MuseScore Manual

EN

Version 0.1

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

MuseScore uses the Lilypond Typesetter fonts.
This document was created using pdfTEX and the macro package ConTEXt

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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 renderings on all magnification steps.
- Notes can be entered fast and simply by only using the keyboard.
- MusicXML import/export
- Midi import/export
- Midi input for note entry
- integrated Fluid software synthesizer

1.2 Short Guide

1.2.1 Program Start

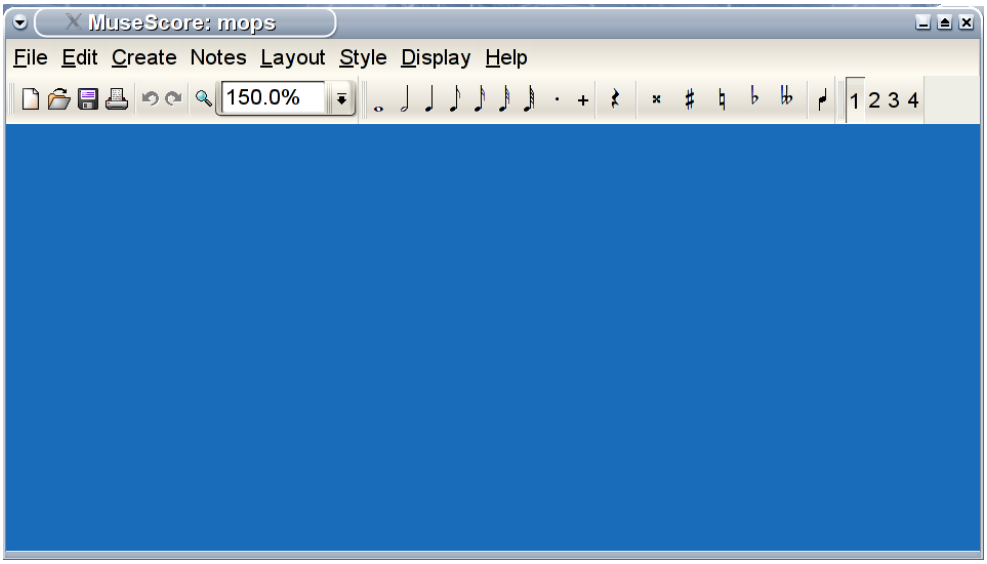


Figure 1.1 Empty main window

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).

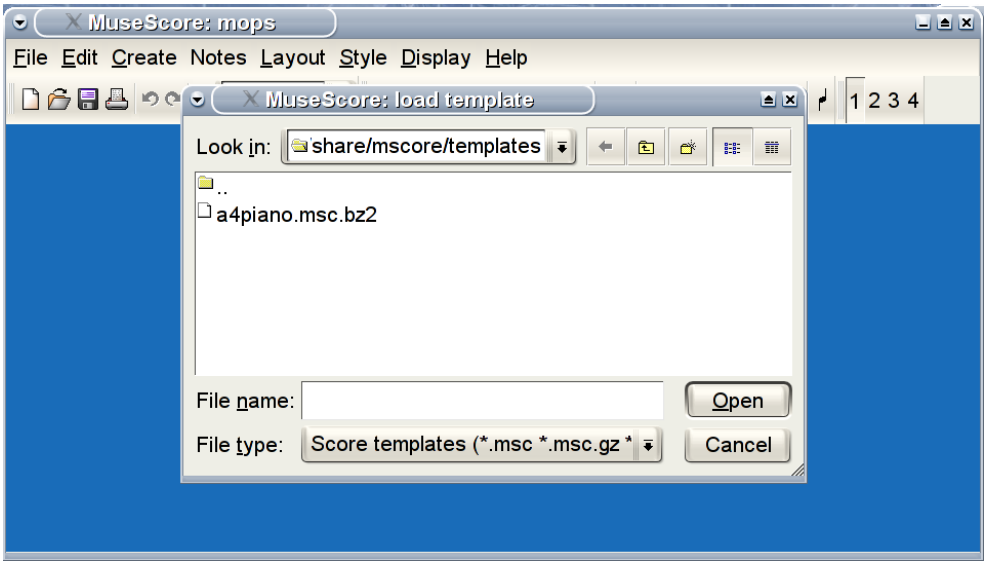


Figure 1.2 Template selection

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.

