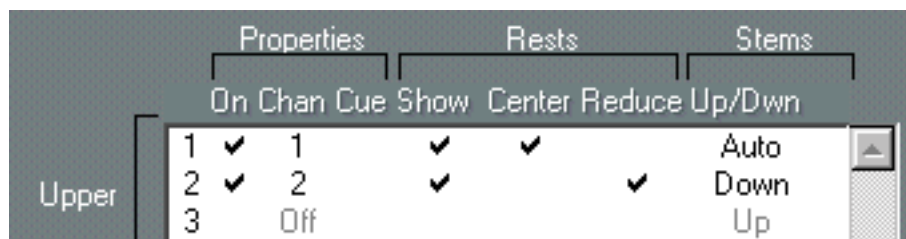
The Presets pop-up menu in the Polyphonic Settings dialog contains three very usable setups. Instead of making settings by hand, you can select one of the Presets, thereby saving some time. The Presets are:

Variable Split

This sets up the dialog for two voices, one on each staff, each with auto stem direction. This is a good starting point for a piano staff when the fixed split option doesn't suffice.

Optimize Two Voices

With this Preset, only Voices 1 and 2 are activated with settings like this:

This way the first voice behaves as in Single Staff mode, but if there are notes in the second voice, the stems of the first one are set to up.

Optimize Four Voices

This is like "Optimize Two Voices", but with two staves. Voices 5 and 6 are activated as well, with the same settings as Voices 1 and 2. This is the recommended way to write piano music.

Strategies: How many Voices do I need?

Well, it depends...

- If you are scoring for vocals, you simply need one voice for each voice, so to speak.
- Often you will use voices for resolving the problem of overlapping notes (see page 130), for example when scoring for piano. In this case, you will need two voices each time two notes overlap. If three notes overlap, you will need three voices. In other words you will need to check for the "worst case" (largest number of overlapping notes at a certain position) and activate that many. If you don't know how many notes you need when starting out to prepare a score, don't worry, you can add more voices later.
- Voices 1 and 2 on the upper staff and 5 and 6 on the lower are special. These handle "collisions" (notes with small intervals, accidentals that otherwise would come too close, etc) automatically which the other voices don't. Always use these voices first!
- An example: in the situation below, three voices are required. The lowest note overlaps both the "melody" and the chords, so it can't share a voice with the chords. The chords overlap the melody, so they can't share a voice either.

Using Auto Move To Voices
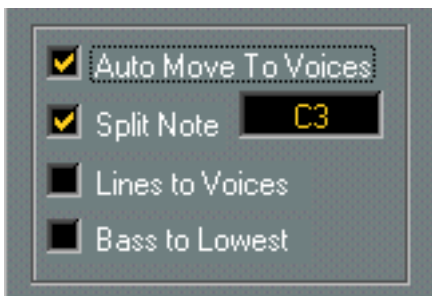
If you have a Track already recorded and you want to use polyphonic voicing for it, you have the option of letting the program automatically put notes into voices. This is done by activating "Auto Move To Voices" in the Polyphonic Settings dialog.

1. **Open the Staff settings dialog box for the staff.**

2. **Switch the system to Polyphonic.**

3. **Click Edit and set up the Voices as described above.**

4. **Activate "Auto Move to Voices" and turn on the options you need.**
   See below for details.

5. Close the Polyphonic Settings dialog and the Staff Settings dialog.
The notes are now moved to the voices.

Activate This:	When:
No option	When you "only" want the program to automatically resolve overlapping notes. The program does this by moving notes to different voices. For example if a whole note starts at the same time as four quarter notes, the whole note will wind up in its own voice. To make this work, you must of course have enough voices activated in the Polyphonic Voices dialog.
Split Note	When you want to move all notes below a certain pitch to the "lower voices", that is, to move them to the bass clef. This of course requires you to have at least one of the lower voices activated. Overlapping notes will also be treated as described above. Make sure the Split Note is set to a reasonable value if this option is activated!
Lines To Voices	When you want all musical "lines" to be put in one voice each, regardless if there is need for resolving overlapped notes or not. Select this option for example for vocal scoring.
	The notes with the highest pitch are picked to the top voice and so on. Make sure you have enough voices activated, or the lowest voice will contain more notes than you expect!
	If you want "bass" notes moved to the bass clef, make sure one or more of the "lower" voices are activated.
Bass To Lowest	When you want the lowest note to be put in its own voice on the bass clef. This of course assumes you have at least one of the "lower" voices activated. Otherwise, the notes will be put on the lowest of the "upper" voices.

If things didn't turn out exactly as you expected it, just repeat the procedure and try other settings. Some trial and error might be required to find the right combination. But there are of course cases which no computer program can handle automatically. If you for example need crossed voicings, some manual adjustments are necessary, see page 143.

❏ **Please note that graphical "collisions" are only handled automatically for Voice 1 and 2 on the upper staff and Voice 5 and 6 on the lower. If you use more than two voices on a system you might have to use the Layout Tool to perform "Graphic Moving" of notes, to make the score more legible.**

Entering Notes into Voices

When you add new notes, you need to decide which voice they go into:

1. **Make sure the Score Toolbar is visible.**

2. **Select the Arrow Tool.**

3. **If you have a split system, check the Voice Insert buttons.**

The Voice Insert buttons – here three voices are activated on the upper staff.

These are displayed after the text "Insert" on the left side to the Score Toolbar. Only the Voices that are activated in the Polyphonic Settings dialog are shown. If the upper Staff is active, the Voice Insert buttons are numbered 1, 2, etc, otherwise they are numbered 5, 6, etc.

4. **If you need to switch the voice icons to the right "clef", click somewhere in the system you want to insert notes in.**

5. **Select one of the voices by clicking on the corresponding button.**
   Any notes you enter from now on will now be inserted into that voice.

    Voice 3 activated for insertion.

6. **Insert the notes as usual.**

7. **If you want to switch to another voice, click on the corresponding button.**

8. **If you want to insert notes into a voice on the other clef, click on that clef and then select a voice using the buttons.**

Symbols and Voices

Later in this manual you will learn about symbols that can be added to the score. Many of these symbols must also be put into a particular voice. See .

Recording and Step Input

When you record or use Step Input in Score Edit, you can have all notes automatically inserted into the active voice:

1. **Open the Preferences–Scores–Editor Behaviour dialog and make sure the option "Send Recorded Notes to Active Voice" is activated.**

2. **Make the Staff active where you want the notes to appear.**
   This is probably most easily done by clicking somewhere in the staff.

3. **Click on a voice "Insert" button to select which voice you want the note to appear in.**

4. **Record or use Step Input.**
   The notes appear in the selected voice on the active Staff.
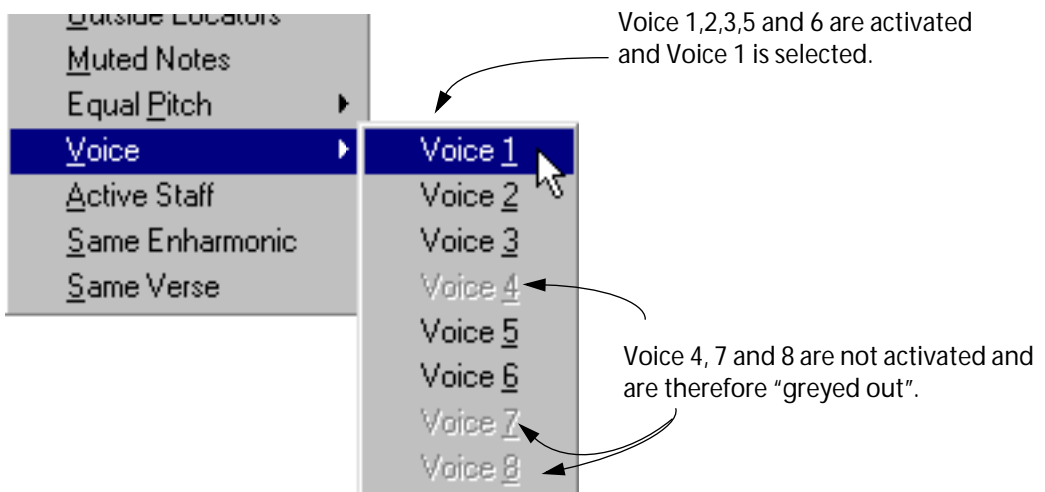
Checking which Voice a Note belongs to

- When you select one (and only) one note, the corresponding Voice button on the Score Tool-bar gets selected. This allows you to quickly find out which voice a certain note is in (after a Move To Voice for example).
- When you step through the notes using the arrow keys, you will only step through the notes in one voice at a time. This can be used as quick way to check which notes belong to the same voice as some other note.

Selecting all Notes in a Voice

There are two ways to select notes in one voice only:

By using the Edit menu

1. **Pull down the Edit menu and display the Select submenu.**

2. **Display the Voice graphical submenu and select one of the voices.**
   Voices that are not activated are "greyed out" on the submenu.

Voice 1,2,3,5 and 6 are activated and Voice 1 is selected.

Voice 4, 7 and 8 are not activated and are therefore "greyed out".

All notes in the indicated voice are selected.

By double clicking

1. **Hold down [Shift].**

2. **Double click on one of the notes in the voice you want to select.**
   The note and *all following notes* in the voice are selected. This means that if you want to se-lect all notes in a voice with this method, you have to click on the first note in the voice.

Moving Notes between Voices

There are two major situations when you will need to manually move notes between voices:

- When you have recorded something and switched the system to Polyphonic without using "Auto Move To Voices".
- When you have used Auto Move To Voices and need to make manual adjustments to the voicing you got.

1. Select the Note(s) you want to move to a particular Voice.

2. Select Move to Voice from the Staff Functions submenu found on the Score menu.
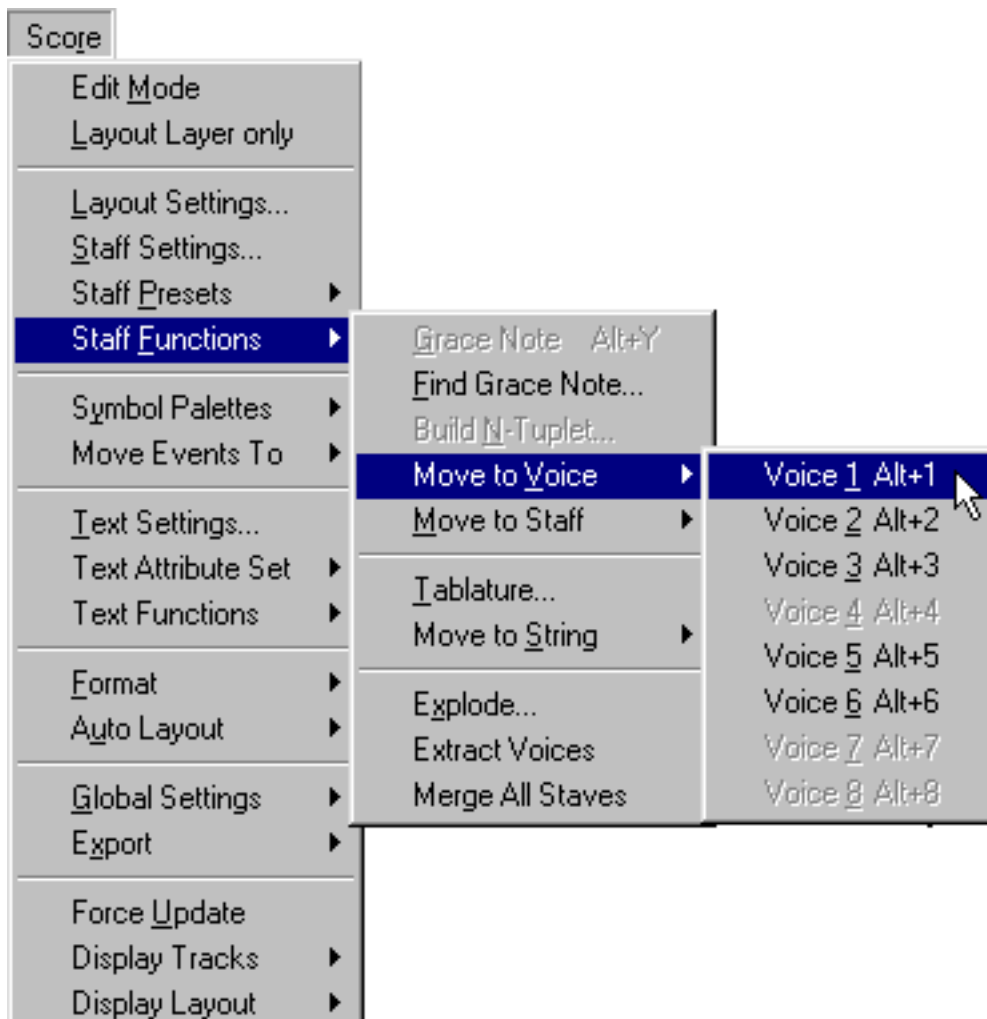
Move to Voice and the submenu it invokes.

3. In the submenu, select the Voice you want to move the notes to.
Voices not activated are shown in grey.

Alternatively, you can use the computer keyboard.

1. Select the Note(s) you want to move to a particular Voice.

2. Hold down [Alt] and press the number key on the computer keyboard corresponding to the Voice you want to move the notes to.
This is the default key command. As usual, you can specify custom key commands for this if you wish, in the Preferences–Key Commands–Score dialog.

Alternative Ways of handling Voices

Below we suggest some other "advanced" ways of putting notes into Voices. This is based on the relation between voices and MIDI Channels, so please make sure you understand how this connection works.

- You can use Logical Edit (described in its own chapter in the Getting into the Details documentation) to put notes into voices, based on other more complex criteria, like for example their pitch and length. This is done by setting up Logical Edit so that the notes that meet the criteria get their MIDI Channel changed to that of Voice.
- When you enter notes using Step Input you can change the MIDI Channel on your input device and thereby directly enter notes into separate Voices.
- You can play back each Voice on a different MIDI Channel, simply by setting the Track to Any. This can for example be used as a convenient way of "proof-hearing" each voice separately.
- You can use the Input Transformer to assign a certain key range to a MIDI Channel, and thereby automatically put notes into voices when recording.
- For brass and vocals, you might record each voice on its own Track, and use the "Merge All Staves" function to automatically copy each recording to a separate voice on a new Track (see).
- When you have assigned parts to voices, you can use the Extract Voices function to create one Track out of each voice (see).

Handling Rests

With Polyphonic Voices, you often get more rest symbols than you desire.

- **If a Voice doesn't need any rests at all, you can turn off rests for each voice individually in the Polyphonic Voices dialog.**

- **If you only need rests from one voice on a staff, turn Rests–Center on for that voice (this is done in the same dialog). If two or more voices have rests, turn Rests–Center off. The program then automatically makes sure the rests don't "collide" in the score, by adjusting their vertical position.**

- **To avoid having several rests displayed in empty bars, you can activate the Rests–Reduce option for all voices (that have rests) except one. This option causes the program to hide Rests in empty bars.**

- **You can use Hide (see) to totally remove individual superfluous rests from the Score.**

- **You can use the Arrow Tool to manually move rests up/down or sideways to adjust the "picture".**

- **If needed you can add "rest symbols" (rests that don't affect the playback data in any way) by using the Symbol Palette.**

Converting a Piano Staff into Polyphonic Voicing

You might have created a Piano Staff using the Split (Piano) Staff in the Staff settings dialog. This uses a fixed split point, which is not always good enough. If you run into a situation where you find that notes that are on the upper clef should be on the lower, and vice versa, you should set the staff to use Polyphonic voicing.

1. **Make sure the To pop-up menu is set to All, so that the entire part will be affected.**
   Even though the Staff mode (Single, Split or Polyphonic) is "global" for the whole Track, the actual voice assignments you make (manual or automatic) are affected by the To pop-up menu, just like any function.

The To menu set to "All".

2. **Open the Staff settings dialog.**

3. **Memorize the current split point.**

4. **From the pop-up Staff Mode menu, select Polyphonic.**

5. **Click the Edit button.**

6. **Activate at least voice 1 and 5, and make settings for them.**
   You will want rests to be shown, and you probably will not want Cue Notes. You might also activate additional voices for the upper or lower clef, if you need to for example resolve overlapping notes on either clef.
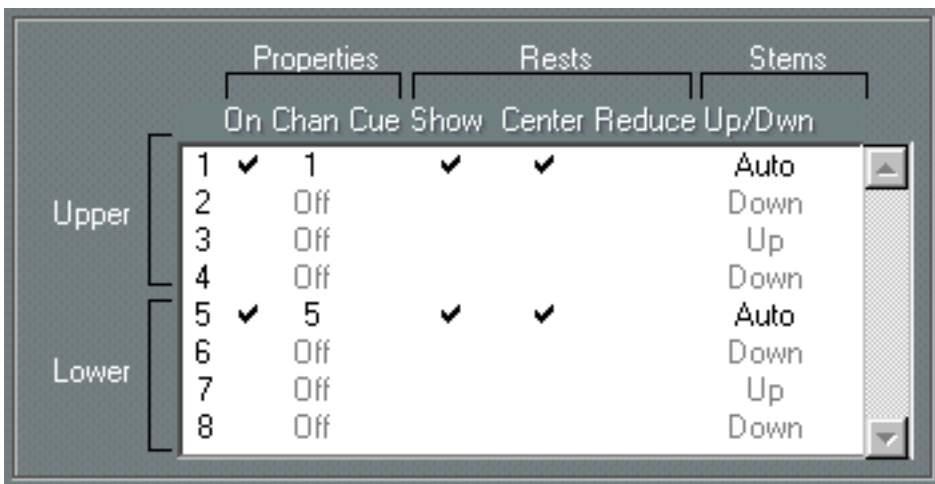
A minimal piano system with two voices, one on each staff.

7. **Activate "Auto Move To Voices".**

8. **Activate Split Note and set the Split Note to the same note as you had when using the Split (Piano) Staff option.**
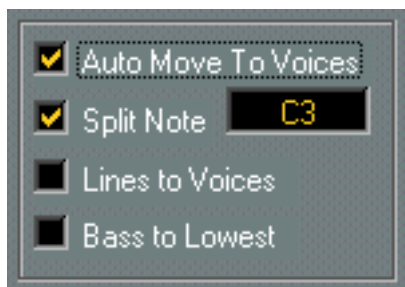
Auto Move To Voices activated with a Split Note option.

9. **Optionally, turn on other options.**
   See for details.

10.**Click OK.**

11.**Close Staff Settings.**

12.**Examine the Score.**
   Look for two things: notes which are on the wrong staff and situations where overlapping notes cause an illegible score.

13.**Use the Move To Voice function to move notes to the correct voices.**
   For example, notes that are on the upper staff but should be on the lower, should probably be moved to Voice 5.

Voices and Display Quantize

When you insert Display Quantize changes (see page 78), you can either apply the settings to all voices (click "All Voices" in the dialog) or to the current voice only (click "OK" in the dialog).

❐ **If the option "Display Quantize Tool affects all Voices" is activated in the Preferences–Score–Additional Settings dialog, the Display Quantize settings will always affect all voices (even if you just click "OK", rather than use the "All Voices" option).**

Making Display Quantize settings affect one voice only (by clicking "OK") allows you to do two things:

•   Make each voice have its own Display Quantize settings by inserting a Display Quantize Event for each voice, at the beginning of the staff. This will then be valid for the entire staff, until another Display Quantize event is inserted.
•   Insert Display Quantize "exceptions" anywhere in the score, independently for each Voice. Proceed as follows:

1. **Make sure the option "Display Quantize Tool affects all Voices" is deactivated in the Preferences–Score–Additional Settings dialog.**

2. **Select the Voice for which you wish to insert a Display Quantize Event.**
   This is done by clicking at the corresponding Voice button on the Score Toolbar as described above, or by selecting a note that belongs to this Voice.

3. **Select the Display Quantize tool.**

4. **Click at the position you want to insert the event.**
   The Display Quantize dialog appears.

5. **Fill out the dialog as described on page 70.**
   For additional hints, see page 78.

6. **Click the "OK" button.**

Creating Crossed Voicings

Often, for example in vocal scoring, you will have crossed voicings on one system. You can of course move notes manually into voices to get the stem direction and other note properties right, but there's a quicker way. Let's explain how to do this by example. Without using polyphonic voicing, you have entered this:

1. **Make sure the To pop-up menu is set to All, so that all notes will be affected.**

2. **Open the Staff settings dialog.**

3. **From the Staff Mode pop-up menu, select Polyphonic.**

4. **Click the Edit button.**

5. **Activate voice 1 and 2, and make settings for them as in the picture below.**
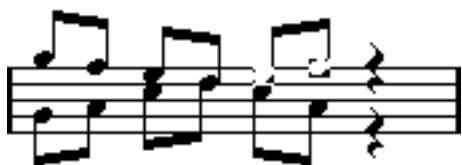
6. **Activate "Auto Move To Voices" and "Lines To Voices".**
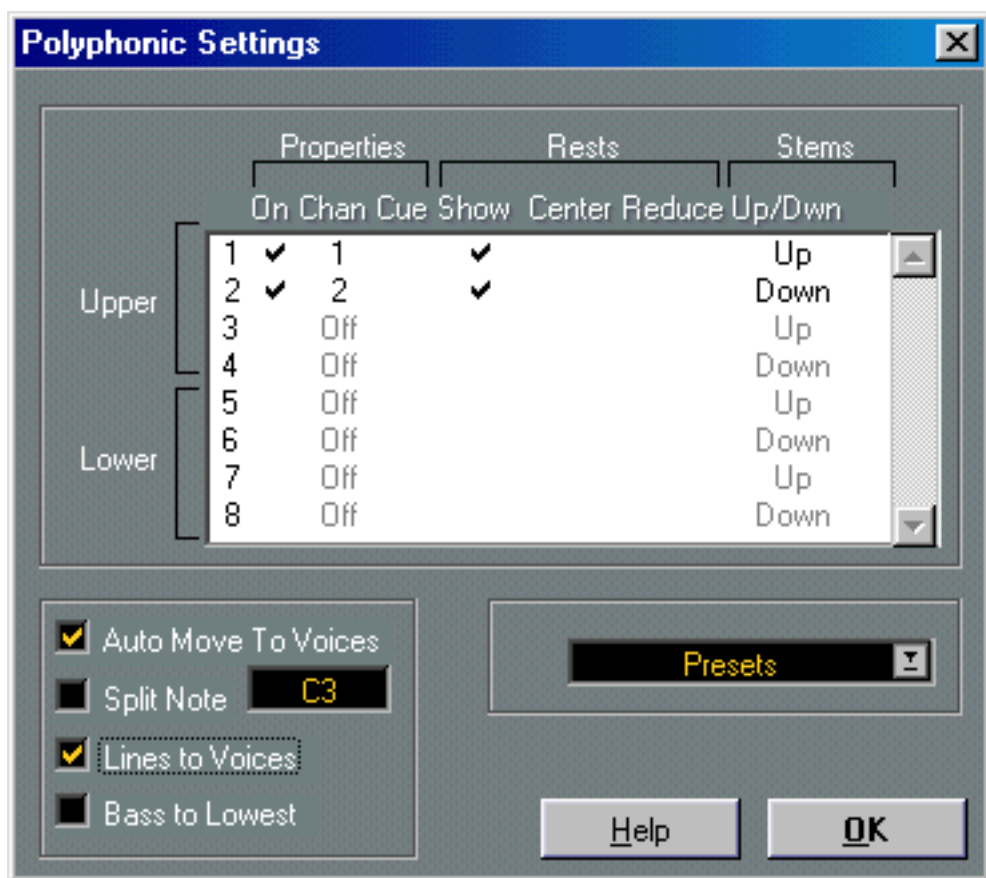
For this example, the dialog box should be set up like this.

7. **Click OK.**

8. **Close Staff Settings.**

9. **Examine the Score.**
   From the middle of the bar, notes that are in voice 1 should be in voice 2 and vice versa.

10. Select the two notes that should be moved from Voice 1 to Voice 2.

The To menu is automatically set to "Selected".

Two notes in Voice 1 selected.

11. Move the notes to Voice 2.

By default, the quickest way to do this is to press [Alt]-[2].

Two notes moved to the right voice.

12. Select the two notes that should be moved to Voice 1 and move them too.

All notes in the right voices.

The voicing is now correct, as you can tell from the stem directions. However, there's still some work to do on the notes graphical positions (see page 171) and the stem lengths of some of the notes (see page 168). When you have made those adjustments, the score may look like this:

After graphical adjustments.

Automatic Polyphonic Voicing - Merge All Staves

If you have already created some Tracks which look and play back as they should, and you want to combine these into one Track with polyphonic voices, there is a special function on the Score menu for this:

1. **Open the Tracks (up to four) in Score Edit.**
As previously described, you could either select the Tracks in the Arrangement first, or add Tracks to the Score Edit display using the Display Tracks feature.

2. **Pull down the Score menu and select "Merge All Staves" from the Staff Functions sub-menu.**
Now a new Track is created and added to the Score Edit display. The Track will have Polyphonic Voices activated, and the four original Tracks will be assigned to one voice each (voices 1, 2, 5 and 6 will be used).

Furthermore, all non-linked symbols that belong to the staff that will become the first polyphonic voice in the merged staff, will be copied. They will have the same positions as the original symbols.

❑ **When you later play back the music, you need to mute the four original Tracks, or you will get double notes.**

Converting Voices to Tracks - Extract Voices

This function does the opposite of "Merge All Staves" - it extracts polyphonic voices from an existing Track and creates new Tracks, one for each voice. Proceed as follows:

1. **Open a Track containing 2-8 Polyphonic Voices in Score Edit.**

2. **Pull down the Score menu and select "Extract Voices" from the Staff Functions submenu.**
   A number of new Tracks are created and added to the Score Edit display. Each Track will contain the music from one polyphonic voice. If there were non-linked symbols in the original Track, each new Track will get a copy of these symbols.
   Each new Track will also automatically get a Layout (a copy of the original Layout for the Polyphonic Voicing Track, with Size set to 100% and Multi Rests set to 1). For more info on Layouts, see page 256.

❏ **When you later play back the music, you need to mute the original Track (the one with polyphonic voices), or you will get double notes.**

Additional Note and Rest Formatting

In this Chapter you will learn:

- How to control Stem Direction.
- How to control Beaming, and create cross staff beaming.
- How to make detailed adjustments to note appearance.
- How to perform "Graphic Moving" of notes.
- How to create Grace Notes.
- How to create Tuplets.

Background: Note Stems

The direction of stems is governed by five things:

- How notes are grouped under beams.
- Any manual manipulation of beams.
- The Flip Stem function.
- How the Note Info is set for each note.
- How the Polyphonic voicing dialog is set up (if you use Polyphonic Voices).

Also, there is a priority system with these steps, as they are listed above. In other words, if you have adjusted the beam slant "by hand" (see below), it doesn't matter if you previously flipped the stems, or how the note was set up. If you have flipped the stems it doesn't matter how the notes or voices were set up, etc.

❒ **If you have edited the stem length of a note and then flip it, the stem will be reset to default length.**

❒ **If you have activated the "Fixed Stems" option in the Staff Options dialog (see** **), a lot of the automatic stem length settings are ignored. However, you can still edit the stem length and direction of individual notes.**

Setting Stem Direction

In Poly Voices

The Voice Stem settings
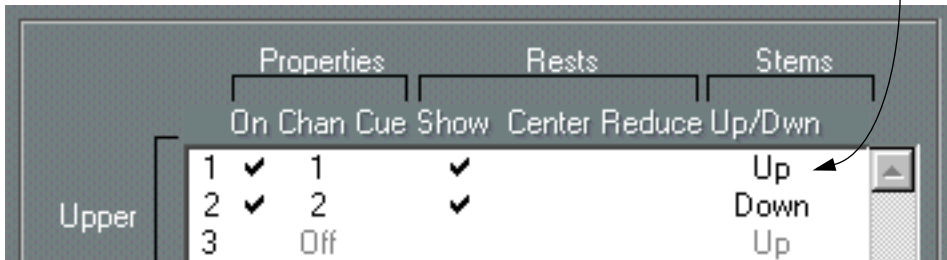
Stem direction can be set separately for each voice.

This is the stem setting with the lowest priority. It is only valid if no other settings were made specifically.

In the Note Info dialog you find stem direction settings for each voice (see):

Select This:	When:
Up	When you want the stems in the voice to point upwards.
Down	When you want the stems in the voice to point downwards.
Auto	When you want the program to take decisions about stem direction, based on the other voices, the notes' pitches etc.

Using Flip Stems

Flipping the Stem of a single Note

1. **Select the Note.**

2. **Invoke Flip Stems.**
   There are three ways of doing this:

• **Click the Flip icon on the Score Toolbar.**

Flip Stem

• **Select Flip Stems from the Do pop-up menu.**

• **Use the "Flip" key command (by default [Alt]-[X]).**

Flipping the Stem of a number of selected Notes

1. **Select the Notes.**

2. **Invoke Flip Stems as described above.**
   All the stems in the selection are now flipped. Those that pointed up now point down and vice versa.

Flipping the Stems of Notes grouped under a Beam

1. **Select any note in the Group.**

2. **Invoke Flip Stems as described above.**
   The entire group is now flipped.

Before and after the flip. No matter which note you select, the entire group is flipped.

❑ **This will not work if you have adjusted the slanting of the beam by dragging. If you have, you must first reset the beam as described on page 152.**

Independent Stem Direction under a Beam

If you need stems attached to the same beam to go in different directions, this is achieved by dragging the beam's start and end points, as described on page 168. This feature is available in Page Mode only.

Independent stem direction under a beam.

Stem Direction in the Note Info Dialog

The Note Info Dialog can be opened by double clicking on a note head, as described below. In its lower left corner you will find a pop-up for setting stem direction.
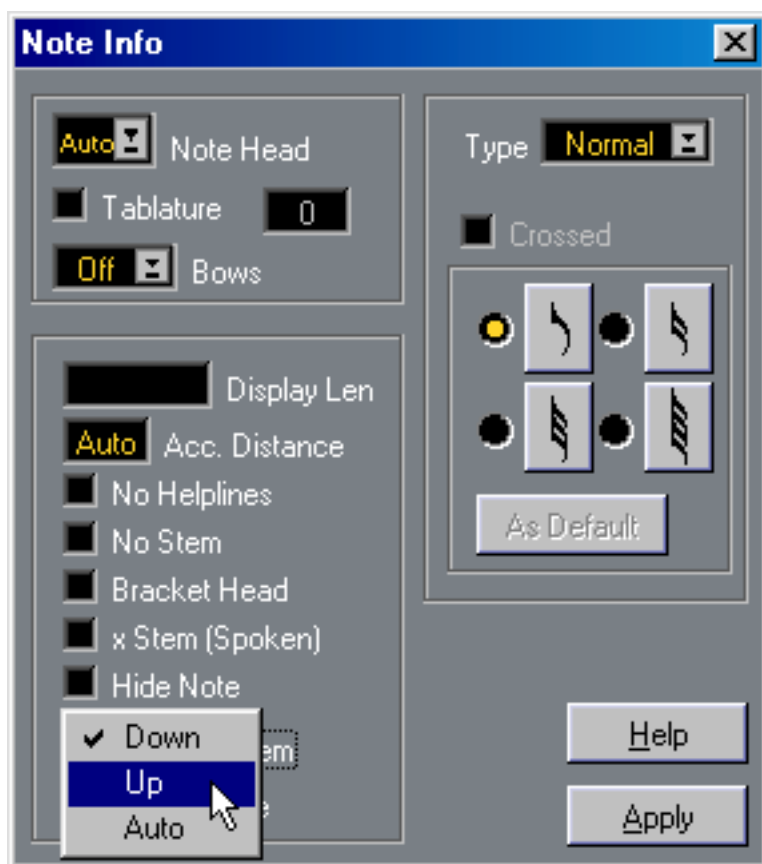
The Note Info dialog with the Stem pop-up.

- Setting this to Up or Down is the same as using Flip Stems, see above.
- Setting it to Auto makes the program take decisions about stem direction, as described above.

Stem Length

Adjusting Stem Length (Page Mode)

1. **To change the Stem Length, proceed as follows:**

2. **Click on the end of the stem so that a handle appears.**

The Stem handle selected.

3. **If you want to change the lengths of several stems at the same time, hold down [Shift] and select these stems as well.**

4. **Drag the stem handle (on one of the selected stems) up or down.**


Dragging the stem.

All selected stems will be lengthened or shortened by the same amount.

Resetting Stem Length and Beam Slants

1. **Select Show Invisible from the Global Settings submenu on the Score menu.**
   The Show Invisible dialog appears.

2. **Make sure "Stems/Beams" is activated.**

• **This can also be done using the "Show Invisible" Filter Bar (see page 55).**

3. **Click OK.**
   Now, below the notes where stems have been changed or beam slant adjusted manually, the word "Stem" will appear.

4. **Click on the "Stem" text to select it.**

5. **Press [Backspace].**
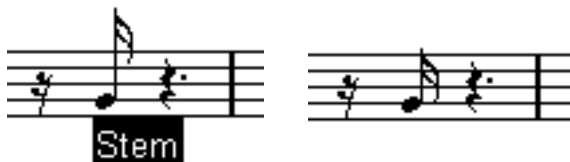
Before and after deleting the "Stem" item.

Accidentals and Enharmonic Shift

Making Global Settings

In the Preferences–Scores–Accidentals dialog you will find a number of options for how accidentals are displayed in the score. Once set, these are valid for all Tracks in the Arrangement. Proceed as follows:

1. **Select "Scores" from the Preferences submenu on the Edit menu.**
   The Preferences–Score dialog opens.

2. **Select the "Accidentals" page.**
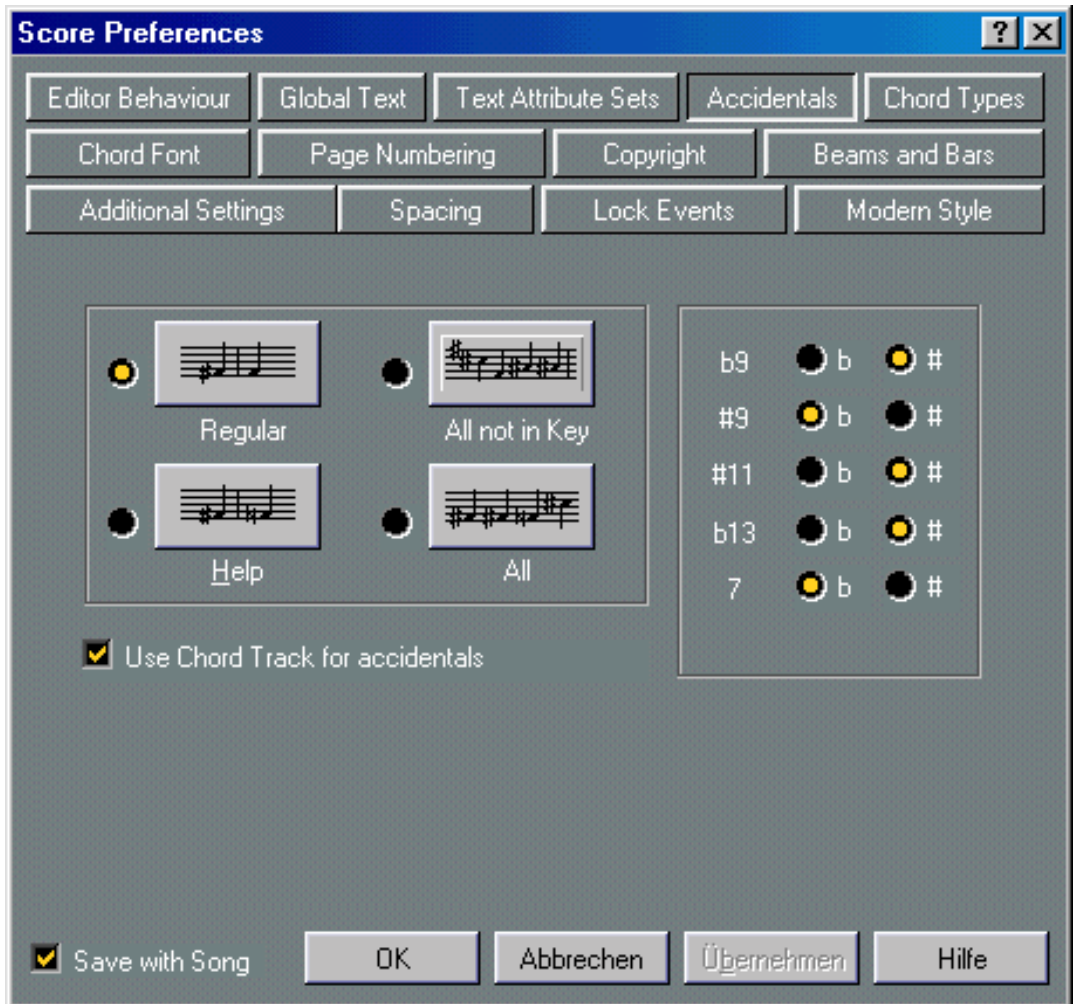
The Accidentals page in the Preferences–Score dialog.

3. **Activate one of the four main options by clicking on the graphics:**

Select This:	When You Want:
Regular	Notes outside the scale to get accidentals. In this mode, accidentals are not repeated within a measure.
Help	As above, but if a note "outside" the scale is followed by one "inside" the scale (in a following measure), this second note will be displayed with an accidental.
All not in key	As Regular, but accidentals get repeated even within the same measure.
All	Every single note in the score gets an accidental.

4. **With the radio buttons to the right, you can decide how five of the most common intervals outside the scale should be displayed, as sharps or as flats.**

5. **If so desired, activate "Use Chord Track for Accidentals".**
   This option is described on .

❑ **There is a further option for accidentals in the Preferences–Scores–Modern Style dialog, called "Accidental for Each Note". When this is activated, all notes get accidentals - even tied notes.**

Enharmonic Shift

If one or several notes are not displayed with the accidentals you wish, you can perform an Enharmonic Shift on them.

1. **Select the notes to be shifted.**

2. **If you want to put further restrictions on which notes get shifted, set up a Cycle or a Loop and set the To menu to "Cycled Events" or "Looped Events".**

3. **Click the desired option on the Score Toolbar.**

Select This:	When:
	You want regular Enharmonic Shifting (select one option).
	You want to turn off Enharmonic Shifting for the note(s).
	You want to Hide the accidental completely.
	You want to create a "help accidental" for the selected note(s) only. For more info see the Global Help option described above.
	You want to enclose the accidental in parentheses. To remove these, select "Off".

Automatic Enharmonic Shift

It is possible to create automatic enharmonic shifting of notes by using a chord Track. This is described in detail on .

Changing the Note Head Shape

1. **Select the notes whose note head shape you want to change.**
   Make sure not to select the stems, only the note heads. The To pop-up menu is automatically set to "Selected". You may also set up the To pop-up menu so that all notes in the Loop or Cycle get affected, as with all editing functions.

2. **Select "Get Info" from the Edit menu or click the "i" button on the Score Toolbar.**
   The Note Info dialog opens.

3. **Pull down the "Note Head" pop-up menu at the top left corner of the dialog.**
   The pop-up menu contains all the available head shapes and an "Auto" option, which selects the normal default shape for the note.
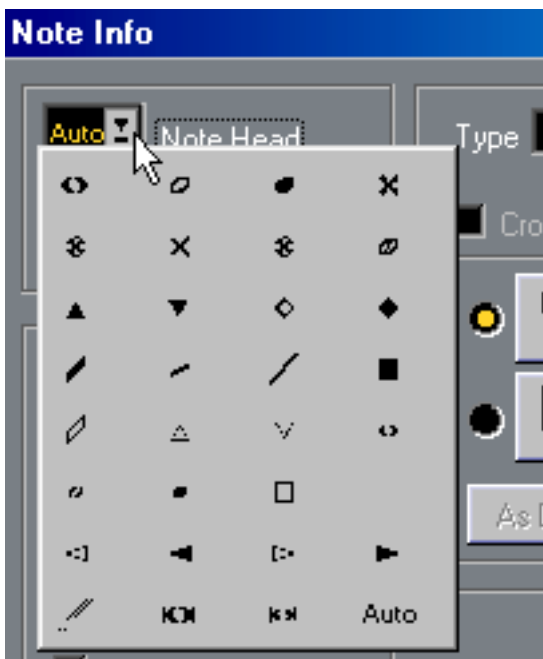
The Note head menu.

4. **Select one of the note heads.**

5. **Click Apply.**
   The settings are applied to the selecte note(s).

6. **If you like, select other notes and make settings for them.**
   When you are done, close the dialog by clicking its Close box.

Changing the Note Head Color

You can give a note or a group of notes a certain color using the color palette pop-up menu on the Status Bar:

1. **Select the note or notes that you want to color.**
The To pop-up menu applies as always. If you want to color all notes, make sure the To pop-up menu is set to "All".

