CUBASE *Score*

VST Native Audio

f o r   M a c i n t o s h

Scoring Tutorial

D E M O   v e r s i o n

Steinberg

Operation Manual by Ernst Nathorst-Böös and Ludvig Carlson.

2

Scoring Tutorial

Introduction

Welcome to the Cubase Demo Scoring on-line documentation! Please use one of the methods described below to quickly find the desired information:

- **Use the Table of Contents provided by the Adobe Acrobat Reader program.**
- **Use the Adobe Acrobat Reader Search function.**
- **Click on a cross-reference (green text) to jump to the respective topic.**

It is of course possible to print out this document or parts of it.

Additional Information on how to use the Adobe Acrobat Reader program can be found in its on-line Help.

What this document contains

This chapter is an excerpt from the Cubase "Score Layout & Printing" book . It contains a tutorial introducing you to Cubase's scoring capabilities. You will learn:

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

● Since this is an excerpt from a bigger book, some references to other texts and chapters will not be accurate.

Tutorial 1 – Clicking in Notes

In this short Tutorial you will find out how to open the Score Editor and click in 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 Autoload Song that comes with the program.

2. Make sure Track 1 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.
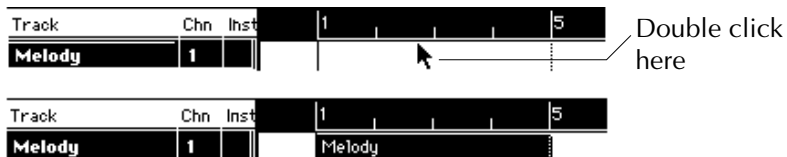
Double clicking between the Locators creates a Part.
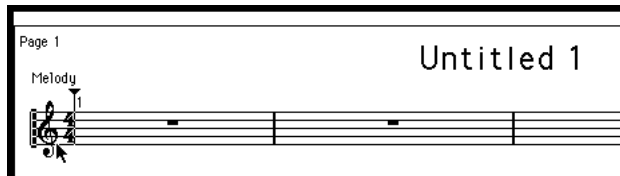
4. Pull down the Edit menu and select "Score".

5. Pull down the Score menu and select Page Mode.

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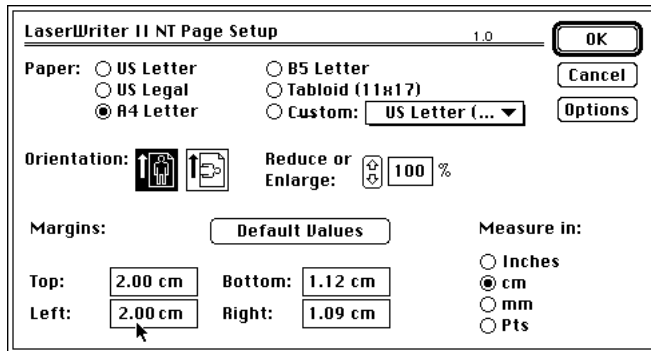

Selecting Page Mode...

...makes the Score appear as on a page.

6. Pull down the File menu and select Page Setup.

7. Click on the "Default Values" button.


```
LaserWriter II NT Page Setup                    1.0        ( OK )

Paper:  ○ US Letter        ○ B5 Letter                   ( Cancel )
        ○ US Legal         ○ Tabloid (11x17)
        ● A4 Letter        ○ Custom:  US Letter (... ▼   ( Options )

Orientation: [figures]      Reduce or  [⇕] 100 %
                            Enlarge:

Margins:         ( Default Values )          Measure in:

                                             ○ Inches
Top:    2.00 cm   Bottom:  1.12 cm           ● cm
Left:   2.00 cm   Right:   1.09 cm           ○ mm
                                             ○ Pts
```

Page Setup with the correct margins.