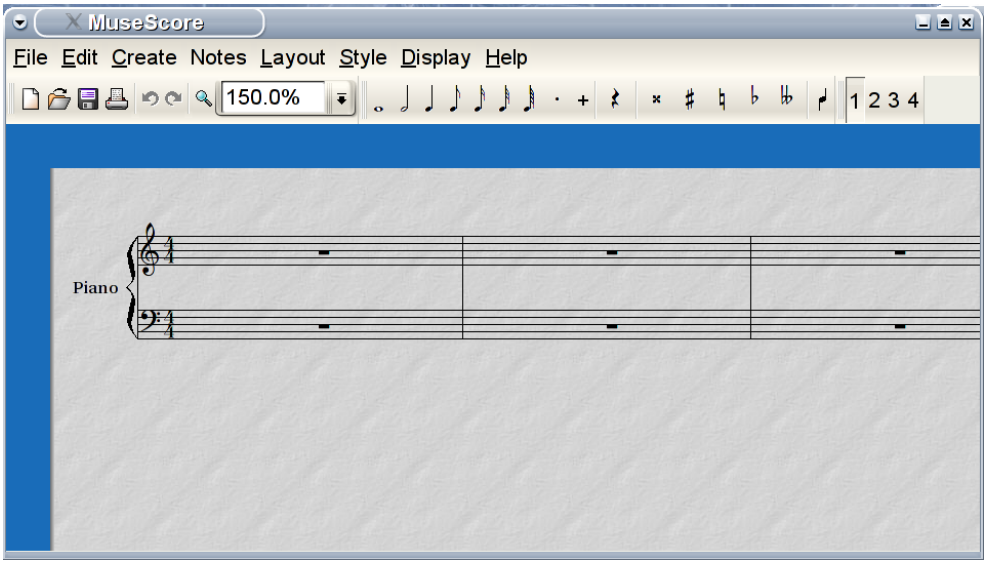


Figure 1.3 Empty piano system

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.

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 backgrounde:

~/.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.

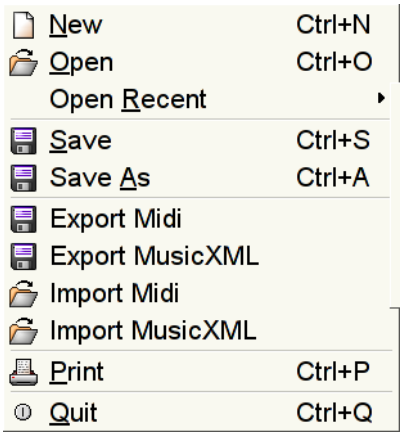


Figure 2.1

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.

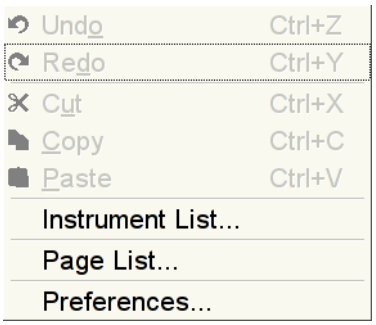


Figure 2.2

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 addtional 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

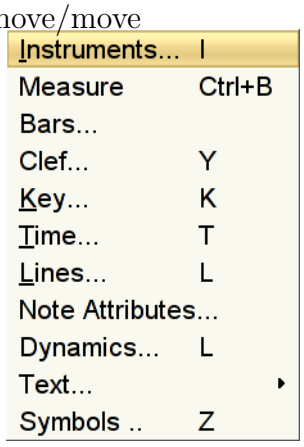


Figure 2.3

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.)

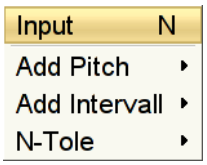
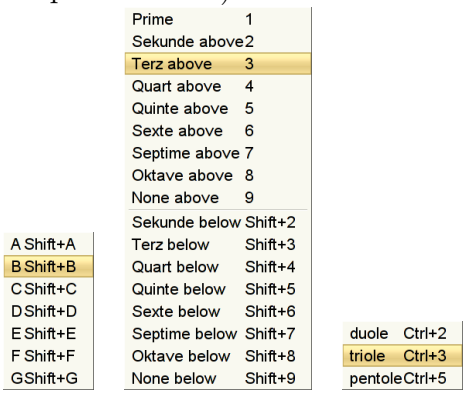


Figure 2.4



2.2.5 Layout Menu

PageSettings shows the page settings dialog.
Reset Positions resets all marked objects to there standard positions. This undos all manuell 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

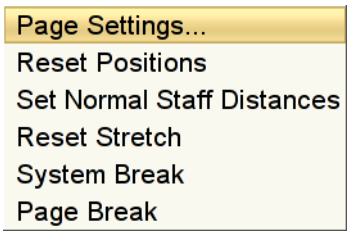


Figure 2.5

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

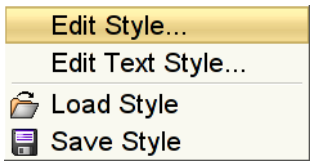


Figure 2.6

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.

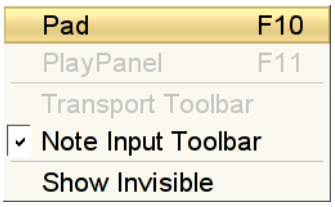


Figure 2.7

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-Tookit.
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).

