

Abu Hassan.

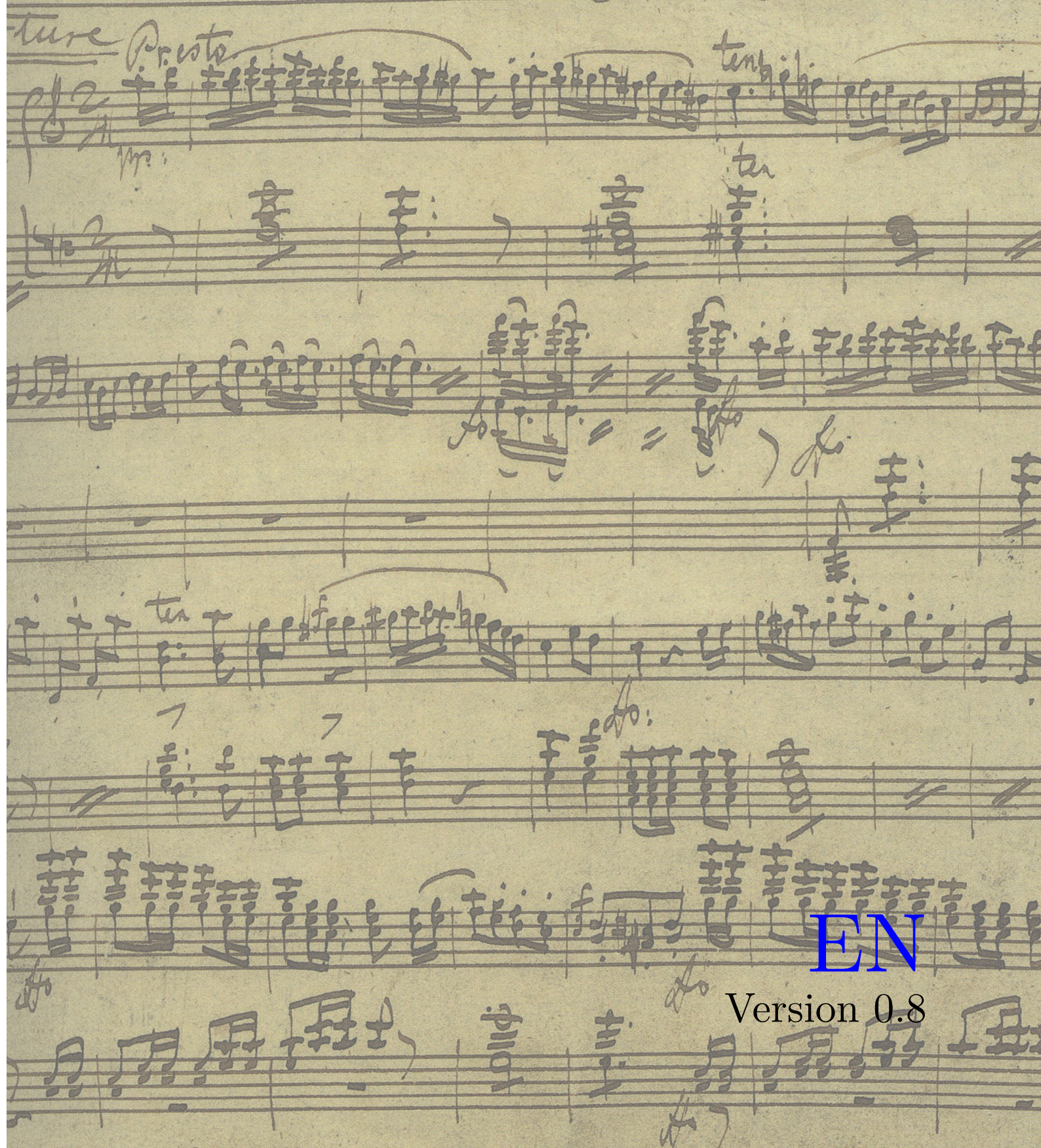
Oper in 1 act.

gedirft von J. F. ...

Vollständige Opern-Ausgäbe von C.

MuseScore

Manual



EN

Version 0.8



MuseScore is hosted on SourceForge:  
<http://mscore.sourceforge.net/>

MuseScore uses the Lilypond Typesetter fonts.  
This document was created using pdfT<sub>E</sub>X and the macro package ConT<sub>E</sub>Xt.

©2005-2007 Werner Schweer and Others

# Inhalt

1	Introduction	5
1.1	What is MuseScore?	5
1.2	Short Guide	5
1.2.1	Program Start	5
1.2.2	Create a new score	6
1.2.3	Note Entry	6
1.2.4	Edit	7
1.2.5	Print	7
2	Reference	9
2.1	Program Start	9
2.2	Menus	9
2.2.1	File Menu	9
2.2.2	Edit Menu	10
2.2.3	Create Menu	10
2.2.4	Notes Menu	11
2.2.5	Layout Menu	11
2.2.6	Style Menu	11
2.2.7	Display Menu	11
2.2.8	Help Menu	12
2.3	Note Entry	12
2.3.1	Keyboard entry	12
2.3.2	Note entry with mouse	13
2.3.3	Note entry with midi keyboard	13
2.3.4	Select	13
2.3.5	Accidentals	13
2.3.6	Modify	14
2.4	Slurs	14
2.5	Instruments	15
2.6	Text	15
2.7	Fingering	15
2.7.1	Liedtext	15
2.8	Beams	16
2.9	Symbols	16
2.10	Attributes	16
2.10.1	Unvisible	16
2.10.2	Color	16
2.11	Navigation	16
2.11.1	Zoom	17
2.12	Palettes	17
2.12.1	Copy + Paste	17
2.13	Layout	17
2.13.1	Page layout	17
2.13.1.1	Page settings	17

2.13.2	Layout	17
2.13.3	Spacing	17
2.14	Styles	17
2.15	MuseScore File format	18
3	Installation	21
3.1	Download	21
3.2	Requirements	21
3.3	Compile	21
3.3.1	Configure	21
3.3.2	Make	21
3.4	Installation	22
4	Keyboard Shortcuts	23
5	Design & Implementation	25
5.1	Main Structure	25
5.2	Layout Object Hierarchy	26
6	Examples	27
6.1	Bilder einer Ausstellung – Promenade, Modeste Mussorgsky	28
6.2	Invention No1, J.S.Bach	28
6.3	Invention No6, J.S.Bach	28
7	Index	28

# 1 Introduction

## 1.1 What is MuseScore?

MuseScore is a WYSIWYG (What You See Is What You Get) program to create printed score.