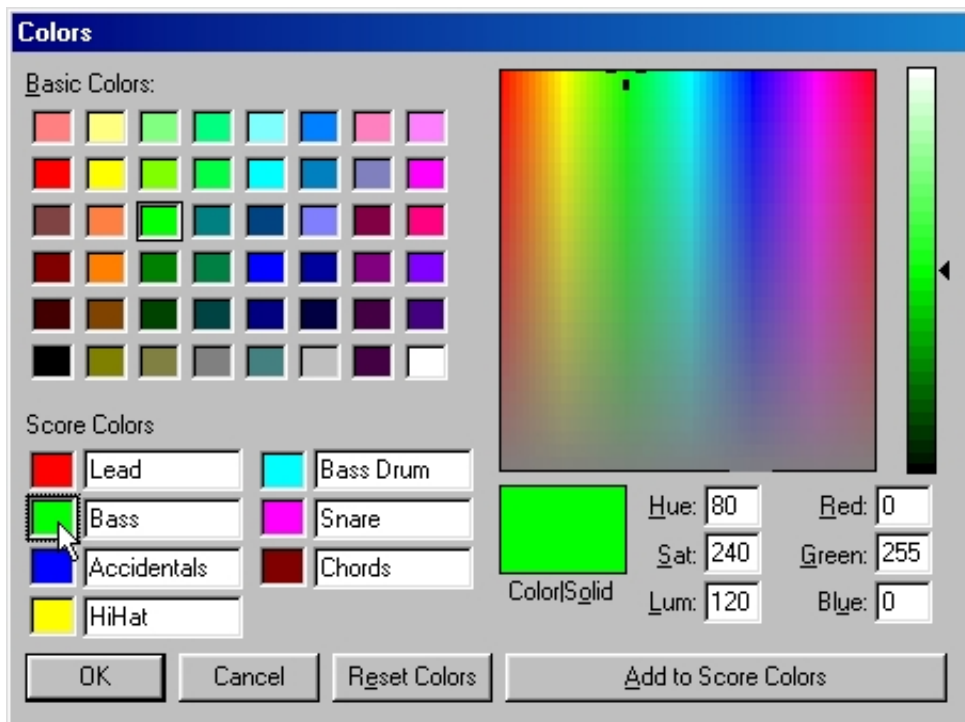2. **Select a color from the color pop-up menu on the Status Bar.**
The color is applied to the note head(s) and accidentals.

Editing the Colors

You can edit the existing colors and names, or add new colors, in the following way:

1. **Select the "Edit..." option at the bottom of the color pop-up menu.**
   A slightly modified standard Windows Colors dialog appears.

2. **To edit a color, click on the color box to the left of the name.**

3. **Adjust the color, or pick one from the Basic Colors.**
   For more info, see the Control Panel description in your Windows documentation.

4. **Click "Add to Score Colors".**
   Adjust the next color and its name in the same manner.

5. **To change the name of the color, click on its name field.**

6. **When you are done, click on the OK button to return to Score Edit.**

About Additional Colors

If you have activated the option "Use Colors for Additional meanings" in the Prefer-
ences–Scores–Editor Behaviour dialog, some objects will automatically be displayed
in color, to indicate that they are "special" in any way. For example, slurs and note
symbols that are moved from their default positions (see page 208) will be displayed
in red.

Other Note Details

Each note has a number of settings accessed in the Note Info dialog. There are four ways to open the Note Info dialog:

- **Double click on a note head.**

- **Select one or several notes and select Get Info from the Edit menu.**

- **Select one or several notes and click the "i" icon on the Score Toolbar.**

"Get Info" ⟶ | i | J♪ | ♫♫ | ⬚ | H | X/Y | C⁷ | UPD |
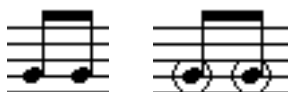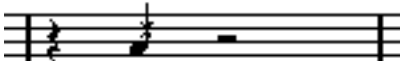
- **Select one or several notes and use a key command (by default, [Ctrl]-[I]).**
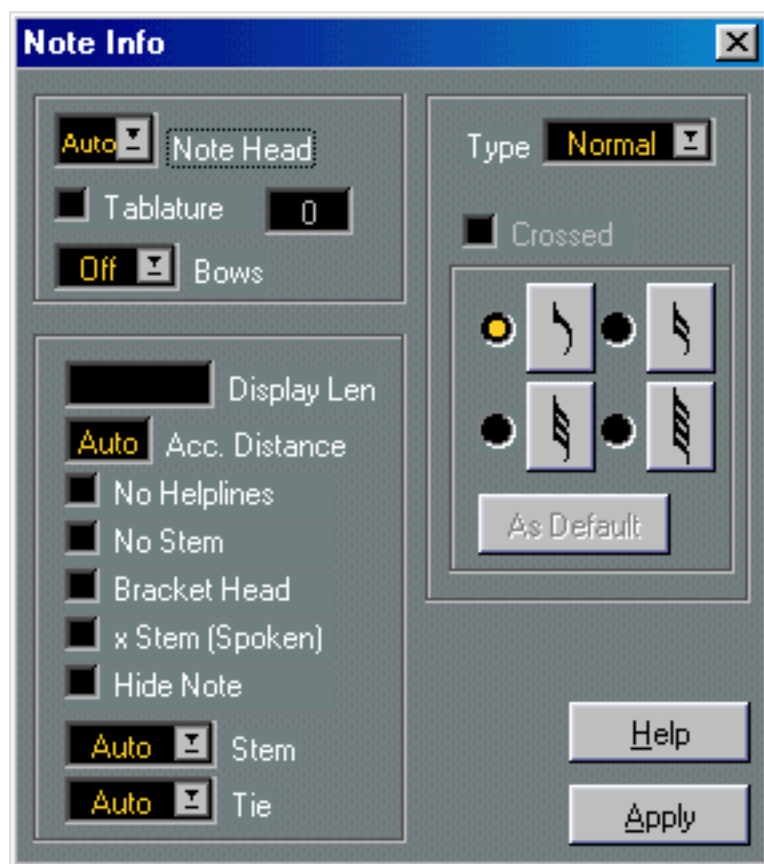
The Note Info dialog contains the following settings:

Setting:	Description:
Note Head	Used for selecting custom note head shapes (see page 156).
Tablature On/Off and number	Used for creating or editing Tablature (see page 296). This feature can be used for individual notes or together with the automatic "Make Tablature" function.
Bow Up/Bow Down	Used for adding bow up/bow down articulation.

Bow Up and Down

Setting:	Description:
Display Length	This allows you to change the displayed length of notes, without affecting playback. Note that the Display Quantize settings still apply (see page 124). To reset this value to "Auto" (so that notes are displayed according to their actual length), scroll the value down to zero.
Accidental Distance	Use this to specify how far from the note, horizontally, you want the accidental. The higher the number the further away.
No Help line	Turns off help lines for notes with high or low pitches.

With and without help lines

Setting:	Description:
No Stem	Hides the note stem completely
Bracket Head	When this is activated, notes will be displayed with brackets:

Bracket Head off and on.

Setting:	Description:
X-stem (spoken)	When this option is activated for a note, it is displayed with an x across its stem. This is normally used to indicate spoken words.

Setting:	Description:
Stem pop-up	Determines the stem direction, as described above.
Tie pop-up	Determines the direction of ties. When this is set to "Auto" (the default setting) the program will choose a tie direction depending on the stem direction of the tied notes. • You can also flip the direction of a tie directly in the score, by selecting a tied note, holding down [Ctrl] and clicking the "Flip" button on the Score Toolbar.
Type pop-up	Determines the note type. There are four options: • Normal. This is how notes usually are displayed. • Grace. When this is selected, notes will be displayed as grace notes. This is described in detail on page 174. • Cue. When this is selected, notes will be displayed as cue notes (smaller notes, often used as "guide notes" or optional lines). See page 172. • Graphic. These are special notes, useful for example for guitar notation (pull-offs) and trills (as "help notes", indicating which notes to trill between). In both these cases the "No Stems" option could be useful. Graphic notes are not included in the "automated cutting" (see page 170). They are positioned *after* the note(s) they "belong to" (as opposed to grace notes).
Grace Note options	These options are enabled when Grace is selected on the Type pop-up menu. See page 174.
Hide Note	Ticking this checkbox will hide the selected note(s), just as if you had selected "Hide" from the Do pop-up menu.

- **After changing a setting, you can apply the change to the selected note(s) by clicking the Apply button.**
  Note that you can select other notes while the dialog remains open, adjust their settings and click Apply.

  When you are done with all settings, close the dialog by clicking its Close box.

Copying Settings between Notes

If you have made various settings in the Note Info dialog for a note, and want to use these settings for other notes as well, there is an easy way to do this:

1. **Set up the first note as desired.**
   This includes the Note Info settings, but also any note-related symbols (such as accents, staccato, articulation, etc - see page 190).

2. **In the score, select the note and select "Copy" from the Edit menu.**

3. **Select the notes to which you want to copy the attributes.**

4. **Pull down the Do pop-up menu and select "Paste Note Attributes".**
   The selected notes will now get the attributes of the first, copied note, but their pitches and note values will remain unchanged.

Handling Beaming

Turning Beaming on/off

Beaming is turned on/off independently for each staff.

1. **Open the Staff Settings dialog.**
   See page 68 and page 118 for details.

2. **Click the "Staff Options..." Button.**

3. **To turn off beaming, activate No Beams.**

   Even if beaming is turned off for the staff, you can put some notes under beams, as described below.
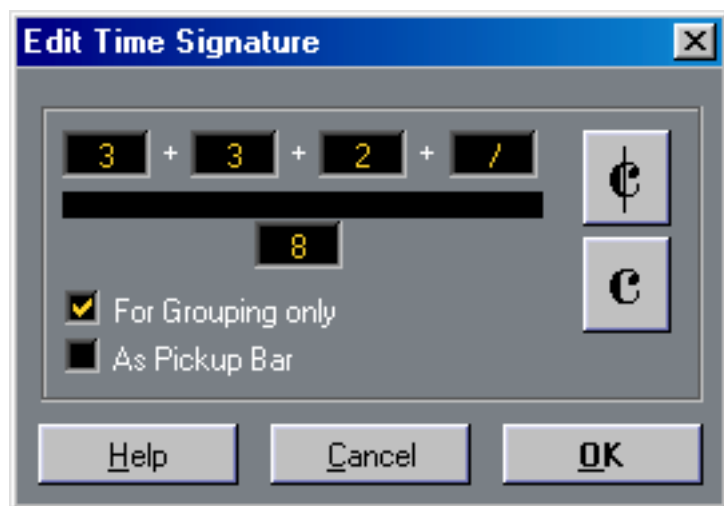
Grouping

When beaming is on, the program automatically groups notes under beams. However, there are a number of ways to determine how notes are grouped.

Using the Time Signature Dialog

The Time Signature for the piece naturally affects grouping. But you can control this yourself by creating a composite Time Signature used only for Grouping:

1. **Open the Time Signature Dialog.**

2. **Set up the Numerator with the Grouping you desire.**
   If you for example want eighth notes in two groups of three and one group of two, enter 3+3+2.

3. **Set the Denominator, if needed.**

4. **Activate "For Grouping Only".**

The Time Signature dialog with "For Grouping Only" activated.

5. **Click OK.**

❐ **Please note that the "For Grouping Only" only refers to how the numerator is divided. Any changes you make to the "sum" of the Numerator number or the denominator will result in a change of actual Time Signature in the piece. If you need a grouping which can't be entered in the current time signature, you will have to group notes manually, see below.**

Grouping a number of Notes

If the Grouping the program assigns isn't the one you want, you can put any selection of eighth notes or smaller under a beam:

1. **Select at least two notes, where you want the beam to begin and end.**
   You can also select notes in between these two if you wish, it doesn't matter.

2. **Group the notes, either by selecting "Group" on the Do pop-up menu or by clicking the Group icon on the Score Toolbar.**

 ◄— The Group icon
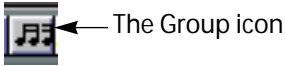
Before and after Grouping.

Group Options

You can choose individually for each Group whether you want it to be shown with regular beaming or as "Repeats":

1. **Display the "Show Invisible" Filter Bar in the Score window (by clicking the "F" button in the lower right corner) and make sure the "Grouping"checkbox is activated.**
   Now, you will see the text "Grouping" below all created Groups.

2. **Double click on the "Grouping" text for the Group you want to make settings for.**
   A dialog box appears.

3. **Use the two radio buttons at the bottom of the dialog to select whether you want regular beaming ("None") or Repeats.**
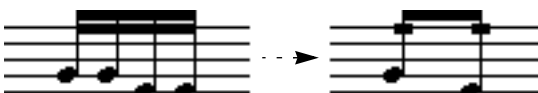
In this example, the "Repeat" feature is used to display two pairs of sixteenth notes, as two eighth notes with "repeat bars". Note that the second and fourth sixteenth note have been hidden - the playback is not affected!

4. **If you selected "Repeat", use the radio buttons to select the note value for the repeats.**

5. **Click OK to close the dialog.**

Grouping Quarter Notes (or larger)

It is possible to use the Grouping feature for notes that are not displayed with beams (quarter notes, half notes, etc). The result is "spectacle bass" symbols, commonly used for indicating tremolo, etc.

*   **Double clicking on the "Grouping" text opens the Grouping dialog, allowing you to adjust the "note value" for the symbols.**

Removing Groups

If you have made a Grouping as described above, and wish to remove this, proceed as follows:

1. **Pull down the Score menu and select "Show Invisible" from the Global Settings submenu.**
    The Show Invisible dialog appears.

2. **Make sure "Grouping" is activated and close the dialog.**
    Now, you will see the text "Grouping" below all created Groups. This can also be achieved by activating the "Grouping" checkbox on the "Show Invisible" Filter Bar.

3. **Select a Group by clicking on its "Grouping" text.**

4. **Press [Backspace].**
    The Grouping is removed.
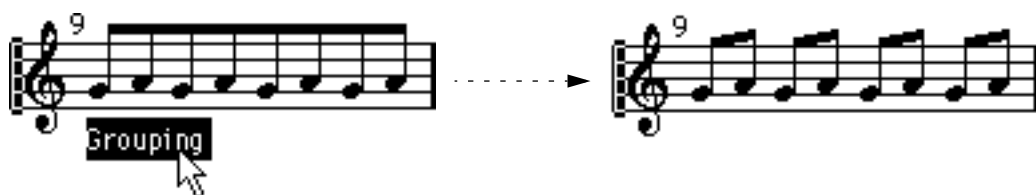
*   **If you need to remove all Groups from the score, hold down [Shift] and double click on the first "Grouping" text.**
    This selects all "Grouping" symbols, so you can delete them all at once by pressing [Backspace].

Removing a Note from a Group

There is no special "Ungroup" command, simply because it isn't needed. A Group can consist of one note if you wish. In other words...

- To remove one note at the end of a Group, select it and proceed with Grouping as above.
- If you select notes in the middle of a beam and then Group, three Groups are created.

Before and after Grouping.

Automatic Grouping

The Program can also run through the score and create Grouping for you. Proceed as follows:

1. **Select all notes (for example by using the Select All command on the Edit menu).**

2. **Select "Auto Grouping" from the Do pop-up menu.**
   You can also do this by holding down [Ctrl] and clicking the Group Icon on the Score Toolbar.

   In 4/4 you will for example get two groups of eighth notes per bar, in 3/4 you will get one group per bar, etc.

Before and after using Auto Grouping in 4/4.

Cross Staff Beaming

To create a beam that extends from one staff to another, proceed as follows:

1. **Set up a Split or Polyphonic Voicing system or open the Score Editor with more than one Track.**

2. **Set up a beam of notes (using the Group command) and adjust the pitches of them so that they are correct even though some of the notes are on the wrong staff.**
   You want to use the Info Line to edit the pitches if they are very low or high.

3. **Select the note(s) that should appear on the other staff.**

4. **Select "Move To Staff" from the Staff Functions submenu on the Score menu. Select a Staff from the submenu that appears.**
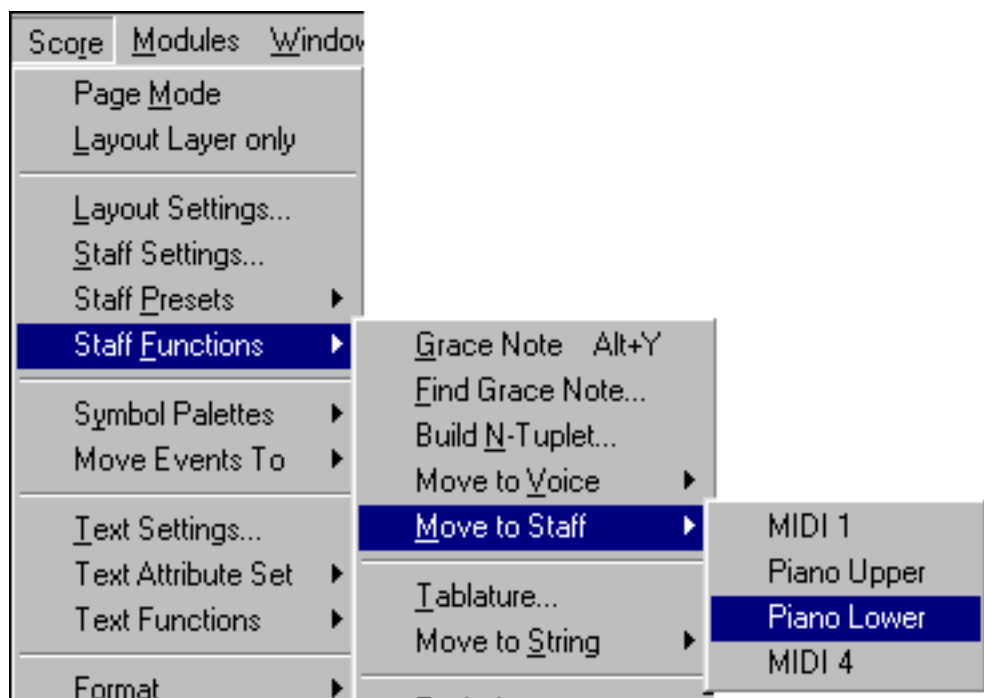
The notes are "graphically" moved to the selected system, but keep their actual pitch.
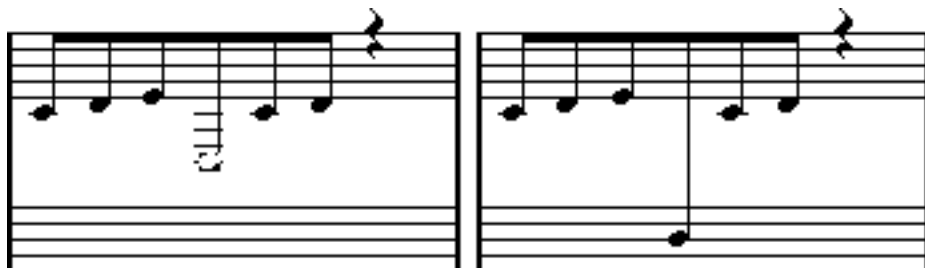
Before and after moving a note to the lower staff.

5. **If needed, adjust the beam appearance (see).**

Cross staff beaming with the beam in the middle.

The Move To Staff operation does not actually move the note to another Track. It only makes it "look" like the note belonged to the other staff.

Handling Beam Groups

There are two settings for groups under a beam, "Beam subgroups" and "16th Subgroups", both found among the Staff Options (accessed from the Staff Settings dialog). If Beam Subgroups is activated, the program displays subgroups after four sixteenth notes under a beam. If you also activate 16th Subgroups, subgroups appear after only two sixteenths.

Beam Subgroups Off, On and On with 16th Subgroups activated.

Beam appearance and Slant settings

Global Settings
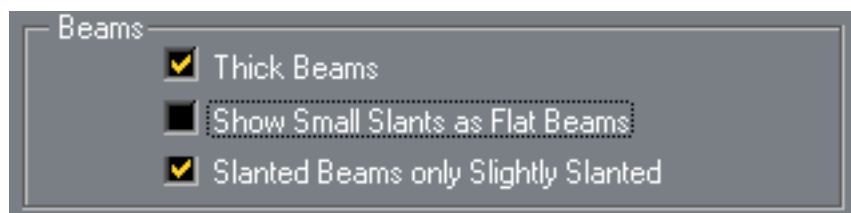
In the Preferences–Scores–Beams and Bars dialog, you will find three options for how Beams should appear:

- **Thick Beams.**
  Activate this if you want beams to be displayed as thick lines.

- **Show Small Slants as Flat Beams.**
  When this is activated, beams that would be only slightly slanted will be displayed flat.

Without and with "Show Small Slants as Flat Beams".

- **Slanted Beams only Slightly Slanted.**
  Activate this if you only want a slightly slanted beam even though there might be a significant pitch difference between the notes under the beam.
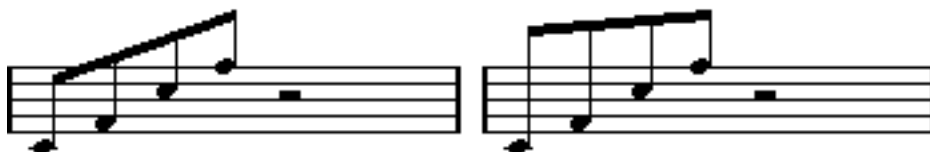
Without and with "Slanted Beams only Slightly Slanted".

❑ **Please note that these settings apply equally to all staves.**

Staff Settings
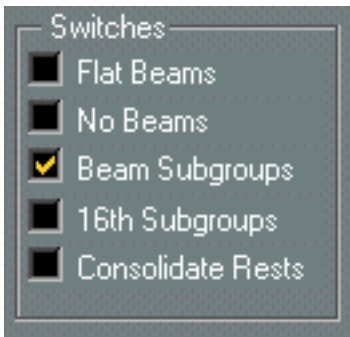
In the Staff Options dialog, you will find a couple of settings for Beams as well.

Activate This:	When:
Flat Beams	When you don't want any slant at all, no matter the pitch difference of the notes under the beams.
No Beams	When you don't want any beams at all.

Manual Adjustment of Beams

For very detailed control you can manually adjust the beam slant:

1. **Group and Flip Notes and adjust the settings described above until the beams are as close as possible to how you want them.**

2. **Click on the corner made up by the beam and the stem.**
   Handles appear.

Beam handles.

3. **Drag the handle up or down.**

Dragging a handle and the effect it has.

Mixed Staff Direction

By dragging the beam handles you can put the beam between the note heads:

Putting the beam between the notes.

About Tied Notes

Sometimes, notes will be displayed as two or more notes tied together. Generally, there are three different occasions when this will happen:

- When a note is of an "uneven" length, that cannot be displayed without tying together two or more notes of different note values.
- When a note crosses a bar line.
- When a note crosses a "group line" within a bar.

The last case requires some explanation: Cubase VST uses a "cutting mechanism" that automatically creates tied notes depending on the length and position of the notes. For example, a quarter note is cut in two and tied, if it crosses a half note beat, and an eighth note is cut in two and tied, if it crosses a quarter note beat:

This quarter note is cut.   This eighth note is cut.

However, this isn't always what you want. There are three ways to affect the cutting mechanism:

Syncopation

When the Syncopation option in the Staff Settings dialog is activated, Cubase VST will be less prone to cut and tie notes. For example, the second quarter note in the figure above would not have been cut if Syncopation had been activated.

The Syncopation setting in the Staff Settings dialog affects the whole Track, but you can also make Syncopation settings for separate sections in the score, by inserting Display Quantize Events (see page 78).

Time Signature Changes

By inserting time signature changes, you can change the way notes are cut. This is done in the same way as when you specify how beamed notes should be grouped - see page 162.

With a regular 4/4 time signature.

With a composite time signature (3+2+3 eighth notes).

The Cutflag Tool

By using the Cutflag tool, you can disable the automatic cutting mechanism in a bar, and insert manual cuts at any given position in the score:

1. Select the Cutflag tool.

2. Set the Snap pop-up menu to an appropriate value.
As usual, this determines where you will be able to click.

3. Click in the bar containing the note(s) you want to cut manually, at the position you want them cut.
This inserts a Cutflag Event in the bar at the position you clicked. If you press [Ctrl] while clicking, a Cutflag Event is inserted for all staves. If you hold down [Alt], a Cutflag Event is inserted for all voices in a polyphonic staff.

A half note, positioned at 2.1.3.0. This is by default cut at 2.3.1.0 (in the middle of the bar).
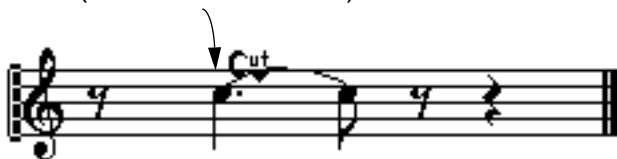
When you click at the position 2.2.1.0, a Cutflag Event is inserted....
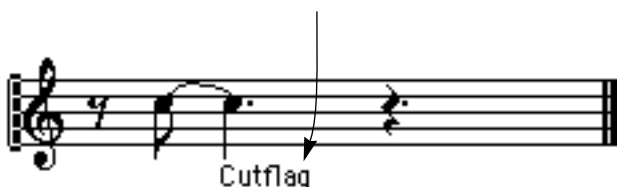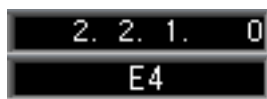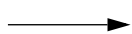
As a result, the regular cutting mechanism is disabled and the note is cut at the position you clicked instead.

The following rules apply to Cutflag Events:

- **If a bar contains a Cutflag Event, the automatic cutting mechanism is disabled within that bar.**

- **All notes or rests that start before and end after a Cutflag Event, will be cut at the position of the Event.**

- **To display Cutflag Events, make sure that "Cutflag" is activated on the Filter Bar or in the Show Invisible dialog on the Global Settings submenu.**

- **To remove a Cutflag Event, either click again with the Cutflag tool at the same position, or select it and press [Backspace].**

Other Options for Tied Notes

Tie direction

As described on , you can set the direction of the tie manually in the Note Info dialog. You can also flip the direction of one or several ties, by selecting their notes in the score and [Ctrl]-clicking the Flip icon on the Score Toolbar.

The Flip icon.

Flat Ties

If you prefer ties to be displayed as flat lines, rather than regular "curved" ties, activate the option "Flat Ties" in the Preferences–Scores–Modern Style dialog.

Graphic moving of Notes

There might be instances where the "graphical" order of the notes isn't the one you want. In this case you can move the note without affecting the score or playback in any way. There are two ways to do this:

By using the Layout Tool

1. **Select the Layout Tool from the Toolbox.**

The Layout tool in the Toolbox.

2. **Click on the note and drag it right or left.**
   Movement is restricted to horizontally only.

Before and after changing the "graphical order" of notes.

By using the computer keyboard

1. **Select the note(s) you want to move.**

2. **Hold down [Alt].**

3. **Press the left and right arrow keys to move the note(s) left or right.**

Cue Notes

You can create Cue notes by using Voices or by converting individual notes into cue notes.

Setting a Voice to display Cue Notes

1. **Open the Polyphonic Settings Dialog.**
   This is described on .

2. **Click in the "Cue" column for the voice, so that a tick mark appears.**

3. **Decide for a rest handling for the voice.**
   You might for example leave the "Rests–Show" activated and activate "Reduce". If you do, you will get rests in this voice, but not as many as otherwise. Empty bars, for example, will not have any rests at all.

"Cue" activated for Voice 3.
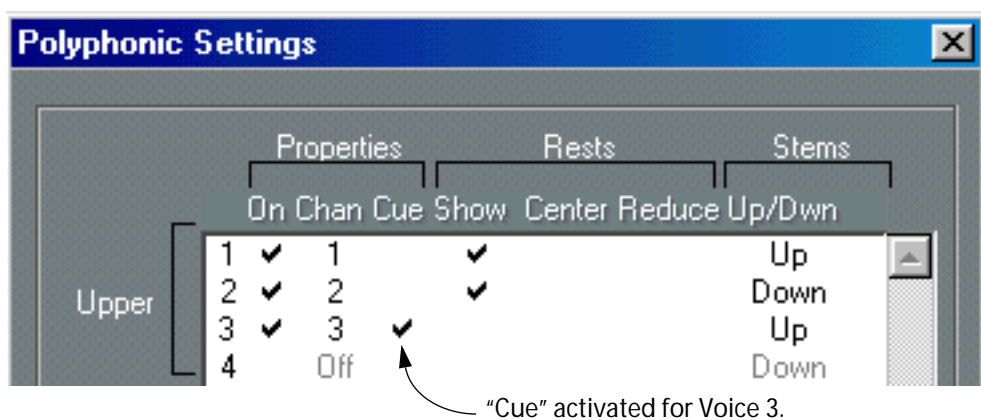
4. **Close the dialog.**

5. **Move the notes into the Cue Voice.**
   Polyphonic Voicing is described in detail on .

An example of a Cue note Voice.

A quick example

Let's say you have a flute part and want some cue notes for it.

1. **Switch on Polyphonic Voices and activate Voice 1 and 2.**

2. **Set Voice 2 to "Auto" stem direction and centered rests.**

3. **Set up Voice 1 to be a Cue voice, with hidden rests and stems pointing up.**

4. **Insert the cue notes into Voice 1.**

Turning individual Notes into Cue Notes

1. **Select one or several notes.**

2. **Select "Get Info" on the Edit menu or click the "i" icon on the Score Toolbar.**
   The Note Info dialog appears.

3. **Select Cue from the Type pop-up.**
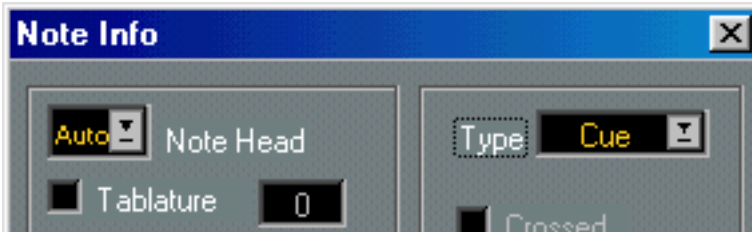
Note type set to Cue.

4. **Click Apply.**
   The settings are applied to the selected note(s).

5. **If you like, select other notes and make settings for them.**
   When you are done, close the dialog by clicking its Close box.

Grace Notes

You can turn any note into a grace note. Grace notes are considered to be notes without lengths. That means that once a note is turned into a grace note it doesn't affect the rest of the score display in any way.

Before and after converting to grace notes. Note that after the conversion, the grace notes no longer "interfere" with the interpretation of the other notes.

❒ **Grace notes are always automatically positioned just before the next note on the staff. If there is no note after a grace note on the staff, the grace note will be hidden!**
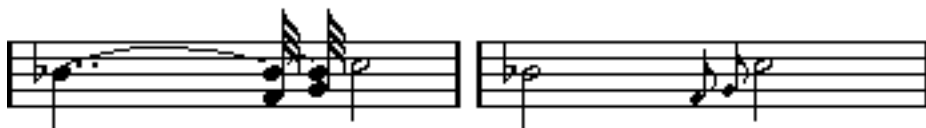
Creating Grace Notes Manually

1. **Locate the note for which you want a grace note.**

2. **Insert one or more new notes just before it.**
   The note value and exact position of the note isn't important. However, the pitch of course is.

   From here on there are two ways to go:

• **Select the note(s) and select "Get Info" from the Edit menu.**
   The Note Info dialog appears and you can activate Grace Note and other settings if needed.

• **Select the note(s) and then select "Grace Note" from the Staff Functions submenu on the Scores menu.**
   This turns the note into a Grace note without opening any dialog.

Grace Notes and Beaming

• If two Grace notes are at exactly the same position (the same tick), they will be put onto the same stem, as a chord.
• If multiple Grace notes in front of the same note are put on different positions (even if they are only one tick apart), they will be grouped under a beam.
• Please note that it is possible to have beamed grace notes overlapping a beam of regular notes, as in the example below:

Grace notes in the middle of a group of regular notes.

Creating Grace Notes Automatically

The program allows you to search for notes that make good candidates for grace notes and convert them automatically. It does this by looking for notes that are very close to other notes.

1. **Set up the To menu.**
   This allows you to have the function only work on the selected notes, on the notes inside the Cycle etc.

2. **Select "Find Grace Notes" from the Staff Functions submenu on the Scores menu.**

3. **Enter a ticks value.**
   This number will determine how close a note has to be to another to be considered a grace note.

4. **Click OK.**
   The new grace notes now appear.

5. **If you didn't get what you expected, Undo and try again.**

Editing a Grace Note

1. **Select one or several grace notes and open the Note Info dialog.**
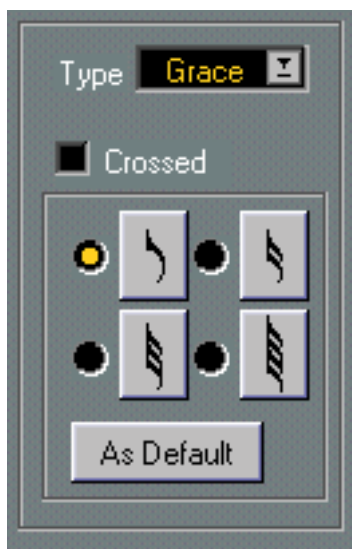
The Grace Note settings in the Note Info dialog.

2. **Select a note value for the stem.**

3. **Activate crossed, if you wish.**
   When this is activated, the stem will be crossed by a slanted line, to further indicate that the note is a grace note.

4. **Click Apply.**
   The settings are applied to the selected note(s).

5. **If you like, select other notes and make settings for them.**
   When you are done, close the dialog by clicking its Close box.

Using the "As Default" button

If you double click on a grace note, set it up as described above and then click on "As Default", the settings you have made will be used as default values. All grace notes that you will create and all that you have created and not edited specifically will use these settings.

Converting Grace Notes to normal Notes

1. **Select the notes you want to convert.**
   If you want to make sure that all notes in the score are normal notes, you can select all notes (using the Select All command on the Edit menu).

2. **Double click on one of the selected grace notes.**
   The Note Info dialog appears.

3. **Select "Normal" from the "Type" pop-up.**

4. **Click Apply and then close the dialog by clicking its Close box.**

Tuplets

The regular Display Quantize values do not apply to any other divisions than triplets. To create quintuplets, septuplets etc, follow the instructions below.

There are basically two methods of creating tuplets:

- With permanent alteration to the MIDI data. This is the "drawing" mode to use when you want to build the tuplet from scratch. It doesn't put any demand on the notes' positions before the tuplet is created.
- As Display Quantize. This is the method you use when the tuplet is recorded and plays back as you want it, but it is not displayed correctly.

Actually, in the first case, you make permanent alterations and set Display Quantize settings, all in one go. In the second case you only make Display Quantize settings.

With permanent change to MIDI Data

1. **Insert as many notes as the tuplet consists of.**
   This would typically be 5, 7 or 9. If the Tuplet contains rests, simply leave space for those, but make sure the current Display Quantize value allows them to be shown.
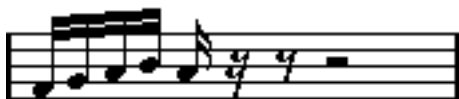
Five sixteenth notes, about to be converted to a quintuplet.

2. **Select all the notes that make up the tuplet.**

3. **Select "Build N-Tuplet" from the Staff Functions submenu on the Score menu.**
   The tuplet creation dialog appears.
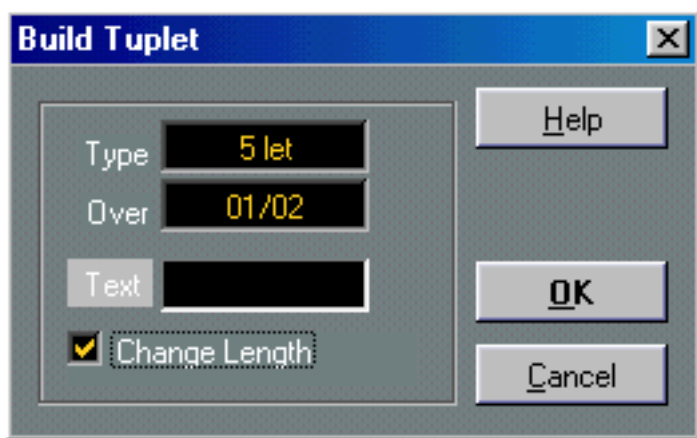
4. **Set the type of tuplet in the Type field.**
   "5let" means a quintuplet, "7let" means a septuplet etc.

5. **Set the length of the entire tuplet using the "Over" field.**

6. **Activate Change length, if you need it.**
   If you do, the program will alter the length of all notes so that they are exactly the note value the tuplet indicates. If you don't, the lengths of the existing notes won't be affected in any way.

7. **If you want any other text than the standard above the tuplet, type it in the "Text" field.**
The standard text is simply the number in the type field. If the tuplet is put under a beam (see page 179) the "Text" is put just above it. If there is no beam, the "Text" is found in the middle of a bracket.

8. **Click OK.**
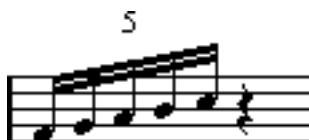The tuplet appears. The notes have now been moved to the tuplet positions and their length might have changed.

The tuplet just after being created.

9. **If needed, edit the lengths and pitches of the notes in the tuplet.**
You can also make various settings for the appearance of the tuplet - see below.

Without Permanent Change To MIDI Data

1. **Select the notes in the tuplet group.**
In this case, these are notes that play back correctly but aren't displayed as a tuplet (yet).

2. **Pull down the Do pop-up menu and select "Insert Tuplet".**
A dialog appears. This is essentially the same dialog as with the "Build N-Tuplet" function, but without the "Change Length" option.

3. **Make settings in the dialog, as described above.**

4. **Click OK.**
Now the tuplet is displayed correctly. You can make additional settings for how the tuplet should appear, as described below.

5. **If needed, adjust the notes.**

❑ **Lengths and positions in a Tuplet group are probably best edited using the Info Line. Or at least with Snap set to Off!**

Editing Tuplet Text Settings

1. **Double click on the Text above the Tuplet group.**

Double Click here.
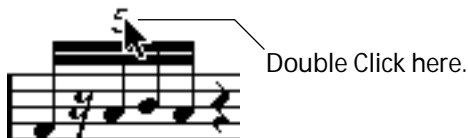
2. **The Build Tuplet dialog appears.**

3. **Adjust the settings as needed.**

4. **Click OK.**

Grouping

If the Tuplet is a quarter note long or shorter, the notes will be automatically grouped under a beam. If it is longer you have to perform the grouping manually. See for details.

Tuplet Display Options

In the Preferences–Scores–Additional Settings dialog you will find the following settings for Tuplets:

|	
Display Tuplets without Brackets and Always Show Tuplet Brackets	These two options are mutually exclusive - turn one on and the other is turned off. When Display Tuplets without Brackets is activated, tuplets never have brackets. When the other option is active, tuplets always have brackets. When neither option is activated, tuplets may have brackets, depending on the position of the beam (above or under the note heads).
Display Tuplet values by the Beams	When this is activated, Tuplets will be displayed on the "beam side" of the notes instead of on the note head side.
Suppress Recurring Tuplets	When this is activated, and you have several Tuplets of the same type in the same bar, only the first of these is displayed as a Tuplet.
Show Tuplet Brackets as "Slurs"	When this is activated, the Tuplet brackets will be "slur-like" (rounded).

9
Working with Symbols

In this Chapter you will learn:

- What the different types of symbols are.
- How to insert and edit symbols.
- Details about special symbols.

Background: The Layout Layer

A Scoring page is always made up of two layers – the Note Layer and the Layout Layer. When you add Symbols, these will be inserted into either layer, depending on the type of symbol. Those symbols that have a general relation to notes – accents, dynamic markings, slurs, lyrics etc – will be put in the Note Layer. Other symbols – such as repeats, rehearsal marks, some types of text, etc – are put in the Layout Layer. Later in this chapter you will find detailed information about which symbols belong to which layer.
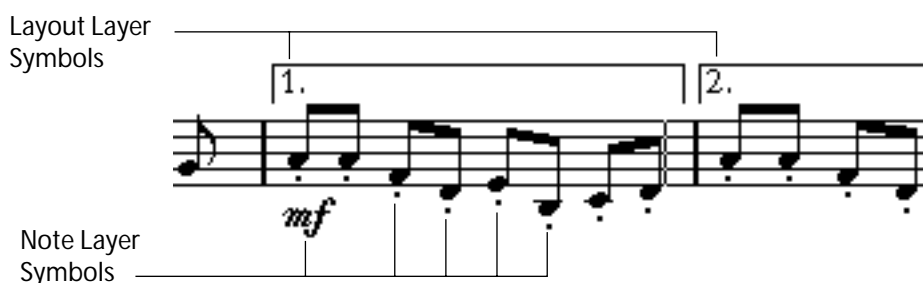
We will now look at the symbols in these two layers, in more detail:

Note Layer Symbols

Let's look at the Note Layer symbols first. These come in three flavors:

- Note symbols. These are each tied to a single note. Examples of Note symbols are accents and lyrics. When you move the note, the symbol moves with it. The same is true if you Cut the note and then Paste, the symbol is Cut and Pasted at the same time.
- Note dependant symbols. Only a few symbols belong to this category, for example the arpeggio lines. In one way, these behave just like grace notes (see page 174). They must always be in front of a note or chord. If there is no note "after them" on a staff, they will disappear.
- All other Note Layer symbols (Tempo, dynamics, chords etc). These have their position related to the bar. No matter what you do to notes, they remain unaffected. However, their positions are tied to their position within a measure. If you for example change the spacing of the bars across the page (see page 274) this will affect the symbols' positions.

Layout Layer Symbols

Now let's examine the Layout Layer Symbols. As described above, there is a certain collection of symbols, which are drawn in a different "layer" on the page than all other graphic elements. These are called Layout Layer symbols. All these Symbols are collected in the "Layout" section of the Symbols Palette, see below.