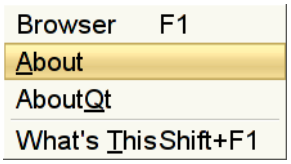


Figure 2.8

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 ca be set by clicking at a note or rest is 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:

Shift+A	add note A to akkord
Shift+B	add note B to akkord
Shift+C	add note C to akkord
Shift+D	add note D to akkord

Shift+E	add note E to akkord
Shift+F	add note F to akkord
Shift+G	add note G to akkord

For entering intervalls there are the following commands:

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

More note entry commands:

x	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

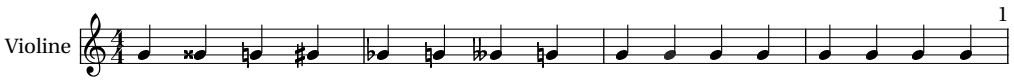
2.3.4 Select

Note	click on note head
Akkord	double click on note head
+-Note	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.



2.3.6 Modify

The pitch of an selected mode can be changed by:

Up	increase pitch a half tone
Ctrl+Up	increase pitch one octave
Down	decrease pitch a half tone
Ctrl+Down	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.

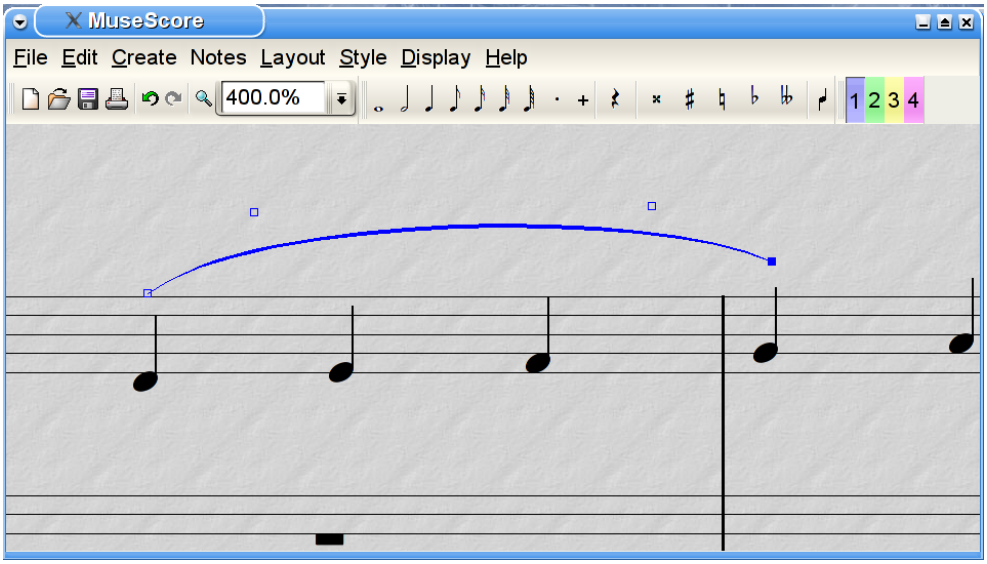


Figure 2.9 Slur with control points

s	create a slur to the next note and enter edit mode
Tab	switch to next control point
right	move the current control point one space to the right
left	move the current control point one space to the left
up	move the current control point one space up
down	move the current control point one space down
Ctrl+right	move control point ±1/10 space to the right
Ctrl+left	move control point ±1/10 space to the left
Ctrl+up	move control point ±1/10 space up
Ctrl+down	move control point ±1/10 space down
Shift+right	move control point to the next note or rest
Shift+left	move control point to previous note or rest
x	flip slur orientation
ESC	leave edit mode
Doppelclick	start edit mode

2.5 Instruments

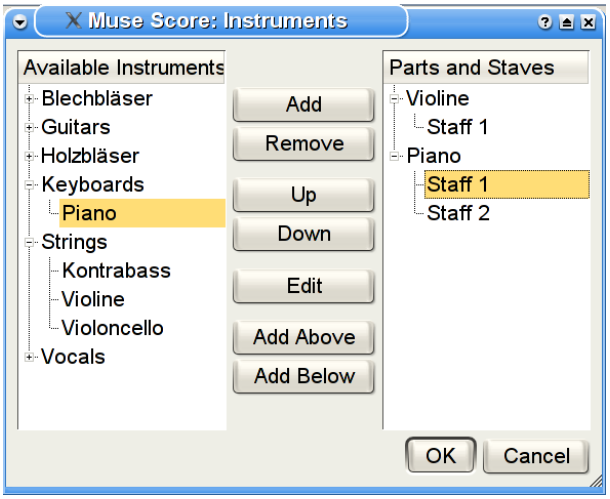


Figure 2.10 Instrument Dialog

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 were you want to start lyrics entry.
Ctrl+L start lyrics entry; a blinking text cursor appears beneath the not
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