MuseScore is "Open Source" and published under the GNU General Public License (GPL) (see Appendix).

Some highlights:

- WYSIWYG Design, notes are entered on a "virtual notesheet"
- MuseScore uses TrueType fonts for printing and screen display. This allows for high quality scaling to all sizes.
- Notes can be entered fast and simple by only using the keyboard.
- MusicXML import/export
- Midi (SMF) import/export
- Midi input for note entry
- Integrated sequencer and software synthesizer to play the score.
- Print or create PDF files.

## 1.2 Short Guide

### 1.2.1 Program Start

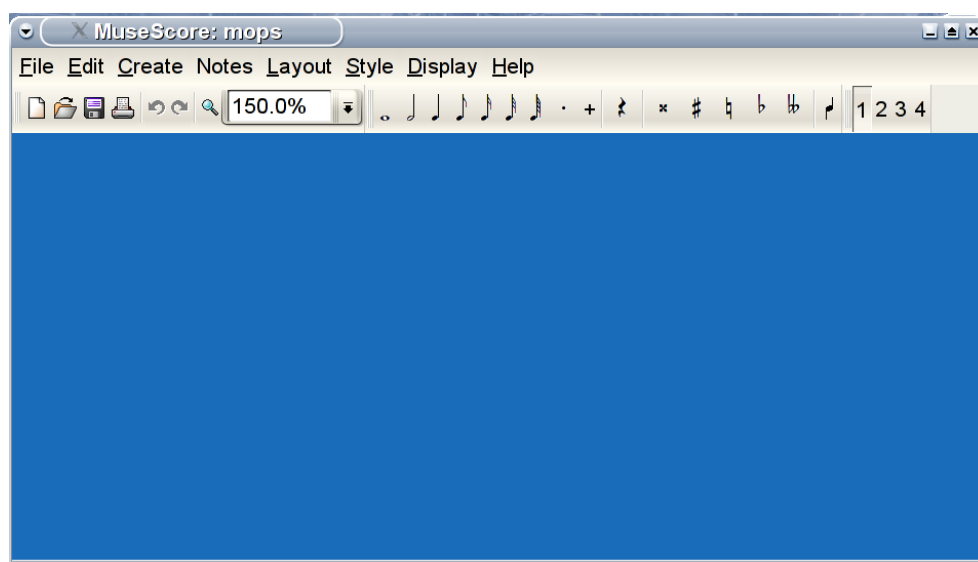


Abbildung 1.1 Empty main window

After entering

```
mscore
```

the last project will be displayed. Starting MuseScore the first time an empty main window will be displayed. (Abb. 1.1).

The window has three areas:

- menu bar
- tool bar
- empty note canvas

### 1.2.2 Create a new score

To create a new note sheet enter **Strg+N**. A dialog containing a list of templates to select from appears. (Abb. 1.2).

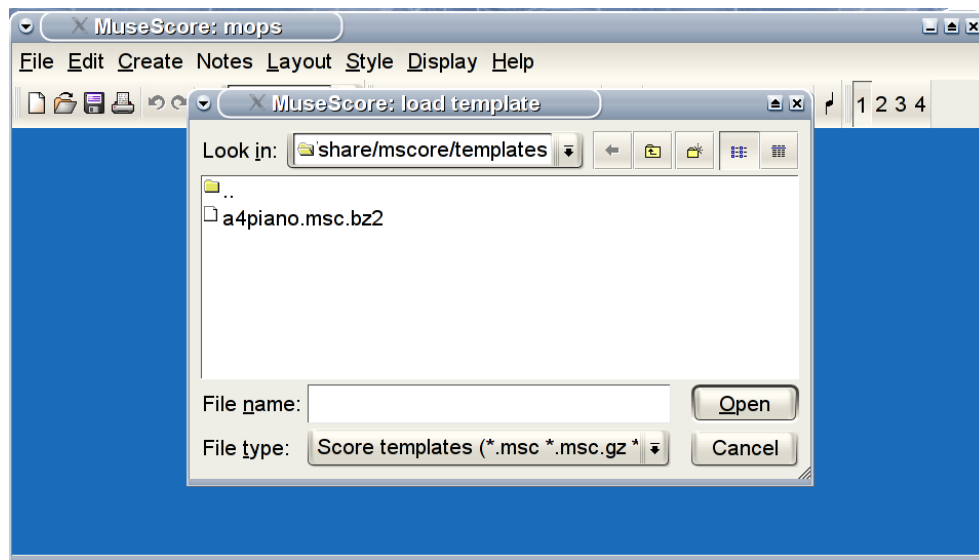


Abbildung 1.2 Template selection

After selecting `a4piano.msc.bz2` we leave the dialog by entering **OK**.

On the main window canvas a worksheet with the selected template will be displayed, in our example two note lines connected with a brace. A clef is displayed and the time signature is set to 4/4 on default. The note lines are populated with some measures filled with rests.