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.
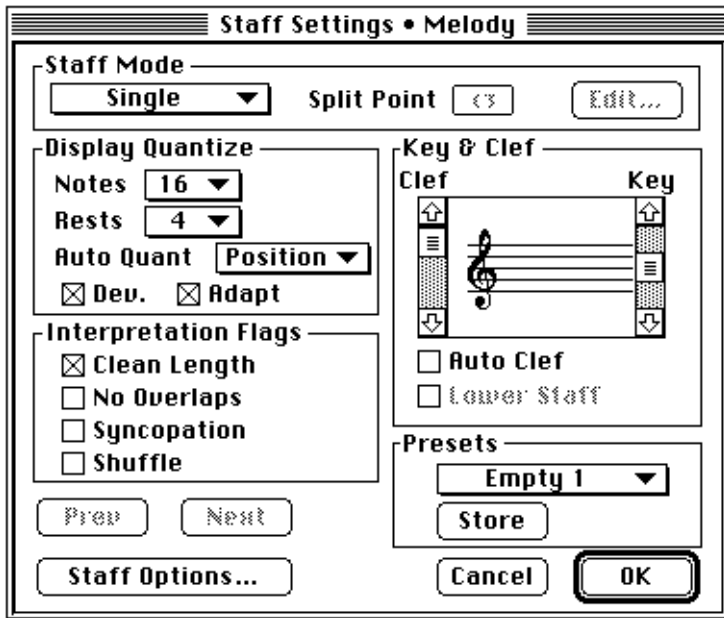
Making Staff Settings

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 Score menu and select the item "Staff Settings...".
A dialog box appears.

Staff settings.

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

If you examine the Score, you will see that the smallest note value that occurs, is eighth notes. Also the smallest rest that occurs is an eighth note rest. We will now "feed this information" into the staff.

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

4. **In the same section, pull down the Rest menu and set this to "8", too.**

5. **Since the piece is simple, and doesn't contain any triplets, pull down the Auto Quant menu and set it to Off.**

6. **Since 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.**

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).
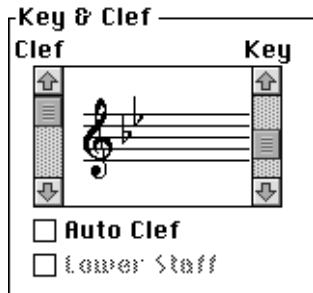
The Key Signature/Clef part of Staff Settings.

**10.Close the Staff Settings Dialog.**

Using Undo

If something goes wrong when you proceed with the steps below, please remember that 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 menu and set it to "8".
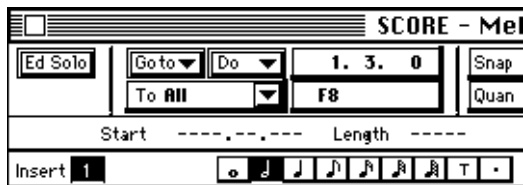This will restrict your input to eighth notes. You will now *not* be able to input notes at sixteenth note positions, but that's exactly what we want, right?

Snap 16	▼
OFF	·············
3	2 4
6	5 7
64	T .
32	T .
16	T .
8	T .
4	T .
2	T .
1	T .
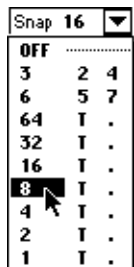
The Snap menu.

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

The 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 to the right of the pop-up menus.

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 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 note that the note is magnetic to 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.

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.
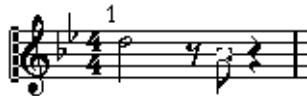

The first bar with the second note added.

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.
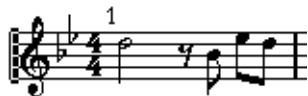
The first bar finished!

**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 Toolbar.

The Mouse pointer takes on the shape of a half note.

14. Hold down the [Option] key and click on the note that has the wrong length.

Its length changes to a half note.
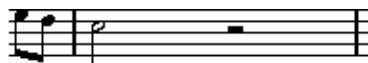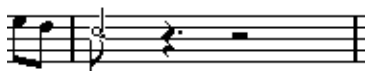
Clicking with the Note tool and [Option] changes the length of the note.

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 note values smaller than quarter notes (you can try changing the Rest Display Quantize value too — or instead — if you like).