How the Layout Layer is stored

❑ **It is very important to understand how the Layout layer is handled to avoid some otherwise potential confusion.**

The Layout layer is not stored individually for each Track, as the other symbols are. Instead it is common to a "set of Tracks". Let's illustrate this with an example:

You have four Tracks that make up a string quartet. You edit them all at the same time and add Symbols to the score, both Note Layer Symbols and Layout Layer Symbols.

Now let's say you close the Score editor and open only one of the Tracks for editing. All your Note Layer symbols are there just as you left them, but the Layout Layer Symbols have disappeared!

Don't worry, close the Editor again, and open all four Tracks for editing and the Symbols are back.

You have probably got a clue to what is going on by now. The Layout Layer symbols are part of a "bigger entity" called – the Layout. And a Layout is something that is stored not per Track, but for a group of Tracks. Each time you open the same combination of Tracks for editing, you get the same layout.

There are also other things that are part of the layout — apart from he Symbols in the Layout Layer. You will find more info about this in "Working with Layouts".

Why two Layers?

There are two reasons for this division into layers:

- Many of the Symbols that are in the Layout Layer can be stretched to span over several Staves, or for other reasons make more sense to think of as belonging to a certain group of Tracks.
- The Layout Layer is only one part of the bigger concept of Layouts. Layouts allows you to easily extract parts from a full score and perform automatic formatting. This is all described in "Working with Layouts".

Hiding the Note Layer

To view the Layout Layer only, go into Page Mode and select "Layout Layer Only" from the Score menu. This view is redrawn very fast on the screen and may for example be used to quickly scan through many pages to find a certain part of the score which can be identified by its Layout Layer symbols.
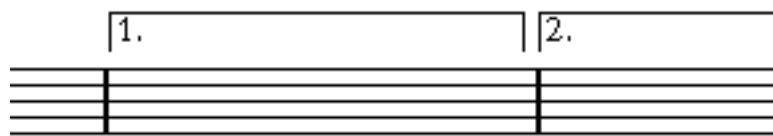
"Layout Layer Only" activated for the example in the previous illustration.

On page 185 and onwards you will find out which symbols are part of the Note Layer and which are part of the Layout Layer.

The Symbol Palettes

Displaying Palettes

From the main menus

1. **Select Symbol Palettes from the Score menu.**

2. **From the submenu that appears, select any of the Symbol Palettes.**

3. **If you want one more Palette, of some other type, select it as with the first one.**
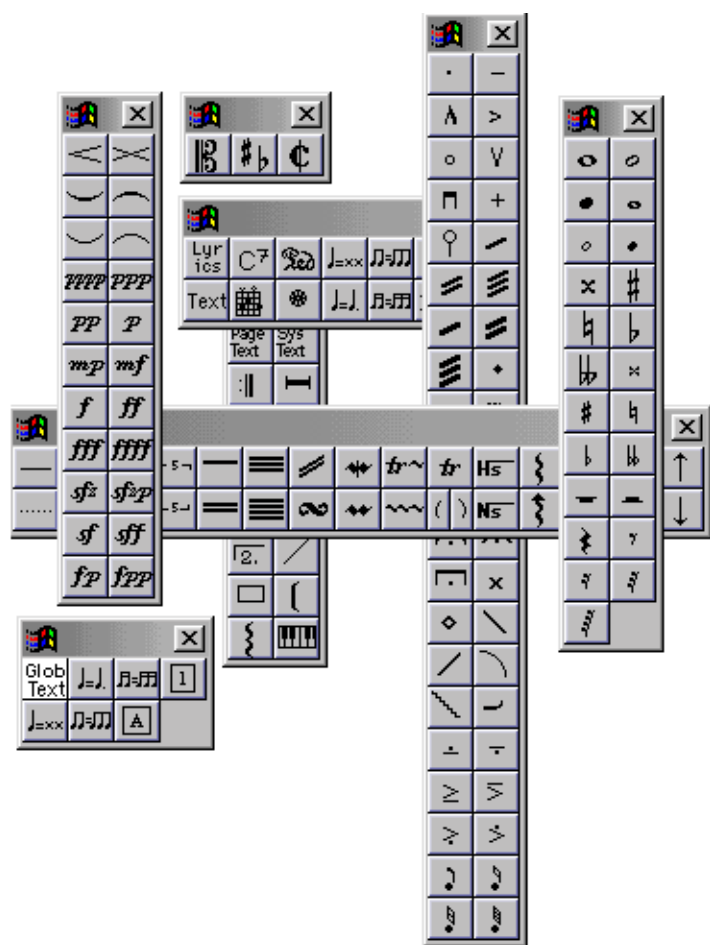
You can have more than one Symbol Palette on the screen at a time.

Directly from the Palette

1. **Position the mouse over the Palette's Control menu icon (in the upper left corner) and click.**
   A pop-up menu appears.

The Symbol Palette pop-up.

2. **If you want the new Palette to replace the current one, simply select the desired Palette from the list.**
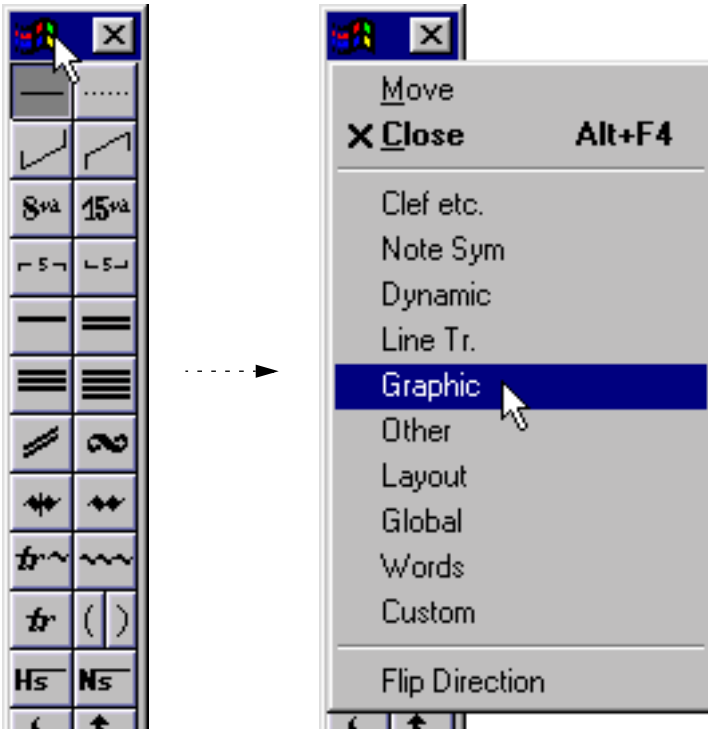   The window will now show the selected Palette.

3. **If you want to display the new Palette without closing the current one, hold down [Ctrl] and select a Palette from the list.**
   A new window opens with the selected Palette. The first Palette window remains open.

Moving and Handling Palettes

Palettes are handled as any window, which means that you can:

- **Move a Palette around by dragging its title bar.**

- **Close a Palette by clicking its Close box.**

There are also a few special features for handling Palette windows:

- **You can decide whether you want a Palette to be displayed vertically or horizontally, by pulling down the Palette's Control menu and selecting "Flip Direction".**
  This is possible for all Symbol Palettes except the "Clef" Palette, which is always displayed horizontally.

- **You can close all open Palettes by selecting "Close All" from the Symbol Palettes sub-menu on the Score menu.**

The Available Symbols

The illustrations below show all the symbols available, divided by group (see above). The captions contain additional information about the symbols in the Group.

Clef Change

Time Sig. Change

Key Sig. Change
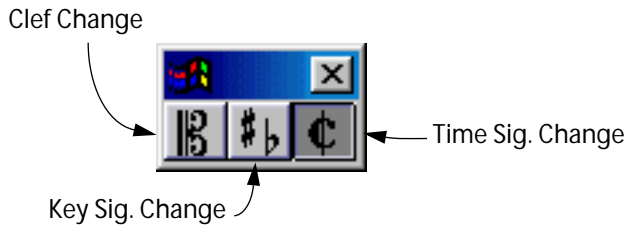
The "Clef etc." Palette.

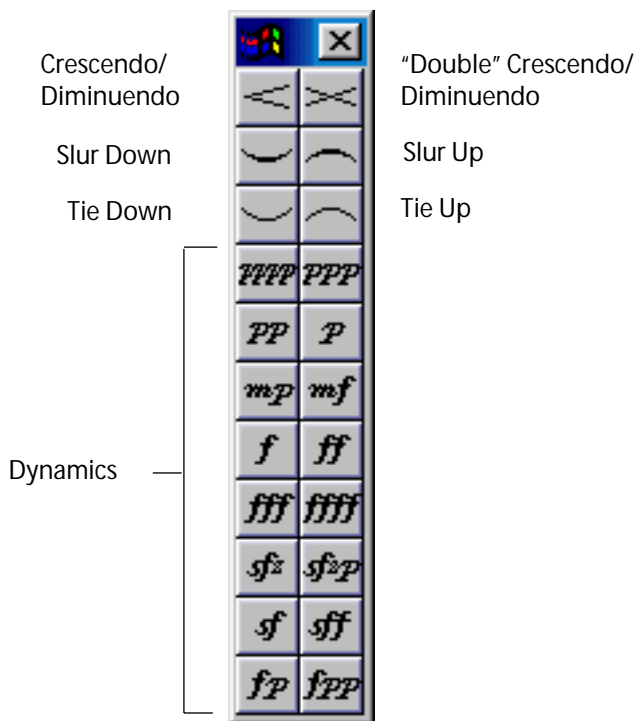|			
Staccato	.	—	Tenuto
Accent	Λ	>	Accent
Flageolet	o	V	Bow Up
Bow Down	Π	+	Damped
Thumb Pos.	?	—	Tremolo
Tremolo	≠	≣	Tremolo
Tremolo	—	≢	Tremolo
Closed Hihat	≣	♦	Open Hihat
Accent	■	V	Accent
Accent	Λ	Λ	Staccato
Staccato	▾	▪	Closed Hihat
Fermat	⁀	∧	Fermat
Fermat	⊓	x	Spoken Tone
Diamond Note	◇	\	Glissando
Glissando	/	⌒	Fall
Fall	�	⌣	Doit
Articulation	⊥	⊤	Articulation
Articulation	≥	≥	Articulation
Articulation	≳	≳	Articulation
Staccato	♪	♪	Staccato
Staccato	♪	♪	Staccato

Line	—	......	Line
Bracket Beam	⌐	⌐	Bracket Beam
Octave	8va	15va	Octave
Tuplet Bracket	⌐5⌐	⌐5⌐	Tuplet Bracket
Beam	—	=	Beam
Beam	≡	≡	Beam
Staff Separator	⫽	∞	Turn
Trill	⧓	⧓	Trill
Trill	tr~	~~	Trill
Trill	tr	(	)	Mute etc.
Main Voice	Hs	Ns	Accompanying Voice
Arpeggio	⸽	⸽	Arpeggio
Arpeggio	⸽	⸽	Segno (sizable)
Hand Indication	L	⌐	Hand Indication
Strum	↑	↓	Strum

The "Note Symbols" Palette. These symbols are always tied to a note.
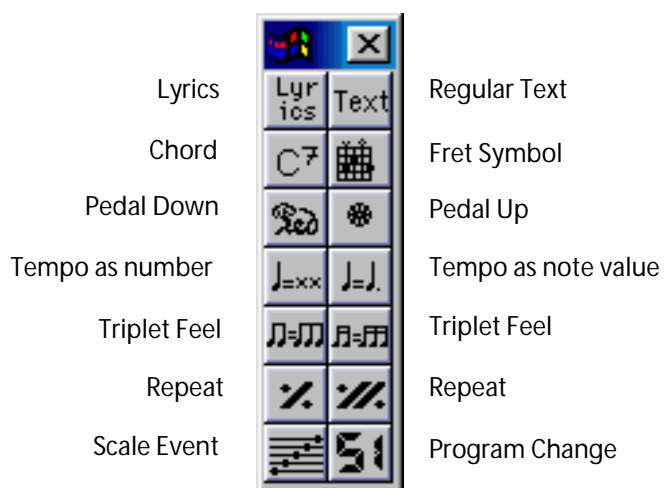
The "Lines and Trills Palette. Please note that the Arpeggios, Hand Indications and Strum symbols are all "note dependant"!

Crescendo/ Diminuendo	"Double" Crescendo/ Diminuendo
Slur Down	Slur Up
Tie Down	Tie Up
Dynamics	

The "Dynamics" Palette.

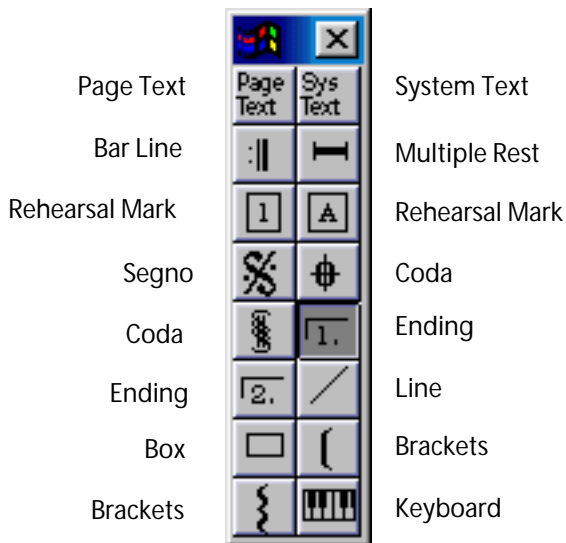The "Graphic" Palette. This contains note heads, accidentals and rests that can be "drawn in" without affecting the score in any way. They do not affect MIDI playback!

Lyrics	Regular Text
Chord	Fret Symbol
Pedal Down	Pedal Up
Tempo as number	Tempo as note value
Triplet Feel	Triplet Feel
Repeat	Repeat
Scale Event	Program Change

The "Other" Palette.

Page Text	Page Text	Sys Text	System Text

Page Text	System Text
Bar Line	Multiple Rest
Rehearsal Mark	Rehearsal Mark
Segno	Coda
Coda	Ending
Ending	Line
Box	Brackets
Brackets	Keyboard

The "Layout" Palette. All these symbols are drawn in their own "layer".

Cup	Plunger	Open	Untitled	Untitled	Ur
Straight	Bucket	Untitled	Untitled	Untitled	Ur
Harmon	In Stand	Untitled	Untitled	Untitled	Ur

The "Words" Palette. This is described on .

Further details about many of the Symbols can be found on .

Creating a Custom Palette

On the Symbol Palette menu, you will find a Palette called Custom. Cubase VST allows you to fill this Palette with any selection of Symbols from other Palettes. In this way, you can have instant access to the Symbols you use often:

1. Open the Custom Palette.
If it's the first time you are using this, it will be empty.

2. Open another Palette from which you want to copy a Symbol.

3. Hold down [Alt] and click on the Symbol you want to add to the Custom Palette.
The Symbol appears on the Custom Palette.

4. Repeat this with other Symbols.

- **To remove a Symbol from the Custom Palette, hold down [Alt] and click on it.**

- **You can assign key commands for the first ten symbols on the Custom Palette.**
Pressing the assigned key combination will perform a "Multi Insert"; inserting the corresponding symbol for the selected notes.

Important! – Symbols, Staves and Voices

Most Symbols belong to a Staff when inserted. Only Note Symbols, slurs and ties are an exception. They belong to notes and therefore to Voices.

It is extremely important that the correct Staff is active when you insert a symbol (if you are editing multiple staves, of course).

If you for example insert a symbol with the wrong staff active it might later appear like the symbol has disappeared simply because you edit another configuration of Tracks (the Track you actually inserted the Symbol to might not have been opened for editing).

The same is true for Note Symbols and their relation to Voices. Make sure the correct voice is active when inserting symbols or they might wind up at the wrong position, fermats may be turned upside down etc.

Layout Symbols work slightly differently. Instead of belonging to a certain Staff or Voice, they belong to a Layout. Since different Track combinations use different Layouts, this means that if you insert a Layout Symbol in the score when you are editing two Tracks (for example a trumpet and a saxophone part), it will not be there when you view each Track by itself in Score Edit. However, you can copy Layouts between Track combinations.

Adding Symbols to the Score

Making Space and handling Margins

- If you find there isn't enough space between staves to add symbols (like for example text) please see for info on how to separate the staves.
- If you find the score looks crammed after adding symbols, check out Automatic Layout on .

❒ **Symbols you add outside the margins will not be printed!**

About the Pencil tool

Unlike the other MIDI Editors, there is no Pencil tool in the Score Edit Toolbox. Instead, the Pencil tool is "automatically" selected when you insert Symbols. There are various rules for how this is done:

- **Normally, the Pencil tool is automatically selected when you click on a Symbol in a Palette.**

- **However, if the option "Double Click Symbol to get Pencil Tool" is activated in the Preferences–Score–Editor Behaviour dialog, you need to double click the Symbol to get the Pencil tool.**
  This is useful if you want to insert Symbols using the Do pop-up menu or computer keyboard as described below (and therefore don't want the Pencil tool to appear every time you select a Symbol).

- **In the same Preferences dialog, you will find an option called "Display Arrow Tool after Inserting Symbol". When this is activated, the Arrow tool is automatically selected after you have inserted a symbol.**
  If you want to insert a lot of symbols with the Pencil tool, you may want to deactivate this option.

Adding Note Symbols

Adding a Symbol to one Note

1. **Make sure the Note Symbol Palette is visible.**

2. **Click (or double click) on the desired Symbol in the Palette.**
   As mentioned above, the "Double Click Symbol to get Pencil Tool" preference determines whether you need to double click. In any case, the Pencil tool is automatically selected.

3. **Either click on the note or above or below it.**
   If you click on the note, the symbol is put in at a predefined distance from the note. If you instead click "above or below" the note, you decide for a vertical position yourself. In either case, the symbol is aligned vertically with the note. It can later be moved up/down.
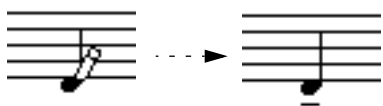
   Clicking on a note inserts the Note Symbol (in this case a tenuto) at a predefined distance from the note head.

   There are two options in the Scores–Additional Settings dialog that affect the vertical positioning of note symbols:

• **Accents above Stems.**
   When this is activated, accent note symbols are displayed at the stem side of notes instead of the note head.

• **Accents above Staves.**
   When this is activated, accent note symbols are displayed above the staff, regardless of the stem direction of the notes. This setting overrides the "Accents above Stems" option.

Adding a Symbol to several Notes using the Pen

You might for example want to add a staccato symbol to all notes within a few measures. Proceed as follows:

1. **Make sure the Note Symbol Palette is visible.**

2. **Select the notes to which you want to apply the Symbol.**
   You may also want to use the To pop-up menu, to restrict which notes should be affected.

3. **Click (or double click) on the desired Symbol in the Palette.**

4. **Hold down [Alt] and click on any note in the score.**
   The symbols are put in at a predefined distance from all of the notes that meet the criteria on the To pop-up menu. The symbols can be moved later.
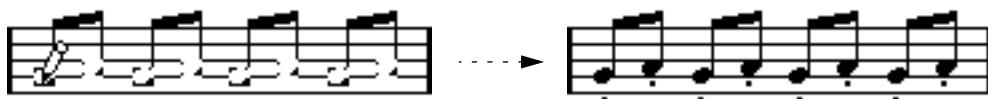
   Clicking with [Alt] down inserts the symbol to a number of notes.

Adding a Symbol to several Notes using the Do pop-up menu

1. **Select the notes to which you want to apply the Symbol.**
   You may also want to use the To pop-up menu, to restrict which notes should be affected.

2. **Select the desired Symbol from the Palette.**

3. **Pull down the Do pop-up menu and select "Multi Insert".**
   The Symbol is added to the selected notes (taking the To pop-up menu into account), at a predefined distance from the note heads. The symbols can be moved later.

Adding a Symbol without tying it to a Note

Note dependant symbols can be entered freely too. This for example allows you to add a fermat to a rest symbol.

1. **Click or double click the symbol so that the Pencil tool is selected, as described above.**

2. **Hold down [Ctrl].**

3. **Click anywhere in the score.**
   Make sure that the symbol ends up in the correct Staff!

Editing a Note Symbol

If you hold down [Ctrl] and click on a note symbol, a pop-up palette appears, allowing you to select another note symbol. Note that this affects all selected symbols of the same type (taking the To pop-up menu into account).

This makes it very easy to e.g. exchange all accent symbols for staccato symbols:

1. **Hold down [Shift] and double click on the first accent symbol.**
   All the following accent symbols are selected.

2. **Press [Ctrl] and click on one of the symbols.**

3. **Select the staccato symbol from the pop-up palette that appears.**
   All the accent symbols are replaced with staccato symbols.

Adding other Symbols

1. **Make sure the desired Symbol Palette is visible.**

2. **Click (or double click) on the desired Symbol in the Palette.**
   As mentioned above, the "Double Click Symbol to get Pencil Tool" preference determines whether you need to double click. In any case, the Pencil tool is automatically selected.

3. **Click once or click and drag somewhere in the score.**
   The symbol appears. For many symbols with a length, you can drag while holding the mouse button down, to set the length of the symbol directly. The symbol appears with its handles selected (if it uses handles) so that you can change its size directly if you wish. This is all described in detail on page 209.

Press the mouse button — drag — and release!

About Note Dependant Symbols

Note dependant Symbols like arpeggios and strum directions must be put in front of a note or they will be "invisible".

Adding Text

There are special methods for working with text, described in their own chapter, "Working with Text".

Adding Slurs and Ties

Slurs can be drawn manually or inserted automatically for a group of notes. Ties are normally added by the program but can also be drawn in as "graphic" symbols.

Slurs, Ties and the Snap Value

Since a slur or tie "musically" always spans from one note (or chord) to another, the beginning and end of a slur/tie in Cubase is always related to two notes in the score.

When you draw in a tie or slur, the program uses the Snap value to find the closest two notes to "attach" the symbol to. In other words, if you want to add the slur/tie to a note at a sixteenth note position, make sure snap is set to 16 or smaller (this is only true for manual drawing of slurs and ties).

Please note that this does not mean that the symbol has to start or end exactly above/below two notes. You can position the end points as you like. Instead, what it means is that when you use the Layout Tool to move the note graphically to adjust the look of the bar, the slur/tie moves with it (see page 171). The same is true if you adjust the width of the measure, the slur/tie is adjusted accordingly.

Drawing the Slur/Tie

1. **Check the two notes that the slur/tie should span and set the Snap value accordingly.**
For example, if one of them is at a quarter note position and the other at an eighth note position, set Snap to 8 or smaller (16, 32 etc).

2. **Click or double click on the correct slur/tie in the Symbol Palette, so that the Pencil is selected.**

3. **Position the mouse close to the first note and drag to a position close to the second note.**
The end points of the slur/tie will snap to their default positions - holding down [Ctrl] allows you to move the end points freely.

There are two special functions for inserting a slur or tie that automatically spans from one note to another.

Adding a Slur/Tie between two Notes

1. **Select two notes.**

2. **Click or double click the correct slur/tie symbol from the Palette, so that the Pencil tool is selected.**

3. **Hold down [Ctrl] and click on one of the two notes.**

Inserting a Slur/Tie over a Selection of Notes

1. **Select a span of notes.**

2. **To insert a slur, pull down the Do pop-up menu and select "Insert Slur".**
A slur is created, starting at the first selected note and ending at the last.


3. **To insert a tie, select the tie symbol, pull down the Do pop-up menu and select "Multi Insert".**
This method can of course also be used to add slurs, but if you use the "Insert Slur" function, you don't need to have the Symbols Palette visible. You can even create a key command for the "Insert Slur" function, for instant access.

Creating Trills

If you have recorded or entered a trill, Cubase VST can help you display this properly:

1. **Select the notes that make up the trill.**

2. **Pull down the Do pop-up menu and select Build Trill.**
   A dialog appears.
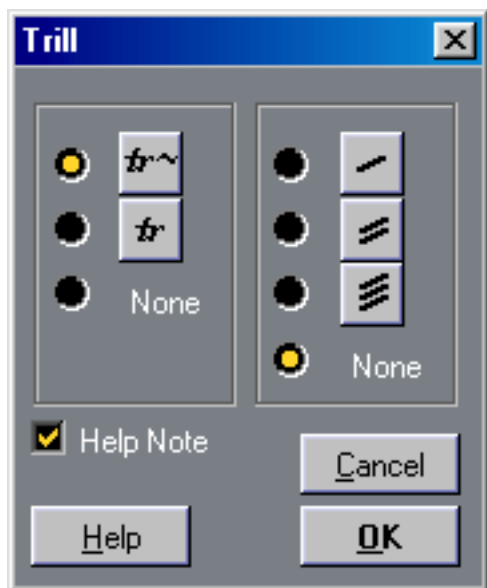
3. **Select the options you want.**
   The radio buttons determine how the trill should look. Activate the "Help Note" option if you want an extra note to indicate between which notes the player should trill.

4. **Click OK.**
   Now the following happens:

   - All notes except the first one (and possibly the second) are hidden.
   - The first note automatically gets a Display Length matching the length of the whole trill.
   - If you chose to include a help note, the second note is converted to a "Graphic" note, with brackets but without stem. Otherwise, the second note is hidden as well.
   - The trill symbols you indicated in the dialog are inserted.
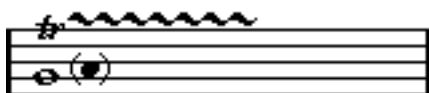
Inserting Symbols across Staves

- If you hold down [Alt] while adding a symbol to one staff in a grand staff, this symbol will be put in at corresponding positions on all staves. This allows you to for example insert rehearsal marks, repeats, etc for all instruments at the same time.
- By the same token, if you hold down [Alt] when inserting braces/brackets, they are inserted to all grand staves.
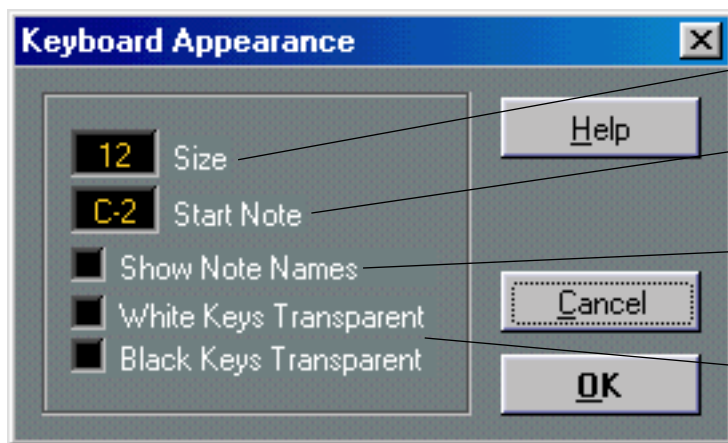
Adding a Keyboard Symbol

The Layout Palette contains a piano keyboard symbol, useful for example in educational scores. The symbol has the following properties:

- **To insert the keyboard symbol, select it from the Palette, click with the Pencil tool at the desired position and drag a box to specify the approximate size of the keyboard.**

- **After you have inserted the keyboard symbol, you can drag its edges to resize it vertically or horizontally.**
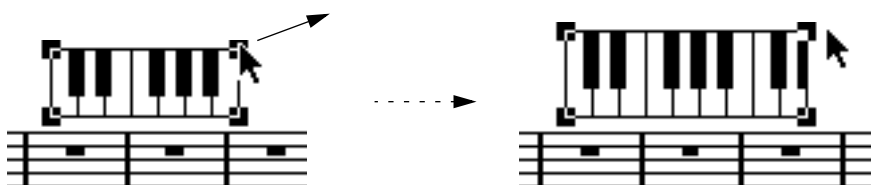
- **If you double click on an inserted keyboard symbol, a dialog appears, allowing you to specify further properties of the symbol.**

Governs the width of the keys.

The leftmost note in the keyboard symbol

When this is activated, each C key is displayed with note name and octave (C1, C2, etc).

Activate these if you want white or black keys to be transparent.

Adding Guitar Chord Symbols

A fretboard symbol of a guitar chord can be inserted anywhere in the score. There are two ways to do this: by using the "Other" Symbol Palette or by using the Guitar Lib dialog.

Using the "Other" Symbol Palette

1. **Make sure the "Other" Palette is visible.**

2. **Click or double click on the Guitar Chord symbol, so that the Pencil tool is selected.**

3. **Click in the score, at the position you want the symbol.**
   The Edit Guitar Symbol dialog appears.
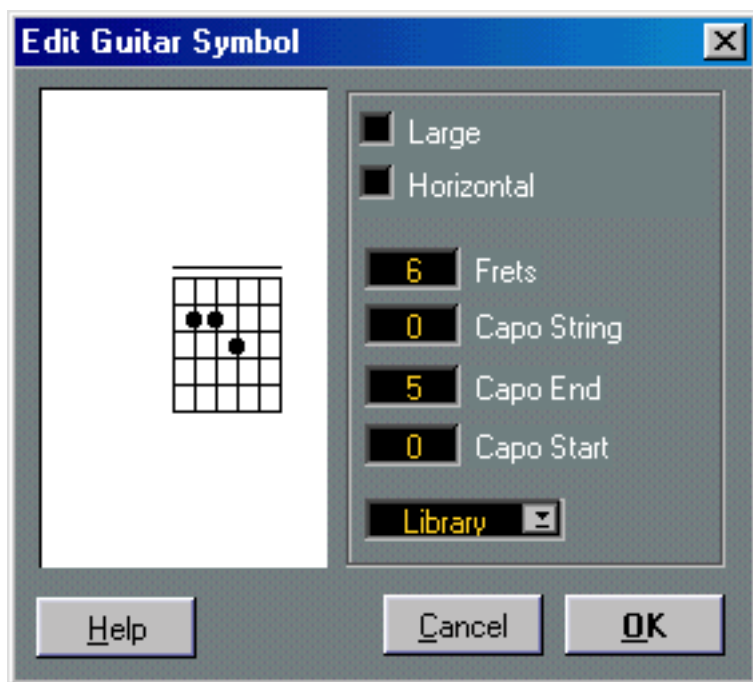
- **To put a black dot on any fret and string, click on it.**
  To remove it, click again.

- **To input a symbol just above the string, outside the fretboard, click there.**
  Consecutive clicks allow you to select between a ring (open string), a cross (don't play this string) and no symbol.

- **To add a Capodaster number, click to the left of the symbol.**
  Consecutive clicks allow you to step through the possibilities.

- **You can also add a Capodaster symbol (a line over the strings), by setting the "Capo Frets" parameter to a value higher than 0.**
  By adjusting the Capo End and Start values, you can create Capodaster symbols that span fewer strings.

- **If you want a bigger symbol than the default one, activate the "Large" checkbox.**

- **If you want the symbol to be horizontal, activate the "Horizontal" checkbox.**

- **If you want to display more or fewer frets than the default six, change the "Frets" value.**

- **If you have defined chord symbols in the Guitar Library (see below), these are available for selection on the "Library" pop-up menu.**

4. **Click OK to close the dialog.**
   The guitar symbol appears in the score.

- **You can edit the symbol by double clicking it.**
  The Edit Guitar Symbol dialog appears. This has the same parameters and settings as the dialog that appeared when you first created the symbol, with two additions:

|	
Insert Notes	Clicking this button inserts the notes of the chord into the score, at the correct position.
Apply	Clicking the Apply button applies the changes you have made in the dialog to the selected guitar symbol. Note that the dialog is *non-modal*, that is, it can remain open while you select other guitar symbols and edit them. The dialog will change to reflect the currently selected guitar symbol.

- **[Ctrl]-clicking on a guitar symbol brings up a pop-up menu, listing all chords defined in the Guitar Library (see below).**
  This allows you to quickly change chords for the symbols you have inserted.

Using the Guitar Lib

This is fine if you only want to add a few chord symbols to your score. If you need a lot of chord symbols, or if you are using chord symbols in a lot of different scores, you can gather all your chord symbols in a "Guitar Library" instead. This way you don't need to recreate the same chord symbol over and over again:

1. **Pull down the Score menu and select "Edit Guitar Lib…" from the Global Settings menu.**
   The Guitar Lib dialog appears.
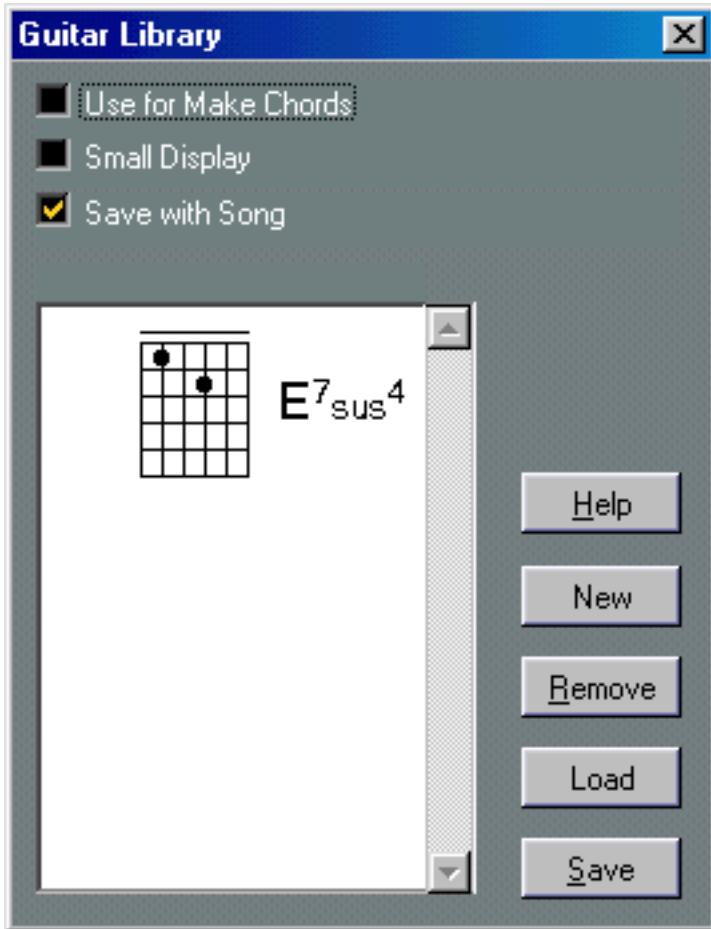
2. **To add a guitar chord symbol to the library, click the New button.**
   A chord symbol appears in the list to the left.

3. **To edit the chord symbol, double click it in the list.**
   This opens the Guitar Symbol dialog, as when editing a chord symbol in the score.

• **The symbol you create will also be "interpreted" and displayed as a written chord to the right of the fretboard symbol.**
   This can also be edited by double clicking if you like.

4. **To add a chord symbol from the Guitar Lib window to the score, drag it into the score window and drop it at the position you want it.**
   Guitar chord symbols added this way behave like "regular" guitar chord symbols from the "Other" Palette. You can double click them to edit them in the Guitar Symbol dialog.

• **To remove a symbol from the library, select it in the list and click Remove.**

• **To save the current library as a separate file, click the Save button.**
   A file dialog appears, allowing you to specify a name and location for the file.

- **To load a guitar library file, click the Load button.**
 In the file dialog that appears, locate and open the desired Guitar Lib file.

❐ **Loading a Guitar Lib file replaces the current library!**

There are also three additional checkboxes in the Guitar Lib dialog:

Checkbox:	Description:
Use for Make Chords	When this is activated, and you use the "Make Chords" function (see page 224), the program will insert guitar symbols as well as regular chords (if any fitting guitar symbols can be found). If there are several guitar symbols for a certain chord in the Guitar Lib, the first one will be used.
Small Display	If this is activated, the chord symbols in the list will be displayed in the size they will have in the score. If it is deactivated, the symbols will be displayed in a larger size, for easier editing.
Save with Song	When this is activated, the Guitar Library is saved with the Song. Otherwise, it is saved with the Cubase Preferences (and thus available to other Songs).

Using Global Symbols

The symbols in the "Global" palette belong to the Layout layer. When you are editing a layout containing several Tracks, you can have inserted Global Symbols automatically copied to any combination of Tracks in the layout. You decide which Tracks should display Global Symbols by ticking their "Glob" column in the Layout Settings dialog.
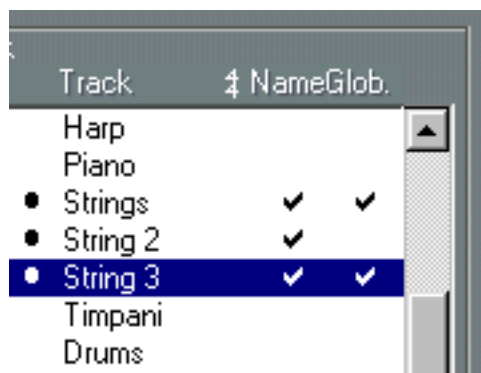
Here, Global Symbols will be displayed for the Tracks "Strings" and "String 3".

- Any editing you perform to Global Symbols is automatically duplicated in the other Tracks.
- You can turn on and off the display of Global Symbols for different Tracks at any time.
- Global Symbols can be copied between layouts, by using the "Get Form Only" or "Get Layout" functions in the Layout Settings dialog.

One example of how to use Global Symbols:

Let's say you are editing a full orchestra score, and want Rehearsal Marks inserted for more than one staff (typically, above each instrument group - brass, strings, percussion, etc.). Now all you need to do is insert the Rehearsal Marks from the Global Symbols palette for one of the Tracks, open the Layout Settings dialog and tick the "Glob." column for the desired Tracks. When you close the Layout Settings dialog, the inserted Rehearsal Marks are automatically duplicated to the specified Tracks.

Selecting Symbols

Almost all symbols can be selected simply by clicking on them. For symbols that have a length or size, one or more handles appear.

A selected crescendo.

An exception to this are the slurs and ties which can be selected by clicking on the end points or by making up a selection rectangle.

* **If you hold down [Shift] and double click on a symbol, all following symbols of the same kind are selected.**
  This can be very useful, as it allows you to select all symbols of a certain kind and move them, delete them or exchange them for another symbol type (by [Ctrl]-clicking, as described on page 214).

Using the Lock Layers

Sometimes it can be very hard to click on a symbol or other object in the score, without accidentally selecting other symbols near by. To remedy this, you can assign different types of objects to different "Lock Layers" (up to three) and instruct Cubase VST to "lock" one or two of these layers, making them "unmovable". Proceed as follows:

Setting up the Lock Layers

1. Double click on the Lock Layer button on the Status bar.

The Lock Layer button.

The Lock Events dialog appears. You can also access this by selecting Preferences–Scores–Lock Events on the Edit menu.
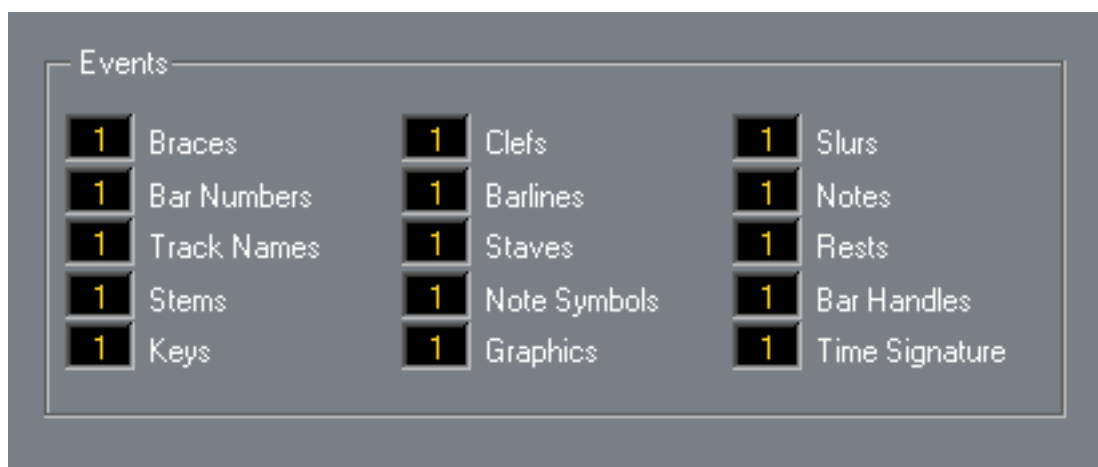
2. Assign each Event type to a layer (1, 2 or 3).
It is a good idea to assign Event types that might "conflict graphically" to different layers. For example, you might want to assign "Bar Numbers" and "Note Symbols" to different layers, if you find that you accidentally move bar numbers when editing note symbols and vice versa.

3. Click OK to close the dialog.

Locking a Layer

To "lock" a layer, click on its number in the Lock Layer button, so that it goes "dark".

In this figure, layer 2 is locked. Event types assigned to layer 2 cannot be selected, moved or deleted.

Moving and Duplicating Symbols

There are four general ways to move and duplicate symbols:

*   By dragging them with the mouse (see below).
*   By using the computer keyboard (moving only - see page 204).
*   By using the Copy Events function (see page 205).
*   By using the Paste Note Attribute function (duplicating note symbols only - see page 208).