### 1.2.3 Note Entry

Now we want to enter some notes. For this we select the first rest by clicking at it. Then we enter "note entry mode" by entering **N**. The cursor changes to show the entry mode. An insert cursor also appears.

To populate the empty measures with notes we simply type "c d e" on the keyboard.

```
name: dummy
file: noten1
state: unknown
```

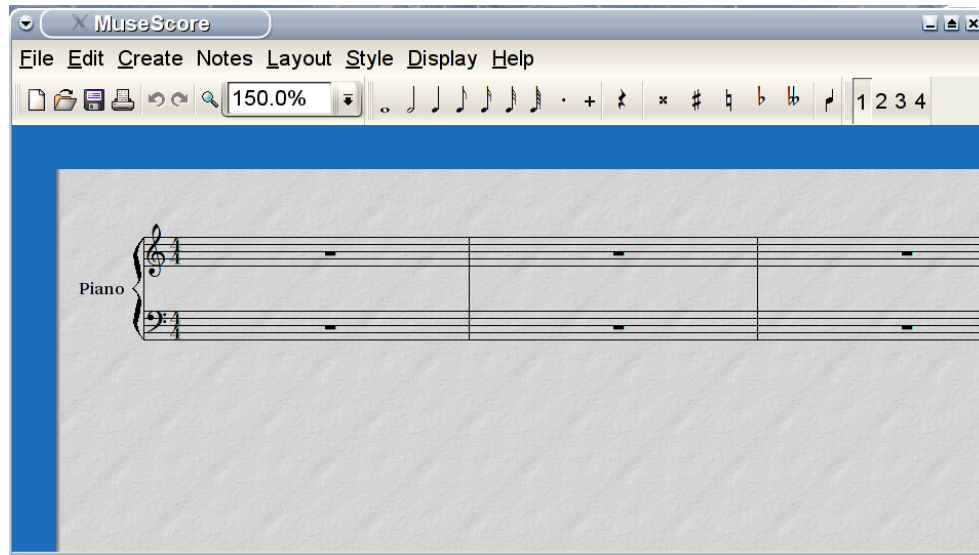


Abbildung 1.3 Empty piano system

### 1.2.4 Edit

Some actions:

- you can move the note sheet on the canvas with pressed left mouse key
- pressing **Strg+M** appends a new empty measure to the score
- the magnify glass tool magnifies the canvas

### 1.2.5 Print

Pressing the print button starts the KDE print dialog. MuseScore creates postscript printer data which KDE sends to the printer or which can be redirected into a file. This also allows for direct creation of pdf files.

**Tip:**

To create score examples for a book, create a partitur page with a small page format as A5 and rotate the page (landscape option). After exporting the score to PDF, the empty margins can be removed with the utility **pdfcrop**. The result can be easily integrated in a ConTeXt document. This is how the score examples in this manual are created.





## 2 Reference

### 2.1 Program Start

MuseScore can be started from the commandline with

```
mscore <options> <file name>
```

`options` und `file name` are optional.

There are the following command line options:

- v** displays the MuseScore version number
- d** start MuseScore in debug mode
- s** disable the integrated software synthesizer
- m** disable midi input support
- h** help: show available options

MuseScore accepts the following file types:

- \*.msc** MuseScore partitur file
- \*.mss** MuseScore style file
- \*.xml** MusicXML file
- \*.mid** midi file

Starting MuseScore without file name loads the last edited partitur.

MuseScore writes/reads two additional files in the background:

- ~/.mscore** MuseScore configuration data
- ~/.mscorePrj** contains the last edited scores

### 2.2 Menus

Many menu options are also available as buttons in a toolbox.

Menus and keyboard shortcuts:

- Alt+F** File
- Alt+E** Edit
- Alt+C** Create
- Alt+N** Notes
- Alt+L** Layout
- Alt+S** Style
- Alt+D** Display
- Alt+H** Help

#### 2.2.1 File Menu

**New (Ctrl+N)** creates a new note sheet. You have next to create instruments and some empty measures.

**Open** opens a saved score

**Open Recent** shows a list of last edited scores. Click on a score to open it.

**Save** save the current score to disc.

**Save As** saves the current score to disc with a selectable different name.

**Export Midi** export the current score as MIDI file.

**Export MusicXML** export the current score as MusicXML file.

**Import Midi** import a midi file and display as score.

**Import MusicXML** import MusicXML file

**Print (Ctrl+P)** print the current score

**Quit** quits MuseScore.











	<b>N</b> ew	Ctrl+N
	<b>O</b> pen	Ctrl+O
	Open <b>R</b> ecent	
	<b>S</b> ave	Ctrl+S
	<b>S</b> ave <b>A</b> s	Ctrl+A
	<b>E</b> xport Midi	
	<b>E</b> xport MusicXML	
	<b>I</b> mport Midi	
	<b>I</b> mport MusicXML	
	<b>P</b> rint	Ctrl+P
	<b>Q</b> uit	Ctrl+Q

Abbildung 2.1

## 2.2.2 Edit Menu

**Undo** undo the last edit. There are unlimited undos.

**Redo** "Undo" the last undo command.

**Cut**

**Copy**

**Paste**

**Instrument List** shows the instrument list.

**Page List** shows the page list. This is a debug options useful for debugging. The page list is a MuseScore internal data structure.

**Preferences** shows the preference dialog.






	<b>U</b> ndo	Ctrl+Z
	<b>R</b> edo	Ctrl+Y
	<b>C</b> ut	Ctrl+X
	<b>C</b> opy	Ctrl+C
	<b>P</b> aste	Ctrl+V
	<b>I</b> nstrument List...	
	<b>P</b> age List...	
	<b>P</b> references...	

Abbildung 2.2

## 2.2.3 Create Menu

**Instruments** opens the instrument dialog. You can add/remove/move instruments of your score in the instrument dialog. You can also add additional note lines to an instrument.