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 Display Quantize back to eighth notes, both for Notes and Rests.

Adding some Lyrics

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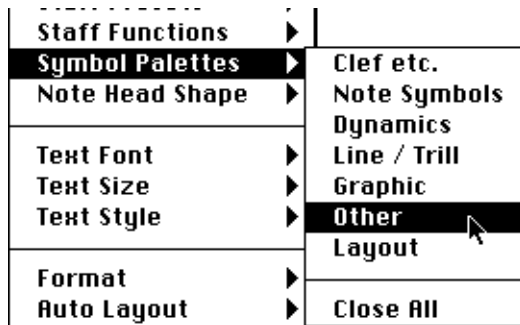
Selecting the "Other" Palette.

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

The "Other" part of the Symbol Palette.

3. Select the Pen from the Toolbox.

The Toolbox with the Pen selected.

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

Positioning the pointer under the first note.

5. 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.

6. 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.

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

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

9. 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.

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

11.Pull down the Score menu. From the hierarchical "Auto Layout" menu, select "Move Bars".
The measure spacing gets adjusted to make the lyrics readable.

Auto Layout and its sub-menu.

The finished score.

12.Double click on the text Untitled at the top of the screen and type in your title of the "song" in the first field. Click OK.

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, and assumes you are at least vaguely familiar with how to move notes etc.

On one of the Cubase disks you will find a file called Tutorial2. 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. Below we will explain how to use this feature.

Examining the recording

1. **Load 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 are not in Page mode already, select Page Mode from the Score menu.**

5. Examine the piece.

Right now it should look like this:

The score as recorded.

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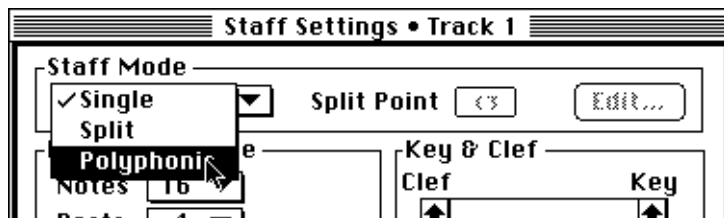

The score after formatting and editing.

Basic Settings

1. Double click on the 4/4 symbol in the score, click on the Cut Time symbol and click OK.
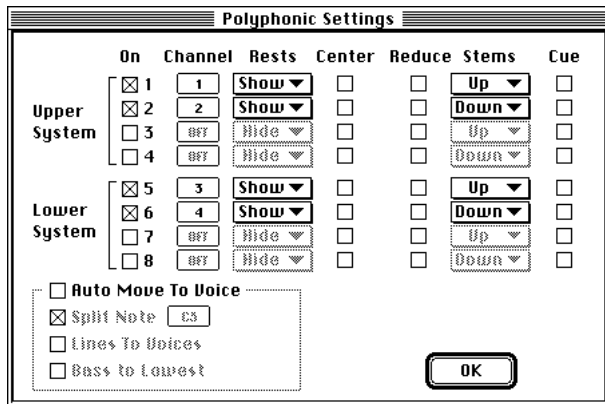

The "Cut Time" time signature symbol.

2. Select Staff Settings from the Score menu.

3. Select Polyphonic from the Staff Mode pop-up.

The Staff mode pop-up at the top of Staff Settings.

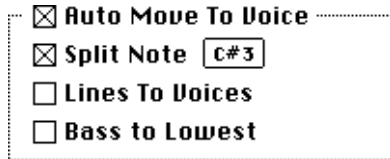## 4. Click the Edit button.

The Polyphonic Voices 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 Voice" 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 Voice. Activate Split Note and set it to C#3. Make sure Lines To Voices and Bass To Lowest are turned *off*.

☒ Auto Move To Voice
☒ Split Note [C#3]
☐ Lines To Voices
☐ Bass to Lowest

Set up Auto Move To Voice like this.

6. Click OK.

7. Since the smallest note in the score is an eighth note, 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 the Auto Quant pop/up is set to None.
Auto Quantize is best used when you have mixed regular notes and triplets, which we don't in this example.