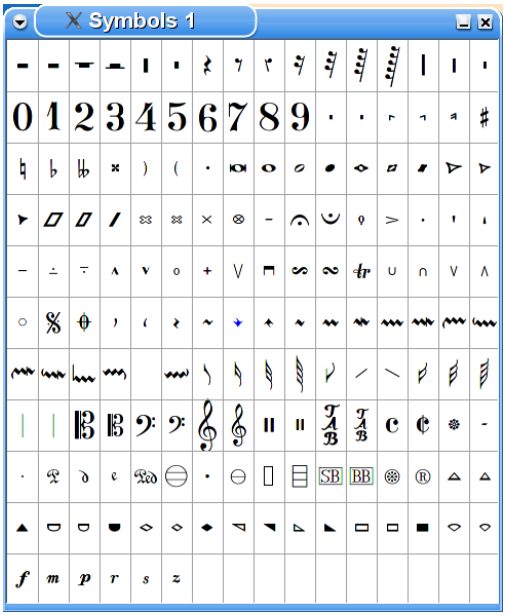


Figure 2.11 Feta-Symbols

2.10 Attributes

2.10.1 Unvisible

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

Right	go to next note
Left	go to previous note
Alt+Up	go to next higher note in chord or lowest note in higer line
Alt+Down	select next lower note in chord or highest note in lower line
Alt+Ctrl+Up	select highest note in chord
Alt+Ctrl+Down	slect lowest note in chord
Drag Canvas	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

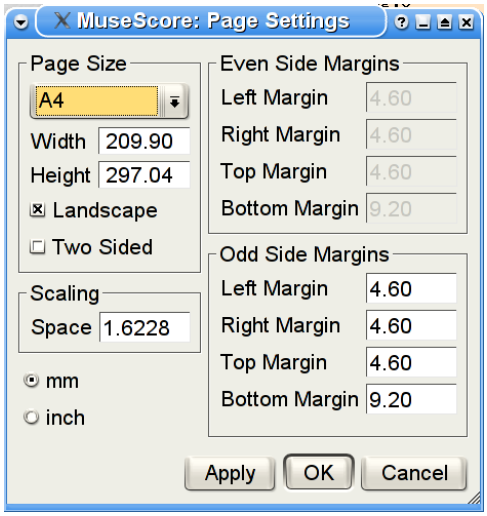


Figure 2.12 Page settings

2.13.2 Layout

2.13.3 Spacing

2.14 Styles

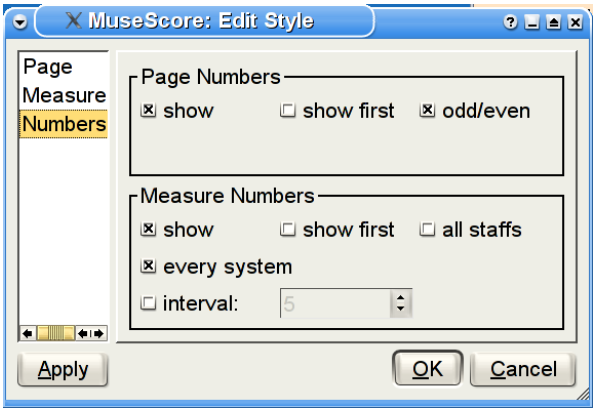


Figure 2.13 Style Editor

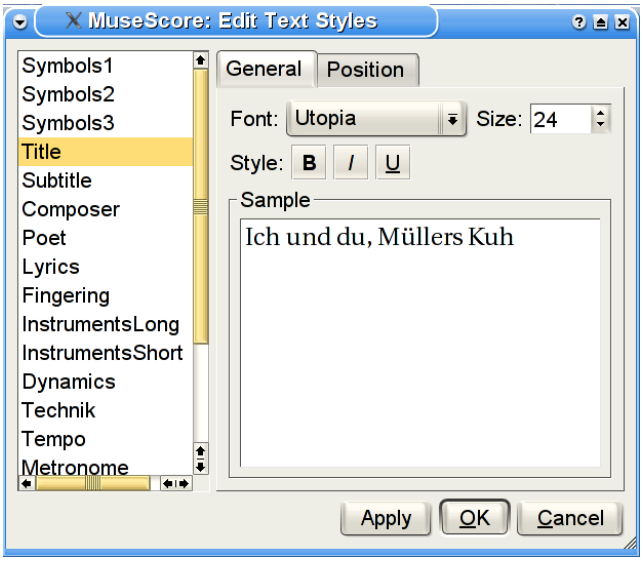


Figure 2.14 Text Style Editor: Styles

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.