**Measure** appends an empty measure to the score. The measure is filled with a rest.

**Clef** shows the clefs palette

**Key** shows the keys palette.

**Time** shows the time signature palette.

**Lines** shows the lines palette(crescendo etc.)

**Note Attributes** shows the note attributes palette

**Dynamics** shows the dynamics palette

**Text** shows the text submenu

**Symbols** shows the symbol palette

<b>I</b> nstruments...	<b>I</b>
<b>M</b> easure	Ctrl+B
<b>B</b> ars...	
<b>C</b> lef...	Y
<b>K</b> ey...	K
<b>T</b> ime...	T
<b>L</b> ines...	L
<b>N</b> ote Attributes...	
<b>D</b> ynamics...	L
<b>T</b> ext...	
<b>S</b> ymbols ..	Z

Abbildung 2.3

## 2.2.4 Notes Menu

**Input** switches to note entry mode

**Add Pitch** shows another submenu with note values to enter

**Add Intervall** shows a list of intervalls to select from to create chords

**N-Tole** shows a submenu to create irregular note values (trioles pentoles etc.)

	Prime	1	
	Sekunde above	2	
	Terz above	3	
	Quart above	4	
	Quinte above	5	
	Sexte above	6	
	Septime above	7	
	Oktave above	8	
	None above	9	
	Sekunde below	Shift+2	
	Terz below	Shift+3	
	Quart below	Shift+4	
	Quinte below	Shift+5	
	Sexte below	Shift+6	
	Septime below	Shift+7	
	Oktave below	Shift+8	
	None below	Shift+9	
A Shift+A			duole Ctrl+2
B Shift+B			triole Ctrl+3
C Shift+C			pentole Ctrl+5
D Shift+D			
E Shift+E			
F Shift+F			
G Shift+G			

Input	N
Add Pitch	▸
Add Intervall	▸
N-Tole	▸

Abbildung 2.4

## 2.2.5 Layout Menu

**PageSettings** shows the page settings dialog.

**Reset Positions** resets all marked objects to there standard positions. This undos all manuall moving of objects. This also flips note stem direction back to default.

**Set Normal Staff Distances** resets modified note line distances back to there standard values.

**Reset Stretch** resets stretched measures back to there normal width

**System Break** creates a line break after the marked measure

**Page Break** creates a page break after the marked measure

Page Settings...
Reset Positions
Set Normal Staff Distances
Reset Stretch
System Break
Page Break

Abbildung 2.5

## 2.2.6 Style Menu

**Edit Style** shows the style editor

**Edit Text Style** shows the text style editor

**Load Style** load a new style from file.

**Save Style** writes the current style to disc



Edit Style...
Edit Text Style...
 Load Style
 Save Style

Abbildung 2.6

## 2.2.7 Display Menu



**Pad** show the input pad

**Play Panel** show the play panel

**Transport Toolbar** show the transport toolbar

**Show Invisible** If you switch this option on, invisible note elements are displayed in gray. Dies enables editing.

<b>Pad</b>	<b>F10</b>
PlayPanel	F11
Transport Toolbar	
<input checked="" type="checkbox"/> <b>Note Input Toolbar</b>	
Show Invisible	

Abbildung 2.7

## 2.2.8 Help Menu

**Browser** starts the configured online help browser

**About** show the about panel

**About Qt** show infos about the Trolltech Qt GUI-Toolkit.

**Whats This** after clicking the "whats this" cursor appears. Clicking on any GUI-Element shows a help text for this element (if any help text is assigned to this element).

<b>Browser</b>	<b>F1</b>
<b>About</b>	
AboutQt	
What's <u>T</u> his	Shift+F1

Abbildung 2.8

## 2.3 Note Entry

MuseScore is always in one of two modes:

- **edit mode**, (normal) shows a normal arrow cursor
- **input mode**, shows an up arrow cursor

**N** begin note input mode  
**Esc** end note input mode

**Hint:**

In input mode all pad or toolbar settings are for the next note to enter. In normal mode changing pad or toolbar settings directly modify the selected note.

Entry mode is activated by clicking a note in the pad or by typing N.

### 2.3.1 Keyboard entry

Note can be entered by typing

**a b c d e f g**

Notes are entered at the current position. The current position can be set by clicking at a note or rest is displayed by a blinking cursor. The cursor position is always in front of the current position. The len of the current note and other properties can be set in the pad or the toolbar. The pad simulates the keys of the numeric keypad of a normal keyboard.

When a note is selected, the next command can create chords. Every input switches into the note entry mode:

<b>Shift+A</b>	add note A to akkord
<b>Shift+B</b>	add note B to akkord
<b>Shift+C</b>	add note C to akkord
<b>Shift+D</b>	add note D to akkord
<b>Shift+E</b>	add note E to akkord
<b>Shift+F</b>	add note F to akkord
<b>Shift+G</b>	add note G to akkord

For entering intervals there are the following commands:

<b>1</b>	Prime up	<b>Shift+1</b>	Prime down
<b>2</b>	Sekunde up	<b>Shift+2</b>	Sekunde down
<b>3</b>	Terz up	<b>Shift+3</b>	Terz down
<b>4</b>	Quarte up	<b>Shift+4</b>	Quarte down
<b>5</b>	Quinte up	<b>Shift+5</b>	Quinte down
<b>6</b>	Septe up	<b>Shift+6</b>	Septe down
<b>7</b>	Septime up	<b>Shift+7</b>	Septime down
<b>8</b>	Oktave up	<b>Shift+8</b>	Oktave down
<b>9</b>	None up	<b>Shift+9</b>	None down

More note entry commands:

<b>x</b>	flip note stem direction
----------	--------------------------

### 2.3.2 Note entry with mouse

In note entry mode a gray note head shows the position a click whould insert a note. Setting a note replaces a rest or note. Shift+Click adds a note, building a chord.