- 28 -

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.

```
┌─Interpretation Flags ──────
│  ☐ Clean Lengths
│  ☐ No Overlap
│  ☐ Syncopation
│  ☐ Shuffle
└──────────────────────────
```

All Interpretation Flags turned off.

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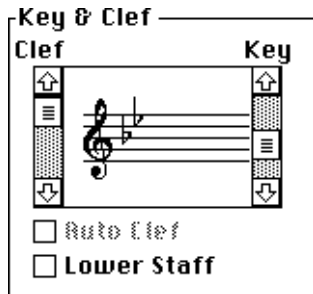
12. Check the "Lower Staff" checkbox to check you have the right clef and key (bass clef – two flats) for the bass staff.

13. Click OK.

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

The Auto Layout button on the Toolbar.

The score should look like this:

The score after using "Auto Move To Voice.

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 seems 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.

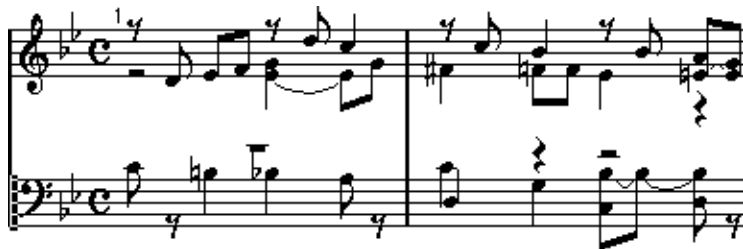The rectangle should look like this:

so that the following notes get selected:

2. Pull down the Score menu and select Staff Functions and select "Move To Voice". From the graphic menu that appears, select Voice 6. 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 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 Toolbar.

Insert **1** 2
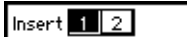
Voice 1 selected on the Toolbar.

5. Click on the eighth note symbol on the 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" menu 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.

```
┌─ Interpretation Flags ──
 ☒ Clean Lengths
 ☐ No Overlap
 ☐ Syncopation
 ☐ Shuffle
```

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.

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

5. Click on the Voice 1 button on the Toolbar.

6. Click on the eighth note on the 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.

7. Click on the quarter note on the Toolbar.

8. Hold down [Option] and click on the note.
The tie goes away.

Before and after changing the length of the note.

9. 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.

10.Select the new note, if it isn't already selected. Then click on the »H« (abbreviation for Hide) button in the Toolbar

The accidental hidden with the Enharmonic Shift "Hide" function.

11.Change the length of the A#3 at the second beat to the eighth note it should be.
Select the eighth note on the Toolbar, hold down [Option] and click on the note.

12.Move the third 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 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 [Option]-[1].

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

14.There's a D#3 eighth note missing on the third quarter, in Voice 1. Draw it in.
Don't forget to select Voice 1 before you click.

15.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 [Option] and press [2].

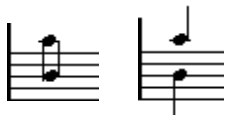The Score should now look like this.

The score as it should look at this point.

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 it is followed by, disappears.

- 41 -

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 A#2.
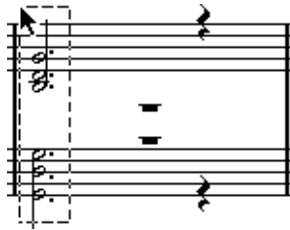
It is split into two notes.

Before and after splitting.

5. The A#2 in the last bar should be on to 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. Click on the whole note on the Toolbar.
Check the "To" menu, it is now automatically set to "All Selected".

3. Select Fixed Length from the main Functions menu.
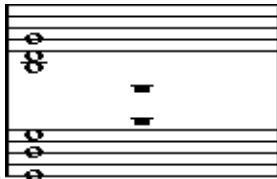
The notes in the last bar lengthened to whole notes.

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.
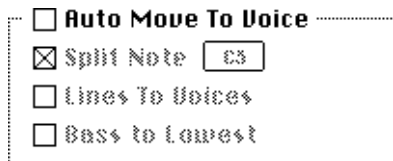
1. Open Staff Settings.