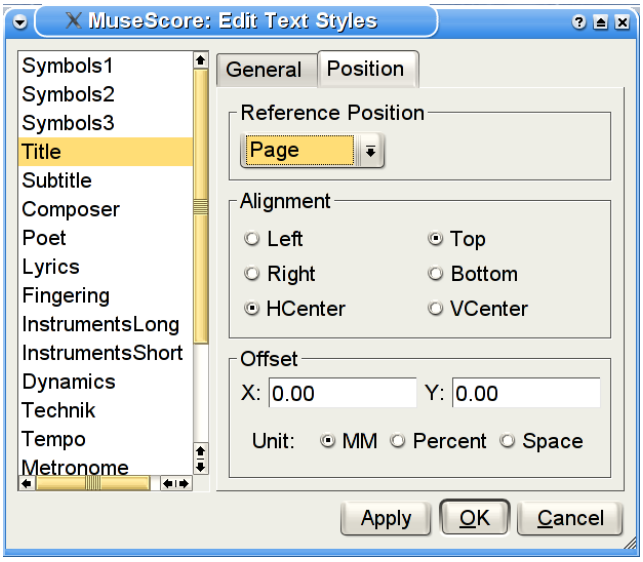


Figure 2.15 Text Style Editor: Positions

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 in der Version $\geq$ 4.0.0
- 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

Compiliation 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 translatin 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.
Unfortunately the needed score font is not automatically installed. You have to do it by hand.
You dont need to install the score font for printing. MuseScore embedds the font data into the printer data stream.

4 Keyboard Shortcuts

⇑	Shift

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

A	Note a
B	Note b
C	Note c
D	Note d
E	Note e
F	Note f
G	Note g

⇑**A**	add note a
⇑**B**	add note b
⇑**C**	add note c
⇑**D**	add note d
⇑**E**	add note e
⇑**F**	add note f
⇑**G**	add note g

1	Prime up
2	Sekunde up
3	Terz up
4	Quarte up
5	Quinte up
6	Septe up
7	Septime up
8	Oktave up
9	None up

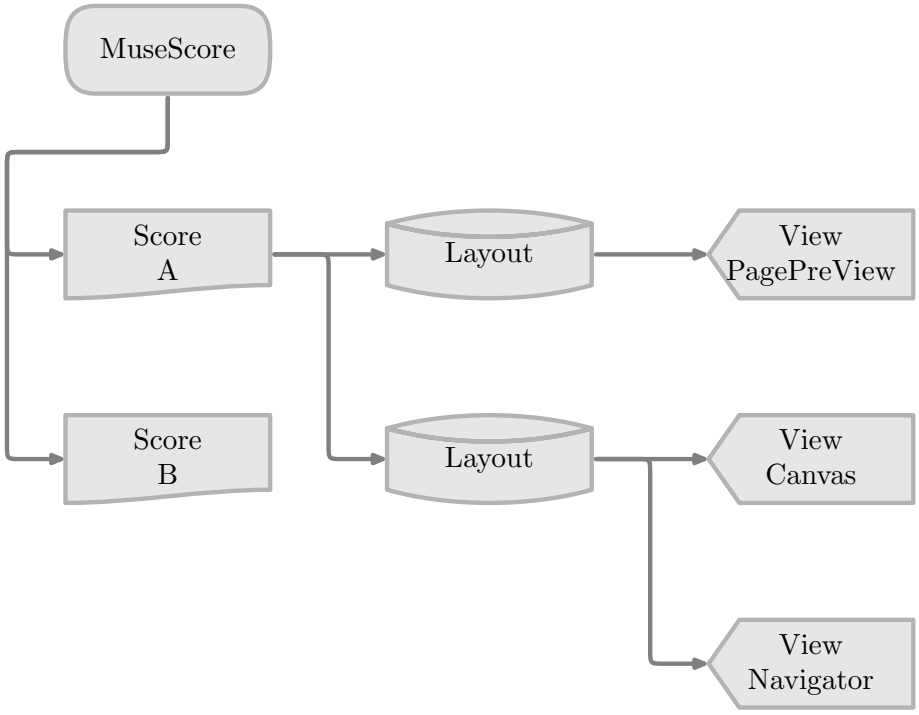
⇑**1**	Prime down
⇑**2**	Sekunde dwon
⇑**3**	Terz down
⇑**4**	Quarte down
⇑**5**	Quinte down
⇑**6**	Septe down
⇑**7**	Septime down
⇑**8**	Oktave down
⇑**9**	None down

Right	next note
Left	previous note
Alt+Up	select higher note in chord
Alt+Down	select lower note in chord
Alt+Ctrl+Up	select highest nost in chord
Alt+Ctrl+Down	select lowest note in chord