### 2.3.3 Note entry with midi keyboard

### 2.3.4 Select

<b>Note</b>	click on note head
<b>Akkord</b>	double click on note head
<b>+ -Note</b>	Shift + Click on note head

### 2.3.5 Accidentals

MuseScore sets accidentals depending on pitch, signature and already set accidentals in current measure. If you select a notehead and change pitch with cursor up/down MuseScore sets accidentals automatically.

Another way is to select a note and to select an accidental from the toolbox. The selected note gets the selected accidental and MuseScore changes the pitch automatically. This is the way to edit enharmonic exchange (??) or to add a security accidental.

```
name: dummy
file: noten2
state: unknown
```

### 2.3.6 Modify

The pitch of an selected mode can be changed by:

<b>Up</b>	increase pitch a half tone
<b>Ctrl+Up</b>	increase pitch one octave
<b>Down</b>	decrease pitch a half tone
<b>Ctrl+Down</b>	decrease pitch one octave

## 2.4 Slurs

Slurs are connected top notes or rest. If a note moves, the associated slur moves to. If a slur spans a line or page, it is automatically splittet into segments.

To create a slur, you have to first select a start note. Entering "S" creates a slur to the next note. Double click the slur to enter edit mode. In edit mode four control points are shown, which can be moved with mouse or keyboard commands.

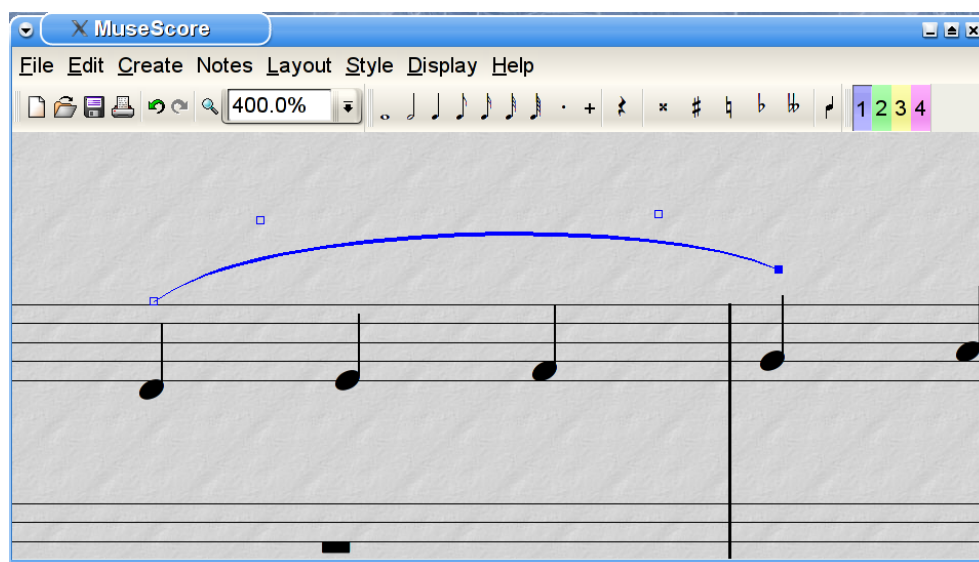


Abbildung 2.9 Slur with control points

<b>s</b>	create a slur to the next note and enter edit mode
<b>Tab</b>	switch to next control point
<b>right</b>	move the current control point one space to the right
<b>left</b>	move the current control point one space to the left
<b>up</b>	move the current control point one space up



<b>down</b>	move the current control point one space down
<b>Ctrl+right</b>	move control point $\pm 1/10$ space to the right
<b>Ctrl+left</b>	move control point $\pm 1/10$ space to the left
<b>Ctrl+up</b>	move control point $\pm 1/10$ space up
<b>Ctrl+down</b>	move control point $\pm 1/10$ space down
<b>Shift+right</b>	move control point to the next note or rest
<b>Shift+left</b>	move control point to previous note or rest
<b>x</b>	flip slur orientation
<b>ESC</b>	leave edit mode
<b>Doppelclick</b>	start edit mode

## 2.5 Instruments

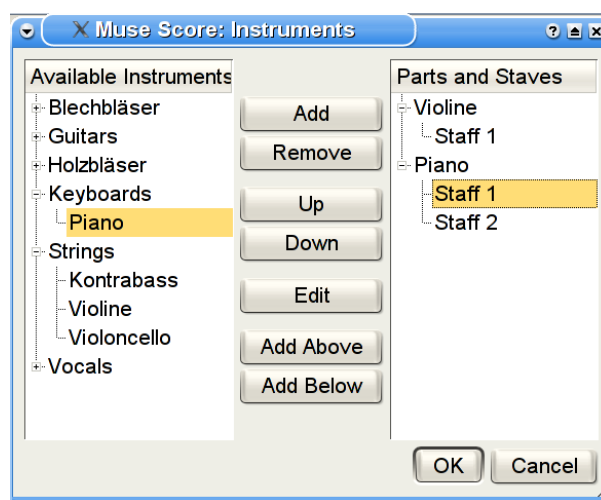


Abbildung 2.10 Instrument Dialog

## 2.6 Text

## 2.7 Fingering

- open fingering palette create->text->fingering - click on "finger" and then on note head to put finger number to note
- doubleclick to edit number

### 2.7.1 Liedtext

First select a note or rest where you want to start lyrics entry.