Moving and Duplicating by using the Mouse

This is done much as with other objects in Cubase VST. The following rules apply:

*   Note Symbols and Note Dependant symbols move with the notes/chords they belong to. In other words, if you move the note/chord, the symbols move with it/them.
*   Note symbols (like for example accents and lyrics) can only be moved vertically. Some other symbols (like braces and brackets) can only be moved horizontally.
*   All other symbols without handles can be moved freely. If you hold down [Shift], movement is restricted to one direction only.
*   If the symbol has one or more handles when it is selected, don't drag it by the handles, or you will change its shape instead of moving it.
*   The slurs and ties are an exception, they can only be moved by first dragging one handle and then the other. However, if you use the Layout Tool (see page 171) to move the notes they belong to, or if you change the measure width, they will be adjusted automatically.
*   Duplicating is done by moving with [Alt] pressed, as always in Cubase. Slurs, ties, braces, brackets and bar lines can not be duplicated with this method.

There are three features to help you position symbols (and other score objects) correctly: the Rulers, the Non-note Position Display and the Position Window.

The Rulers

Unlike other editors, Score Edit does not have a meter/time position-based ruler. Instead, the ruler is "graphical", that is, they indicate the actual x-y position of objects (with "zero" at the upper left corner).

The white lines indicate the current position of the mouse pointer.
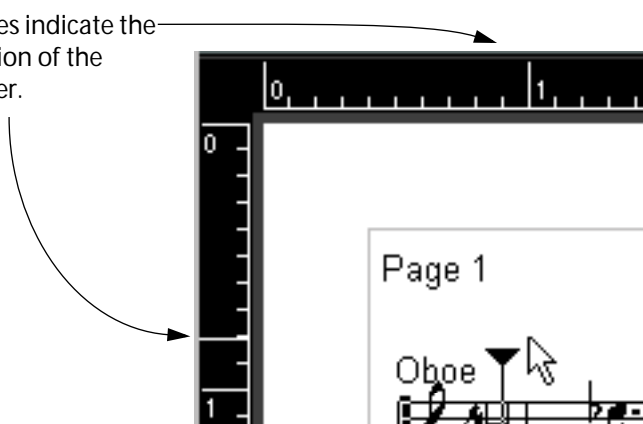
*   **To hide the Rulers, pull down the Ruler pop-up menu at the bottom of the Score Edit window, and select "Off".**

*   **To display the ruler again, pull down the Ruler pop-up menu and select one of the units (inches, centimeters or points).**
    This setting will also affect the units used in the Position Window (see below).

The Non-note Position Display

There is a special position display in the Score Toolbar for non-note Events such as pauses, symbols, etc. This is useful for checking and adjusting the exact position of non-note objects, e.g to make sure symbols "belong to" the correct bars.

- **For the Position Display to be active, you need to select a single non-note object.**

- **You switch the Position Display between meter and time position by clicking on the Mouse Box, in the same way as with the Info Line, Song Position Display, etc.**

The Position Window

If you need to fine-tune the graphical positions of symbols and other objects, you should use the Position Window. This makes positioning easier in two ways:

- You get a numerical indication of the exact position of the mouse pointer (and any object you are dragging).
- You can move objects or staves by typing in position values.

You display and hide the Position Window by clicking in the Ruler.

The window contains the following settings and values:

Setting / Value:	Description:
Measure in Inch/cm/mm/pt	Click this label to change units for the Position Window. This choice will also affect the units used in the Rulers.
Abs/Rel. Pos	Click this label to select whether X-Y position values should be "absolute" (referring to the upper left corner of the current page) or "relative" (referring to the upper left corner of the Active Staff).
X, Y	When a single object is selected, these values show the horizontal and vertical position of this object. When no objects or several objects are selected, these values show the current horizontal and vertical position of the pointer. • **If a single object is selected, you can click on these values and type in a new position for the object.**
Delta X, Delta Y	When you are moving an object, these values indicate the horizontal and vertical distance you have moved it. • **If one or several objects are selected, you can click and type in values - the objects will be moved the specify distances.**
Sel. Staff	If "Abs. Pos" is selected (see above), this value shows the distance from the top of the score page to the top of the Active Staff. • **You can click and type in a value to move the Active Staff.** If "Rel. Pos" is selected, this value will always be 0, since vertical positions are related to the top of the Active Staff!
To Prev Staff	The distance between the Active Staff and the Staff above it. • **Clicking and typing in a value will move the Active Staff.**
To Next Staff	The distance between the Active Staff and the Staff below it. • **Clicking and typing in a value will move the staves below the Active Staff.**

Dragging Symbols across Staves

If you drag a symbol across the staves, you will note how the "Active Staff" indicator to the left follows the mouse pointer. Use this as an indication, to make sure that symbols end up in the correct Staff.

• **If you are editing several Tracks at the same time, and want to make sure that a symbol isn't accidentally moved to another Track when you drag it vertically, click on the "L" button on the Score Toolbar.**
When this is activated, you cannot move symbols across Tracks by dragging.

Moving by using the Computer Keyboard

You can move symbols (and even notes and rests) graphically, by using the computer keyboard. This is the same as dragging them with the Layout tool, but this method offers higher precision. Proceed as follows:

1. **Select the symbols you want to move.**

2. **Hold down [Alt].**

3. **Use the arrow keys to move the symbols in steps of one point.**
Depending on the symbol type, you may only be able to move symbols horizontally or vertically.

❐ **Don't confuse this with holding [Ctrl] and using the arrow keys, which moves notes and rests in steps of one snap value.**

Moving and Duplicating with the Copy Events function

This function allows you to move or copy the contents of a whole bar to one or several other bars. You can select which elements in the bar should be included in the operation. Proceed as follows:

1. **Pull down the Score menu and select "Show Invisible" from the Global Settings submenu.**
   The Show Invisible dialog appears.
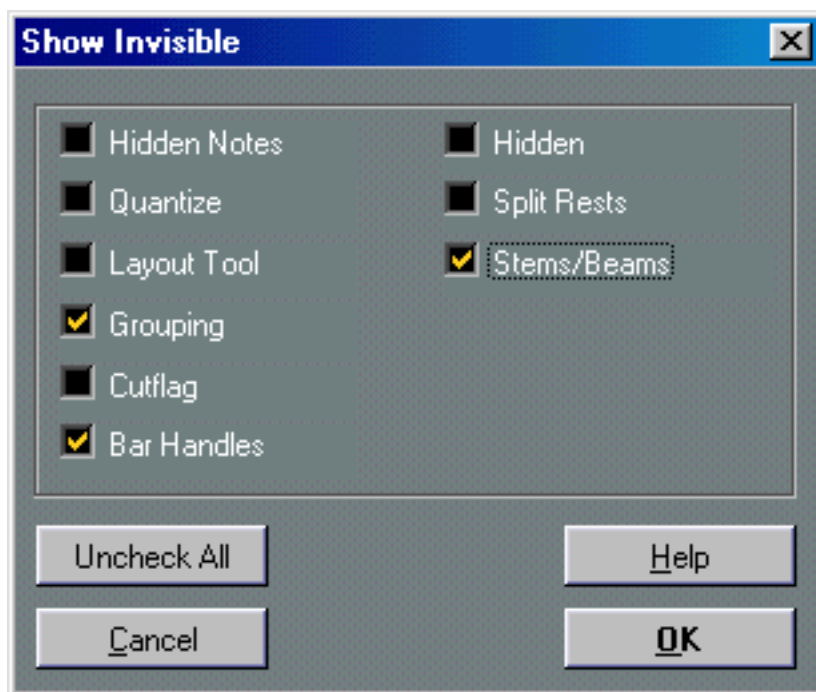
2. **Make sure the "Bar Handles" option is checked, and close the dialog.**
   Now, each bar in the score is shown with a handle in the upper left corner.

Bar Handles

• **You can also show/hide the bar handles by using the "Show Invisible" Filter Bar, as described on** **.**

3. **Double click on the handle of the bar from which you want to copy or move symbols.**
   The Copy Events dialog appears.
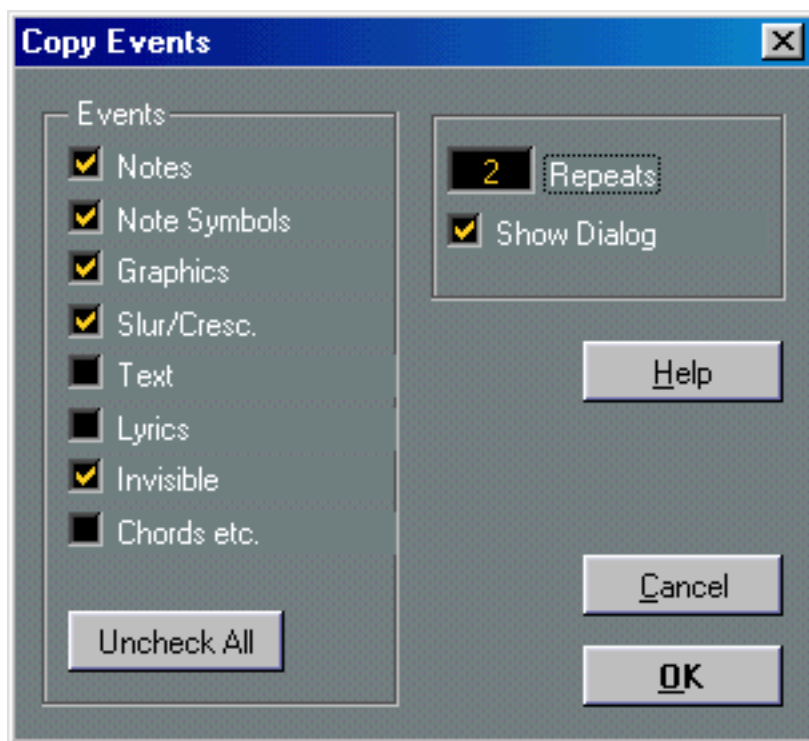
4. **Make sure that only those symbol types are checked, that you want to move/copy.**

5. **If you have several subsequent bars to which you want to copy symbols, set the "Repeats" value to this number of bars.**
   If you only want to copy symbols from one bar to another, make sure "Repeats" is set to 1.
   This option is only available for copying, not for moving.

6. **If you want this dialog to appear every time you perform the move/copy operation (see below), activate "Show Dialog".**

7. **Click OK to close the dialog.**

8. **To copy the specified Event types to another bar, hold down [Alt], click on the bar handle of the first bar and drag it to the "target" bar.**
   To move the Event types instead of copying them, drag the bar handle without holding down [Alt].

• **If you activated "Show Dialog" in step 6 above, the Copy Events dialog appears, allowing you to confirm your settings.**
   Click OK to close the dialog and perform the operation.

Now, the following happens:

- If you activated "Note Symbols" in step 4 above, the note symbols are copied from the "source" bar and pasted onto notes at the same positions in the "target" bar. If there is a note symbol for a certain note in the "source" bar, but no note at the corresponding position in the "target" bar, the symbol will simply be removed.

  If we move the Note Symbols from the first bar to the second bar...

  ...only symbols that find corresponding note positions in the second bar will be moved. The other symbols will be removed.

  The actual position of notes are used as a basis for this operation - not the displayed position.

- If you activated other types of symbols in step 4 above, these will simply be moved to the same graphical position in the "target" bar.
- If you set "Repeats" to a number larger than 1 in step 5 above, the same symbols will be pasted into that number of bars (starting from the one you drag the bar handle to).
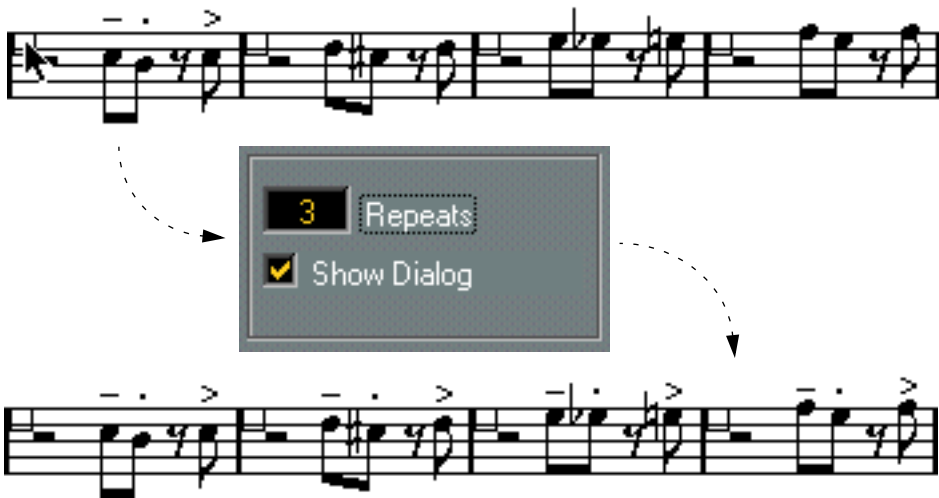
Moving note symbols with "Repeats" set to 3.

- If you didn't hold down [Alt] when dragging the bar handle, the symbols (and other Event types specified in the dialog) are removed from the "source" bar.

❒ **If there already are symbols (or other objects) of the specified types in the "target" bars, these will be removed!**

Duplicating Note Symbols with the Paste Note Attributes function

By using the "Paste Note Attributes" function on the Do pop-up menu, you can copy the properties of one note (including all note symbols) to any number of other notes. This is described on page 161.

About Moving Note Symbols

Note symbols, slurs and ties all have "Default Positions". This determines the vertical distance between the note head(s) and the symbol.

• **You can manually adjust the vertical positions of individual symbols, but if you move or transpose their notes, the symbols are automatically reset to their Default Positions.** This also ensures that note symbols and slurs are positioned sensibly when you change the Display Transpose settings.

• **To reset the vertical positions of all note symbols and slurs in a score, hold down [Ctrl] and click on the Force Update ("UPD") icon on the Score Toolbar.** All note symbols are reset to their default positions, and all slurs and ties are set to their original lengths and shapes (see below).

Changing Length and Shape

Generally you can change the shapes of any symbol that has a length. Proceed as follows:

Resizing

1. **Select the Symbol.**
   The Handles appear.
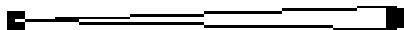
Symbols with a length have two handles when selected.

2. **Drag one of the handles.**
   You might be restricted to vertically or horizontally only, depending on the type of symbol.

❒ **In the Preferences–Scores–Editor Behaviour dialog, there is a preference called "Keep Crescendi Horizontal". When this is activated, crescendo and diminuendo symbols will never be slanted.**

Altering the Shape and Direction of Slurs and Ties

There are two types of slurs and ties in the Symbol Palette. The up/down variation of each actually represent the same symbol but with different initial direction. You can perform the following editing to slurs and ties:

• **By dragging the middle handle up/down you can change the shape of the curve.**

Dragging the middle handle of a slur changes its shape.

• **By selecting a slur or a tie and clicking the "Flip" symbol on the Score Toolbar, you can change the direction and positioning of the slur or tie.**
   Actually, there are three "modes" for a slur or tie. You step through these three modes by clicking the button:

• **By dragging the end points of a slur or tie, you can change its shape without affecting its "relation" to the notes it belongs to.**
   In other words, the end point of the slur/tie will then keep its relative distance to that note when the note is moved with the Layout Tool or when the measure width is adjusted. By holding down [Ctrl] and dragging the end points of a slur or tie, it can be detached from the notes it belonged to.

❐ **You can restore all shape changes to the default, by [Ctrl]-clicking the Force Update icon on the Score Toolbar. See .**

• **To change the default shape and spacing of slurs and ties, open the Preferences– Scores–Spacing dialog and edit the settings "Slur's Start & End Distance from Note Head" and "Slur's Middle Distance from Note Head".**
These settings will be used for all new slurs and ties you create, as well as for all existing slurs for which you haven't manually changed the shape.

Multi Editing of Brackets and Braces

If you hold down [Alt] while editing brackets/braces (shortening, lengthening, or moving), the change is applied to all brackets/braces that span the same set of staves.

Double clicking Symbols

A number of symbols can be double clicked upon. In these cases, a dialog or menu appears where you can input information that either affects the look of the symbol or the MIDI Data it creates. This is described for each type of symbol, in the "Symbol Details" section on .

Deleting Symbols

This is also done as with all other objects in Cubase, either with the Eraser Tool or by selecting and pressing [Delete] or [Backspace].

Copy and Paste

All symbols except those in the Layout part of the Symbols palette can be copied and pasted just as any other object in Cubase. The following rule applies:

• **Symbols that were tied to notes (like for example accents) will become "free-floating" objects when pasted.**
That is, they are not tied to any note any more. If this is not what you want, consider using the "Copy Events" function instead, as described on .
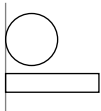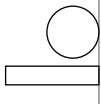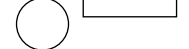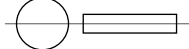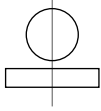
Alignment

Symbols can be aligned as in drawing programs. Proceed as follows:

1. **Select all objects you want to align.**

2. **Select Align Elements from the Format menu on the Score menu.**
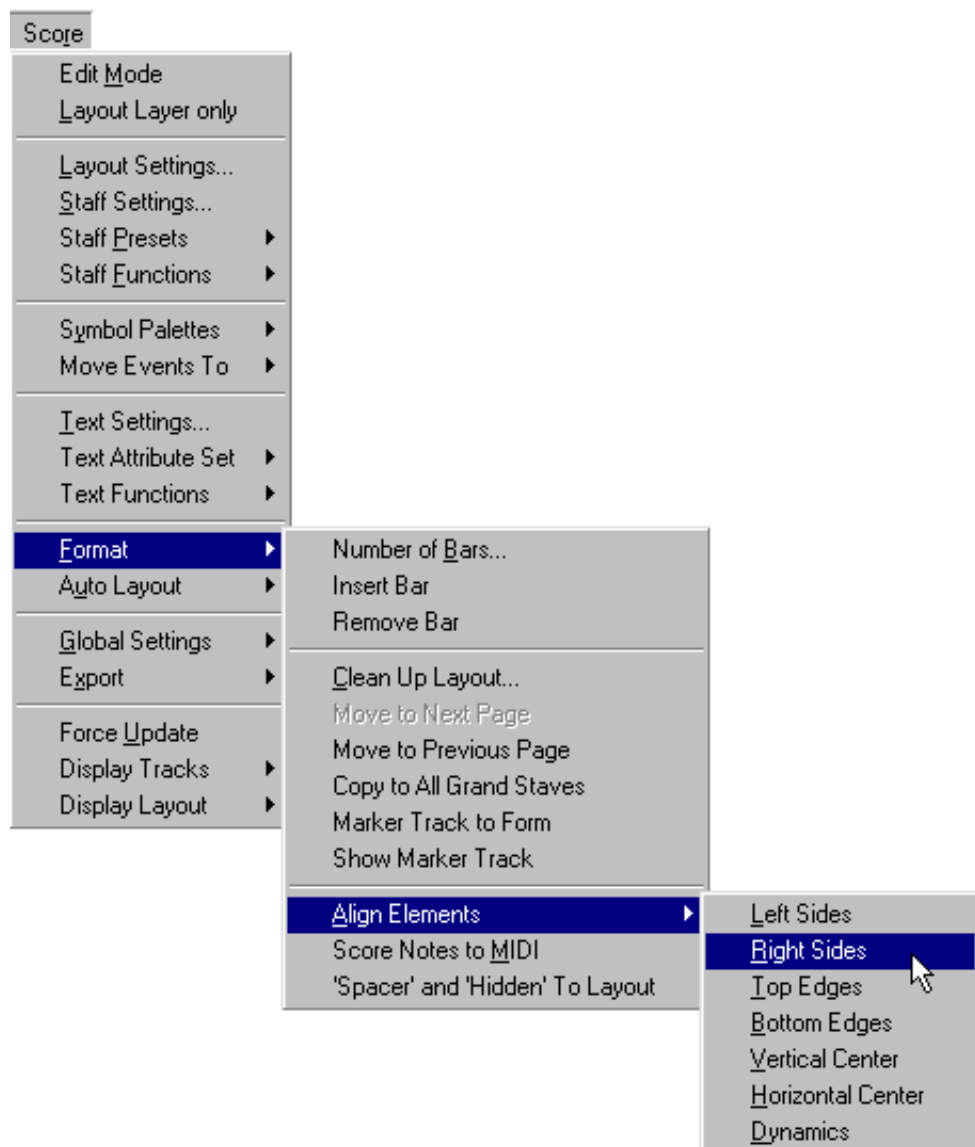
3. **Select the desired option from the Align Elements submenu that appears.**
   The object(s) will now be moved.

Select This:	When You Want This:
Left Sides	
Right Sides	
Top Edges	
Bottom Edges	
Horizontal Centers	
Vertical Centers	

❏ **Note symbols, like staccato and accents can only be aligned horizontally.**

The "Dynamics" option is a special function for aligning dynamic symbols, as described on .

Symbol Details

This section contains additional information about some of the Symbol Palette options.

The "Clef" Palette

Clefs

You can insert a clef symbol anywhere in the score. This will have an effect on the notes, just as the first clef on the staff has. And just as with the first clef, the type is selected from a dialog that appears as soon as you click. More details on page 116 and page 56.

When you double click on an existing clef the same dialog appears allowing you to change the type.

Time Signatures

You can insert a Time Signature symbol at the beginning of any bar. Inserting a new Time Signature will insert a change into the Master Track, as described on page 116.

When you click with the pen, a dialog box appears allowing you to specify the Time Signature. When you double click on an existing Time Signature symbol the same dialog appears allowing you to change the type. This dialog is described in detail on page 56.

• **You can select a font and size for Time Signatures in the Preferences–Scores–Global Text dialog.**
The default font for this is the included "Score Font 4.0" font.

Key Signatures

Inserting a Key Signature change is functionally similar to inserting a new Clef (see above). Details about Key Signatures in general is found on page 60.

The "Dynamics" Palette

Dynamics

There are dynamic symbols ranging from ffff to pppp, plus "special" dynamic symbols such as sforzando, fortepiano, etc.

• **By defining a key command for Next and Previous Dynamic ("Next/Prev Dynamic/Text Size/String" in the Preferences–Key Commands–Scores dialog) you can quickly edit dynamic symbols in the score.**
You can use this feature to step between pppp, pp, p, mp, mf, f, ff and ffff:


Select the dynamic symbol you want to edit.

Press the Previous Dynamic key to change to the next softer Dynamic symbol...

...or press the Next Dynamic key to change to the next louder Dynamic symbol.

• **You can also hold down [Ctrl] and click on a dynamic symbol.**
A pop-up menu appears, allowing you to select another dynamic symbol. Note that this affects all selected dynamic symbols (taking the To pop-up menu into account).
This makes it very easy to e.g. exchange all "mp" symbols for "mf" symbols: hold down [Shift] and double click on the first "mp" symbol (to select all the following "mp" symbols), [Ctrl]-click on one of the symbols and select the "mf" symbol instead!

• **The common dynamic symbols (ffff to pppp) can be double clicked and then be used to alter the MIDI data.**
This is described on .

• **In the Lines and Trills Palette you will find a line symbol which allows you to create the following type of change in dynamics:**
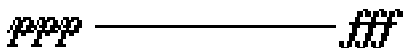
• **The program can also automatically "connect" dynamic symbols by inserting the appropriate crescendo/diminuendo sign between them.**
This is described on .

Crescendo and Diminuendo (Decrescendo)

In the Dynamics palette, there are two kinds of crescendo symbols: regular cre-
scendo and a "double" crescendo (diminuendo - crescendo). Furthermore, the di-
rection in which you draw the symbol determines the result, in the following way:

- To insert a crescendo (<) symbol, select the crescendo symbol from the Palette and drag from left to right.
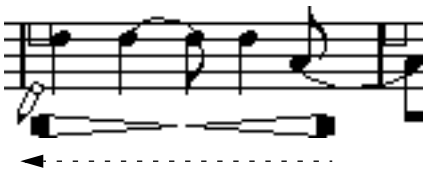
- To insert a diminuendo (>) symbol, select the crescendo symbol from the Palette and drag from right to left.

- To insert a crescendo-diminuendo (<>) symbol, select the double crescendo symbol from the Palette and drag from left to right.

- To insert a diminuendo-crescendo (><) symbol, select the double crescendo symbol from the Palette and drag from right to left.

- **When you have inserted a crescendo/diminuendo symbol, you can move it and resize it by dragging its handles.**

- **If the option "Keep Crescendi Symbols 'Horizontal'" is activated in the Preferences–Scores–Editor Behaviour dialog, crescendo/diminuendo symbols will never be slanted when you draw them, but stay horizontal.**
  Also, this option prevents you from accidentally dragging an endpoint up or down when moving the symbol.

- **If you double click on a crescendo or diminuendo, a dialog box opens where you can make the symbol have an effect on MIDI.**
  See .

- **It's also possible to "flip" crescendo symbols, by using the Flip command on the Do pop-up menu or the Flip button on the Score Toolbar:**
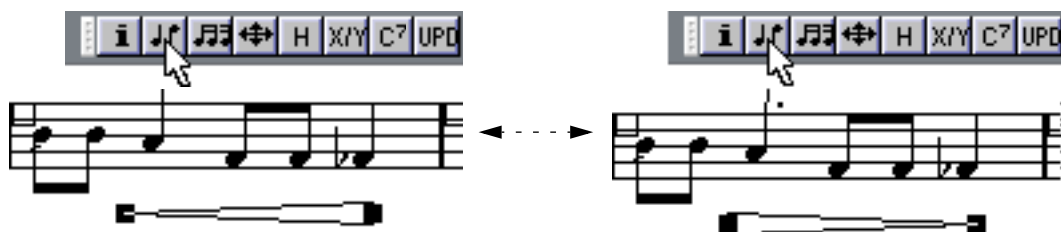
Selecting a crescendo symbol and using   ...turns it into a diminuendo symbol.
the Flip command...

You can do the same thing by [Ctrl]-clicking on the symbol and selecting "Flip" from the pop-up menu that appears.

Connecting Dynamic Symbols

Instead of manually inserting crescendo and diminuendo symbols, you can have this done "automatically" by Cubase VST:

1. **Select the two dynamic symbols between which you want a crescendo/diminuendo symbol.**

2. **Select "Connect Dynamics" from the Do pop-up menu.**

A crescendo/diminuendo symbol is inserted between the symbols, and all three symbols are automatically aligned horizontally.

Aligning Dynamics

There is a special command for aligning dynamic symbols (including crescendos) horizontally. Unlike the regular Align function (see page 211), Align Dynamics takes the "baseline" of the dynamic letters into account, aligning them as text rather than as graphic symbols. Furthermore, the Align Dynamics feature doesn't require that you select the dynamic symbols by hand:

1. **Use the Select All command to select all objects in the Score.**
   This selects all dynamic symbols, along with other symbols, notes, etc.
   If you only want to align some of the dynamic symbols, select these manually instead of using Select All.

2. **Pull down the Score menu, and display the Format hierarchical submenu.**

3. **Select the Dynamics option from the Align submenu.**
   The dynamic symbols are correctly aligned, leaving all other symbols and elements untouched.

The "Graphic" Palette

There are a number of note head, rest and accidental symbols in the "Graphic" Symbol Palette. These work only as drawing elements, they do not insert any note data into the Track.

The "Line and Trills" Palette

Octave Symbols

The octave symbols (8va and 15va) act as a "local Display Transpose" (see page 62), they shift the display of the score one/two octaves down.

• **By dragging the end of the dotted line, you can specify exactly which notes should be affected by the octave symbol.**
  Only notes beneath the dotted line are display transposed.

Tuplet Group Symbols

These are "graphical" tuplet group symbols, as opposed to the "real" tuplets.

• **After inserting a tuplet group symbol, you can double click on its number and enter any number from 2 to 32.**

• **You can specify globally how tuplets should be displayed in the Preferences–Scores–Additional Settings dialog.**
  You can also select a font and size for the tuplet numbers in the Preferences–Scores–Global Text dialog.

Vertical Symbols

The Vertical symbols in the Lines & Trills Palette are "note dependant", This means that they must be inserted in front of a note. For more information see page 181 and the text about Grace notes (which behave similarly) on page 174.

The "Other" Palette

Lyrics and Text symbols are described in "Working with Text". Chord Symbols are described on page 222.

Pedal Down and Up Symbols

When you insert a Pedal Down or Up symbol, you will also insert an actual MIDI Event (Damper Pedal, Control Change 64) at that position. Similarly, inserting or recording a Damper Pedal Event in another Editor will display a Pedal Down/Up symbol in the score.

• **If the option "Hide Pedal Markers" is activated in the Preferences–Scores–Additional Settings dialog, all Pedal Markers are hidden.**
Use this if you have recorded a lot of Damper Pedal messages, but don't want these to show in the score (for example if you are writing for another instrument than piano).

Tempo

This always shows the current tempo according to the Master Track. In other words, to make this symbol display a certain tempo, insert the value into the Master Track.

Normally this symbol shows the number of beats (quarter notes) per minute but if you double click on it and keep the mouse button pressed, a menu appears that allows you to select any note value. The number then changes accordingly.

❒ **This symbol is also available as Global Symbol (see page 199).**

Tempo Change as Note Symbol

This symbol allows you to specify a tempo change as a change from one note value to another. The example above would mean "lower the tempo by a third.

To change the note value for either symbol, double click on it and keep the mouse button pressed. A pop-up with the available note values appears.

❒ **This symbol is also available as Global Symbol (see page 199).**

Repeats

Repeat signs (one and two bars) have a special feature: if you hold down [Shift]+[Ctrl] when entering them, notes in the bars they relate to are automatically hidden (for more info on Hiding symbols, see page 266).

Scale Events

These are used together with StyleTrax.

Program Change Symbols

When you insert a Program Change symbol, you will also insert an actual MIDI Program Change Event at that position. Similarly, inserting or recording a Program Change Event in another Editor or the Arrange window will display a Program Change symbol in the score.

- **To change the Program number of a symbol, double click on it.**
  If you have specified a Patchname Source for the Track's Instrument (see the Getting into the Details document), a pop-up menu will appear, allowing you to select a patch.

- **If the option "Hide Program Changes" is activated in the Preferences–Scores–Additional Settings dialog, all Program Change symbols are hidden.**
  Use this if you have a lot of Program Change Events, but don't want these to show in the score.

The "Layout" Palette

Bar Lines

There are two things you can do with bar lines:

- Edit or replace the ones you have with one of another type. This is done by double clicking on a bar line, and selecting another in the dialog that appears.
- Insert additional "graphical" bar lines "inside" existing bars. This will split the bar into two, which still together have the length of a "normal bar". This can for example be used to create upbeats, see .

- **Double bar lines can be added automatically, at the start position of each Marker Part in the Arrangement.**
  This is done using the "Marker Track to Form" function.

Rehearsal Marks
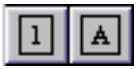
These come in two flavors, as numbers and as letters.

When you place the first of these in the score, it will be labelled 1 or A (depending which you chose in the palette), the second will then automatically be labelled 2 or B, the next 3 or C etc. If you delete one, the labelling of the others will be shifted so that they always make up a complete series of numbers/letters.

- **You can select a font and size for Rehearsal Marks in the Preferences–Scores–Global Text dialog.**
  This dialog also allows you to add a box or an oval around the Rehearsal Mark.

- **Rehearsal Marks can be added automatically, at the start position of each Marker Part in the Arrangement.**
  This is done using the "Marker Track to Form" function.

❒ **Rehearsal Marks are also available as Global Symbols (see page 199).**

Endings
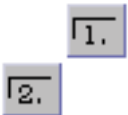
There are two types of endings, closed ("1") and open ("2"). Both can be stretched to any length or height by dragging the handles. You can also double click on the existing number and enter any text you like.

Boxes and Lines

These are "generic" boxes and lines, which may be useful for different purposes. If you double click on a box, a dialog opens in which you can specify whether the box should be transparent or not, and whether the border should be visible.

The Keyboard Symbol

This is described on page 195.

10
Working with Chords

In this Chapter you will learn:

- How to use the Make Chords function.
- How to create a lead sheet.
- How to use Chord Tracks to get enharmonic shifting right.

Chord Symbols

Inserting Chord Symbols manually

How to use the Pen and the Symbols Palette to enter symbols is described in general in the chapter "Working With Symbols", see page 189.

When you insert a chord symbol, a dialog box opens up where you can fill in the type of chord.
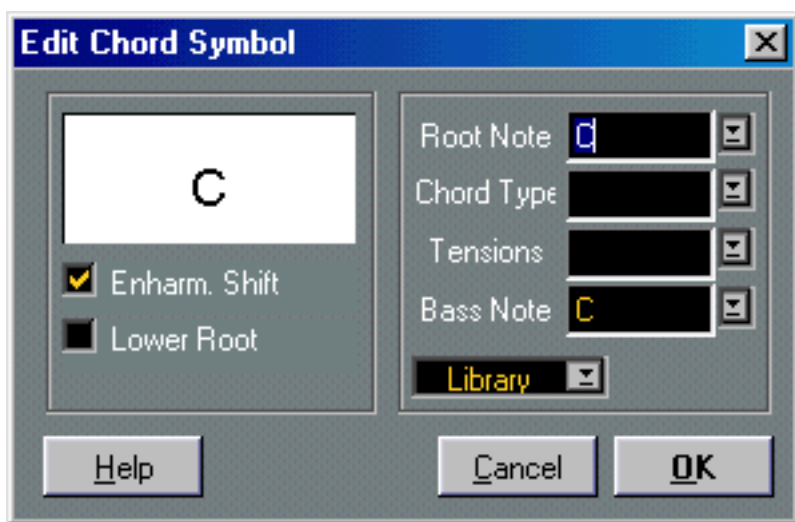
The Chord Symbol dialog.

1. **Enter the root note in the "Root" field.**
   You can either type in a chord letter or select a note from the pop-up menu to the right.

2. **Specify a chord type in the "Type" field.**
   You can either type it in (for example, by typing a "7") or select an option from the pop-up menu to the right.

Note that there are several display options for some chord types:
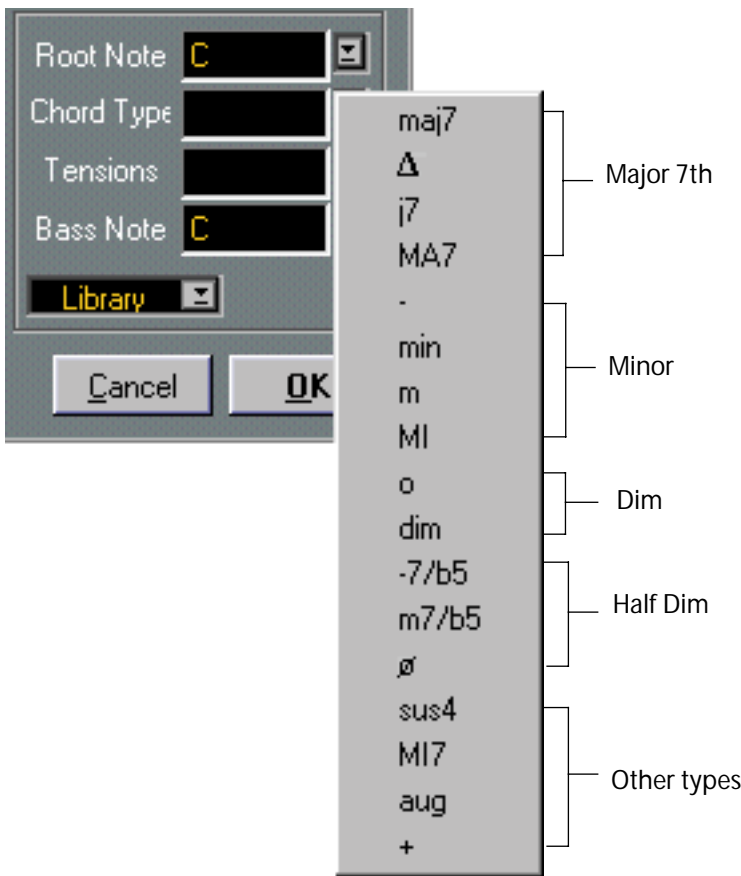
3. **If you wish, specify a tension in the "Tension" field.**
   Again, this can be done by typing or by using the pop-up menu. However, there are some special display options which you can only get by typing (see the table below). You might also want to add some text here (such as "no third", etc.). If you wish, you can select the basic tensions from the pop-up menu, and then add special options by typing.

Character:	Description:	Example:	Result:
( )	The tensions will be enclosed in brackets.		
/	The tensions will be separated by a slash sign.		
|	The tensions will be placed above one another.		
You can also combine several options. This is a combination of two options, along with a space to put the "9" above the "5". Note that only one "("-sign is needed when the "|" option is used.			

4. **If you want to have a special bass note (like for example to have a C major with a D bass note) set the "Bass" pop-up menu to anything but the Root Note.**
   The program will "remember" the relation between root and bass note, so that if you change the root note, the bass note will follow.

5. **If you want the Root note to be displayed in lower case, activate the "Lower Root" checkbox.**

6. **If needed, click on the button labelled "Enharm. Shift", to turn this on or off.**

7. **Click OK to close the dialog.**
   The Chord Symbol appears in the score.

❒ **You can make further settings to determine how the chords should be displayed - see page 226.**

• **If you want to edit a chord, double click on the symbol.**
  A dialog appears, similar to the dialog you got when inserting the chord. The difference is that this dialog is non-modal, that is, it can remain open while you continue to work in the score. Typically, you would double click on a chord, adjust its properties and click Apply. Then if you like, select another chord in the score. The dialog is continuously updated to reflect the currently selected chord, allowing you to edit several chord symbols without having to close the dialog in between. Finally, to close the dialog, click its close box.

  About the Library function

  The Library pop-up menu in the Chord dialog allows you to add commonly used chord types and tensions to a list of "presets", for quick access:

1. **Set up the desired chord in the dialog.**

2. **Pull down the Library pop-up menu and select "Add".**

3. **If you pull down the pop-up menu again, you will see that the specified chord type has been added to the list.**

• **Selecting an item from the Library pop-up menu applies the stored chord type and tension.**
  The root and bass notes are not affected.

• **You can also access this pop-up menu from the score, by pressing [Ctrl] and clicking on a chord symbol.**
  This allows for very quick editing of chord types, without having to access the Edit Chord dialog.

• **The Chord Library is stored in the Cubase Preferences.**

Using Make Chords

If you have already recorded the chords for a song, Cubase can analyse them and create Chord Symbols:

1. **Open the recording in the Score Editor.**
   If you want the chords to be inserted on another Track, you can create an empty Part on that Track and open it along with the recording.

2. **If you like, make settings for how the chords should be displayed in the Preferences– Scores dialog.**
   You can change all these settings after you inserted the chords as well.

3. **Use the To pop-up menu to decide which part of the score to create chords for.**
   This allows you to create chord symbols for all chords inside the loop, for all selected notes etc.

4. **Activate the Staff where you want the chords by clicking in it.**

5. **Select "Make Chords" from the pop-up Do menu.**
    The chords appear. They can be moved, duplicated and deleted as any other symbol. You can also double click on a chord symbol to edit it in the Chord Symbol dialog (in the same way as when creating Chords manually - see above).

A staff after using Make Chords.

*   **Instead of using the "Make Chords" item in the Do pop-up menu, you can click on the Make Chord icon on the Score Toolbar.**

The Make Chords icon

*   **If the option "Use for Make Chords" is activated in the Edit Guitar Lib dialog (see page 196), guitar chord symbols will be added as well (if the Guitar Lib contains any guitar symbols that match the chords).**

About the analysis

*   The MIDI Chords are expected to be played in their most basic inversion. If not, an extra bass note is added. For example, the notes CEG are interpreted as C major, but GCE is interpreted as C Major with a G bass note. If you don't want any interpretation of the inversion (no special bass notes) hold down [Ctrl] while selecting Make Chords.
*   All notes on all staves are taken into consideration. Whenever there is any change on any staff, the notes are reinterpreted and a new Chord Symbol added. This means you should probably avoid having the melody Track in the Score Editor when you use Make Chords, or you will get a lot more Chords than you expect, possibly with strange tensions.
*   In addition to the above, the Quantize value is used. At the most, there will be a new chord at each Quantize position.
*   There must be at least three notes at a certain position for the program to interpret it as a chord. Also some combinations of notes simply don't make any sense to the program and won't produce any chords.
*   The analysis method isn't infallible. It can't be because the same set of notes can be interpreted differently depending on context. Some editing may be needed. If you record the track solely to create chords automatically, play the chord as simple as possible, in the correct inversion, without added octaves, etc.

Global Chord Settings

In the Preferences–Scores dialog, there are several global settings that affect how chords are displayed. These settings affect all chords in the Song.