5 Design & Implementation

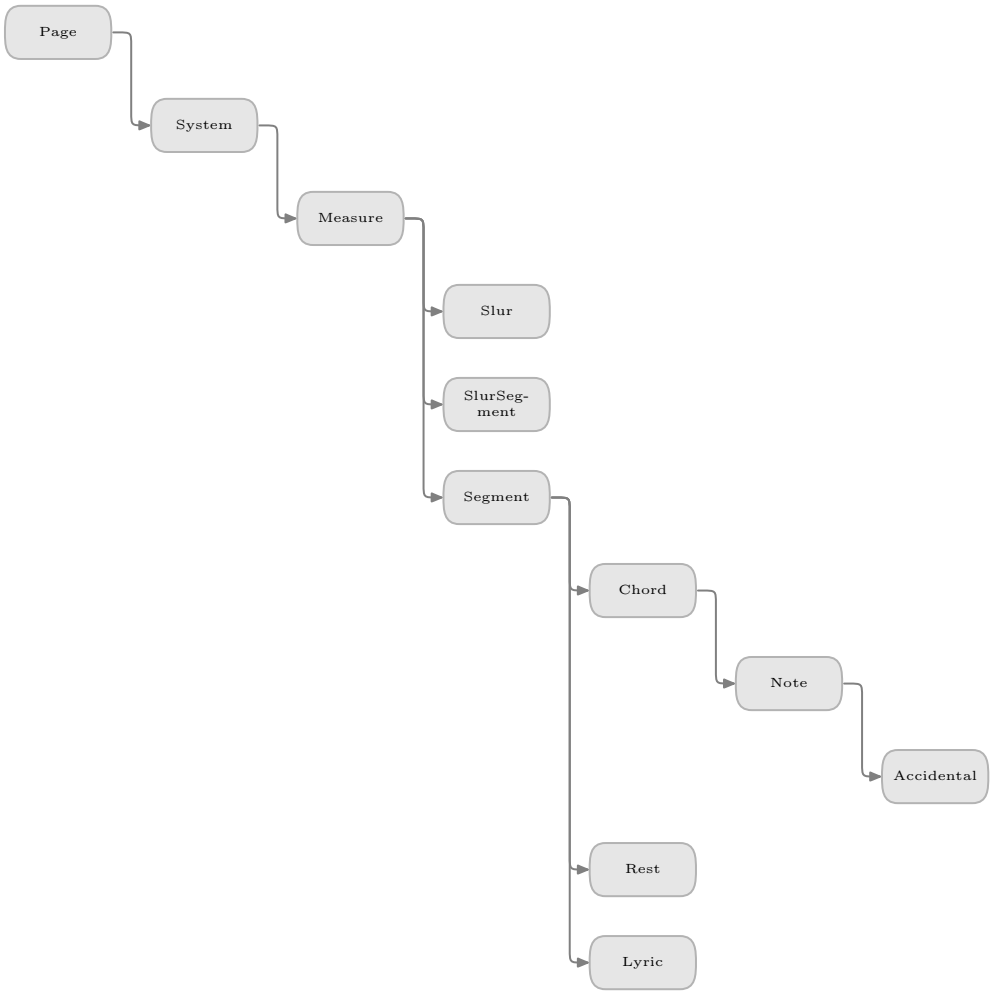
5.1 Main Structure

MuseScore handles multiple documents (scores). The documents can 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 ans pages producing a `Layout` structure. The `Layout` can be viewed by a `Viewer` providing a magnification and horizontal und 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` ist used by the `Navigator` widget.