Ctrl+L start lyrics entry; a blinking text cursor appears beneath the note

Tab positions the cursor to the next note

Return creates another lyrics line

ESC exit lyrics entry

## 2.8 Beams

### Staff Crossing Beams

Shift+Ctrl+Down move note/chord a staff down in a multi staff Instrument (piano)

Shift+Ctrl+Up move note/chord a staff up in a multi staff Instrument (piano)

x flips beam orientation above, below; this overrides automatic

## 2.9 Symbols



Abbildung 2.11 Feta-Symbols

## 2.10 Attributes

### 2.10.1 Invisible

Most objects on the canvas can have the "invisible" attribute. Invisible objects use space in the layout but are invisible on screen and on printout. To be able to switch them back to "visible", there is a global mode "show invisible". In this mode all invisible objects are shown grayed out. They are still not visible in printout.

### 2.10.2 Color

For most objects on the canvas you can select a color. The objects are shown and printed in this color.

## 2.11 Navigation

<b>Right</b>	go to next note
<b>Left</b>	go to previous note

<b>Alt+Up</b>	go to next higher note in chord or lowest note in higher line
<b>Alt+Down</b>	select next lower note in chord or highest note in lower line
<b>Alt+Ctrl+Up</b>	select highest note in chord
<b>Alt+Ctrl+Down</b>	select lowest note in chord
<b>Drag Canvas</b>	move note sheet on canvas

### 2.11.1 Zoom

The note sheet can be resized with this methods:

- after selecting the zoom tool (magnifying glass), the note sheet can be zoomed in with the left mouse key and zoomed out with the right mouse key. When you hold the keyboard shift key while clicking in zoom mode, the zoom tool stays selected.
- in the zoom pulldown menu you can select a zoom factor

## 2.12 Palettes

To insert a palette object:

- click on the palette object to select it. The cursor changes (arrow up).
- click on the note sheet to insert the palette object.

### 2.12.1 Copy + Paste

A fast method to copy objects:

- select an object
- click with middle mouse key on the destination location to insert a object copy.

## 2.13 Layout

### 2.13.1 Page layout

#### 2.13.1.1 Page settings

### 2.13.2 Layout

### 2.13.3 Spacing

## 2.14 Styles



## 2.15 MuseScore File format

MuseScore saves a score in file with suffix \*.msc. This is an normal text file in XML format. The file can be edited with a normal text editor. There is no formal description of the MuseScore file format (i.e. a DTD). The file format will change in the future (until there is a 1.0 release) and you should use MusicXML to archive scores.

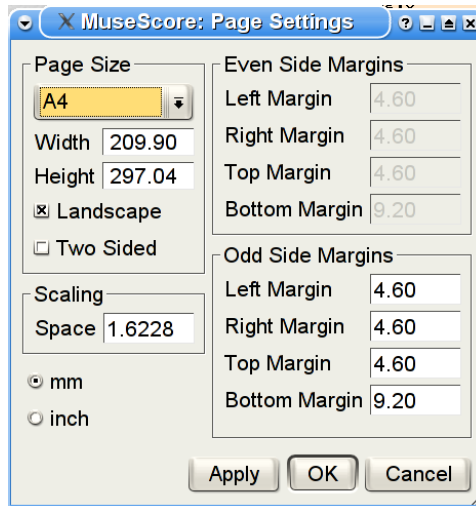


Abbildung 2.12 Page settings

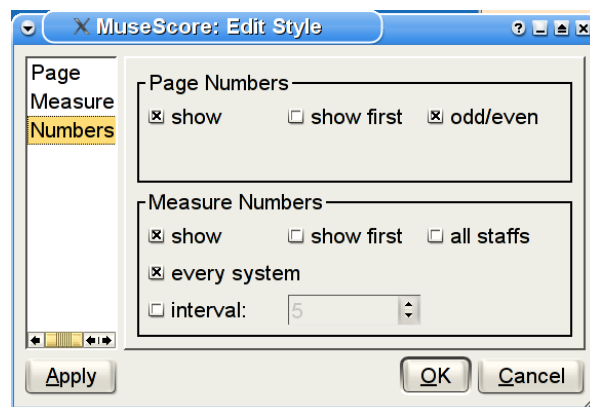


Abbildung 2.13 Style Editor

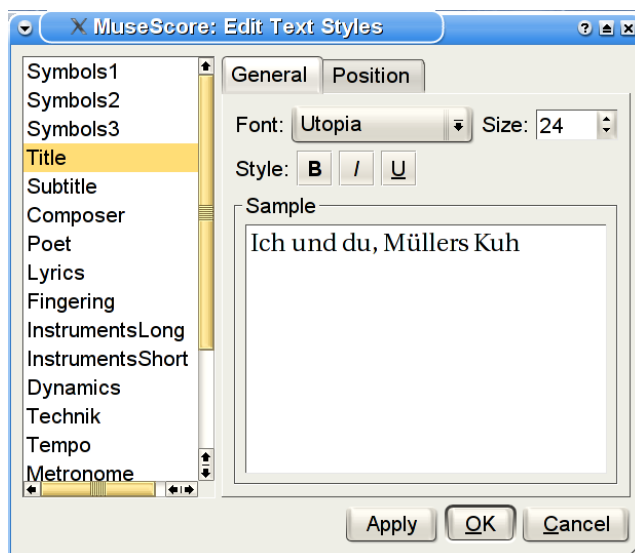


Abbildung 2.14 Text Style Editor: Styles

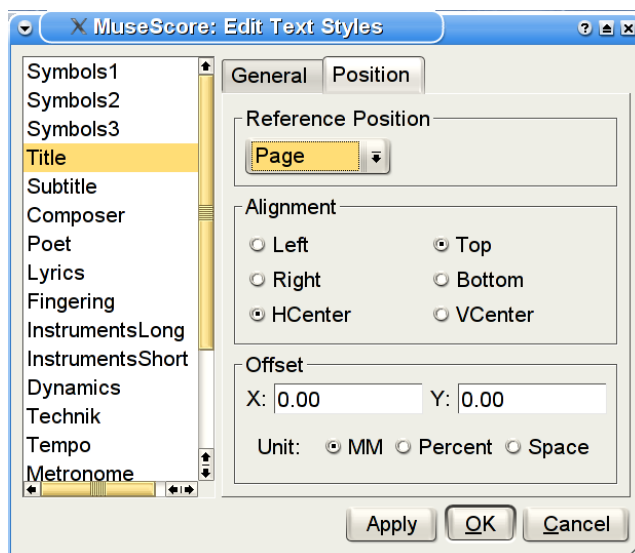


Abbildung 2.15 Text Style Editor: Positions



## 3 Installation

### 3.1 Download

The latest MuseScore Version is available at <http://mscore.sourceforge.net>  
 MuseScore is distributed as a compressed TAR file. After download it can be expanded with:

```
tar xvofj mscore-1.0.0.tar.bz2
```