Selecting a Font and Size for the Chords

1. **Open the Preferences–Scores–Chord Font dialog.**
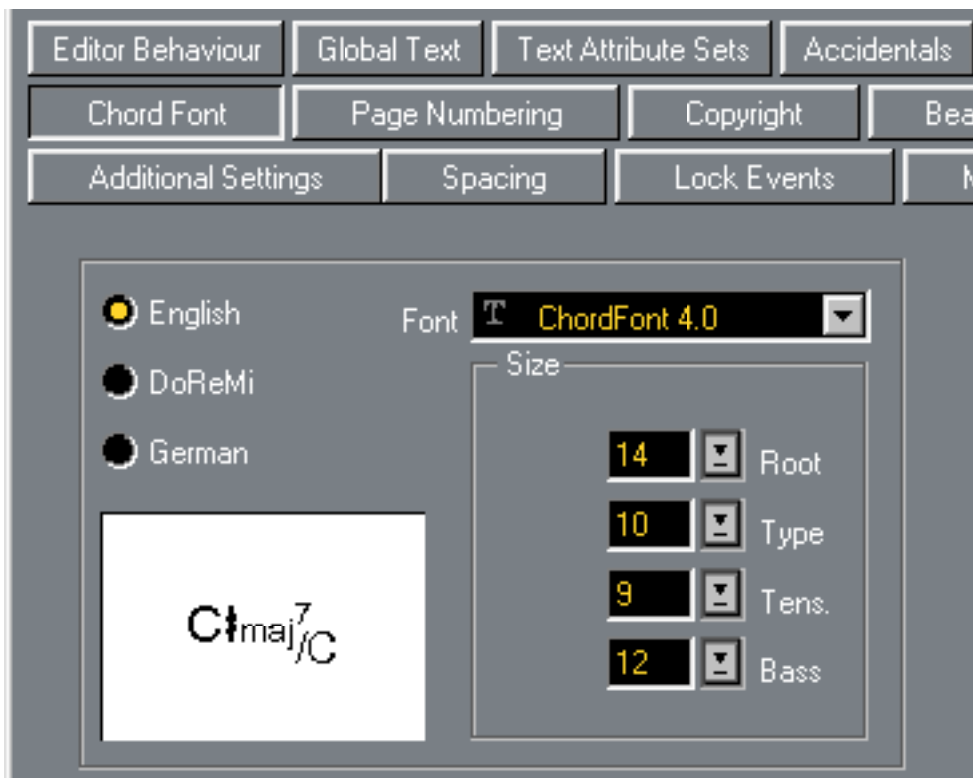
2. **Use the Font pop-up to select a font for the chords.**
Cubase VST comes with a special font for this (ChordFont 4.0), but you can use any font you like.

3. **Use the four Size value fields to select sizes for the four different chord "elements".**
You can type in values or use the pop-up menus. Normally, you would want the "Root" size to be the largest and the "Tension" size the smallest.

4. **Use the radio buttons to the left to select a chord display mode.**
This affects how the Root and Bass notes are displayed:

English	Regular notation.
DoReMi	"Do-Re-Mi-..." are used instead of "C-D-E-..."
German	As English notation, but "B" is displayed as "H", and "Bb" or "A#" are displayed as "B".

5. **Click OK to close the dialog.**
If you want to try out your settings without closing the dialog, you can click the "Apply" button.

Making Additional Chord Settings

1. **Open the Preferences–Scores–Chord Types dialog.**

or Behaviour	Global Text	Text Attribute Sets	Accidentals	Chord Types
hord Font	Page Numbering	Copyright		Beams and Bars
dditional Settings	Spacing	Lock Events		Modern Style

Major
- ⦿ maj7
- ● △
- ● j7
- ● MA7

Minor
- ● -
- ● min
- ⦿ m
- ● MI

Half Dim
- ⦿ -7/♭5
- ● m7/♭5
- ● ∅

Dim
- ⦿ o
- ● dim

☐ Align Root Note
☐ Tension Bottom
☐ Scale Chords

Apply To Chords
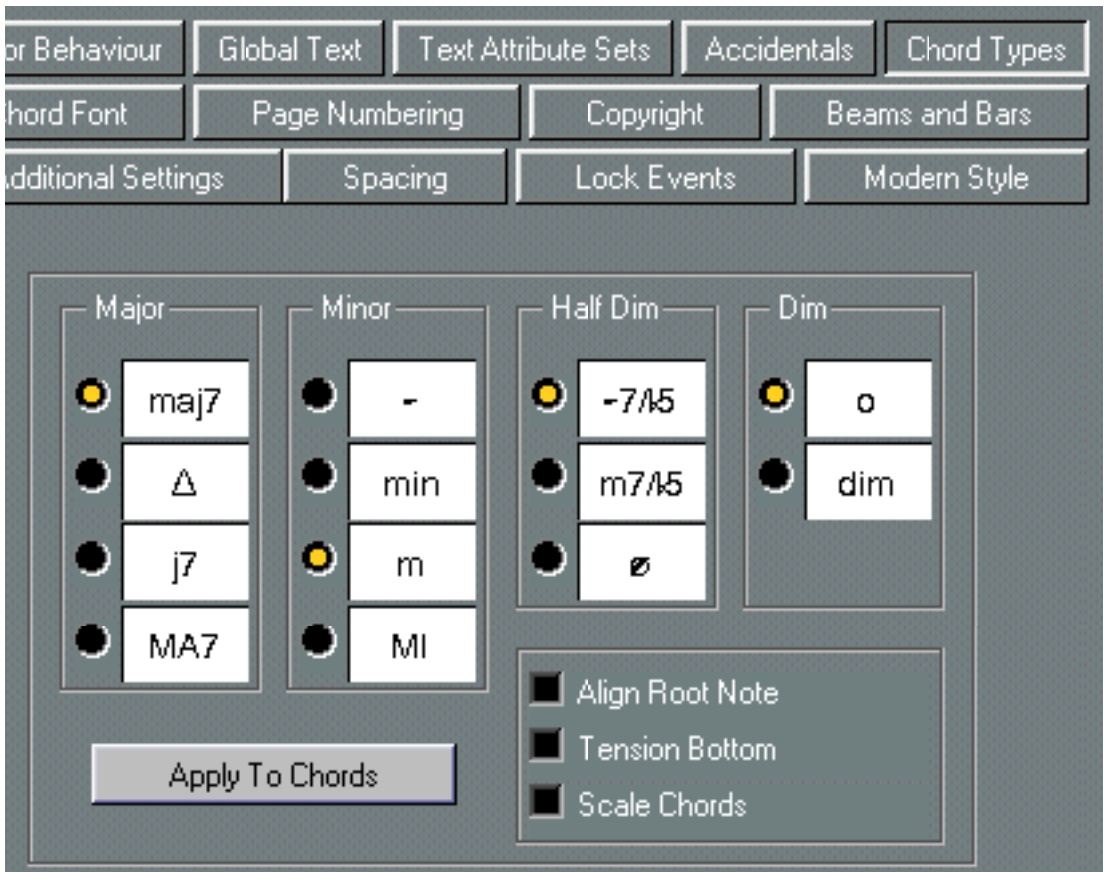
2. **Use the four sections of radio buttons to specify how the four most common chord types should be displayed.**

3. **If you want the Root note to be aligned with the Bass note, so that they both are displayed at the same vertical position, activate "Align Root Note".**

4. **If you want the tensions to be displayed at the same vertical position as the Root note (rather than a bit above the Root note), activate the "Tension Bottom" checkbox.**

5. **Activate the "Scale Chords" option if you want to scale a staff (using the Size setting in the Staff Options dialog), and want the chords to be scaled accordingly.**

6. **To apply the settings to the currently displayed score, click "Apply to Chords".**

7. **To close the dialog and save the settings as "default" settings for the next time you use the Make Chords function, click OK.**
This does not apply the settings to the currently edited score (with the exception of the settings of the three checkboxes, which affect all chords in the Song).

Creating a Lead Sheet

Below follows a quick description of how to create a Lead sheet. Use it as an inspiration source!

1. **Make up one Track into which you record the chords for the song.**
   There should be one chord at each place you want a chord in the song.

2. **Quantize the Part as "heavily" as you can.**

3. **Create an empty Part with the same length, on another Track.**

4. **Open both Parts together in Score Edit.**

5. **Make the empty Part the active Staff and use Make chords.**
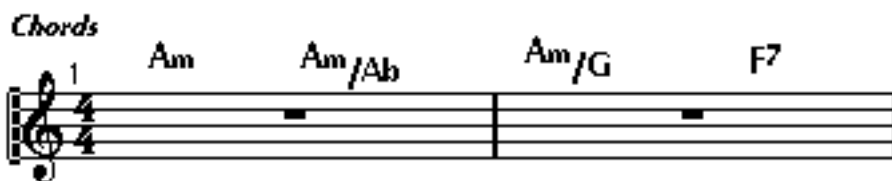
The empty Part with chord symbols only.

6. **Close Score Edit.**

7. **Create another Track and record the melody on this.**

8. **Format this Track in Score Edit, add lyrics etc.**

The melody Track.

9. **Close the Score Editor again.**

10. **Merge the chord and melody Tracks by holding down [Ctrl] and [Alt] and dragging the Part(s) on one Track onto the other Track.**
    Make sure not to offset the parts time-wise.

11. **Open the merged Track again and perform any necessary Layout adjustments.**

The final lead sheet.

Chord Tracks and Accidentals

There's a special Track Class in the Arrange window called Chord Tracks. These are used with StyleTrax, but also come to good use with accidentals in Score Edit.

Often when creating a score, you spend a lot of time manually adjusting enharmonic shifting. By Chord Tracks, enharmonic shifting will be automatic, saving you hours of work!

Creating a Chord Track

1. **Create a Chord Track.**
   This is done by creating a Track and switching it's Class to "Chord Track", using the Track Class pop-up in the Track List.

2. **Open this new Track and the MIDI Tracks that contain the chords, in the Score Editor.**

3. **Click in the Chord Track to make it the destination for the Chord Symbols.**

4. **Proceed with "Make Chords" as described on page 224.**
   The chord symbols appear on the Chord Track.

5. **If needed, edit the automatically created Chords.**

❑ **Chord Tracks do not handle enharmonic shifting in chords as well as regular MIDI Tracks do. Sometimes for example a bass note maybe be indicated with the wrong enharmonic shifting.**

Applying the Chord Track to the Score

As described above, the whole purpose of creating the Chord Track is to make the program automatically apply enharmonic shift according to the current chord at every position in the song.

1. **Make sure the Chord Track is the only un-muted Chord Track in the Arrangement.**

2. **Open the Preferences–Scores–Accidentals dialog.**

3. **Activate the "Use Chord Track For Accidentals" option.**
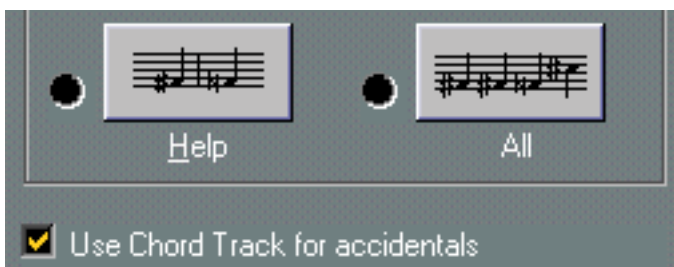
The Use Chord Track for Accidentals option in "Global Settings: Accidentals".

4. **Select an accidental display option.**
   The options are described in detail on page 154.

Now, the notes in the score will have correct accidentals. There might be situations where you will need to apply "manual override" as described on , but such situations should be very rare!
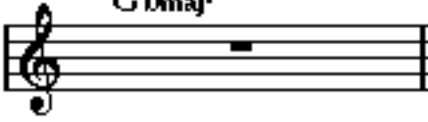
"Use Chord Track For Accidentals" turned off.

"Use Chord Track For Accidentals" turned on.

❐ **You don't have to have the Chord Track visible in the Score for this function to apply!**

In this Chapter you will learn:

- About the different types of text.
- How to enter and edit text.
- How to set Font, Size and Style.
- How to enter lyrics.
- How to change fixed text elements.

Adding and Editing Text Symbols

This section describes the general procedure for adding and editing Text Symbols (as opposed to fixed text elements such as title, Staff Names etc - see page 247). As described on page 239, there are several different types of text symbols, but the basic procedures are the same:

Inserting a Text Symbol

1. **If you wish, select a font, size and style for the text (or select a Text Attribute) as described on page 235.**
   The text you insert will use the text settings made when no text is selected, but you can change all settings after you inserted the text.

2. **Make sure the desired Symbol Palette is visible.**
   The different Text Symbols are found on the "Other", "Layout" and "Global Symbols" Palettes.

3. **Click or double click on the Text Symbol in the Palette, so that the Pencil tool is selected.**

4. **Make sure the correct Staff is selected, and click in the score at the position you want the text.**
   If you are inputting Lyrics, you should click above or below a note (lyrics are centred around each note and positioned vertically to where you clicked). See page 239.

5. **Enter the text in the text box that appears.**
   You can use [Backspace] to delete letters, and move the cursor with the arrow keys.

6. **If you want to enter several lines of text, press [Ctrl]-[Return] to insert a line break (this is not possible for lyrics).**
   The text lines can be left, right or center aligned, depending on the Text Style setting (see page 236).

7. **If you wish, you can insert special score symbols in the text.**
   This is described on page 234.

8. **When you are done, click outside the text box to close it.**
   The text appears. You can move, duplicate or delete it as with any symbol.

About the Melisma Lines

When you add a text symbol, you will find a handle at the right edge of the text block. By dragging this handle to the right, you can extend a "melisma line" from the text. This has several uses:

- If you are adding lyrics and want to indicate that a syllable should be sung over several notes:

- If the text is an advice about articulation or playing style, and you want it to apply to a certain musical phrase only:

- If the text is an advice about articulation or playing style, and you want it to apply from that point on in the score:

In the Text Settings dialog you will find the Melisma Style and Melisma End pop-up menus with a number of options to determine the appearance of the melisma lines:

Option:	Description:
Solid	When this is activated, the line will be solid. Otherwise, it will be dotted.
Down	When this is activated, the line will be turned down, forming a "bracket".
Up	When this is activated, the line will be turned up, forming a "bracket".
Arrow	When this is activated, the line will end with an arrow.

About "Special" Characters

If you want to use special score symbols in your text, this is possible using the following method:

1. **When you are entering the text, position the text cursor where you want the score symbol to be.**

2. **Insert an @ sign.**
   This indicates to the program, that the next character should be displayed with the "Score Font 4.0" font.

3. **Enter a character.**
   The characters associated with some of the most common score symbols are listed in the table below.

4. **Continue entering text as usual.**
   It is only the first character after the @ sign that will be interpreted as a "special" character.

   Some common Score Symbols and their Characters:

ppp	O	*mf*	S	*Ped.*	F
pp	P	*f*	T	✳	G
p	Q	*ff*	U	*%*	W
mp	R	*fff*	V		
		sfz	W	⊕	\

Making Space

· If you find there isn't enough space between staves to add for example lyrics please see for info on how to separate the staves.
· If you find the score looks crammed after adding text, check out Automatic Layout on .

Editing the Text

If you made a mistake when typing or for some other reason wish to change text, double click on a text block with the arrow tool, edit the text and click outside the text box to close it.

· **It is also possible to replace all occurrences of a certain word in the score, without having to edit the texts manually - see .**

Selecting Font, Size and Style for the Text

1. **Select the Text Symbol(s) you want to make settings for.**
    If nothing is selected, the settings you make will be the "default settings". The next time you insert text, these settings will be used.

2. **Select "Text Settings" from the Score menu.**

The "Text Settings" dialog.

3. **Select a Font from the pop-up.**
    How many and which fonts appear depends on what typefaces you have installed on your computer.
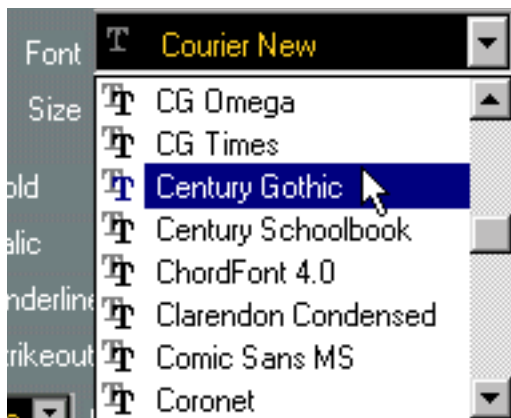
☐ **For regular text you should probably avoid the items "Score Font 4.0" and "ChordFont 4.0". These are the fonts Cubase uses for all scoring symbols. If you don't know exactly what you're doing, using these fonts will probably just produce garbage.**

4. **Select a text size from the "Size" pop-up menu (or enter one manually in the text field).**
    Some fonts will look good in any size, others only in certain sizes. If you want to be on the safe side, stick to the True Type fonts in your system (the ones whose names are preceded by "TT").

5. If you wish, add one or several text style options from the checkboxes and pop-ups.
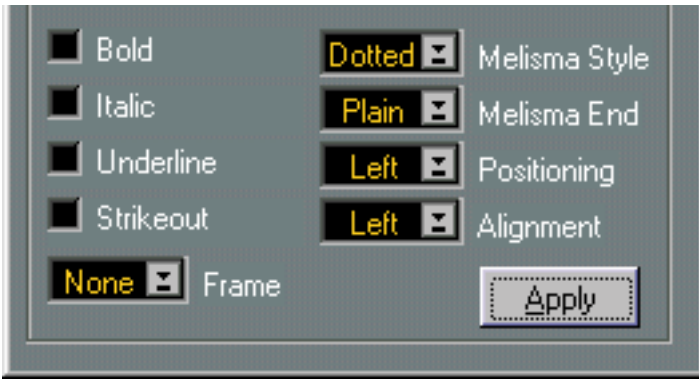
Most of the options are common text style variations such as bold, italic, underline, etc. But there are also a few special style options:

Option:	Description:
Melisma options	These determine the appearance of the "melisma line", as described on page 233.
Frame	Allows you to put the text in a rectangular ("Box") or oval frame.
Positioning	Allows you to select which side of the text block (left or right) should be used for calculating its position. This has an effect in situations where that text block is moved automatically (as a result of an Auto Layout function, when you move bar lines manually, etc.). If, for example, the text block appears just in front of a note (to the left of it), it will appear in a more sensible position after the adjustment, if the "Right" option is selected.
Alignment : Left/Center/Right	Allows you to specify the alignment of the text. These options are only valid for texts with more than one line (when you have used [Return] to insert line breaks).

6. Click Apply to apply the settings to the selected text.
Note that you can select other text blocks while the dialog remains open - the dialog will be updated to reflect the settings of the currently selected text.

7. When you are done, close the dialog by clicking its Close box.

• **If you just need to change the text size for a block of text, you can simply select it and use the key commands for Next/Last Dynamic/Text Size/String.**
By default, these are [+] (larger) and [–] (smaller) on the typewriter part of the computer keyboard, but you can assign other key commands for this in the Preferences-Key Commands-Score dialog if you like.

Using Text Attribute Sets

A Text Attribute Set can be seen as a "preset" containing all font, size and style settings. By creating Text Attribute Sets for the settings you use most often, you can save a lot of time.

Creating a Text Attribute Set

1. Pull down the Score menu and select "Edit…" from the Text Attribute Set submenu.
The Text Attribute Set dialog appears. You can also access this from the Preferences–Scores dialog.
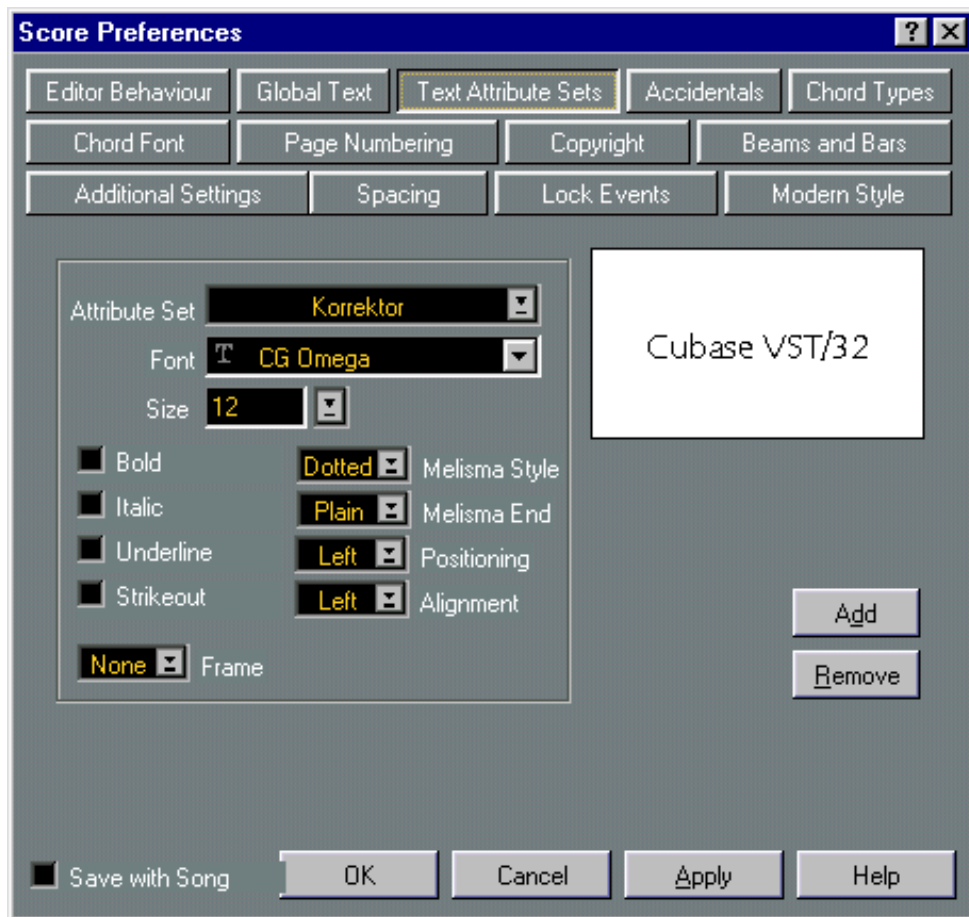
2. If you want the Set to be saved with the current Song, activate "Save with Song".
Otherwise, the Set will be saved in the Cubase Preferences, and thus be available for other Songs as well.

3. Click the Add button.
A name box opens.

4. Enter a name for the new Text Attribute Set.

5. Select a font, specify a size and add style options with the checkboxes.
The options are the same as when you make text settings on the Score menu (see above).
The display in the dialog will help you by displaying a sample text with your current settings.

6. **When you are done, click OK to close the dialog.**
    The Set you created will now be listed on the Text Attribute Set submenu on the Score menu.

Using a Text Attribute Set

To apply the settings in the Text Attribute Set to one or several text blocks, select them and select the Set from the Text Attribute Set submenu on the Score menu. You can also access this submenu by holding down [Ctrl], pointing on a text block and pressing the mouse button.

*   **If you select a Text Attribute Set when no text is selected in the score, the settings will be used the next time you insert some text.**

    Note that there will now be a "link" between the text and the Attribute Set. Any changes to the Attribute Set (see below) will affect all texts that use it. You can still edit any text settings manually (on the Score menu) but then the "link" to the Attribute Set will be removed.

Editing Text Attribute Sets

If you edit the settings in a Text Attribute Set, all texts using that Set will be affected. This is very practical, since it allows you to use the same number of "generic" Sets for all your Songs (for titles, comments, lyrics, etc), and simply change the fonts, sizes, etc for a different Song if necessary. This will also make it easier to move Songs between computers (which may not have the same fonts installed).

1. **Open the Text Attribute Set dialog.**

2. **If you want the changes to apply to the current Song only, activate "Save with Song".**
    Otherwise, the edited Set will be saved in the Cubase Preferences, and thus be available for other Songs as well.

3. **Select the Set you want to edit from the "Attribute Set" pop-up menu.**

4. **Change the settings as desired.**

5. **Click OK to close the dialog.**

Deleting Text Attribute Sets

❒   **You should only remove text sets with "Save with Song" activated. Otherwise all Songs that uses the removed Text Attribute Set will display text in a wrong font/size/style.**

1. **Open the Text Attribute Set dialog.**

2. **Select the Set you want to delete from the "Attribute Set" pop-up menu.**

3. **Click the Remove button.**

4. **Click OK to close the dialog.**

Different Types of Text

Regular Text
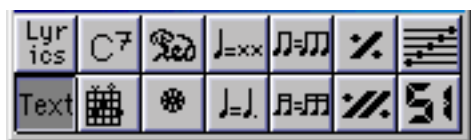
The Regular Text option selected.

This type of text is inserted by selecting "Text" in the "Other" Symbols Palette.

The text is tied to the bar and staff position. If you move the bar or the entire staff, it moves with it.

Inserting the same Text to all Staves

If you hold down [Alt] when clicking with the Pencil, the text you type in will be added to all staves you are currently editing.

Lyrics
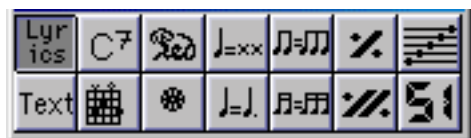
The Lyrics option selected.

This type of text is inserted by selecting "Lyrics" in the "Other" Symbols Palette.

When you insert Lyrics, you should click below or above the note the syllable belongs to. The text will then appear horizontally centred around the note and vertically positioned to where you clicked. You can later move it up or down, as with any symbol.

This text is tied to note position. If you move the note, the text moves with it. The spacing between notes is also adjusted to make the lyrics fit.

Inserting Lyrics for a number of Notes

1. **With Lyrics selected, click below or above the note with the pencil tool.**
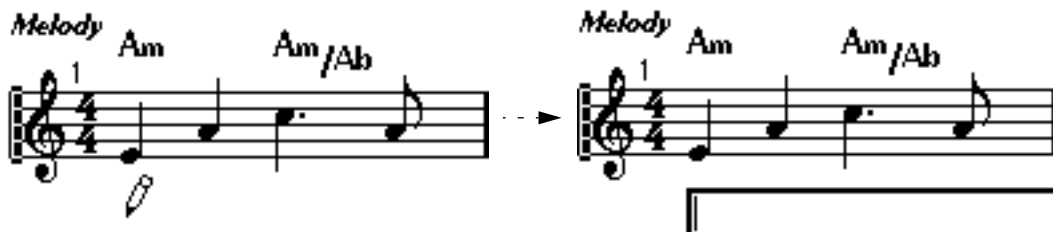
Click below the first note.

2. **In the text dialog that appears, type in the syllable for that note.**

3. **Hit [Tab].**
   The program moves on to the next note.

4. **Input text for this note and hit [Tab] again.**

5. **Proceed until the last note and then press [Return] or click outside the text box.**

❒ **Lyrics can also be added automatically, see below.**

Lyrics and Measure Widths

When you first enter lyrics, it will probably look crammed, since the words take up more space than the notes (the lyrics are also selected just after entering the last word, which make them look a bit odd when overlapping). To remedy this, use Auto Layout to automatically adjust the measure widths (see page 283).

Before and after using Auto Layout.

Adding a Second Verse

To insert a second line of lyrics, proceed as follows:

1. **Enter the new lyrics above or below the existing verse.**

2. **Select all the words that should be in the new verse.**

3. **Pull down the Score menu and select "Move to Verse" from the Text Functions sub-menu.**
   Another submenu appears, listing Verse 1 to 6.

4. **Select the appropriate verse from the submenu.**
   To indicate that the words belong to another verse, they are automatically displayed in an-other color. However, all verses will print in black as usual.

• **To select all words in one verse only, select one of the words and use the "Select - Same Verse" function on the Edit menu.**

Inserting Lyrics into Voices

Each voice can have it's own lyrics. If you for example have a vocal arrangement with several voices, you can add lyrics to them, one by one.

1. **Click or double click on the Lyrics Symbol in the "Other" Palette, so that the Pencil tool is selected.**

2. **Make sure the right voice is selected (on the Score Toolbar).**

3. **Click on the first note in the selected voice.**

4. **Enter the lyrics for this voice, with [Tab] as described above.**

5. **Start over, by activating the next voice, clicking on the first note in that voice and pro-ceed as with the first voice.**

6. **If needed, adjust the position of the lyrics for each voice (see below).**

Inserting the same Text to a number of Notes

If you select a number of notes and hold down [Alt] when clicking with the Pencil to add text to them, this text is added to all notes. This allows you to for example add fingering or "handing" (left/right) to a number of notes at the same time.

Moving Lyrics

If you want to move the lyrics up or down, for example to make room for a second verse, proceed as follows:

1. **Hold down the [Shift] key and double click on the first word in the lyrics.**
   All lyric "blocks" get selected.

2. **Drag one of the lyric blocks up or down.**
   All selected lyric blocks are moved accordingly.

Adding Lyrics from the Clipboard

If you want to prepare your lyrics in another program, you can import them into Cubase VST the following way:

1. **Create the lyrics in another program.**
   You need to put either a dash (-) or a [Tab] sign between each syllable!

2. **Copy the text to the clipboard.**

3. **In Cubase VST, select the first note to which the lyrics should be added.**

4. **Pull down the Score menu and select "Lyrics from Clipboard" from the Text Functions submenu.**
   The lyrics are added, starting at the selected note.

❐ **The "Lyrics from Clipboard" function can also be used if you wish to copy lyrics between staves or between Cubase Songs.**

Adding Lyrics and Automatically Generating Notes

If you have copied lyrics to the clipboard as above, you can also add them to an empty staff - automatically generating notes in the process:

1. **Set up the lyrics and copy them to the clipboard.**

2. **In Cubase VST, open the empty staff in Score Edit.**

3. **Use the Snap pop-up to specify how closely spaced you want the generated notes.**

4. **Set the Song Position to where you want the lyrics to start.**

5. **Pull down the Score menu and select "Fill with Clipboard Lyrics" from the Text Functions submenu.**
   A dialog appears.
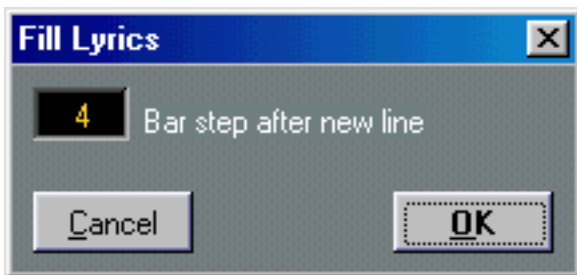
6. **If your text is separated into lines, use the "Bar step after new line" to determine the minimum distance between lines in the text.**
   If you for example set this to 4, there will always be at least four bars between the beginning of each text line. If the text is not separated into lines, you don't have to care about this.

7. **Click OK.**
   Now, notes are inserted, starting at the Song Position and spaced according to the Snap value. Each note will have a "lyric block" attached to it.

Page Text

This type of text is inserted by selecting "Page Text" in the "Layout" Palette.

Since this symbol is in the Layout section of the Palette, you should note that it is part of the Layout layer, not the staff. The text's position isn't tied a note, bar or staff position. In other words, it doesn't matter if you move other objects on the page, the Page Text stays where you put it.

Inserting the same Text to all Pages

If you hold down [Alt] when clicking with the Pencil, the text you type in will be added to "all pages" from the one you are currently editing and onwards.

System Text

This type of text is inserted by selecting "Sys Text" in the "Layout" Symbols Palette.

Just as Page text, this is stored in the Layout layer. In all other ways it is exactly the same as regular Text (see above). This means it is tied to the bar and staff position. If you move the bar or the entire staff, it moves with it.

Inserting the same Text to all Grand Staves

If you hold down [Alt] when clicking with the Pen, the text you type in will be added to all grand staves you are currently editing.

Global Text Symbols

This type of text is inserted by selecting "Glob. Text" in the "Global Symbols" Palette. It is stored in the Layout layer and has the same properties as System Text, but with one special feature: Like the other Global Symbols (see page 199), you can decide for which Tracks in a layout you want the Global Text to be displayed. This is done by ticking the "Glob." column for the Track in the Layout Settings dialog.

❑ **Don't confuse Global Text Symbols with the Global Text items for which you can make settings in the Preferences–Score–Global Text dialog.**

Text Functions

The Words Palette

If you have certain words that you use a lot, you can "store" these on the Words palette. This will save time, since you don't have to type the same word several times.

Storing a Word

1. **Display the Words symbol palette.**

2. **Double click on an "empty" symbol field in the palette.**
   The Edit Words dialog appears.
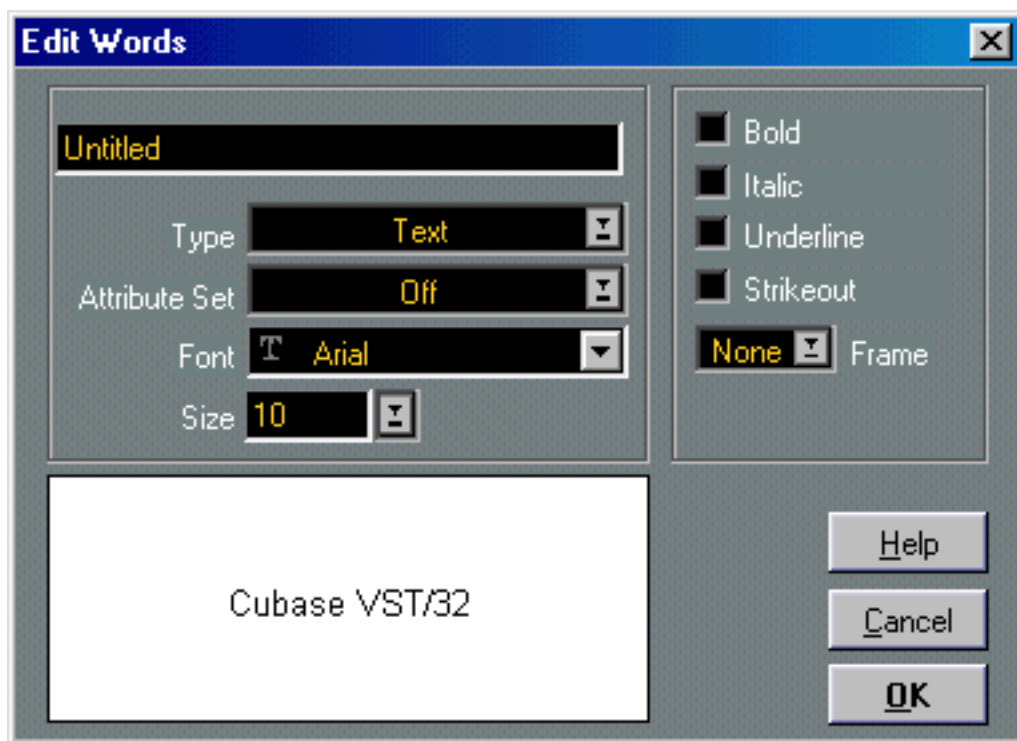
3. **Type in the desired word(s) in the text field at the top of the dialog.**

4. **Specify the text type (normal, lyrics, page or system) with the Type pop-up menu.**

5. **Make settings for font, size and style.**
   You can also use a Text Attribute Set if you like.

6. **Click OK to close the dialog.**
   The word(s) you entered appear in the selected symbol field on the palette.
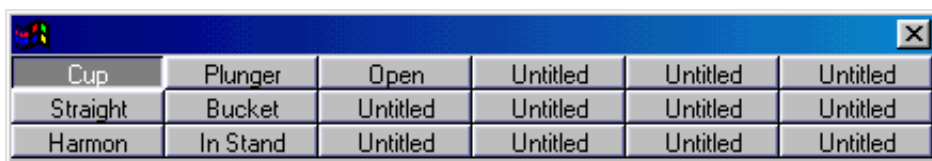
The Words palette, set up for a brass score.

Inserting a Word

You insert Words from the palette as you would insert any regular symbol, by selecting the appropriate Word and clicking in the score. However, you can edit the Word after inserting it, just as with text inserted by typing.

"Replace Text Font"

This feature allows you to search for any type of text and replace it with any other.

1. **If you have a text block on screen which matches the text you want to look for, select it.**

2. **Set up the To menu so that the change affects as much of the score as you want.**

3. **Pull down the Score menu and select Replace Text Font from the Text Functions submenu.**
   A dialog appears.
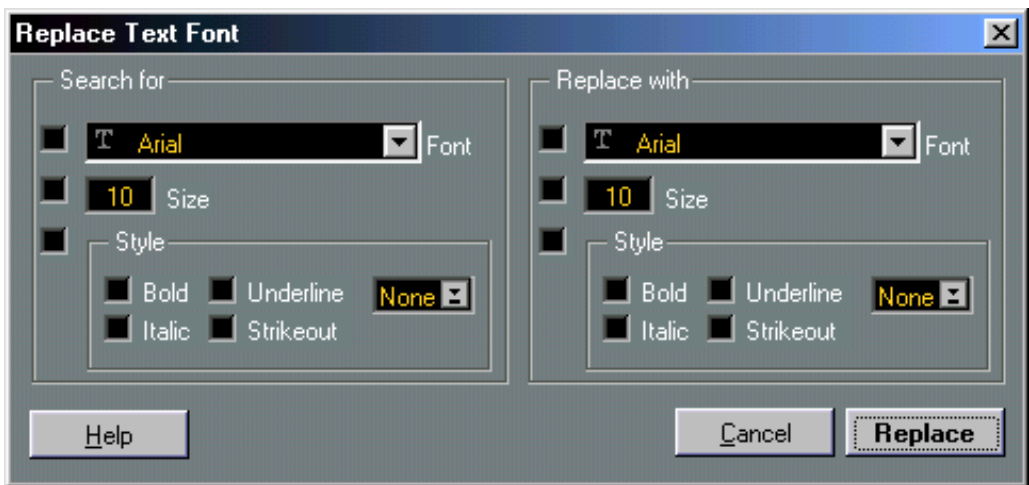
The "Replace Text Font" dialog.

4. **Set up the "Search For" criteria.**
   If you had a text block selected, the dialog will be automatically set up with its specification.

5. **Set up the "Replace With" criteria.**

6. **Click Replace.**
   All text blocks that meet the To menu and "Search For" criteria will now have their Font, Size and Style replaced by those set in the "Replace With" section of the dialog.

Find and Replace

This function allows you to replace all occurrences of a certain word or group of words, with another word or group of words. The replacement is done once and for all, for all text symbol types, regardless of font, size and style settings. Proceed as follows:

1. **Pull down the Score menu and select "Find and Replace" from the Text Functions sub-menu.**
   A dialog appears.
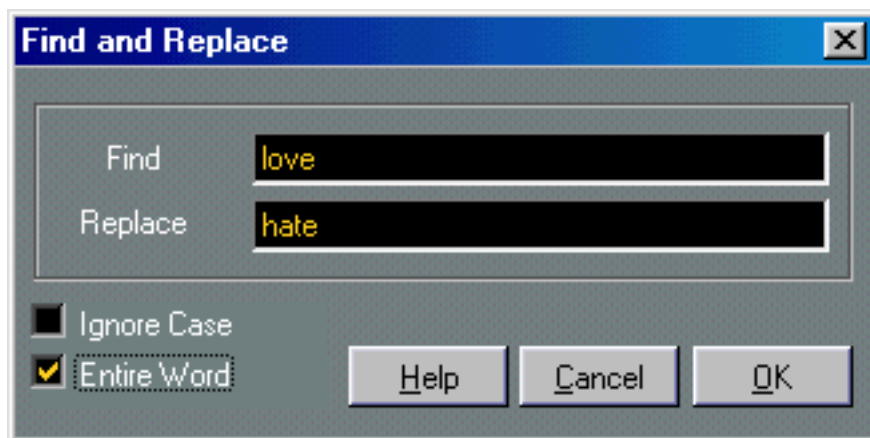
2. **Enter the word(s) to replace in the "Find" value field.**

3. **If you want all instances of the word(s) to be replaced, regardless of upper/lower case, activate the "Ignore Case" option.**

4. **If you don't want to replace the word(s) if they are a part of another word, activate the "Entire Word" option.**
   For example, if you want to replace the word "string" but not the word "stringendo", you should activate "Entire Word".

5. **Enter the word(s) that should be used as replacement in the "Replace" field.**

6. **Click OK.**
   Now all occurences of the "Find" word(s) will be replaced with the "Replace" word(s).

Fixed Text Elements

There are a number of text elements that appear automatically on the page. However, you still have very detailed control of this text's appearance.

Score Title, Comment and Author

Grand Bazaar
An Arabian Rhapsody

Oliveira de Figueira

These text elements normally appear at the top of the first page.

- The Title is at the absolute top. The default for this is the title of the Arrangement.
- The Comment is displayed just below the title.
- The Author text is displayed on the right side of the score, slightly below the comment.

You can adjust the position of the Title, Comment and Author texts individually by clicking and dragging.

To edit the different text "strings", proceed as follows:

1. **Double click on any of them.**
   With a new Arrangement, only the title is visible, so double click on this. The Score Title dialog appears.
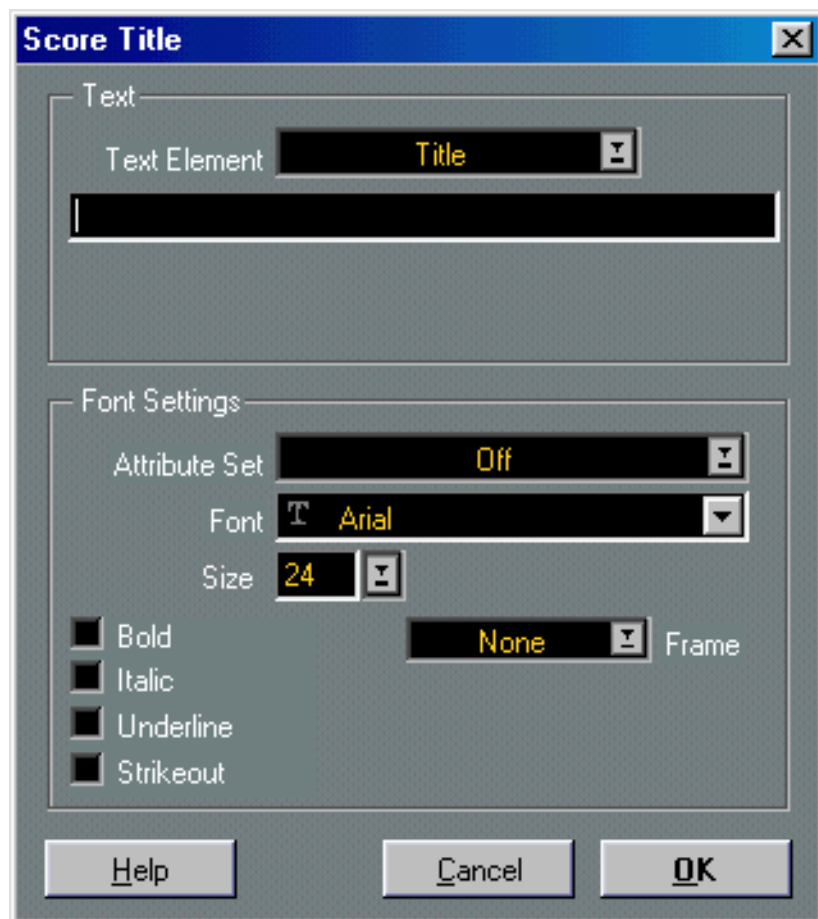
2. **Use the Text Element pop-up menu to select the text element you want to make settings for.**

3. **Type in the text for the selected text element in the Text area.**
   If you want to hide any of the elements, just make sure its text field is empty.