5.2 Layout Object Hierarchy



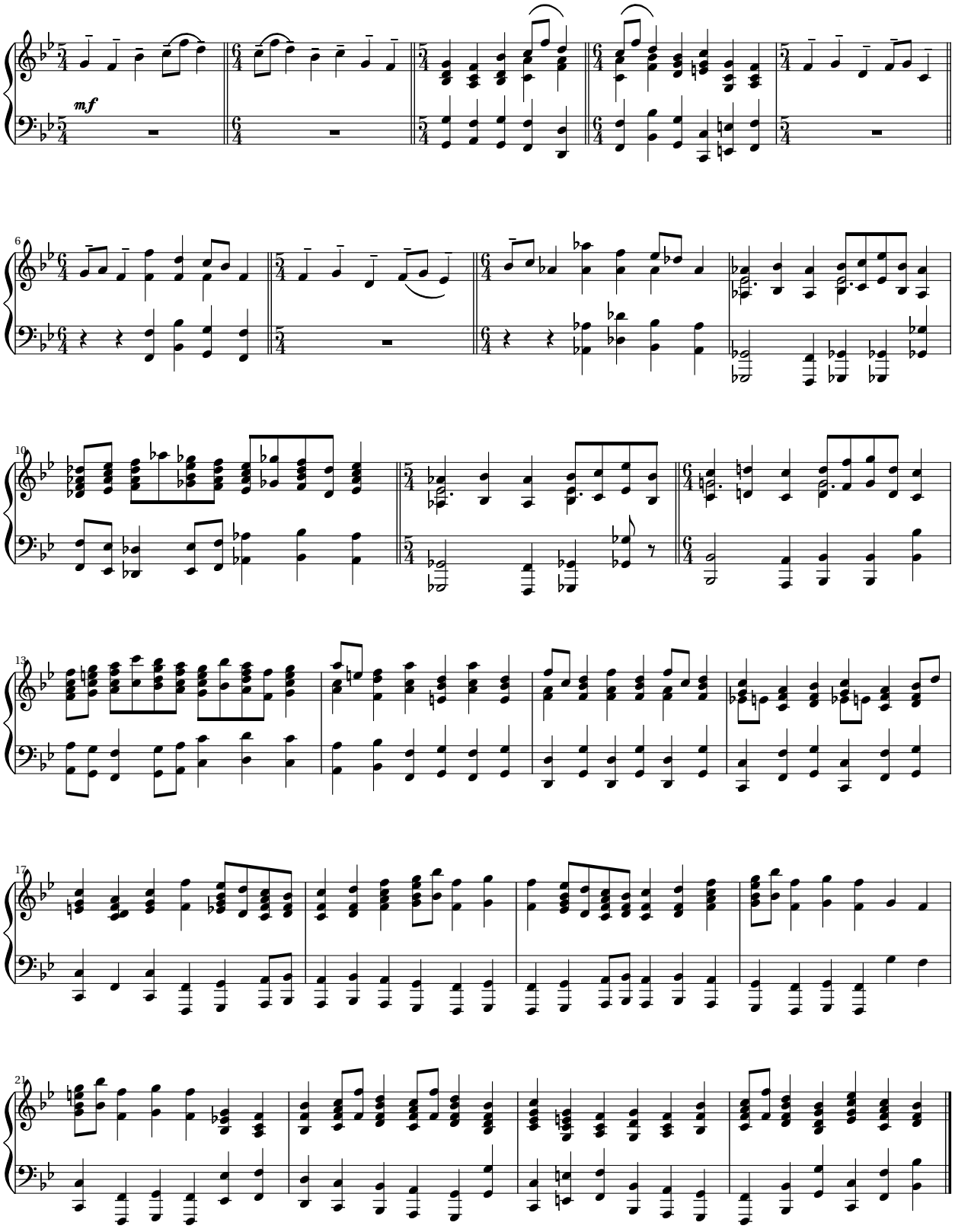
6 Examples

6.1 Bilder einer Ausstellung – Promenade, Modeste Mussorgsky 26
6.2 Invention No1, J.S.Bach 26
6.3 Invention No6, J.S.Bach 26