This command creates a subdirectory mscore-1.0.0, with the expanded MuseScore source.

### 3.2 Requirements

Several linux distributions are splitting packets in an user and an developer part. To create MuseScore you need both parts.

- qt4 gui library version  $\geq 4.2.0$
- ALSA version 0.9.0 or newer for midi input
- JACK audio server
- fluidsynth-1.0.0 and a suitable sound font
- gcc 3.4 or newer
- recommended: kde3 (MuseScore uses the KDE printer by default. Without KDE you have to configure your own print command.

### 3.3 Compile

Compilation of MuseScore is done the standard way with `configure`, then `make` followed by `make install`. For last command you usually need to be super user.

#### 3.3.1 Configure

Hint: configure works only from a X11 console.

```
cd mscore-x.x.x
./configure --prefix=/usr
```

(if configure does not find the qt libraries you can enter something like: `configure --with-qt-prefix=/usr/lib/qt3` which is reported to work with Mandrake)

If you have installed GNU Compiler  $\geq 3.4$ , then the translation can be speed up by using precompiled headers. For this you have to configure like:

```
./configure --enable-pch
```

#### 3.3.2 Make

```
make
```

compiles the sources and produces the executable file **mscore**.

**Hint**

between different C++ Compiler there are small differences in the ABI (Application Binary Interface) which may lead to trouble. MuseScore should be compiled with the same compiler as your Qt-Library.

### 3.4 Installation

```
su -c make install
```

this installs MuseScore.



## 4 Keyboard Shortcuts

⇧	Shift		
<b>Alt+F</b>	File Menu	<b>2</b>	Sekunde up
<b>Alt+E</b>	Edit Menu	<b>3</b>	Terz up
<b>Alt+C</b>	Create Menu	<b>4</b>	Quarte up
<b>Alt+N</b>	Notes Menu	<b>5</b>	Quinte up
<b>Alt+L</b>	Layout Menu	<b>6</b>	Septe up
<b>Alt+S</b>	Style Menu	<b>7</b>	Septime up
<b>Alt+D</b>	Display Menu	<b>8</b>	Oktave up
<b>Alt+H</b>	Help Menu	<b>9</b>	None up
<b>A</b>	Note a	⇧ <b>1</b>	Prime down
<b>B</b>	Note b	⇧ <b>2</b>	Sekunde dwon
<b>C</b>	Note c	⇧ <b>3</b>	Terz down
<b>D</b>	Note d	⇧ <b>4</b>	Quarte down
<b>E</b>	Note e	⇧ <b>5</b>	Quinte down
<b>F</b>	Note f	⇧ <b>6</b>	Septe down
<b>G</b>	Note g	⇧ <b>7</b>	Septime down
⇧ <b>A</b>	add note a	⇧ <b>8</b>	Oktave down
⇧ <b>B</b>	add note b	⇧ <b>9</b>	None down
⇧ <b>C</b>	add note c		
⇧ <b>D</b>	add note d	<b>Right</b>	next note
⇧ <b>E</b>	add note e	<b>Left</b>	previous note
⇧ <b>F</b>	add note f	<b>Alt+Up</b>	select higher note in chord
⇧ <b>G</b>	add note g	<b>Alt+Down</b>	select lower note in chord
<b>1</b>	Prime up	<b>Alt+Ctrl+Up</b>	select highest nost in chord
		<b>Alt+Ctrl+Down</b>	select lowest note in chord