4. **Make font, size and style settings in the Font Settings area.**
   You can also select a Text Attribute Set (see page 237).

5. **Repeat the steps above for the other text elements.**

6. **Click OK to close the dialog.**

Page Numbers

There are two ways to display the settings for page numbering:

• **Double click on the page number on any page.**

• **Open the Preferences–Scores–Page Numbering dialog.**
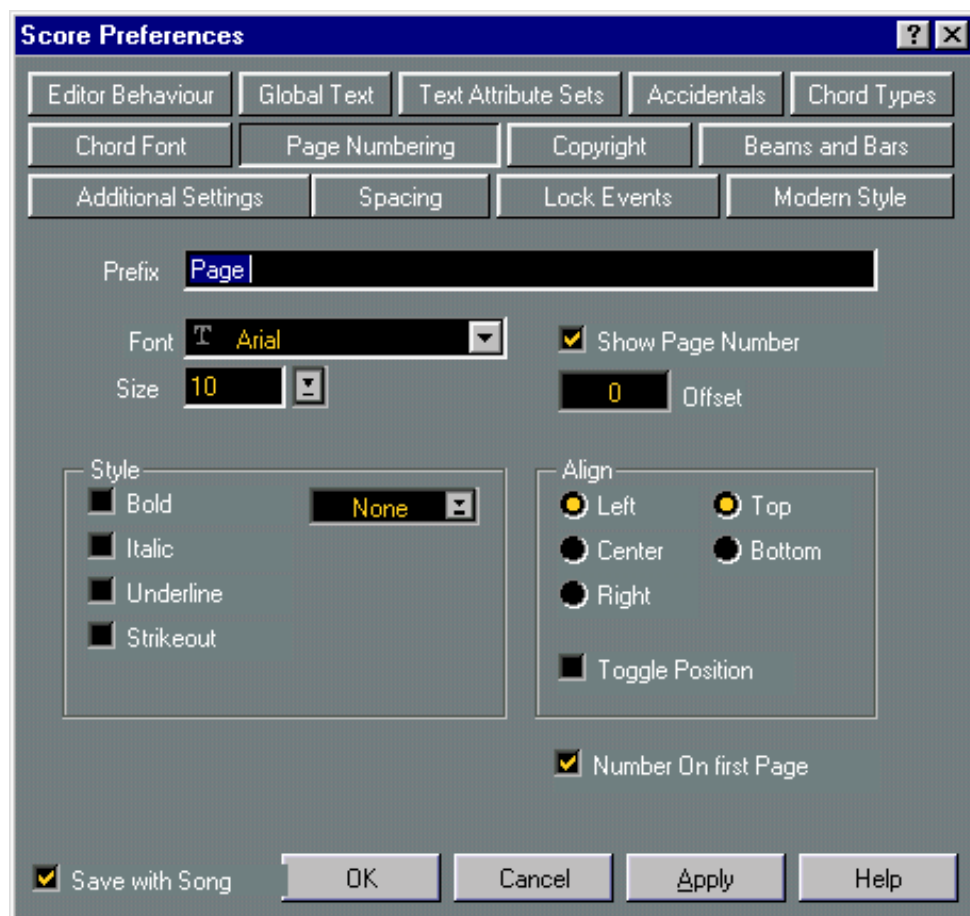
The options in the dialog are used like this:

This Option:	Is Used To:
Prefix	Add a text before the actual page number.
Show Page Number	Turn page numbering on/off completely.
Font, Size And Style	Specify how the page number and Prefix should appear. See page 235.

Offset	Offset the page numbering, for example if you want the first score page to be numbered 2 (in which case you would set Page Number Offset to 1).
Align	Decide where on the page you want the text vertically (Top/Bottom) and horizontally (Left, Center Right). If you choose Left or Right you can also activate Toggle Position, which makes the page number alternate between left and right on even/odd pages.
Number On First Page	Hide/show the page number on the first page.

Copyright

If you wish, you can have Cubase VST automatically insert a "Copyright text" on each page you print. To make settings for this, open the Preferences–Score dialog and select "Copyright" from the pop-up menu at the top of the dialog.

In the dialog that appears, you can specify the "Copyright text" and make various text settings. The options are basically the same as with Page numbers (although you cannot exclude page one from the Copyright text, like you can with Page numbers).

• **To display the Copyright Text, make sure the "Show Copyright" checkbox is activated.**

Staff Names

Settings for Staff Names are done in several places:

Turning Staff Names on and off

1. **Pull down the Score menu and select "Layout Settings...".**
   The Layout Settings dialog appears.
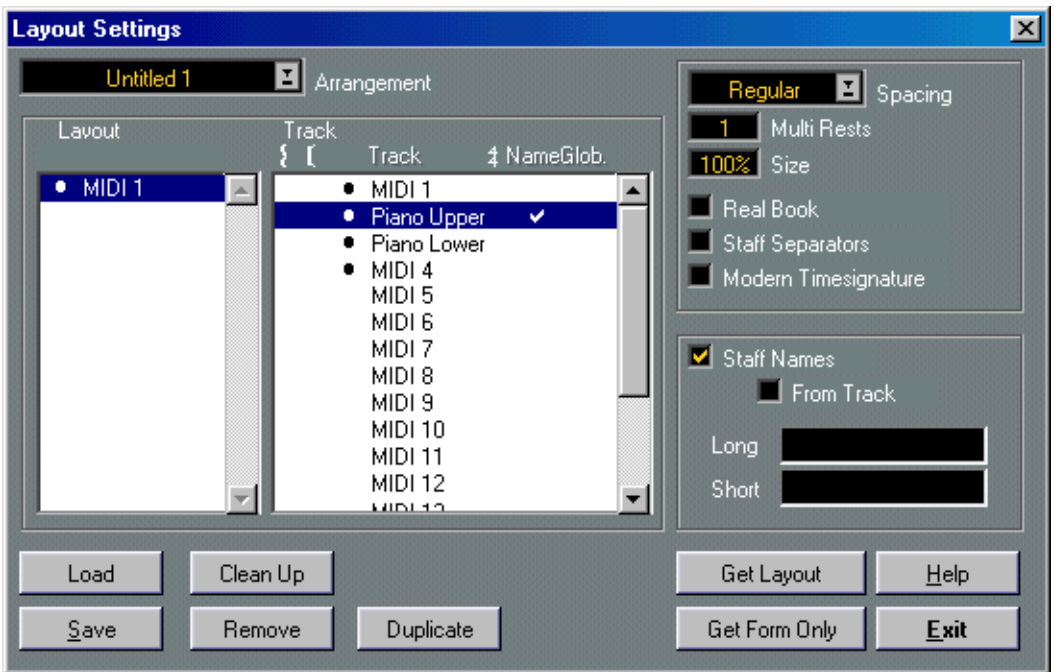
2. **Select the Track for which you want to make settings in the "Track" list.**

3. **Activate the "Staff Names" checkbox to the right.**
The check mark in the Name column for the Track indicates that names will be shown.

4. **If you want the actual name of the Track in the Arrangement to be used in the score, activate "From Track".**

5. **If instead you want to specify custom Staff Names, deactivate "From Track" and enter a "Long" and a "Short" name.**
The Long name will be displayed for the first system only, and the Short name will be displayed for the following systems. If you want a name at the top of the page only, leave the "Short" name field empty.

❐ **If the option "Show Long Track Names on new Pages" is activated in the Preferences–Scores–Additional Settings dialog, the Long name will be displayed for the first system on every page**

6. **Click Exit to close the dialog.**

Making Text Settings

1. **Open the Preferences–Scores–Global Text dialog.**

2. **Use the "Font for" pop-up menu to select "Track Names".**
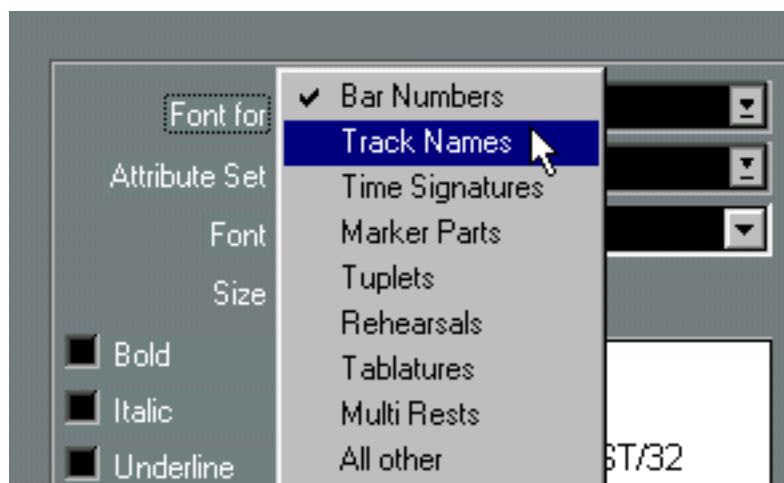
3. **Select font, size and styles for the Staff Names (or use a Text Attribute Set).**

4. **Click OK to close the dialog.**
You can also edit the text settings for staff names directly from the score, as described on page 254.

Additional Staff Name Settings

• If you activate the option "Show Track Names to Left of Staff" in the Preferences-Scores–Additional Settings dialog, the Staff Names will be shown to the left of the staves, instead of above them.
• You can fine tune the vertical and horizontal position of Staff Names in the Preferences–Scores–Spacing dialog. There are separate settings for Long and Short names.

Bar Numbers

Bar number settings can be made in two different pages of the Preferences–Scores dialog:

General Settings

1. **Open the Preferences–Scores–Beams and Bars dialog.**
   The upper section of this dialog contains the Bar and Bar number settings.
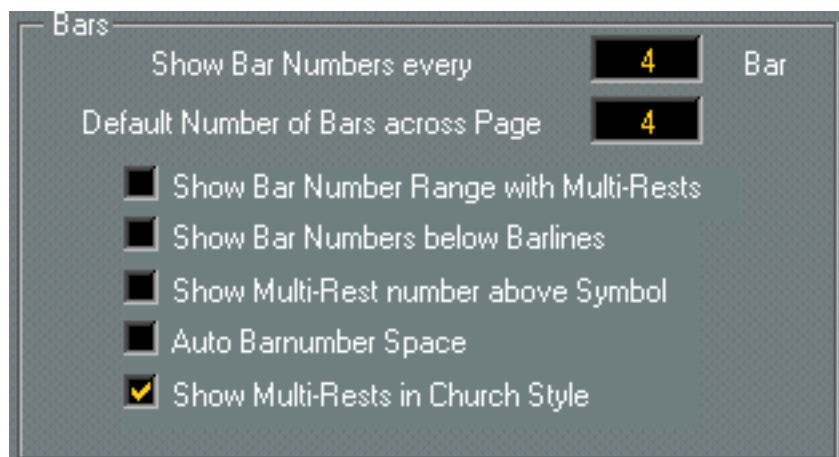
2. **Use the "Show Bar Numbers every X bars" setting to specify "how often" bar numbers should be shown.**
   The options are "First" (bar numbers shown for the first bar on each staff), "Off" (no bar numbers shown) and any number.

3. **If you like, activate the "Show Bar Number Range with Multi-Rests" option.**
   When this is activated, and you have a multi-rest, the bar number at the beginning of the multi-rest will show a range, indicating the length of the multi-rest.
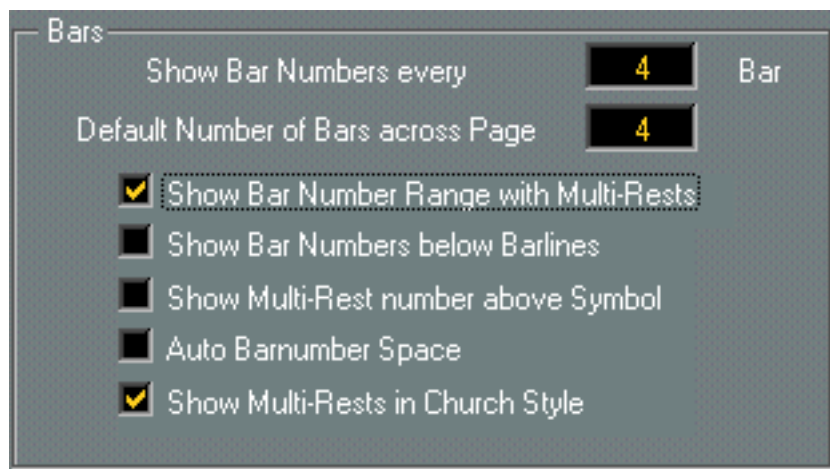
"Show Bar Number Range with Multi-Rests" activated.

4. **If you want the bar numbers to be displayed below the barlines, activate the "Show Bar Numbers below Barlines" option.**

5. **Click OK to close the dialog.**

Text Settings

As with many of the other fixed text elements, you can select a font, size and style for the bar numbers in the Preferences–Scores–Global Text dialog, or directly from the score, as described on page 254.

Spacing

In the Preferences–Scores–Spacing section you will find four settings that relate to bar numbers:

This Option:	Is Used To:
First Barnumber - Horizontal Offset	Set the horizontal distance between the bar number and the bar line for the first bar on each staff.
First Barnumber - Vertical Offset	Set the vertical distance between the bar number and the bar line for the first bar on each staff.
Other Barnumbers - Horizontal Offset	Set the horizontal distance between the bar number and the bar line for all other bars.
Other Barnumbers - Vertical Offset	Set the vertical distance between the bar number and the bar line for all other bars.

Offsetting Bar Numbers

If you double click on a bar number, a dialog appears allowing you to skip a number of bars in the otherwise continuous bar numbering.

This is used for example when a section repeats. Say, you have a repeat of bar 7 and 8, the first bar after the repeat should have the number 11, not 9. To achieve this you double click on the "9" and insert an offset of "2".

It is also useful if the score starts with an upbeat, and you want the first "real" bar to be numbered 1. In that case you would specify an offset of "-1" for the second bar, and make sure the bar number for the upbeat bar is hidden.

• **Bar Number Offsets are global for all Tracks.**

Bar Numbers as Time Code

If you are working with time based material, you may want to include time position markers in the score. Clicking on the mouse position box on the Status bar causes all bar numbers to display the corresponding time position instead.
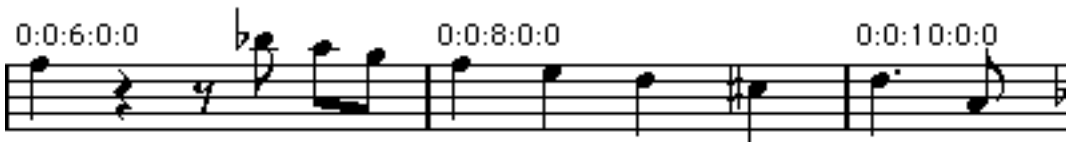
To return to regular bar numbers, click on the mouse position box again.

Settings for other Fixed Text Elements

You can make text settings for virtually all text and numbers that appear in the score. There are two ways to do this:

Making Text Settings in the Preferences dialog

1. **Open the Preferences–Scores–Global Text dialog.**

2. **Use the "Font for" pop-up menu to select a text type to make settings for.**
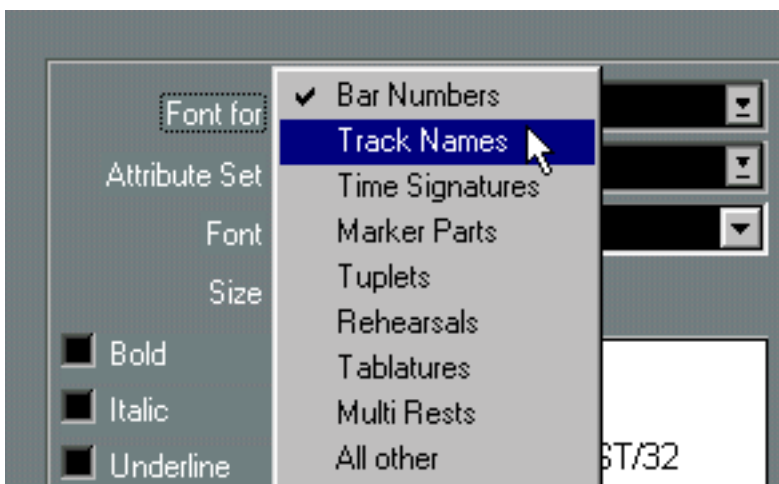
3. **Use the options in the dialog to change the settings.**

4. **Click OK to close the dialog and apply the settings to all elements of the selected type.**
   You can also click the Apply button, to apply the settings without closing the dialog.

Making Text Settings in the Score

Most of the Global Text settings can be edited directly in the Score window, without
having to open the Preferences dialog:

1. **Select an object for which there is a Global Text category.**
   These include Bar Numbers, Track Names, Time Signatures, Marker Parts, Tuplets, Rehearsals,
   Tablatures and Multi Rests.

2. **Pull down the Score menu and open the Text Settings dialog to choose a new font, size,
   style or Text Attribute Set.**
   The settings for the Global Text category are changed, and the changes are applied immedi-
   ately to all objects of the category.

12
Working with Layouts

In this Chapter you will learn:

- What Layouts are and what they contain.
- How to Create Layouts.
- How to use Layouts for opening combinations of Tracks.
- How to Apply, Load, Save and Delete Layouts.
- An example of how Layouts can be used.
- What the General MIDI Setup is.

Background: Layouts

Layouts can be viewed as "presets" containing settings for the Layout layer: Staff spacing, bar lines, layout symbols etc.

When to use Layouts

- You will need to format the score differently when you print the entire score and when you extract parts for single instruments (or groups of instruments). Layouts allow you to keep different sets of "looks" for the same Track or set of Tracks. You might for example have one Layout for each single Instrument and one for the entire Score.
- Layouts can be named and appear on the Select menu in the Arrange window. This allows you to open a certain combination of Tracks directly into the Score Editor, without selecting the Parts on each Track one by one.

What is in a Layout?

Below you will find a list of what is included in a Layout. When you use the Get Layout command (explained below) you get all the properties of a Layout "imported" from one set of Tracks to another. When you use "Get Form Only", only some of the properties are included. This is indicated in the table below:

Property	Get Layout	Get Form Only
Symbols from the Layout Palette	All	Rehearsal marks Segno Codas Endings
Symbols from the Global Symbols Palette	Yes	Yes
Bar line types	Yes	Yes
Bar number offsets	Yes	Yes
All settings in the Layout Settings dialog	Yes	No
The vertical spacing of the staves	Yes	No
Bar line spacing (identical on all Tracks)	Yes	No
Staff Spacing	Yes	No
Broken bar lines	Yes	No

The idea is then that you can extract all the things listed above out of a number of Tracks and apply them to another set of Tracks, even in another Arrange window!

How Layouts are stored

Layouts are created automatically when you edit a single Track or a combination of Tracks. They are an integral part of the specific Track combination, which for one thing means you do not have to store the Layout separately.

❒ **You can create several different Layouts for each single Track or combination of Tracks. However, only one Layout at the time can be "activated".**

Creating a Layout

Layouts are created automatically when you perform the following steps:

1. **Open a new combination of Tracks for editing.**
   Each Track may have been edited before, individually or together with other Tracks, it doesn't matter. What matters is that you open precisely these Tracks. For example, to create a Layout for a string quartet, select Parts on the Tracks Violin 1, Violin 2, Viola and Cello, and press [Ctrl]-[R].

❒ **The order of the Tracks does not matter - you can reorder them in the Arrange window without removing the Layout. However, the spacing of the staves in the Layout is related to the order of the Tracks.**

2. **Perform some type of editing that affect the Layout.**
   Check the list above. You might for example add Layout symbols to one or more staves, drag bar lines, adjust staff spacing, turn on staff separators, etc.

3. **Close the Editor by Keeping.**
   If you instead Cancel all changes made in the editor, no Layout is created.

Opening the Tracks in a Layout

You can use Layouts as a short-cut for opening a certain collection of Tracks for editing:

From the Arrange window

1. **Pull down the Edit menu and select the "Score Layout" item on the Select submenu.**
    Another submenu appears which lists all the Layouts in this Arrange window.
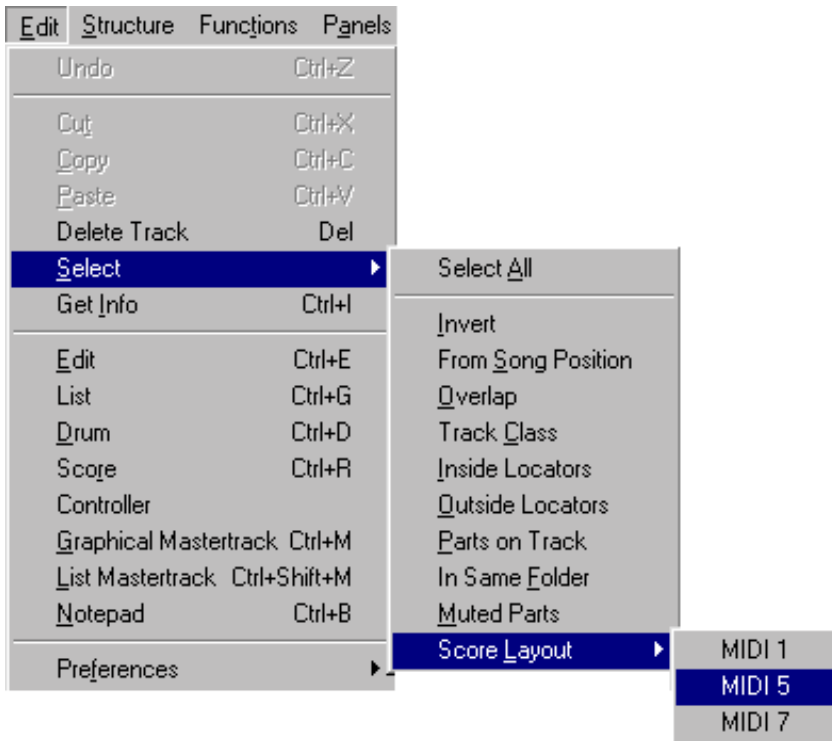
The Arrange window Select menu and its Layout submenu.

2. **Select one of the Layouts.**
    All Parts on the Tracks that make up the Layout get selected.

3. **Open Score Edit by selecting Score from the Edit menu.**

> ❑ **Please note that all Parts on the Track(s) are opened. If you want to edit some specific selection of Parts, select them and open Score Edit as usual.**

From within Score Edit

1. **Select "Display Layouts" from the bottom of the Score menu.**
    A submenu appears, listing all available Layouts.

2. **Select one of the Layouts from the menu.**
    The associated Tracks appear. This is the same as closing Score Edit, selecting all Parts on the Tracks in the Layout and opening Score Edit again.

The Layout List

In the Score Editor, all the Layouts in the current Arrangement are collected in one list. This list is found in the "Layout Settings" dialog on the Score menu. Make sure you are in Page Mode.
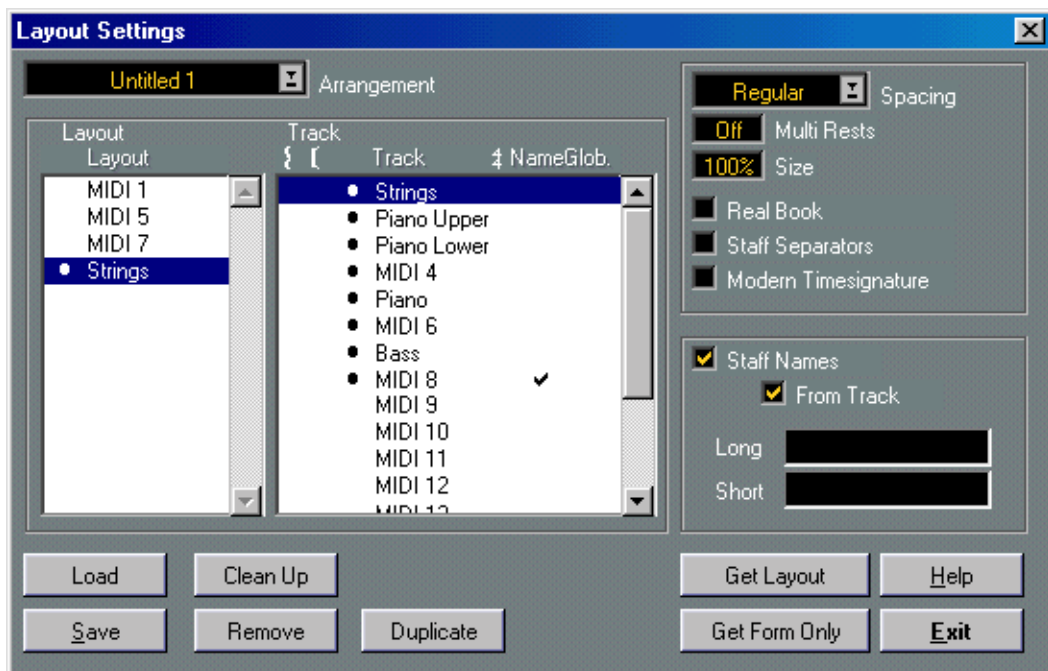
Layout Settings with a Layout list to the left.

- **To the left is a list of the Layouts in "this" Arrange window.**
  You can import Layouts from other Arrange windows, see below.

- **The Layout that is used by the current combination of Tracks is indicated by a black bullet symbol.**

- **Layouts that are used by other combinations of Tracks are displayed in plain text in the list (without a bullet).**
  If you select one of these Layouts in the list, the Tracks that use it are indicated by black dots in the Track list to the right.

- **Layouts that are not used by any Tracks are displayed in italics.**
  If you select one of these, the Track(s) for which it was created are displayed with a bullet in the Track list to the right.
  If the Track combination for the Layout doesn't exist (you might for example have deleted Tracks), the word "(Unused)" will be displayed after the name in the Layout list.

- **You can rename a Layout by double clicking on its name and entering a new name.**

Applying a Layout

You may have created a Layout for a certain Track or Track combination, and want to use it for the Track(s) you are currently editing. Proceed as follows:

1. **Open the Tracks to which you want to apply the Layout.**
   These Tracks may or may not have a Layout already. The current Layout will remain on the list, and you will be able to select it again later if you wish.

2. **Select Layout Settings from the Score menu.**

3. **From the pop-up menu at the top, select the Arrangement that contains the Layout you want to apply.**
   By default, the current Arrangement is selected, but you can select any open Arrangement (it does not have to be visible, as long as it is present in the Song).

4. **Select the Layout you want to apply from the left list.**

5. **Click Get Layout or Get Form Only.**
   The difference between the two is listed in the table at the beginning of this chapter.

   The dialog is closed and the Layout you selected is applied to the currently edited Track(s). The following rules apply:

- If the Layout was created for a different number of Tracks than the combination to which you apply it, things that relate to staves (like vertical Staff distance) are picked from top to bottom.
- Symbols from the Layout section of the Palette appear at the same absolute bar numbers as in the "source" Arrangement. This means that if you for example had a symbol in measure 2 and now apply the Layout to a Track the doesn't even start until measure 3, this symbol will not appear at all!
- Bar line adjustments are made relative to the first bar "currently being edited". In other words, if you selected a new bar line type for the first bar in the piece and then apply this as a Layout to another Track, the first bar you are now editing will get that bar line, regardless if it is the first bar of the piece or not.

Deleting Layouts

Deleting one Layout

You can delete Layouts from an Arrangement. However, you can not delete the Layout you are currently using (the one with a bullet in front of its name).

1. **Open the Layout Settings Dialog.**

2. **Locate a Layout and select it by clicking on it.**

3. **Click the Remove button.**
   The selected Layout is removed from the list.

Deleting all unused Layouts

If you click the Clean Up button, all Layouts that no longer have a Track combination to be assigned to, will be deleted.

❐ **This does not delete Layouts that have a Track combination but are currently not used!**

Loading From and Saving To Disk

Layouts can be saved to disk as individual documents.

Saving a Layout

1. **Open the Layout Settings Dialog.**

2. **Locate a Layout and select it by clicking on it.**

3. **Click the Save button.**

4. **Type in name and save as usual.**
   Layout Files have the extension ".lay".

Loading a Layout

1. **Open the Layout Settings Dialog.**

2. **Use the Arrangement pop-up menu at the top of the dialog, to specify into which Arrangement you want to load the Layout.**

3. **Click the Load button.**

4. **Locate the file and open it as usual.**

Using Layouts – An Example

The following text outlines the basic steps for extracting a musical part from a full score.

1. **Prepare the entire Score, including all formatting. Create a named Layout for it (for example "Full Score").**
   Make notes of which changes you make that are actually part of the Layout and not the individual Tracks.

2. **Close the Score Editor.**

3. **Open a single Track, for example a woodwind part.**

4. **If you need, open the Layout Settings, select the "Full Score" Layout and use "Get Form Only" to extract the Layout symbols and the bar line types from the woodwind Track as it appears in the Full Score Layout.**

5. **Prepare a Layout for the woodwind part.**
   You might for example move bar lines, add endings, turn on multiple rests, etc.

❑ **Be careful not to change any of the properties of the Track which are not part of the Layout (or you will modify the "Full Score" too!).**

6. **Name this Layout.**

7. **If you later change any of the form elements in the Full Score, you can use the Get Form Only to apply these changes to the single Track Layout, too.**

Marker Track to Form

If you have created Marker Parts in the Arrange window, so that each Marker Part encompasses a "section" in your music (verse, bridge, chorus, etc), you can automatically transfer these sections to the current layout:

1. **Make sure Page Mode is selected.**

2. **Pull down the Score menu and select Format.**

3. **From the submenu that appears, select "Marker Track to Form".**
   Now, Rehearsal markers and double barlines are inserted in the score, at the start position of each Marker Part in the Arrangement. You will also see the names of the Marker Parts.

4. **If you don't want the names of the Marker Parts visible in the score, pull down the Score menu and select "Hide Markers" from the Format submenu.**
   You can display the Marker names again at any time, by selecting "Show Markers" from the same submenu.

Designing your Score - Additional Techniques

In this Chapter you will learn:

- About Page Mode settings such as note spacing and Real Book.
- How to change the Staff size.
- How to create multi rests.
- How to add and edit bar lines.
- How to create upbeats.
- How to set measure spacing and the number of bars across the page.
- How to control staff and grand staff spacing.
- How to use Auto Layout.
- How to use Clean Up Layout
- How to break bar lines.

❐ **Before you start designing the score page layout, you should open the Page Setup dialog on the File menu, and make settings for paper size, print scale and margins!**

Page Mode Settings

These are found in the Layout Settings dialog on the Score menu. As the name implies, these settings have no relevance to Edit mode. The dialog is also devoted to handling Layouts, but this is described in the previous chapter.

Spacing

This pop-up contains three methods for how the program should set the spacing of notes within the bar. The only way to find out which method suits a particular score best is to try them all out!

Select This:	When:
Regular	The note spacing is compacted automatically. We recommend this option if you have melody lines and there is a lot of syncopated notes.
Optimize	The note spacing is compacted automatically. This is the method we suggest for chord parts and parts without syncopation.
Equal	When you want a note to take up space according to its note value. In this mode two sixteenths will take up as much space as one eighth note, for example.

Multi Rests

Whenever more than one-bar rests occur, the program can replace these with a multi-rest symbol. See for more info on Multi Rests.

The parameter allows you to set how many empty bars should be "allowed" before Cubase should collect them into a multi-rest. "Off" means "never".

Size

Changes the size of all Staves. See .

Real Book

When this option is turned on, Clef symbols are not set out at the beginning of each staff, only on the first staff on each page.

Staff Separators

When this option is turned on, separator symbols are inserted at the beginning of each grand staff.
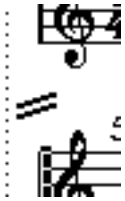
A Staff Separator between two systems.

Modern Time Signature

When this is activated, Time Signatures are shown above the staves rather than in them. You can set the size of the Modern Time Signature in the Preferences–Scores–Additional Settings dialog. Also note that when Modern Time Signature is selected, you can use the "Sign" column in the Track list in the Layout Settings dialog, to specify for which Tracks time signatures should be displayed.

•   **If you generally prefer to display the score in a more modern way, check out the options in the Preferences–Scores–Modern Style dialog!**
    For descriptions of the options in the dialog, see the online help.

Staff Size

For one System

You can set the Staff Size as a percentage of normal size.

1. **Open Staff Settings for the Staff you are interested in.**

2. **Click the "Staff Options..." button.**

3. **Adjust the Size parameter in the lower left corner.**
   The values range from 25% up to 250% of normal size.

For all Systems in a Layout

1. **Open the Layout Settings dialog.**

2. **Change the Size parameter.**
   The values range from 25% up to 250% of normal size.

3. **Close the dialog.**

   All Staves will now get the desired size. Staves that have individual size settings (as described above) will still be proportionally smaller/larger.

   This setting is part of the Layout and can for example be used when printing a full score slightly smaller than the parts for each instrument.

Hiding/Showing Items

"Any" object on a Page can be hidden, including notes, rests, symbols, clefs, bar lines, even entire staves, you can make a page totally blank by hiding! (well, actually, one staff has to remain shown). Applications are found below.

Hiding

To hide items proceed as follows:

1. **Select all the items you want to hide.**

2. **Select Hide from the Do pop-up menu or click on the Hide button on the Score Toolbar.**

- **Notes can also be hidden by selecting them, selecting "Get Info" from the Edit menu, and ticking the "Hide Note" checkbox in the Note Info dialog (see page 159).**

Hiding in this Layout only

If you want the Hiding to be "local" to the current layout, hold down [Ctrl] when selecting Hide as described above.

❑ **This is not possible when hiding notes, only other symbols.**

Viewing Hidden Objects

If you switch the Score Editor to Edit mode, all objects will be visible. Switch back to Page mode, and hidden objects will be invisible again.

If you pull down the Score menu and select "Show Invisible" from the Global Settings submenu, the Show Invisible dialog appears.
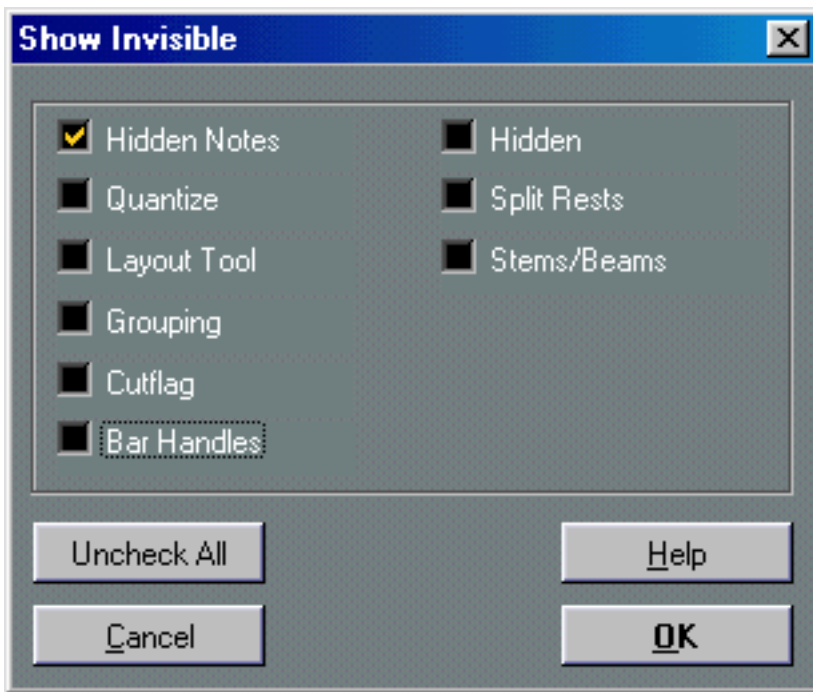
This contains two items related to hidden objects:

- **If you activate the "Hidden Notes" option, all hidden notes in the score are shown.**
  Deactivating "Hidden Notes" will hide the notes again.

- **If you activate the "Hidden" option, all hidden objects (except notes) will be indicated by a "Hide" text marker.**

These options are also available on the "Show Invisible" Filter Bar (see).

Showing one Object

1. **Make sure "Hidden" is activated in the "Show Invisible" dialog.**

2. **Click on the "Hide" text marker below the object you want to reveal.**
   The text gets selected.

3. **Press [Backspace].**
   The object appears. Undo is available if you change your mind.

Showing all Objects

If you pull down the Do pop-up menu and select "Show", all hidden objects are revealed.

• **You can also use the Clean Up Layout function to permanently reveal hidden notes and objects, as described on .**

Applications of Hiding

Printing Scales

If you for example want to create scale examples, enter the notes and hide time signatures, bar lines and other unnecessary objects.
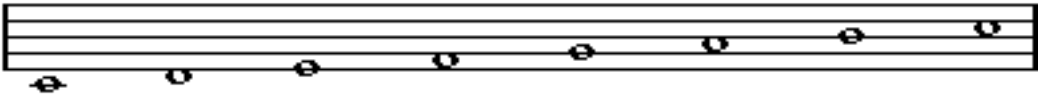
A scale created with hidden bar lines, time signatures etc.

Creating Upbeats

If you want an upbeat at the beginning of a Song, you may want to hide the rests preceding the upbeat.

Graphic Notation

By hiding bar lines and perhaps using Equal Spacing (see), you can produce graphic notation.

Multiple Rests

Multiple consecutive rests can be automatically consolidated into multi-rest measures as follows:

1. **Open the Layout Settings dialog.**

2. **Set Multi Rests to specify how many empty bars should be "allowed" before Cubase should collect them into a multi-rest.**
For example, a value of 2 means that three or more consecutive empty bars will be collected into a multi-rest. The value "Off" means "never".

3. **Click Exit to close the dialog.**
The multi rests now appear in the score.

A Multi Rest over three bars.

Splitting Multi Rests

To divide one long multiple rest into many shorter, proceed as follows:

1. **Double click on the Multi Rest symbol.**
The Split Multi Rest dialog appears:
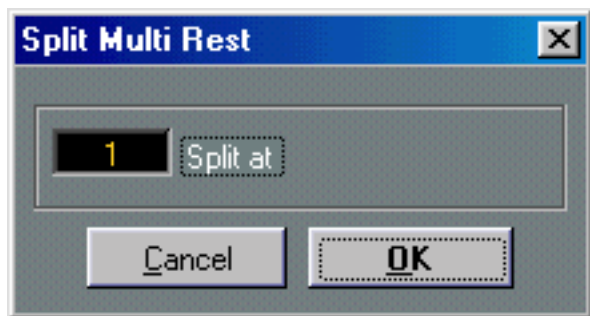
2. **In the dialog box, enter the bar number where you want the first split.**

3. **Click OK.**

4. **If you need more splits, double click on any multi rest symbol and proceed as above.**

❑ **The program automatically splits multi rests wherever there is a change of Time signature, at double bar lines or repeat signs, or if a Rehearsal mark appears.**

Multi Rest Appearance

If you open the Preferences–Score–Beams and Bars dialog, you will find a couple of settings that determine the appearance of multi rests:

Show Multi-Rest number above Symbol.	When this is activated, the numbers are shown above the multi-rest symbol, instead of below it.
Show Multi-Rests in Church Style	When this is activated, multi-rests are shown in "church style" (vertical bars), rather than with the regular, horizontal symbols.
Show Barnumber Range with Multi-Rests	When this is activated, and barnumbers are displayed, the barnumbers of a multi-rest will be shown as a range.

It is also possible to adjust the height and width of the multi-rest symbol (in the Preferences–Score–Spacing dialog) and to select a font for the multi-rest numbers (in the Preferences–Score–Global Text dialog).