2. Click on the Edit button.

3. For Voice 2 and 5, set the Rests column to "Hide".

Polyphonic settings with some voices' rests set to "Hide".

4. Make Sure Auto Move To Voice is *not* activated, and click OK in this dialog and the one behind it.
Auto Move To Voice 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 Voice ─────────┐
│  ⊠ Split Note  [ C3 ]           │
│  ☐ Lines To Voices              │
│  ☐ Bass to Lowest               │
└─────────────────────────────────┘
```

Auto Move To Voice 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! Let's shorten it.

5. Close the Edit window by pressing [Return] or clicking in the close box to the left of the window's title bar.

6. Once back in the Arrange window, select the Pen from the Toolbox.

7. Click on the Part, just at the beginning of the fourth bar.
The Part gets shortened.

8. Open Score Edit again and examine.

Piano

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 Toolbar.
The program decided to use the width of the entire page. Maybe that's not ideal for this piece which is only three measures.

The Auto Layout button on the Toolbar.

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

3. Position the pointer over the last bar line, press the mouse and drag a couple of centimetres to the left.
All the bars get proportionally compacted.

4. To adjust the width of the last bar only, hold down [Command] and drag the last bar line again.
Don't make it too narrow, 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.
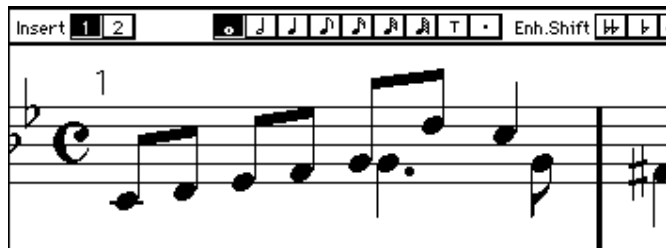
5. Select the Layout Tool from the Toolbox.

The Layout Tool in the Toolbox.

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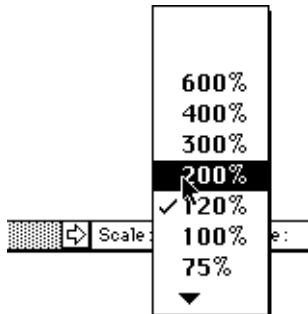
The magnification pop-up is to the right of the scroll bar.

7. Use the scroll bar so that you 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 menu that appears, select "Dynamics".
The Dynamics symbols palette appears.

2. Click on the mf symbol in the palette.

The Dynamic" part of the Symbol Palette, with the mezzo forte symbol selected.

3. Select the Pen from the Toolbox.

4. Move the pointer into the score and click where the "mf" should be.

5. Click on the downwards slur symbol in the palette.

The downwards slur in the Toolbox.

6. Make sure the Pen is still selected.

7. Move the pointer to the position where the slur should begin.

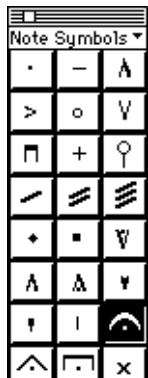**8. Press and hold the mouse. Drag the pointer to where the slur should end. Release the mouse button.**

The slur – selected after insertion.

9. Insert the two crescendo symbols in the same way.

10.From the Palette's pop-up menu at the top, select "Note Symbols".

11. Click on the fermat we need.

A fermat selected in the Palette.

12. Make sure Voice 1 is selected on the 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 & Tr.".

17. Click on the "arrow up" arpeggio.

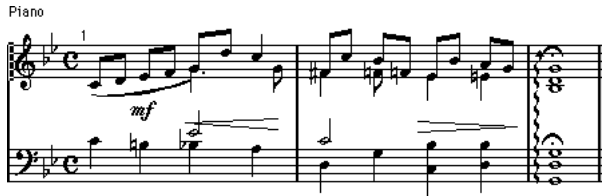**18. Click just before the notes in the last measure.**
The arpeggio appears.

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!