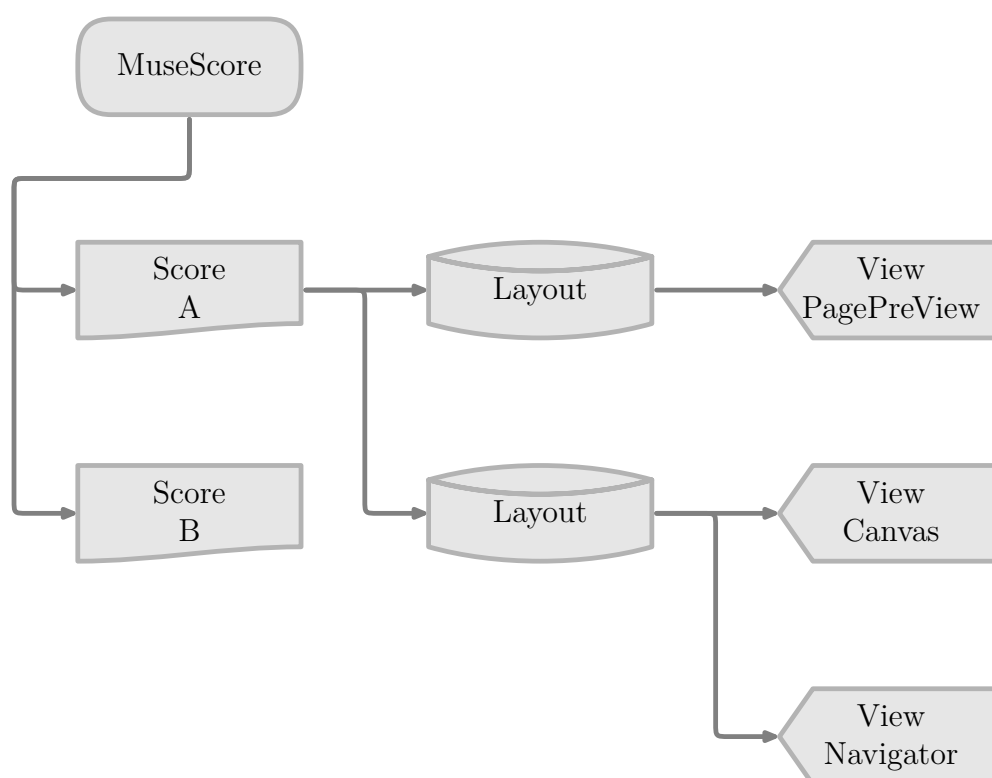


## 5 Design & Implementation

### 5.1 Main Structure

MuseScore handles multiple documents (scores). The documents can be selected with a tab bar. A global pointer points to the current selected score (**cs**).

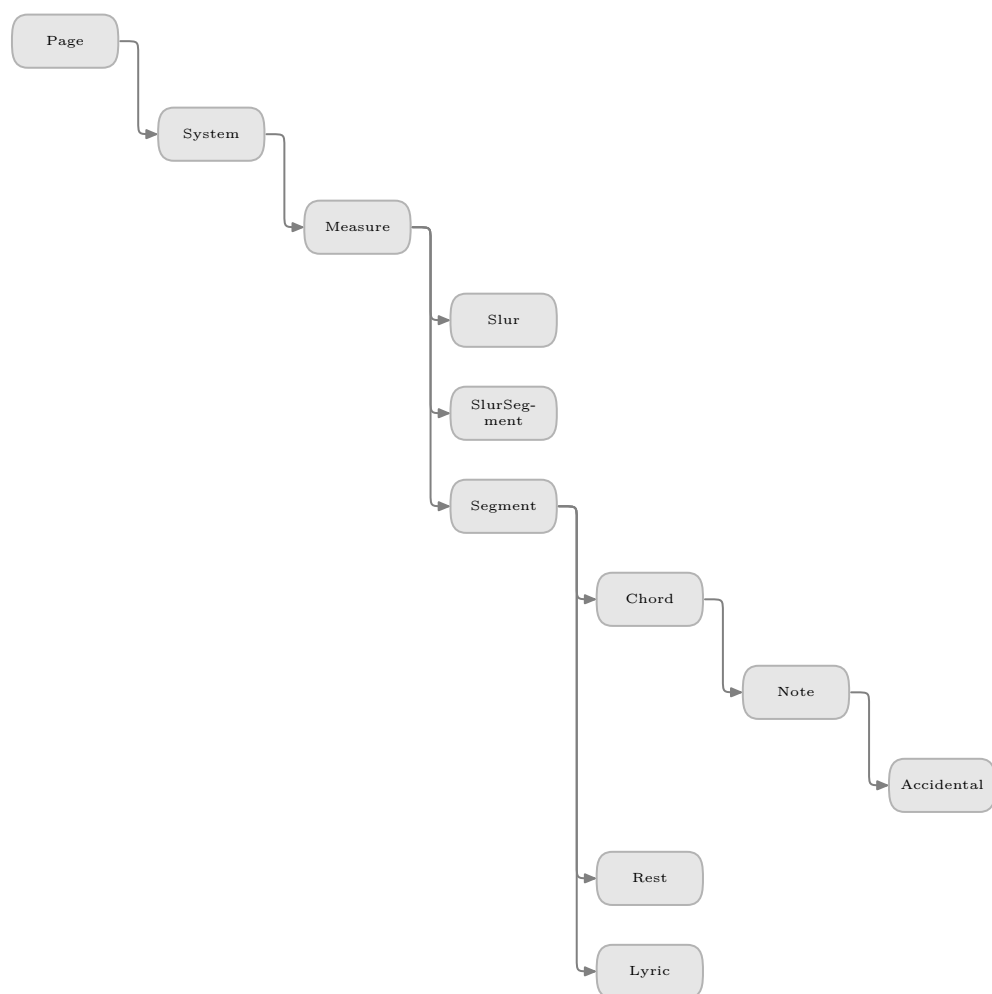
A **Score** contains data read from an **\*.msc** or **\*.xml** file. Think of it as a simple list of measures. The **layout()** procedure breaks this list into lines and pages producing a **Layout** structure. The **Layout** can be viewed by a **Viewer** providing a magnification and horizontal and vertical offsets.



A **Score** can have more than one **Layout**. This is used in the **Page Settings** dialog for a page preview.

A **Layout** can have more than one **View**. The main view is called **Canvas** and can be used to view and edit the score. A second smaller **View** is used by the **Navigator** widget.

## 5.2 Layout Object Hierarchy



## 6 Examples

6.1	Bilder einer Ausstellung – Promenade, Modeste Mussorgsky	28
6.2	Invention No1, J.S.Bach	28
6.3	Invention No6, J.S.Bach	28



name: dummy  
file: promenade  
state: unknown

name: dummy  
file: inv1-1  
state: unknown



name: dummy  
file: inv1-2  
state: unknown





name: dummy  
file: inv6-1  
state: unknown



name: dummy  
file: inv6-2  
state: unknown



## 7 Index

### **c**

commandline 9

Comman line options 9

### **d**

debug mode 9

### **f**

file types 9

### **m**

Midi-Datei 10

MusicXML 10

### **n**

note entry mode 11

### **o**

options 9

### **p**

printing 10

### **q**

quit 10

### **t**

Templates 6

### **v**

version number 9