Adding and Editing Bar Lines

Editing existing Bar Lines

For each bar line, you can choose whether you want a regular, single bar line, a double bar line, a repeat sign, etc:

1. **Double click on the bar line for which you want to edit the settings.**
   A dialog appears with a number of bar line types.
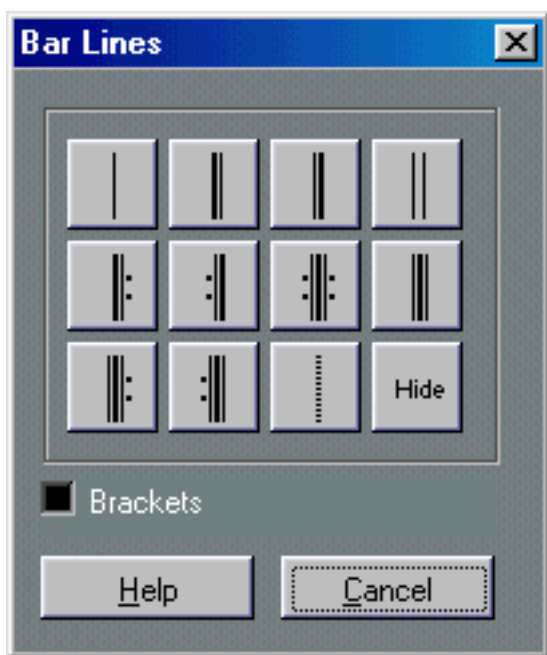
2. **If you wish the bar line to be shown with "brackets", activate the Brackets checkbox.**
   This is only relevant for repeat signs.

3. **Click on the desired bar line type.**
   The dialog closes and the bar line type is changed.

The "Hide" option

One of the options in the bar line dialog is called Hide. This can be used as an optional way of hiding bar lines. Bar lines hidden this way will not get a "Hide" text marker, nor will they be revealed if you select the "Show" command on the To pop-up menu. The bar spacing, bar numbers etc will behave just as if the bar line was visible. To show the bar line again, double click on it and select another type of bar line.

• **If you have trouble finding a "hidden" bar line, try selecting it by dragging a rectangle around it.**
When selected, the bar line will be visible and it will be easy to double click it.

Inserting extra Bar Lines

You can also insert additional Bar Lines from the Symbols Palette as with any other Symbol. When you do, the same dialog appears and you can select any of the available bar line types.

Inserting a bar line in the middle of the bar splits it up in two halves. For example, if you have an empty bar in 4/4 and insert a bar line at 1.4.1.0, you will get one bar with a half note and a quarter note rest followed by one with a quarter note rest. This can for example be used to create upbeats in the middle of the song, as described below.

Notes that stretch over bar lines are always tied.

Creating Upbeats

In the Beginning of a Song - by using the Pickup Bar feature

With this method, the upbeat actually contains exactly the number of beats displayed. That is, if you have an upbeat of one beat, your Song starts with one bar in 1/4 time.

1. **Change the time signature of the first bar to the length of the upbeat.**

2. **Insert a time signature of the correct kind (the time signature used throughout the Song) in the second bar.**
Time signatures are inserted by selecting the time signature symbol from the "Clefs etc" symbol palette and clicking with the Pencil tool.

3. **Enter the notes in the upbeat into the first bar of the song.**

The first bar before any adjustments.

4. **Double click the time signature for the upbeat bar.**
The Edit Time Signature dialog appears.

5. Activate the option "As Pickup Bar" and click OK.
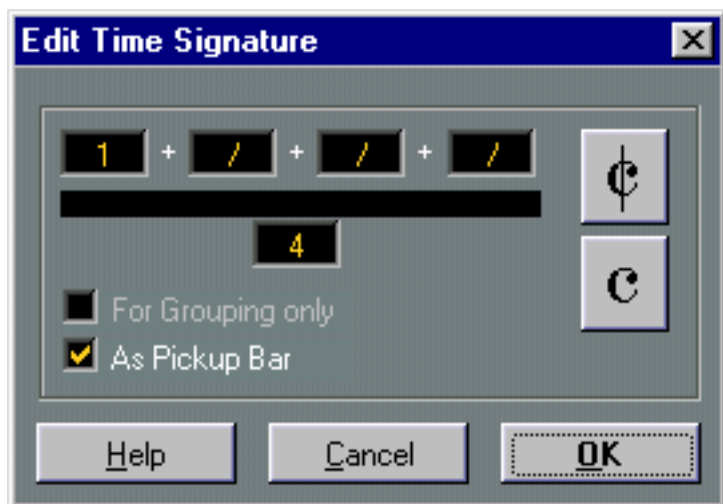
Now, the time signature of the first bar takes on the look of the second bar's signature, while the time signature in the second bar is hidden:

6. If you use bar numbers, double click on the first bar number and enter an offset of -1.

7. Adjust the display of bar numbers and hide the "0" in the first measure.

• **Another way to change the bar numbering would be to use the Bar Display setting in the Synchronization dialog (on the Options menu).**
The advantage of that method is that the bar numbers in the Score will still be consistent with the Song Position.

In the Beginning of a Song - by hiding rests

With this method, the first bar will actually have the same time signature as the following bars - it will only look like an upbeat bar:

1. Enter the notes in the upbeat into the first bar of the song.

The first bar before any adjustments.

2. Hide the rests that precede the notes.

3. Drag the bar line between measure one and two to adjust the width of the bar.

After hiding the rest and dragging the bar line.

4. **If you like, move the notes in the upbeat measure, using the Layout Tool ("graphic move").**

5. **If you use bar numbers, adjust them as in the previous example.**

The final upbeat.

Anywhere else in the Song

1. **Insert a bar line where the upbeat begins. Select the type of bar line you need.**
   You might for example insert a repeat.

2. **Enter the notes on each side of the new bar line.**

Inserting a bar line in a measure in 3/4.

3. **Add Endings as needed.**

Setting the Number of Bars across the Page

"Automatically"

In the Preferences–Score–Beams and Bars dialog, you will find a setting called "Default Bars Across The Page". In Page mode, this is used for the following:

- To decide how many measures are across the page in a new Layout.
- To specify the maximum number of bars across a staff after performing a "Bars and Staves" Auto Layout (see).

Manually

In Page Mode you have full control of how many bars appear across the page, by using the Number of Bars dialog or the tools.

❑ **If you want to use the "Bars and Staves" Auto Layout function (see), you should do this before you adjust the number of bars manually.**

Using the Number Of Bars Dialog

1. **Make a Staff active in the system where you want to start making changes.**
   This means that if everything looks fine until for example the fifth system, make one of the staves active in this system.

2. **Pull down the Score menu and select "Number Of Bars" from the Format submenu.**
   The Number of Bars dialog appears.
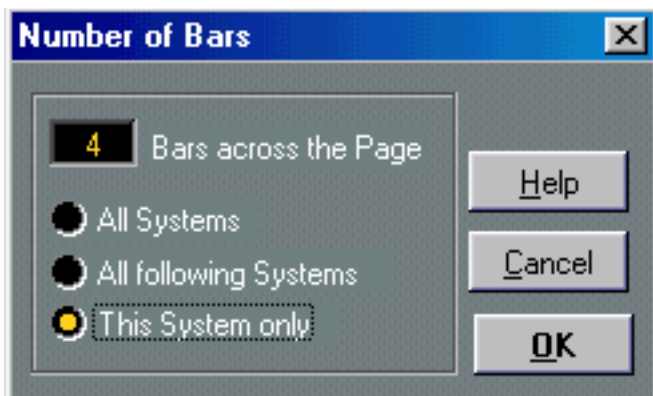
3. **Set the desired number of bars across the page.**

4. **Select one of the options by clicking the buttons:**

Select This:	If You Want:
All Systems	All systems on all pages to have this number of bars across the page.
All Following Systems	If you want the system where the active staff is, and all following systems, to have this number of bars across the page.
This System Only	If you only want the system where the active staff is, to have this number of bars across the page.

Using the Tools

- **To make a measure "fall down" on a new staff, use the Scissors Tool to click on its bar line.**
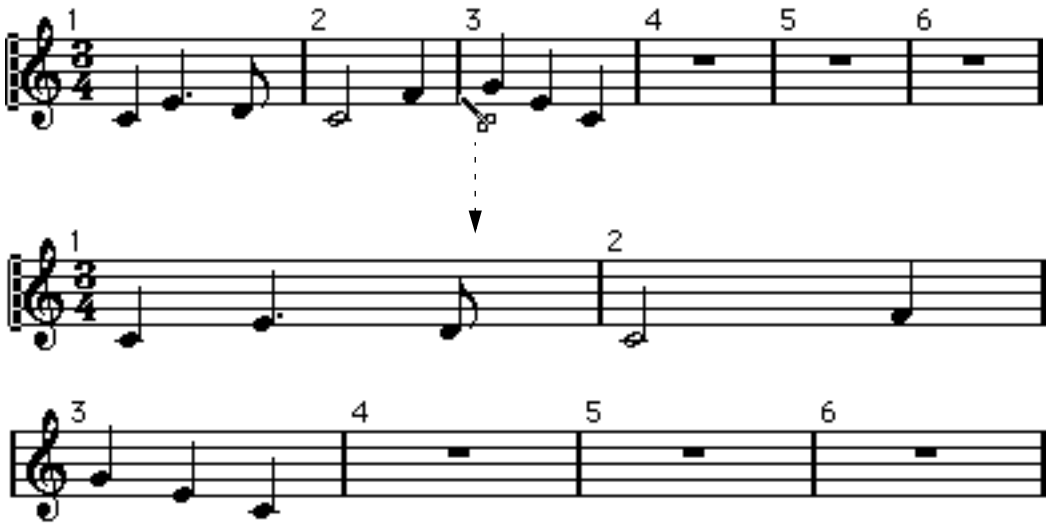
Before and after moving the third measure one staff down.

- **To bring the measure back up to the previous staff, use the Glue Tube Tool to click on the last bar line on the upper of the two staves.**
  This will in fact move all measures in the lower staff up to the upper.

Inserting and Removing Bars

By using the Insert and Remove Bars functions, you can change the bar structure for the edited Track(s), without destroying the layout. Proceed as follows:

❐ **These are "destructive" functions; they actually add or remove bars from the edited Track(s)!**

Insert Bar

1. **Move the Song Position to where you want to insert a new bar.**
   If you want to insert a new bar between bars 2 and 3, move the Song Position into bar 3.

2. **Pull down the Score menu and select Insert Bar from the Format submenu.**
   A new bar is inserted before the bar with the Song Position.

Remove Bar

1. **Move the Song Position into the bar which you want to remove.**

2. **Pull down the Score menu and select Remove Bar from the Format submenu.**
   The bar is removed.

Moving Bar Lines

The following operations can be made using the regular Arrow or the Layout Arrow Tool, it doesn't matter.

Moving a Bar Line

If you drag a bar line to the left or right, the surrounding measures are adjusted proportionally.

Moving Bar Lines on All Staves

If you hold down [Alt] when dragging a bar line, all bar lines below the one you drag will be moved accordingly.

Moving a single Bar Line separately

If you hold down [Ctrl] while dragging a bar line, the widths of the surrounding bars are not affected.

Making an Indent on one Line

• **To create an indent, simply drag the first or last bar line on a staff.**
  The sizes of all measures are adjusted proportionally.

Before and after dragging the first bar line on the first staff.

Making Indents on several Lines

If you hold down [Alt] and drag the first or last bar line in a system, all following systems will get the same indent. If you want all lines on all pages to be indented in the same way, hold down [Alt] and drag the appropriate bar line on the first system of the score.

The last Bar Line in the Piece

Cubase VST attempts to move the last bar line and space the bars on the last line in a sensible way, but you can change this manually by dragging the last bar line if you like. You can also double click on it if you want another type of bar line than the default.

Resetting Bar Spacing

To reset the bar spacing to standard values for several lines, proceed as follows:

1. **Locate the first line for which you want to reset the bar spacing, and make one staff in that system active.**

2. **Select "Number Of Bars" from the Format submenu on the Score menu.**

3. **Specify the number of bars that you already have on the line.**

4. **Click on "This System Only".**
   Optionally, you might reset "All Systems" or " All Following Systems" lines at the same times, as described on .

5. **Click OK to close the dialog.**
   The bar spacing is reset for the currently selected staff and all following staves.

Dragging Staves

The following operations can be made using the regular Arrow or the Layout Arrow Tool, it doesn't matter. However, dragging staves can only be done in Page Mode.

Adding Space between two Grand Staves

1. **Locate the first Staff in the lower of the two systems you wish to spread apart.**

2. **Clicking just to the left of the first bar line and keep the mouse button down. The entire staff is inverted.**

3. **Drag downwards or upwards and then release the mouse.**
   The system you dragged has now moved down and all the systems below it have moved with it.
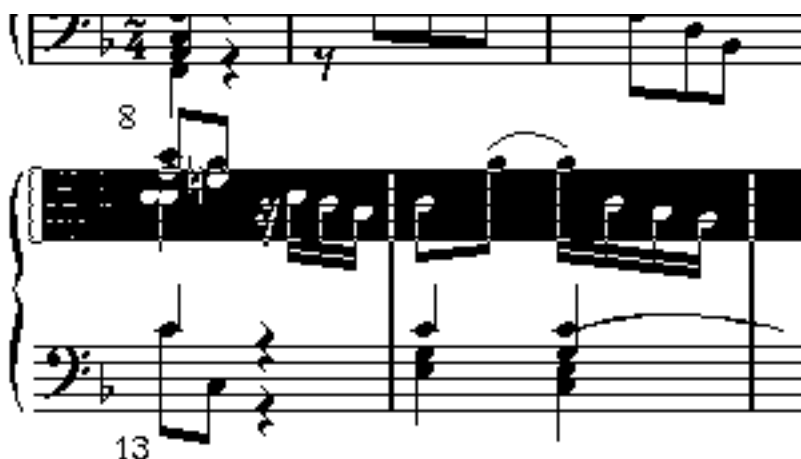
Before...

... and after dragging the upper system, to make room.

Setting the same Distance between all Grand Staves

1. **Hold down the [Alt] key.**

2. **Drag the first staff of the second system, until you have the correct distance between this and the first system.**

3. **Release the mouse button and the [Alt] key.**
   All systems will now be the same distance apart as the one you dragged and that above it.

❑ **This operation affects the system you drag and all following systems.**

Setting the Distance between Staves within a Grand Staff

1. **Locate the Staff you wish to spread apart.**
   Click just to the left of its first bar line and keep the mouse button down. The entire staff gets inverted.

2. **Drag downwards or upwards and then release the mouse.**
   The staff you dragged has now moved down and all the other staves in the system are adjusted accordingly.

Dragging the staves in a piano system apart.

Setting the same Distance between Staves in several Systems

1. **Hold down the [Alt] key.**

2. **Drag the desired staff as described above.**

3. **Release the mouse button and [Alt] key.**
   The corresponding staves in all following systems are moved accordingly.

Moving one Staff only

You may wish to move one staff without affecting any other staff in any way:

1. **Hold down the [Ctrl] key.**

2. **Drag any staff as described above.**

Moving Staves between Pages

By using the "Move To Next/Prev. Page" commands on the Format submenu, you can quickly edit the page breaks:

Moving Staves to the Next Page

1. **Locate the staff you want to move to the top of the next page, and make it the Active Staff.**
   This can be any staff except the first staff one on the page.

2. **Pull down the Score menu and select "Move To Next Page" from the Format submenu.**
   The Active Staff (and any following staves on the page) are moved to the next page.

Moving Staves to the Previous Page

1. **Make the staff at the top of the page the Active Staff.**
   If any other staff is Active, Move To Prev. Page will be greyed out. Also, the function will not work for the first staff on the first page.

2. **Pull down the Score menu and select "Move To Prev. Page" from the Format submenu.**
   The Active Staff, and as many of the following staves as there are room for, are moved to the previous page. If the previous page is "full" already, nothing will happen.

Adding Brackets and Braces

While it's possible to add Brackets and Braces (curly brackets) manually from the Layout Palette, you can also do this in the Layout Settings dialog:

1. **Open the Layout Settings dialog.**
   In the Track list, you will find columns for "Braces" (**{**) and "Brackets " (**[**).

2. **Click in one of the columns and drag downwards in the list to encompass the desired Tracks.**
   The column indicates graphically which Tracks will be encompassed by the brace/bracket.

Click at the first Track for which you want a Bracket or Brace...

..and drag downwards in the list to enclose the desired Tracks.
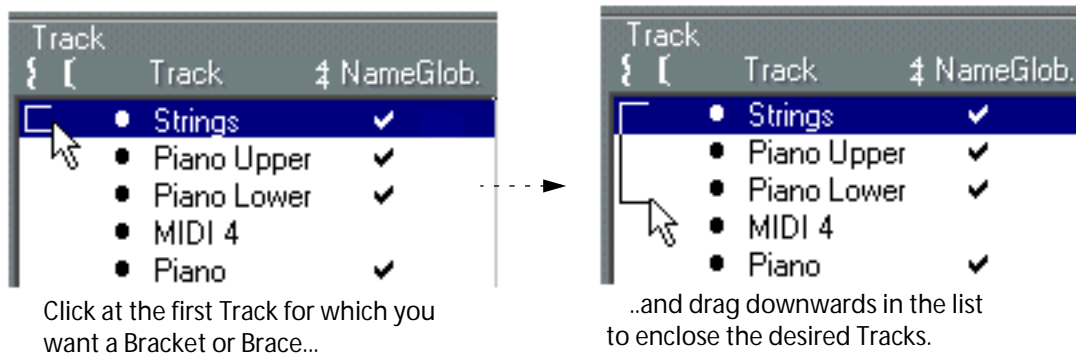
3. **Close the Layout Settings dialog.**
   The score is displayed with brackets or braces according to the settings you made.

• **You can edit brackets and braces in the dialog by dragging the ends of the indicator in the list.**

• **To remove a bracket or brace, hold down [Ctrl] and click on its indicator in the list, at the topmost Track.**

❒ **If the option "Show Braces in Edit mode" is activated in the Preferences-Score-Editor Behaviour dialog, brackets and braces are shown in Edit mode as well.**

Auto Layout
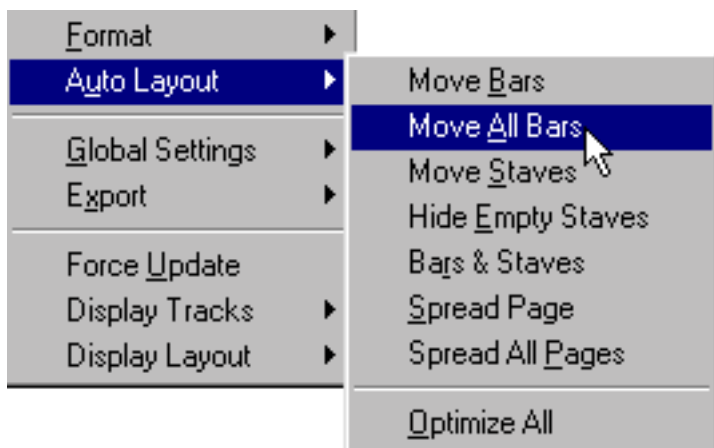
This item on the Score menu brings up a submenu with eight options. Selecting one of these makes the program "walk through" the score and make adjustments to measure widths, staff distances etc automatically. Exactly which parts and properties of the score are affected depends on which option you select, as described below. For many of the Auto Layout functions, you can make default settings in the Preferences–Scores–Spacing dialog (see the online help).

❒ **The Auto Layout adjustments are done just as if you yourself had made them manually. This means that if there's something you don't like, you can always change it manually, as described above.**

Move Bars

This option looks at the currently active grand staff, and attempts to adjust the measure widths, so that all notes and symbols get as much room as possible. The number of bars on the staff is not affected.

• **You can perform this function for several staves in one go, by dragging a selection rectangle over their left edges, and then selecting Move Bars.**

• **You can also perform the Move Bars function by clicking on the Auto Layout button on the Score Toolbar.**

For this to work, an entire staff must be selected (black) - otherwise a "Bars and Staves" operation is performed (see below).

Move All Bars

This works like Move Bars, but affects all grand staves from the active one to the end of the score.

Move Staves

This changes the measure width (as with Move All Bars) but also the vertical staff distance, of the active staff and all following staves.

Hide Empty Staves

This hides all empty staves, from the active staff to the end of the score. Note that polyphonic/split staves are in this case treated as one entity, if the clef in the upper system differs from that in the lower system. That is, a piano staff is considered "empty" only if there are no notes on either staff.

- **If you have activated the "Hidden" option in the Show Invisible dialog or on the Filter Bar, hidden staves are indicated by a marker with the text "Hidden:Name" (where "Name" is the Staff Name).**
  To reveal hidden staves, either delete their "Hidden" markers, or select Show from the Do pop-up menu.

- **If you activate the option "Auto Layout-don't hide the first staff" in the Preferences-Scores-Editor Behaviour dialog, staves in the very first grand staff will not be hidden, even if they are empty.**
  This is useful for example if you are creating an orchestra score, and want to show the complete "layout" of the orchestra on the first page of the score, without hiding anything.

Bars and Staves

This is a combination of Move All Bars and Move Staves, plus automatic calculation of the number of bars across the page.

Before you perform the Bars and Staves operation, you should use the "Default Number of Bars across Page" setting (in the Preferences–Score–Beams and Bars dialog) to specify the maximum number of measures in each system.

- **The Bars and Staves operation can also be performed by clicking on the Auto Layout icon on the Score toolbar.**

For this to work, no staves must be selected (black) - otherwise a "Move Bars" operation is performed (see above).

Spread Page

This corrects the vertical layout of the staves on the current page, so that they "fit onto the page". In other words, this removes white space at the bottom of the page.

Spread All Pages

This is the same as Spread Page, but affects all pages from the current and onwards.

Optimize All

All of the above in one fell swoop. This procedure might take some time but usually yields great results.

Clean Up Layout

This menu item allows you to delete invisible layout elements, which in effect restores the score to default settings.

1. **Set up the To menu as desired.**
   This allows you to delete items only within the Cycle or the Loop, etc.

2. **Select "Clean Up Layout" from the Format submenu on the Score menu.**
   A dialog box appears with options as described below.
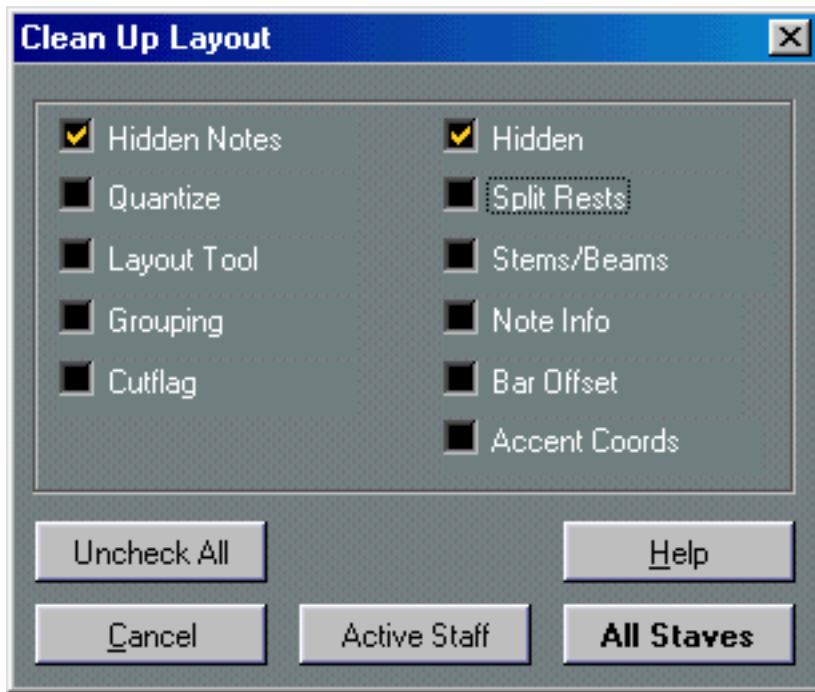
The Clean Up Layout dialog.

3. **Turn on the items you want deleted or reset to standard settings.**

4. **Click on the Active Staff button to clean up the active staff only, or the All Staves button to clean up all staves.**

Activate this:	To:
Hidden Notes	Make all Hidden Notes permanently visible again.
Quantize	Delete all Display Quantize elements.
Layout Tool	Reset all positions of notes, clefs, slurs and ties altered using the Layout tool.
Grouping	Reset the grouping under beams to standard values.
Cutflag	Delete all Cutflag Events.
Hidden	Make all hidden objects permanently visible again.
Split Rests	Collect all multi rests split up into several "groups", into one single multi rest.
Stems/Beams	Reset the length of all stems and reset the slant of beams that have been manually adjusted.
Note Info	Reset any settings made in the Note Info dialog.
Bar Offset	Delete bar number offsets.
Accent Coords	Removes all manual spacing of note symbols and slurs.

Breaking Bar Lines

Sometimes you may not want a bar line to stretch all the way across a grand staff. In this case you might "break it".

Breaking Bar Lines in one Grand Staff

1. **Select the Eraser Tool.**

2. **Click on a bar line connecting the two staves.**
   All bar lines between these two staves (except the first and last) are broken. To break the first or last bar line in a Grand Staff, you need to click directly on these.
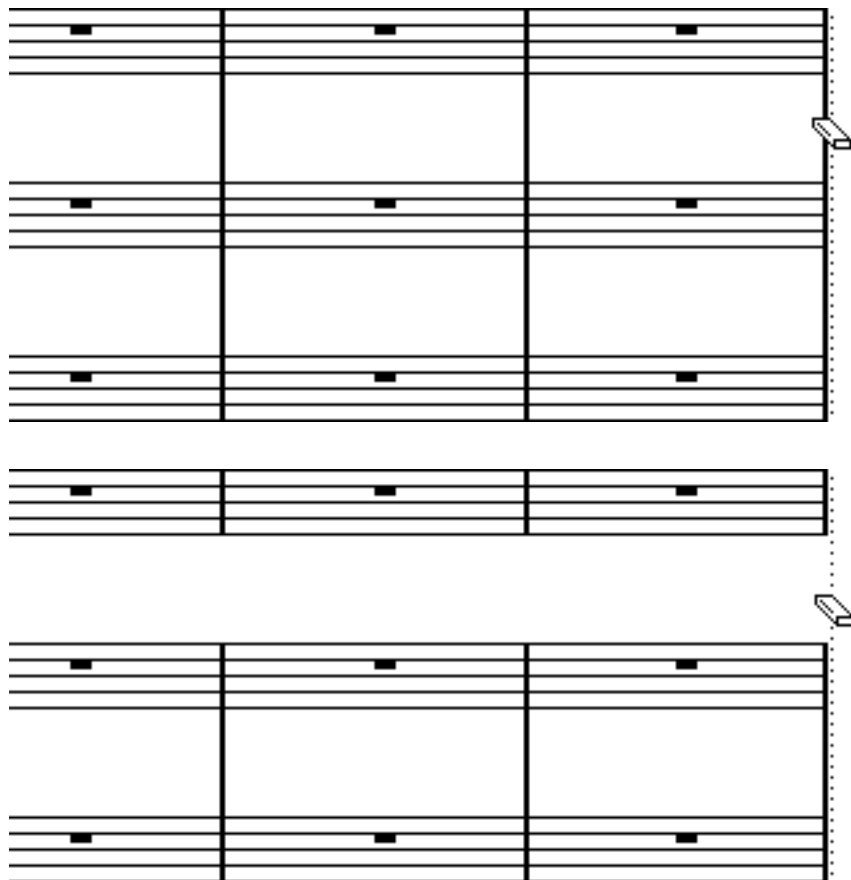
Before and after splitting the bar lines between two staves.

Breaking Bar Lines in several Grand Staves

If you hold down [Alt] and click on a bar line as above, the corresponding bar lines are broken in all following Grand Staves.

Re-connecting Broken Bar Lines

If you have broken the bar lines, you can use the Glue Tube Tool to connect them again.

1. **Select the Glue Tube Tool.**

2. **Click on one of the bar lines in the staff above the broken bar lines.**
   All bar lines between these staves in this Grand Staff are connected.

• **To re-connect bar-lines in several Grand Staves, hold down [Alt] and click with the Glue Tube tool as above.**
   The bar lines between the corresponding staves are connected in all following Grand Staves.

Copying Settings between Grand Staves

If you have made settings for a Grand Staff, you can copy these to all following Grand Staves in the Layout. This allows you to set up broken bar lines, spacing, brackets, etc for the first Grand Staff, and then easily apply these settings to all other Grand Staves:

1. **Make settings for the first Grand Staff in the score.**

2. **Pull down the Score menu and select "Copy To All Grand Staves" from the Format sub-menu.**
   The settings are applied to all following Grand Staves.

14
Scoring for Drums

In this Chapter you will learn:

- How to set up the score Drum Map.
- How to set up a Staff for drum notes.
- How to enter and edit drum notes.
- How to use a Single Line drum staff.

Background: The Drum Map and Score Edit

When scoring for drums, you can assign a unique note head to each pitch. There is even the possibility to set up different note heads for different note values!

However, in order for you to make full use of this fact you need to understand a bit about drum maps, and the interaction between Drum Edit and Score Edit.

The Score Drum Map

The Drum Tracks concept relies on a Drum Map with named Sounds (this is all described in the Drum Editor chapter in the Getting into the Details document). In Score Edit, an "additional" map is needed to display different note heads for different pitches. This "Score Drum Map" can be looked upon as an extension to the Drum Editor Drum Map.

You can score for drums on MIDI Tracks or Drum Tracks. For Drum Tracks, the names and pitches of the Drum Sounds in the score are based on the Drum Map currently selected for the Track; for MIDI Tracks, the Default Drum Map is used.

❒ **This means there is one Score Drum Map (with separate settings) for each "regular" Drum Map in the Song.**

You access the Score Drum Map from the Global Settings submenu on the Score menu.
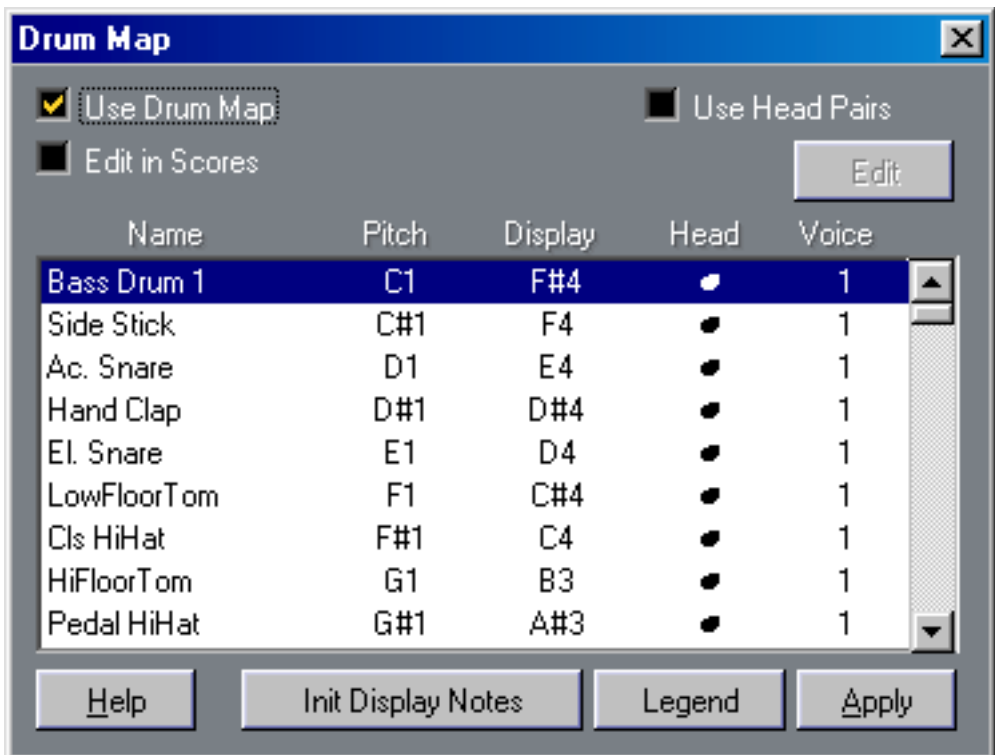
Pitch vs Display Pitch

In the Drum Maps you will find a Pitch setting and a Display Pitch setting.

• The Pitch setting is the actual note being edited. For a MIDI Track this is simply the pitch of the MIDI note recorded. For Drum Tracks this is the In-Note for the Sound. In either case this is just a display field so that you know which note you are editing, you can't change this from within this dialog box.

• The Display Pitch value is used to set where vertically on the system the note should be displayed. It can be thought of as a display transpose setting that is individual for each note. Again this only affects how the note is displayed, not how it is recorded etc.

Use Score Drum Map On/Off

For the Drum Map settings to actually be used in the score, you need to activate the "Use Score Drum Map" checkbox. This is found in two places: in the Staff Options dialog (accessed from the Staff Settings dialog) and in the Drum Map dialog. Note that these two checkboxes are duplicates - activating one of them will automatically activate the other and vice versa.
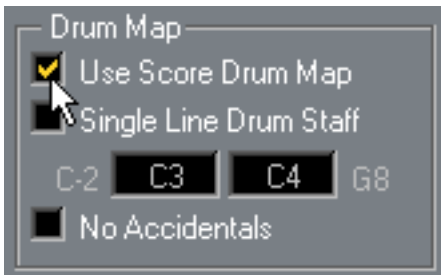
Edit in Scores

This is displayed on .

Setting up the Drum Map

Basic Settings

1. **Open Score Edit for the Track for which you plan to score for drums.**
   This could be a MIDI Track or a Drum Track.

2. **Select Drum Map from the Global settings submenu on the Score menu.**
   The Drum Map dialog box appears.

3. **If "Use Drum Map" isn't active, turn it on.**

• **When "Use Drum Map" is activated, selecting a note in the score will automatically select the corresponding drum sound in the Drum Map dialog.**
   This helps you find the desired sounds quicker.

4. **Make settings for the Sounds/MIDI Notes you need.**
   The Options are described below.

This Field:	Displays:
Name	This is the name of the Drum Sound. To change the name of a Sound, double click on the name and type in a new one. Note that this affects the "real" Drum Map - the changed name will appear next time you open this Map in Drum Edit!
Pitch	For Drum Tracks, this is the "I-Note" in the Drum Map that plays this Sound. For MIDI Tracks it is simply the Pitch of the MIDI note in the Track.
	This is only a display value which can't be edited here.
Display Pitch	The vertical position for this pitch in the score. For example you can make all notes with pitch F3 appear as if they had the pitch A4. Also note that several different Sounds/notes can have the same Display Pitch. You might for example want to have all different snare drums displayed as the same pitch (possibly separating them by using different note heads).
Head	This field contains a pop-up which allows you to select one of a number of note heads for this pitch. See also "Using Note Head Pairs", below.
Voice	This allows you to make all notes with this pitch belong to a certain Voice, so that they get a common rest handling and stem direction, for example. For more info on Polyphonic Voicing, see page 128.

❐ **Again, please note that there are as many Score Drum Maps as there are regular Drum Maps in the Song. Which one you get only depends on which Track you are editing. The Score Drum Maps are totally independent of one another. In other words, each pitch can have different settings in different drum maps.**

Initializing the Display Pitches

If you click the "Initialize Display Notes" button, all Display Pitch values are reset, so that actual pitch and Display Pitch is the same for each Sound/note.

Using Note Head Pairs

Not only can you have different drum sounds displayed with different note heads, you can also display different note heads for different note values:

1. **Activate the "Use Head Pairs" checkbox.**
The "Head" column now shows two heads for each drum sound.
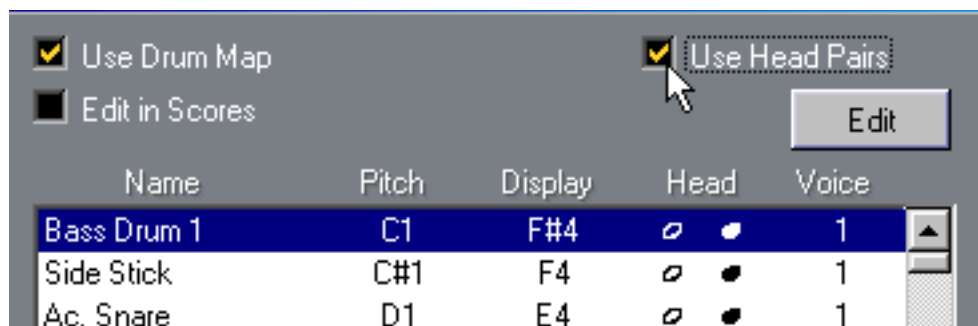
As you can see, all head symbols are arranged in pairs - by default an "empty" head paired with a "filled" head. Just as with regular notes, the "empty" note heads are used with half notes and larger note values, and the "filled" heads are used with quarter notes and smaller note values.

2. **To select a head pair for a Drum Sound/note, click in the Head column to pull down the pop-up menu as usual.**
You will only be able to select the left note head in the Head column (the one used for half notes and longer) - the right note head is automatically selected.

Customizing the Note Head Pairs

If you don't like the default pairs of note heads, you can edit these:

1. **Click the "Edit" button.**
Another dialog appears.
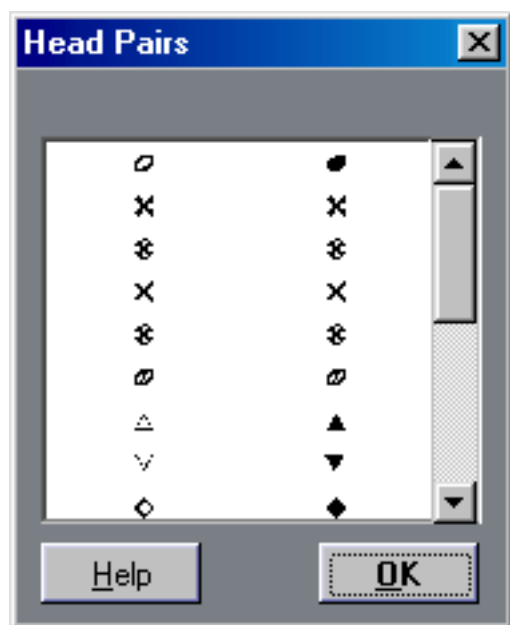
2. **To change a symbol in a pair, click on it and select a new symbol from the pop-up menu that appears.**

3. **When you're done, click OK to close the dialog.**

Editing the Drum Map in the Score

If you activate the checkbox "Edit in Scores" in the Drum Map dialog, you can change the settings for the Score Drum Map directly in the score:

- **Transposing a note will change the display pitch of its drum sound - the actual note will not be transposed.**

- **Double clicking a note allows you to make note head settings for that drum sound.**

- **Using the "Move to Voice" function will change the Voice assignment of the drum sound.**

❐ **This requires that you leave the Drum Map dialog open - closing the dialog will automatically turn this option off, allowing you to perform normal editing.**

Setting up a Staff for Drum Scoring

1. **Open Staff Settings and click on the "Staff Options…" button.**

2. **Make sure "Use Score Drum Map" is activated.**
   As mentioned above, this can also be activated from the Drum Map dialog.

3. **If you want a Single Line Drum Staff, activate this option.**
   This is described in detail below.

4. **If you want Flat Beams, activate this option (see** **).**

5. **If you want all stems to end at the same position, activate fixed stems and set a length for Up/Down stems.**
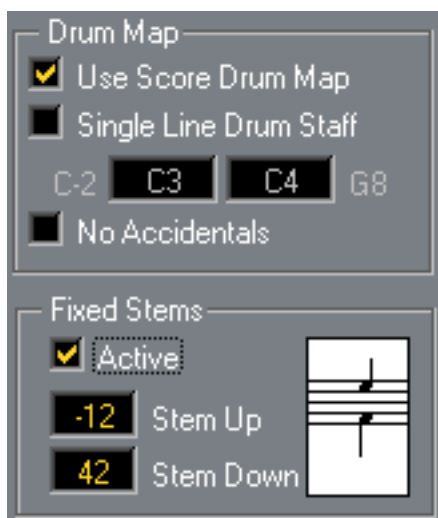
An example of Drum Staff settings.

• **You may also want to use Polyphonic voices, for separate rest and stem handling.**
  However, you can still activate "Fixed Stem Length" in the Staff Options dialog if you like. See the chapter "Polyphonic Voicing" for more information about Polyphonic Voices.

Entering and Editing Notes

This is just as entering notes on a normal note system. However, please note:

• Notes are edited using their Display Pitch when the Drum Map is used. This means that when you move a note vertically, you move it to another Display Pitch. What actual pitch it gets depends on which Pitch uses the Display Pitch you now "dropped it on".

• When the Score Drum Map is on, the Mouse box on the Status bar shows you the name of the Drum Sound instead of the pitch.

The Mouse box showing drum names.

• Try to avoid editing pitches from the Info Line when you are working on a Drum Track. The reasons for this are described in the Drum Editor chapter in the Getting into the Details document.

Using Single Line Drum Staff

When this option is activated in the Staff Options dialog, there is only one line in the system. Furthermore, notes can only appear below the line, on the line and above the line.

To decide which notes go where, proceed as follows:

1. **Open Staff Settings and click the Staff Options button.**

2. **Activate Score Drum Map and Single Line Drum Staff.**

3. **Set up the two pitch values to decide which pitches go on the line.**
   Notes below this range automatically wind up below the line and notes above wind up above the line.

❑ **When you enter and edit the pitch of notes on a single line drum staff, the best way is to drag the note up or down while watching the Mouse box on the Status bar.**

15

Creating Tablature

In this Chapter you will learn:

- How to create Tablature, automatically and manually.
- How to control the appearance of the Tablature notes.
- How to edit Tablature.

Cubase is able to produce score in Tablature format. This can be done automatically, by "converting" recorded MIDI information. You can also create a Tablature Staff from scratch and enter the notes "by hand".

❑ **Even though we use the term "converting" in this chapter, please note that Tablature is a mode. You can switch between regular notation and Tablature at any time.**

Automatic Creation

This assumes you have a regular score on screen already. We also suggest you perform basic editing like quantizing, to make the score as legible as possible as regular notes, before converting into Tablature.

1. **If you only want to convert a section of the Track/Part, use the To menu to specify this.**
   You might for example only convert the notes within the Cycle, the selected notes, etc. But please note the following:

❑ **You might make only a few of the notes into tablature notes, but the entire system will be shown in Tablature mode with respect to how many note lines are used, etc.**

2. **Make sure the notes in the score are inside the range of the instrument.**
   Notes with a pitch lower than the open tuning of the lowest string cannot be converted.

3. **Select Tablature from the Score menu's "Staff Functions" submenu.**
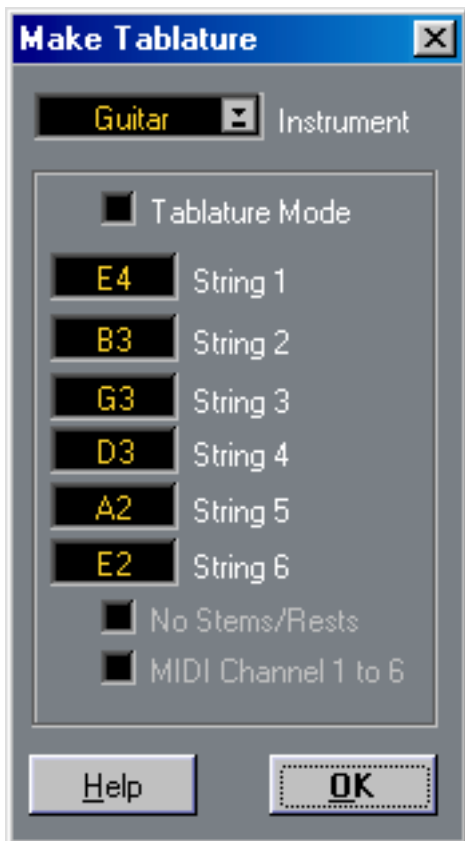
4. **Select one of the predefined instruments from the pop-up menu.**

5. **Activate "Tablature Mode".**

6. **If you are not using one of the predefined instruments, set the open tuning of each string using the six value fields.**
   If one string isn't used, set it to Off, the lowest value.

7. **If so desired, activate the "No Stems/Rests" and "MIDI Channel 1-6" features.**
   No Stems/Rests will give you a score where the notes have no stems and where all the rests are hidden. The "MIDI Channel 1-6" feature is described below.

8. **Click OK.**
   The Tablature now appears. You will get as many note lines as you have activated strings. All the notes will now have a fret number instead of their regular note heads.

Before and after using Make Tablature.

9. **Edit the Score, if needed.**
   Generally you can make Display Quantize settings, add symbols etc as with any Score. However, editing the actual notes is a little bit different from regular notes. See below.

Using "MIDI Channel 1-6"

This feature will make notes automatically appear on the correct string according to their MIDI Channel value.

Normally, the program automatically decides on which string to display a note, by looking at the pitch and then putting the note at the lowest possible string. While you can then manually move note to the correct strings, using the "MIDI Channel 1-6" is automatic, at least if you make the right preparations.

1. **Many guitar synthesizers are able to transmit each string on a different MIDI Channel. If you have such an instrument, set it up so that the highest E string transmits on MIDI Channel 1, the B string transmits on MIDI Channel 2 etc.**

2. **Record the piece. Quantize and edit it as desired.**

3. **Convert the piece into Tablature, as described above, with the "MIDI Channel 1-6" feature activated.**

4. **Now, the notes will automatically appear on the right string.**
   For example if you played a "B" on the low E-string, it will appear as a "7" on that string, not as a "2" on the A-string.

What the Automatic Tablature Function actually does

The following table describes all the changes made to your staff when you automatically create Tablature. This will help you adjust or "undo" anything you like changed. Details about the functions are found in the "Manual Creation" section, below.

Score:	Function:	Setting:
New number of note lines	Staff Options – System Lines	Changed to the number of strings on the instrument
Wider Spacing between note lines	Staff Options – Add Space	Raised to "1"
New Clef	Staff settings – Clef	The Tablature clef is selected
Note heads have numbers	Staff Options – Tablature Mode	Activated
Stems disappear (If "No Stems/ Rests" was used)	Staff Options – Tablature Mode	Activated
Rests disappear (If "No Stems/ Rests" was used)	Staff Options – Tablature Mode	Activated

Manual Creation

To set up an empty system for inputting Tablature, proceed as follows:

1. **Change the Clef to the Tablature symbol.**
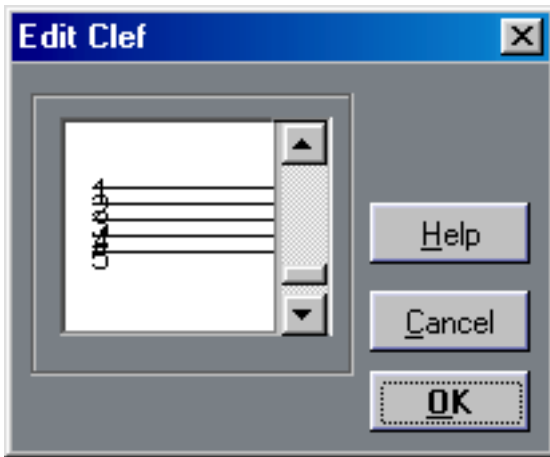
The Tablature clef.

2. **Open Staff Settings and click the "Staff Options..." button.**

3. **Set the "System Lines" to as many strings as the instrument you are scoring for has.**

4. **Raise the Line Spacing value to 1 or 2.**
   You will need a little extra space between note lines to make room for the numbered note heads.
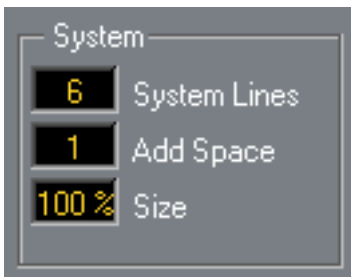
Suggested system line settings for guitar Tablature.

5. **In Staff Options, activate "Tablature".**

Tablature Mode activated.

6. **Set up whatever other parameters you need in Staff Settings and the Staff Options dialog, and close them.**

7. **Select the Note Tool and move the pointer over the score.**

8. **Press the mouse button (without releasing it) and drag up and down until the note appears on the desired string with the correct fret number (you can also verify the actual pitch on the Status bar, as usual).**
When you drag up and down, the program automatically selects the lowest possible string. If you want a fret number higher than 4 on a guitar tablature, for example, you have to use "Move To String", see below.

Setting the correct pitch. The Pitch box on the Status Bar can be used as an additional guide.

9. **Release the mouse button.**
The note appears.

Tablature Number appearance

In the Preferences–Scores–Global Text dialog, you will find text settings for the Tablature numbers. This allows you to select any font, size and style for the number note heads.

Editing

Editing Tablature is done as with any score. You can move notes, handle beaming, stem direction etc, as described in other parts of the manual.

Move Notes to another String

If you want for example a "C" to appear as a "8" on the low E-string rather than a "3" on the A-string, on a guitar, proceed as follows:

1. **Select one note or a number of notes that you all want to move to a new string.**

2. **Pull down the Score menu. From the Staff Functions menu, select Move To String and from that menu select the desired string.**
   The Fret number is automatically adjusted according to the tuning of the instrument (as set up in the Tablature dialog).
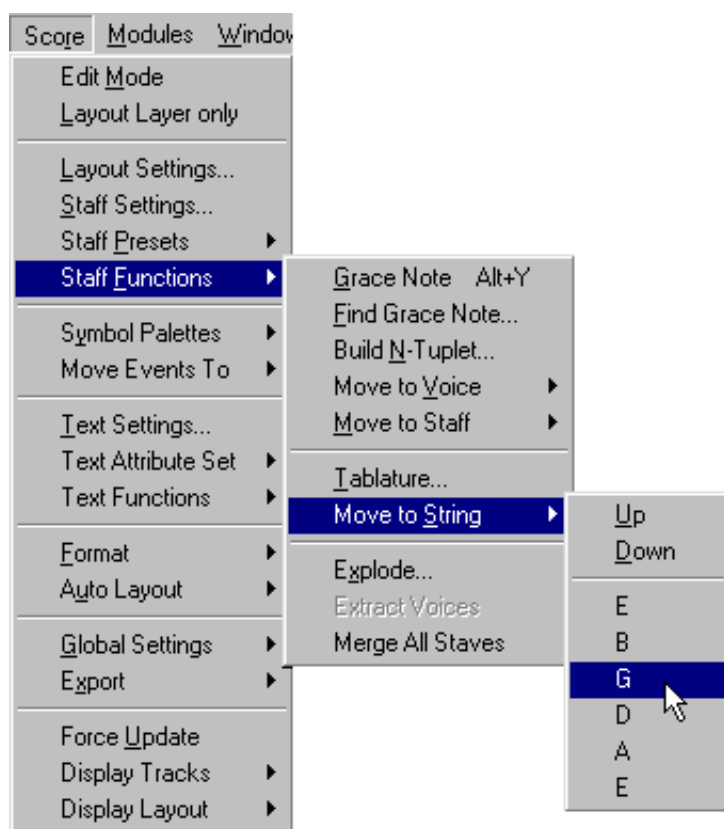
Move To String.

You can also move the notes one string up/down by using the key commands for "Next/Last Dynamic/Text Size/String" (by default the [+] and [–] keys on the type writer part of the computer keyboard).

Moving Notes

Moving notes in pitch in a Tablature score is just as entering notes manually, see above.

Editing on the Info Line

Using the Info line you can change the pitch of notes as usual. The string and fret number will then be updated automatically in the score.

Note Head Shape

If all you want is a fret number for your notes, you can use the Note Info dialog on regular notes.

1. **Double click on the head of a note.**
   The Note Info dialog appears.

2. **Activate the Tablature option and set a fret number in the value field just beside this.**

The Tablature settings in Note Info.

3. **Click Apply and close the dialog.**

16
Printing and Exporting Pages

Printing

Printing from the Score Editor

1. **Go into Page Mode.**
   You cannot print from Edit mode.

2. **Select Print and Page Setup from the File menu and make sure all your Printer settings are correct. Close the dialog.**

❐ **As mentioned earlier in this manual, you should have made settings for paper size, scale and margins before you started working on the page layout. Changing these settings at this point may cause the score to look different.**

---

3. **Select Print from the File menu.**

4. **The standard Windows Print dialog appears. Fill out the options as desired.**

5. **Click OK.**

Printing All Layouts in the Song

If you have made a number of Layouts, for example for different instrumentalists, you can print them all in one go:

1. **Open the Arrangement with the Layouts you want to print.**

2. **If required, select Print and Page Setup from the File menu and make sure all your Printer settings are correct. Close the dialog.**

3. **Pull down the File menu and select Print All.**
   This can be done from the Arrange window or from within Score Edit.

4. **Fill out the dialog and click Print.**
   You will only be asked for Print options once. All following Layouts will print with the settings you make for the first one.

Exporting pages as image files

You can export a section of a page, or a complete page, as an image file in standard Windows Bitmap (BMP) format. This allows you to import your scores into Desktop Publishing and Painting applications.

Selecting a section of a page for Exporting

If you only want to export a part of a certain page, proceed as follows:

1. **Make sure you are in Page Mode.**

2. **Pull down the Score menu and select Select Range from the Export submenu.**
The pointer turns into a cross hair.

3. **Drag over the section of the Score you want to include.**
The area is indicated by a black rectangle.

4. **If needed, adjust the size of the rectangle by dragging its handles (in the corners) with the arrow pointer.**
The selection rectangle disappears as soon as you click elsewhere in the score.

5. **Proceed with Exporting as described below.**

Exporting

To Export the Score, proceed as follows:

1. **Make sure you are in Page Mode.**

2. **Pull down the Score menu and select "Export Score..." from the "Export" submenu.**
The Export dialog appears.
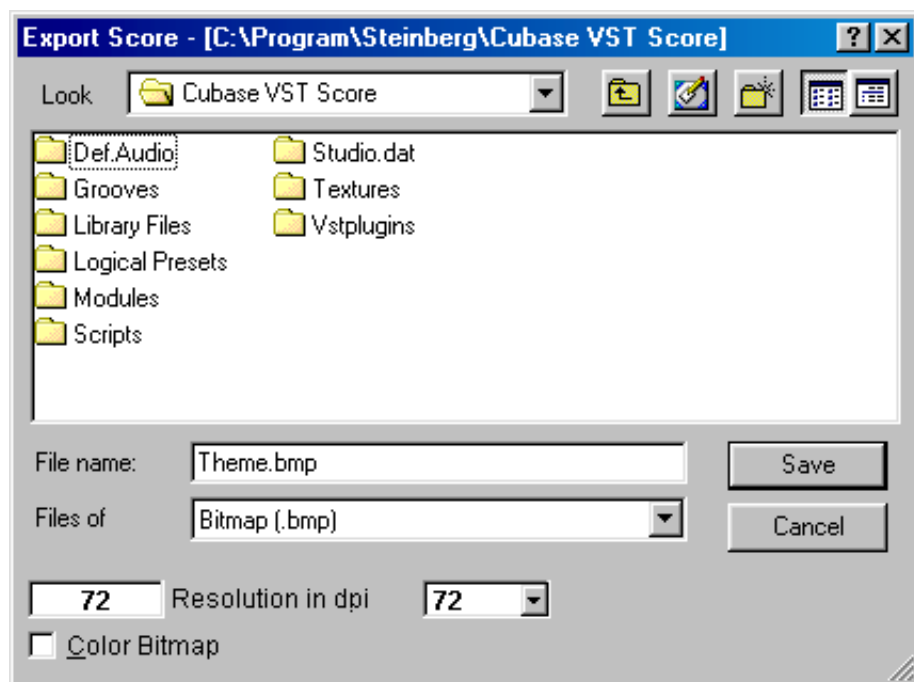
3. **Specify a resolution for the file.**
   This determines the accuracy with which the image will be created. 300dpi, for example, is the resolution most laser printers use for printing. If the image file will only be displayed on screen in other programs, select 72 or 96 (depending on screen resolution) and it will have the same size as it had in VST.

4. **Decide if you want a black and white or color file by activating/deactivating the "Color Bitmap" check box.**
   Do not use color if your score is only black and white, or if it will only be printed on a black and white printer. This is because if you activate color, the file will be much larger than if you don't.

   ❐ **If you export an entire page in 300 dpi and color, you will get a file that is several Megabytes large.**

5. **Specify a name and a location for the file and click "Save".**
   The specified section of the score is exported and saved as a file. It can now be imported into any program supporting the selected file format.

17

The Score and MIDI

In this Chapter you will learn:

- How you can make the score affect the actual MIDI Events.
- What MIDI Meaning is.
- About the link between symbols and Damper Pedal/Program Change Events.
- What Crescendo To Velocity is.
- What Dynamics to Velocity is.

MIDI Meaning

This allows you to make note dependant symbols (such as accents and staccato) affect the actual MIDI Events, so that accents make notes louder, staccato symbols make notes shorter, etc. In the MIDI Meaning dialog you set up which symbols have what effect on the score. Then any note dependant symbols that you add will automatically change the corresponding MIDI notes as specified.

❒ **MIDI Meaning is a "destructive" function, meaning that the notes will be permanently changed (as opposed to the Playback parameters in the Inspector, for example). However, if you later delete the symbols attached to the notes, the notes will be restored to their original length and velocity.**

Setting up the MIDI Meaning Dialog

1. **Pull down the Score menu and select MIDI Meaning from the Global Settings submenu.**
   The MIDI Meaning dialog appears:
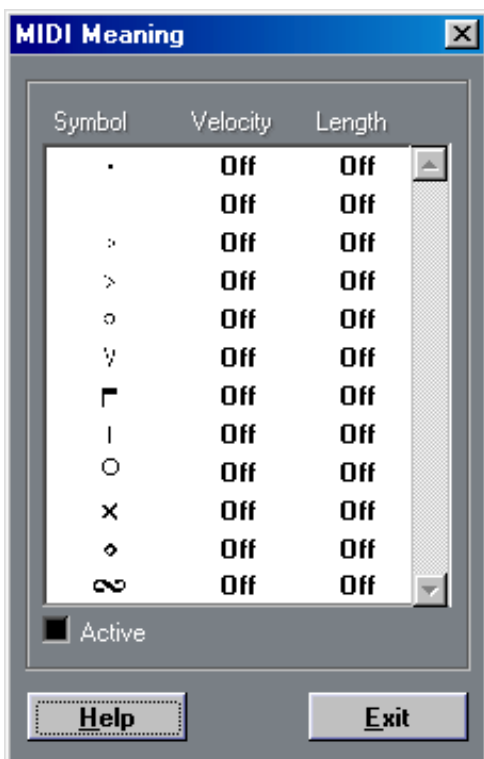
The MIDI Meaning dialog.

2. **Turn on MIDI Meaning by activating the check box labelled "Active".**

3. **Use the value fields to set up the effect of the symbols on the Velocity and Length of notes.**
The values represent a percentage of the note's current values. Values can be in-/decreased in steps of 25%. For accents, for example, you might set Velocity to 150% and Length to "Off". For the Staccato symbol you might set the Length to 50% and Velocity to Off. If a value field says "Off", the corresponding property of the note will not be affected.

4. **Click Exit to close the dialog.**
Now, if you insert one of the note symbols listed in the MIDI Meaning dialog, the corresponding MIDI note will be changed according to your settings. If you want to insert a symbol without affecting its MIDI note, you need to turn off MIDI Meaning first (by deactivating the "Active" checkbox).

• **When MIDI Meaning is activated, you can open the dialog by double clicking on any note symbol in the score (provided it's one of the symbols listed in the MIDI Meaning dialog).**

❒ **To restore a note to its original velocity and length, delete the symbols attached to the notes.**

Damper Pedal Symbols

Damper Pedal symbols (found on the "Other" Symbol Palette) are special, in that they are both graphic symbols and actual Events. This means that if you insert a Damper Pedal symbol in the score, an actual Damper Pedal Event is inserted at the same position. The opposite is also true: if you record Damper Pedal Events (or enter them in another editor), they will be displayed as Damper Pedal symbols in the score.

• **The Pedal Down symbol (🎹) corresponds to a Damper Pedal Event (Control Change #64) with a value of 127. The Pedal Up symbol (�) corresponds to a Damper Pedal Event with a value of 0.**

• **If you have recorded Damper Pedal Events and don't want them to show in the score, activate the option "Hide Pedal Markers" in the Preferences–Scores–Additional Settings dialog.**

Program Change Symbols

Just as with Damper Pedal symbols, there is a link between Program Change Events and Program Change symbols in the score. This means that if you insert a Program Change symbol in the score (from the "Other" Symbol Palette), an actual Program Change Event is inserted at the same position. The opposite is also true: if you record Program Change Events (or enter them in another editor), they will be displayed as Program Change symbols in the score. Note however, that Program Change settings made in the Inspector don't show in the score, since these are playback settings only, not actual Events.

• **If you have recorded or entered Program Change Events and don't want them to show in the score, activate the option "Hide Program Changes" in the Preferences–Scores–Additional Settings dialog.**

Crescendo to Velocity

This function allows you to make a crescendo or diminuendo symbol affect the actual velocity values of the notes in the range. Proceed as follows:

❑ **This function makes permanent changes to your notes!**

1. **Double click on the crescendo or diminuendo symbol.**
   The Process Crescendo dialog appears.
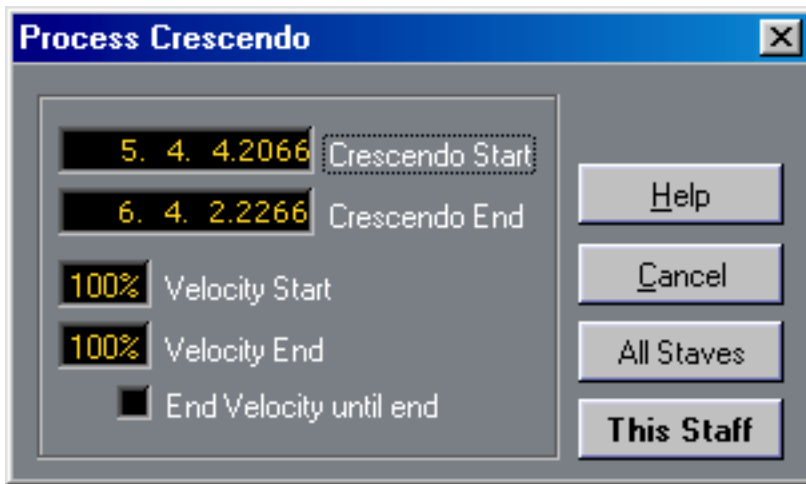
2. **If the Crescendo Start and End positions are not exactly what you want, adjust them in the dialog.**

3. **Use the Velocity Start value to set up the amount of velocity change you want to apply to the note(s) at the absolute beginning of the crescendo.**
   The value is defined as a percentage of original velocity.

4. **Use the Velocity End value to set up the amount of Velocity change to apply to the notes exactly at the end of the crescendo.**

5. **If you want the velocity change specified at the end of the crescendo to be performed on all following notes in the score, activate "End Velocity until End".**

6. **Decide if you want the change to affect the current staff only, or all staves, by clicking the appropriate button.**
   The velocities of the notes in the range are now processed.

Dynamics to Velocity

This function allows you to make a dynamic symbol affect the actual velocity of a range of notes. Proceed as follows:

❑ **This function makes permanent changes to your notes!**

1. **Double click on the dynamic symbol.**
   The Process Dynamics dialog appears.
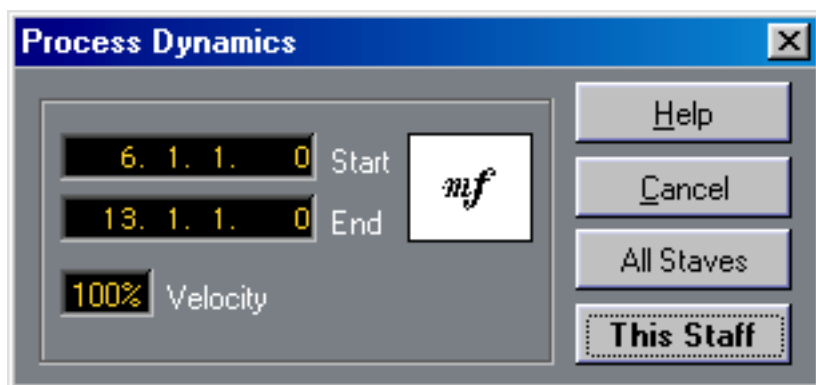
2. **Use the Start and End values to specify the range to which the velocity change should be applied.**

3. **Use the Velocity value to set up the amount of Velocity change you want to apply to the note(s) in the range.**
   The value is defined as a percentage of original velocity.

4. **Decide if you want the change to affect the current stave only, or all staves, by clicking the appropriate button.**
   The velocities of the notes in the range are now processed.

18
Troubleshooting

In this Chapter you will learn:

• Reasons to problems you might encounter and how to solve them.

How to use this Chapter

This chapter contains a number of questions that might arise when you use Score Edit, and answers to each one. For more information about the functions referred to below, please check the previous chapters. If you don't know where to look, use the Index.

Adding and Editing Notes

I enter a note with one value and it is shown as a note with another value.

In the default Song that comes with Cubase VST, the Rest Display Quantize is set to quarter notes. Change this to a smaller note value. Try turning off Auto Quantize, especially if you don't have any triplets or triplets only.

Notes are not displayed on correct positions.

Try raising the Note Display Quantize value.

There are a number of short rests after my notes.

Your Rest Display Quantize might be set to too small a note value. Raise it. Also check Clean Lengths.

When I change the length of a note, nothing happens.

This is because the Display Quantize value puts a restriction on what note values can be displayed. Check that Display Quantize is actually set to the smallest note value you have in your piece.

I have adjusted Display Quantize and the other Staff settings best I can. The notes are still shown with the wrong values.

You might need to use one of three features: inserting Display Quantize Events, using Polyphonic Voicing, or applying Score Note To MIDI.

I change the Display Quantize settings in the Staff Settings dialog and nothing happens.

Maybe you have already inserted Display Quantize Events in the score? These override the Staff settings.

Suddenly many Display Quantize Events appear in the score.

This is not a malfunction. If you have had Auto Quantize on and start inserting Display Quantize Events, the Auto Quantizing is automatically transformed into Display Quantize Events.

One long note is shown as many tied notes.

Do other notes occur at the same positions but with different lengths? Then you need to use Polyphonic Voicing. Are the note(s) syncopated? Then you should try the syncopation feature.

Even though I've tried the above, notes are not tied as I want them.

The way notes are tied in Cubase VST follows basic notation rules. You may need to make exceptions to these rules, by using the Cutflag tool.

I have an unnecessary amount of rests.

Especially with Polyphonic Voicing, superfluous rests may be created. Try turning off rests for one or more voices. You might also leave the rests on in the Polyphonic Voice dialog and then Hide the rests you don't need, one by one.

When using Polyphonic Voices, a number of rests are drawn on top of each other.

As above, you should try Hiding rests (in the Polyphonic Voices dialog), Center Rests and possibly manually moving or hiding rests.

In Polyphonic Voices, notes that are on the same musical position are not displayed exactly vertically above each other.

This is not a malfunction. Cubase VST has built in automatic algorithms for making the score as legible as possible. Sometimes this will include adjustments of the "graphic" position of notes, especially with small intervals like seconds. You can always move the notes using the Layout Tool.

When using Polyphonic Voices, notes with small intervals "collide".

As described above, Cubase VST tries to avoid this, but only for Voices 1 and 2 in the upper Staff and Voices 5 and 6 in the lower. For other Voices, please use the Layout tool to manually move the notes.

An action affects more or less objects (for example notes) than I expected.

Maybe the function uses the To menu? Please note that the To menu choice automatically changes sometimes. For example when you click on one note the choice might switch to "Selected".

When I select a note, nothing is shown on the Info Line.

The note is probably tied to another note. This means that the second note doesn't really exist, it is just a graphic indication that the main note is long. Try selecting the main note instead.

Symbols and Layout

Symbols from the Layout part of the Symbol Palette are sometimes invisible when I open the score.

This is not a malfunction. Those symbols are part of a Layout. If you open the score with another Layout, for example because you open another combination of Tracks, you will see another Layout which might not contain any Symbols at all. See the chapter "Working with Layouts".

I can't select an object on the screen, or I can't select an object without selecting another object.

Use the selection rectangle to drag up (or down) and around the objects. Then hold down [Shift] and deselect all the objects you don't want included, by clicking on them. You should also check out the Lock Layer function.

Symbols have disappeared.

Are they Layout symbols? Then maybe they belong to another Layout than the one you are editing now.

If that is not the reason, maybe you have inserted the symbol into the wrong staff. Please observe the warning on page 188.

A Symbol doesn't move with its Staff. Auto Layout produces far too wide spacing.

Maybe you have inserted the symbol into the wrong staff. Please observe the warning on page 188.

A Note symbol appears too far from the note I wanted it inserted on.

Do you have the correct voice activated? Note symbols are inserted into voices, just like notes.

19

Tips and Tricks

In this Chapter you will learn:

- A number of useful techniques to help you work more efficiently with Cubase Scoring.

❐ **Don't forget to check out the example files in the Score Tutorial folder (within the Cubase VST folder). They provide a lot of hands-on tips on how to use the program efficiently.**

Moving a Note without Transposing it

If you hold down [Shift] while moving a note (or a number of notes), and drag sideways to start with, you don't have to worry about it being transposed. Another way is to press [Ctrl] and use the left and right arrow key to move the selected note(s) to the left or right, in steps corresponding to the Snap value.

Moving and Spacing Several Staves

If you have a number of staves that you want displayed with an equal distance (for example, all strings of a grand staff in a full orchestra score), this can be done using the Position window:

1. **Open the Preferences–Scores–Editor Behaviour dialog and deactivate the option "Global Staff Spacing with [Alt]-[Ctrl]".**

2. **In the score, select the staves that you want to set to an equal distance.**

3. **Open the Position Window (by clicking on the Ruler).**
   If the Staff Spacing values are not visible, you need to click on the window's zoom box.

4. **Use the Delta Previous Staff or Delta Next Staff settings to specify the desired distance between the staves.**
   Don't close the value box yet!

5. **Hold down [Alt]-[Ctrl] and press [Return] to close the value box.**
   All selected staves are spaced according to your settings.

- **If you do this with the "Global Staff Spacing with [Alt]-[Ctrl]" option activated, all staves in the score are affected.**

Polyphonic Voicing Tip

If you are working on a full score with more than one instrument in one staff (2 flutes, 2 trumpets etc), you should use polyphonic voices. And even if both instruments play the same notes, you should insert notes for both instruments (you can mute the notes of the second voice, if playback is an issue). If you do this, it will be much easier to extract single parts later (by using the "Extract Voices" command).

Using the "Move Events To" function

This function on the Score menu can help you work quicker, in the following way:

1. **Create two empty Tracks, one for "Global Text", another for "Important Phrases".**

2. **Pull down the Score menu and select "Edit..." from the Move Events To submenu.**

3. **In the dialog that appears, tick these two Tracks.**
   Now they will be added to the list on the Move Events To submenu.

4. **When working on the scores, copy global form remarks from time to time to the "Global Text" Track.**
   This is done by selecting the object(s), holding down [Alt] and selecting the "Global Text" Track from the Move Events To submenu.

5. **Do the same with important phrases.**

   When it's time to extract single parts from the full score, you can copy form remarks and phrases (for cue notes) from the Tracks into the single parts, thereby saving time and work.

Using the Bar Handles

These are great for copying accents, but you can also use them for copying drum phrases, etc.

• **If you hold down [Shift] and double click on a bar handle, this and the next bar are selected.**
This is handy when copying phrases of two or more bars in one go.

Copying a Section with "Invisibles"

If you want to Copy and paste a section which contains hidden elements, adjusted beams and stems etc, there are two ways to proceed:

• **Use the "Show Invisible" dialog or the Filter Bar to make indicators appear in the score. Then select these indicators together with the notes before you Copy.**
This ensures the notes are copied with their formatting etc.

• **Double click the bar handle of one of the bars, and make sure all relevant Event types are checked in the dialog. Then select the bars you want to copy by [Shift]-clicking their bar handles, and copy them by [Alt]-dragging the bar handles.**

Using "Score Notes To MIDI"

This function converts the score data, as displayed, to MIDI data. You might run into a situation when your score is displayed to 99% of perfection. That last 1% forces you to turn off functions in Staff settings (like Clean Lengths, No Overlap and Auto Quant) which makes the other parts of the score illegible. In this case, try "Score Notes To MIDI". But work on a copy of the Track! For more info, see page 82.

Automatic Enharmonic Shift
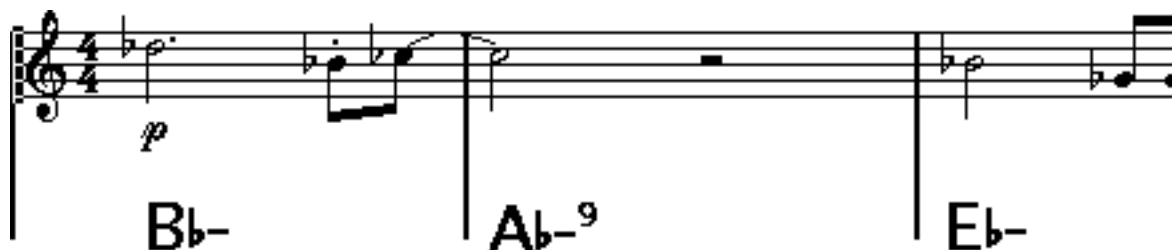
Setting Enharmonic Shifting manually for a big score can take ages. Cubase has a feature that does this automatically if you provide a Chord Track, see page 229.

Optimizing Rests

If you have a number of consecutive empty bars you can replace them with one multiple rest. See page 269.

Zero System Lines

Having no System lines at all might seem like stupid idea to start with. But, this option allows you to create chord sheets really quickly. See the Make Chords feature described on .
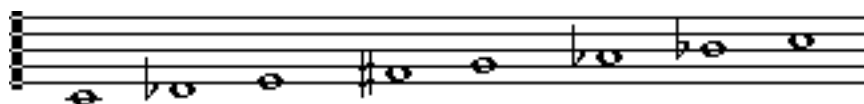
A lead sheet created by specifying "0" system lines.

Examples and Scales

If you are creating scale examples and similar, you can use the Real book option and manually hide all symbols at the beginning of the first staff to make the score appear like separate unconnected "lines".

For scales, remember you can also hide the bar lines.

An example scale without bar lines.

Controlling the order and appearance of Grace Notes

Grace Notes are normally beamed. Their order under the beam is controlled by their order in the Track. It is enough to put a grace note one tick before the next grace note to make them appear in the desired order under the beam.

Initially the grace notes are put in with a 32nd note beam. By double clicking the note and changing the "flag" type in the Note Info dialog, you can change this. If you click the "As Default" button in the dialog, your selection will be used as default for all subsequent grace notes.

Complex grace notes.

Deciding what type of Text to use

Type Of Text:	Application:
Lyrics	Well, not only for lyrics, but also for fingering and hand indications. See below.
Text	For text that should move with a staff and that should appear in all Layouts. For example performance notes.
Page Text	For Layout related text that should stay in place regardless if the staves are moved. For example page footers, copyright notices, sub titles etc.
System Text	Same as Text but for text related to a Layout. For example instrument names.

Using Text Attribute Sets

If you load one of your Songs on a different computer and find that your scores use the wrong fonts, proceed as follows:

1. **Use the Save As dialog on the File menu to save the current settings as a "Preferences" file.**
   This saves all current Preferences as a separate file. Later the owner of the computer can restore his own settings by loading the Preferences file.

2. **Activate "Save with Song" in the Text Atribute Sets Edit dialog.**

3. **Open the Song again.**
   Now the text sets of the Song are used instead of those stored in the Preferences.

4. **If the wrong fonts still are used, make sure all fonts that are defined in your Text Attribute Sets are installed on the computer.**

Adding Left and Right Hand indications to Drum Scores
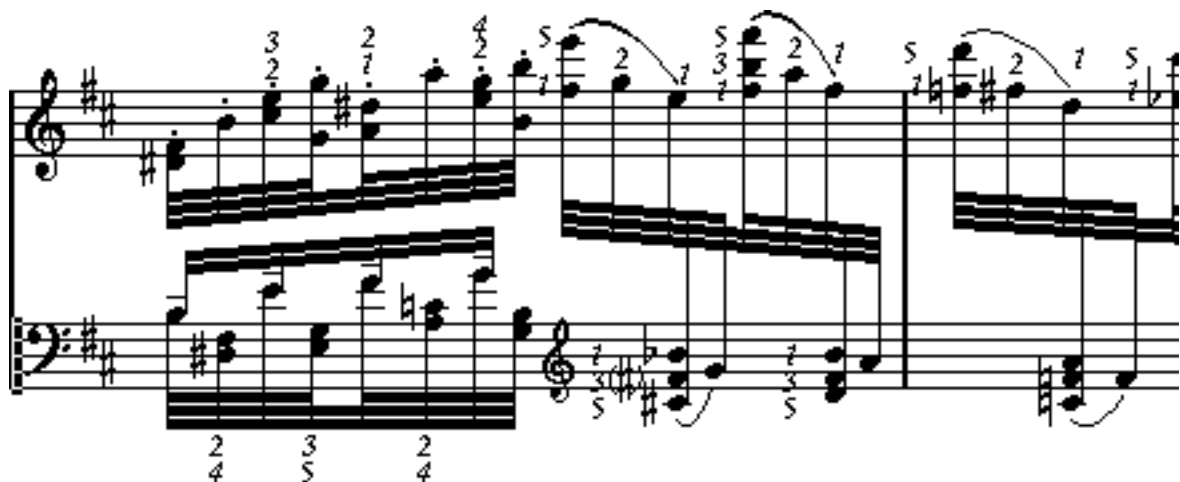
Select all notes to be played with one hand. Select "Lyrics" from the "Other" Symbols Palette. Make sure the "To" menu is set to "All Selected (Events)". Hold down [Alt] and click on one of the selected notes. Type in for example "r" and press [Return]. Proceed with the other hand.

Using lyrics for drum hand indications.

Adding Fingering

The tip above can be used to speed up entering numbers for fingering. Simply replace the text with numbers.

Using Lyrics for fingering.

Speeding up Inserting Key Changes

If you have a grand staff with many instruments, inserting key changes one by one can take an awful lot of time.

If you instead insert the new key on one staff and hold down [Alt] when clicking with the Pen, this key change is inserted on all staves in the Grand Staff.

Speeding up Inserting Staccato and Accents

Symbols linked to notes can also be put in for a number of notes at the same time, even on different staves. See page 190.

Setting the Distance between Staves in a Piano Score

Hold down [Alt] while dragging the first bass staff on the first page. This will copy the spacing to all staves. Please note that this can only be done in Page Mode.

If you wish you had a faster computer

Here are some tips for those who find some operations slower than they would like:

- Work an a smaller section of the score at a time. Break the piece up into Parts and work on those Parts individually until the final layout stage.
- When you are working on the Layout, turn on "Layout Layer Only" whenever possible.
- Switch On Multi Rests as late as possible.
- When working in Edit mode, set Default Bars Across The Page to a small value, for example 2.
- In Edit mode, resize the window so that only one grand staff at a time is visible.
- Consider upgrading your computer hardware.

20
Shortcuts

Multi Edit and Multi Insert

Generally in Score, if you hold down the [Alt] key while performing an operation, this operation will be copied to other parts of the score. Below follows a brief listing of where the [Alt] key is used.

Multi Insert

Element:	Result With [Alt] Pressed:
Dialog Boxes	The settings are copied to all events set up to be affected by the To menu.
Accents, Staccato, and other Note dependant symbols	Inserted on all notes set to be affected by the To menu (This can also be done by selecting Multi Insert from the Do pop-up menu).
Braces	Inserted on all Grand Staves.
Keys Signature Changes	Inserted on all staves in this Grand Staff.
Other symbols, like dynamics, crescendo etc.	Inserted on all staves in this Grand Staff.
Page Text	Inserted at the same position on all pages.

Multi Edit

Element:	Result With [Alt] Pressed:
Bar lines	Moving first or last bar line of a Grand Staff results in proportional width change of all the bars across the page.
Braces	Changing the height of or moving a brace copies the new size and location to all Grand Staves.
Keys & Clefs	Copies the new key/clef to all keys/clefs at the same position.
Symbols not linked to notes	Copies the change to all items set to be affected by the To menu. For example, selected font and size gets copied to other text elements.
Page Text	Edit all Page Text elements at the same position, for example replacing a sentence that was typed in incorrectly.

Get Info

You can "Get Info" about almost any item in the Score. Exactly which dialog box, window or pop-up appears depends on which element you activated. There are three ways to get info for an element in the score:

- **Double click on it.**

- **Select it and select Get Info from the Edit menu.**

- **Select it and press the "i" button on the Score Toolbar**

Get Info

Element:	Menu/Dialog Box/Window:
Bar lines	Select between different types of bar lines.
Notes	Note Info window (change note appearance).
Multiple Rests	Split Rests dialog.
Time Signature	Set Time Signature dialog.
Clefs	A dialog with the different clefs.
Keys	A dialog with all keys.
Accents	If MIDI Meaning is activated, and the particular symbol is listed in the MIDI Meaning dialog, then the MIDI Meaning dialog opens up.
Page Numbers	The Preferences–Scores–Page Numbering dialog.
Bar Numbers	The Bar Number Offset dialog.
Staff Names	A name box. Note that when you are editing the Staff name, you may be changing the name of the actual Track or just the Staff name used in the scores, depending on the Staff Name settings in the Layout Settings dialog.
Crescendo	Process Crescendo dialog.
Lines and Boxes	The Edit Line Attributes dialog.
Tempo Symbol	Lets you edit the note value for the tempo calculation.
Change Tempo Feel Symbol	Two different pop-ups depending on which half of the symbol you clicked. Used to set up one type of note to be interpreted as another type of note.
Guitar Symbol	Edit the chord.
Chord Symbols	Edit the chord.
Scale Elements	Edit key or scale depending which half of the symbol you clicked.
Score Title	Edit title, comment and copyright, plus font, style and size settings.
Text	Edit text.

"Context Menus" for symbols and other objects

You can edit many of the objects in the score by holding down [Ctrl] and clicking with the arrow tool. This opens a "context menu", a palette or similar, allowing you to quickly change the properties of the object.

- **The adjustment you make affects all selected objects of the same type (taking the To pop-up menu into account).**
  This allows for quick editing of multiple objects.

  The following object types support this feature:

Object:	Result of [Ctrl]-clicking:
Note	Allows you to adjust the length of the note, in multiples of the current Snap value.
Note symbols	Opens a palette allowing you to select another symbol of the same general type (another type of accent, another fermat sign, etc).
Dynamic symbols	Opens a palette allowing you to select another dynamic symbol.
Crescendo symbols	Allows you to "flip" the crescendo direction.
Chord symbols	Opens a pop-up menu listing the chord types stored in the Chord Library. Selecting an item from the pop-up menu will only change the chord type and tension - the root and bass notes are not affected.
Guitar chord symbol	Opens a pop-up menu listing the guitar chords stored in the Guitar Library.
Text (all types)	Opens a pop-up menu listing all defined Text Attribute Sets.

Index