Bilder einer Ausstellung

Promenade

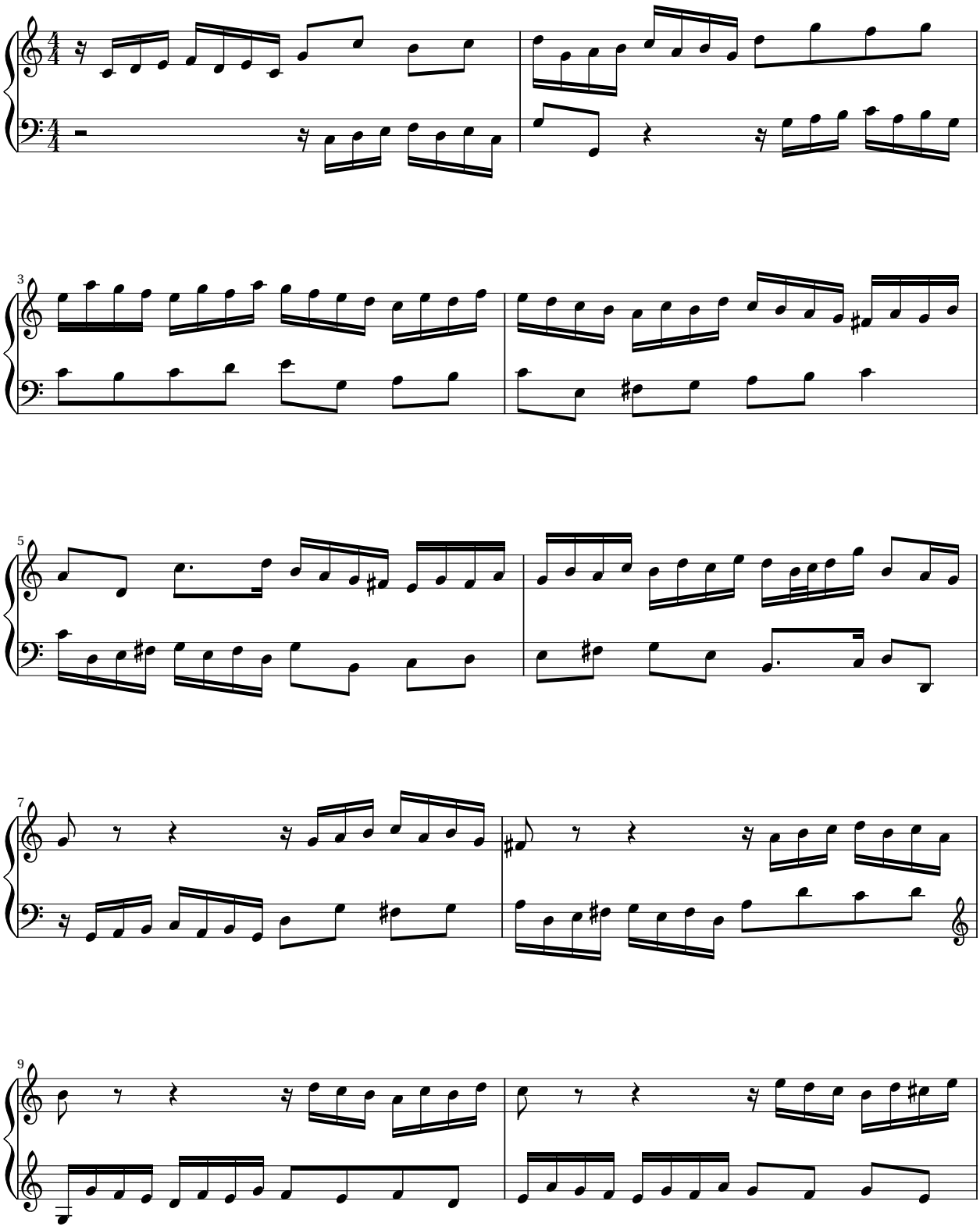
Modeste Mussorgsky

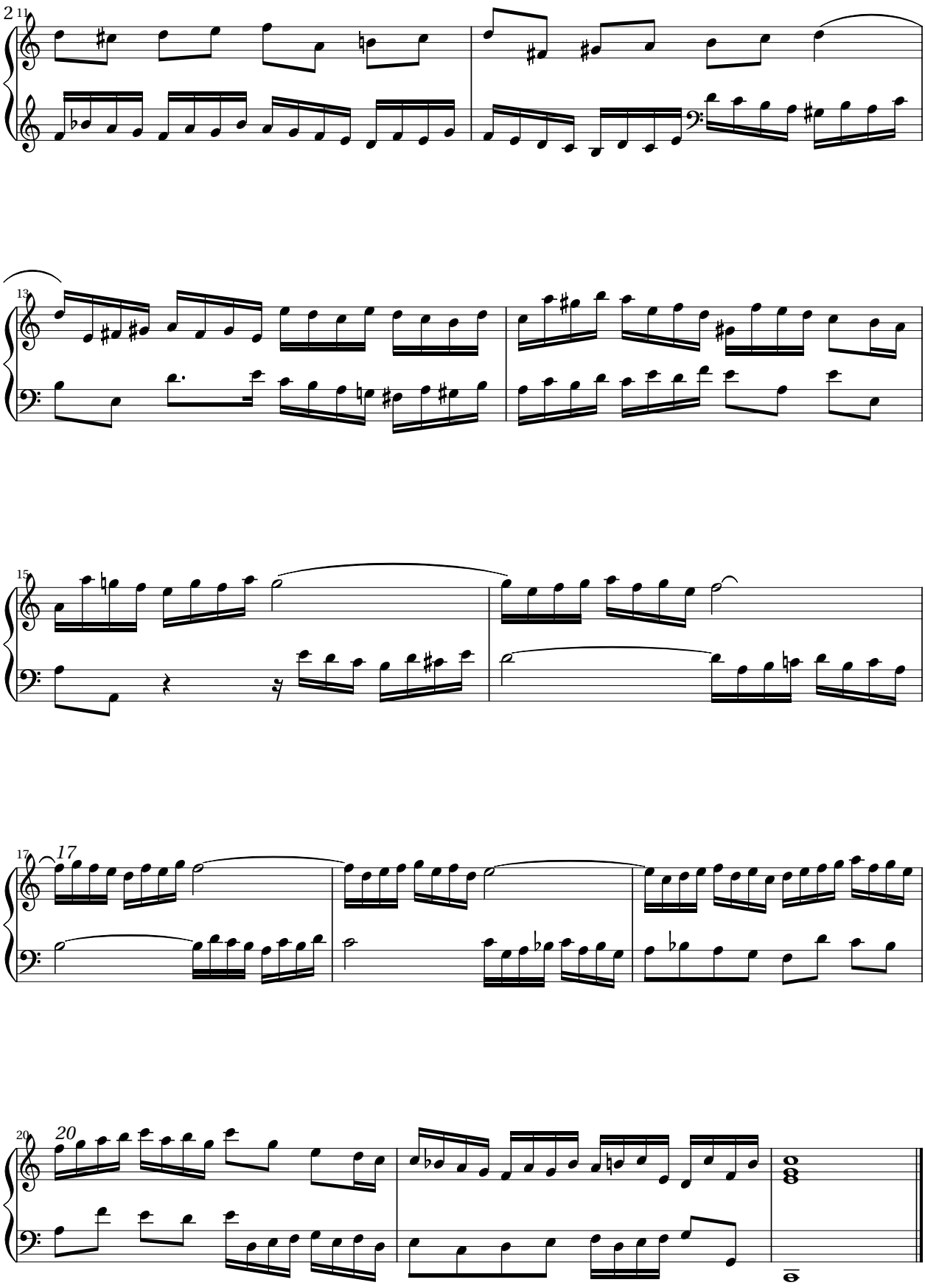


Inventio 1

BWV 772

J.S.Bach

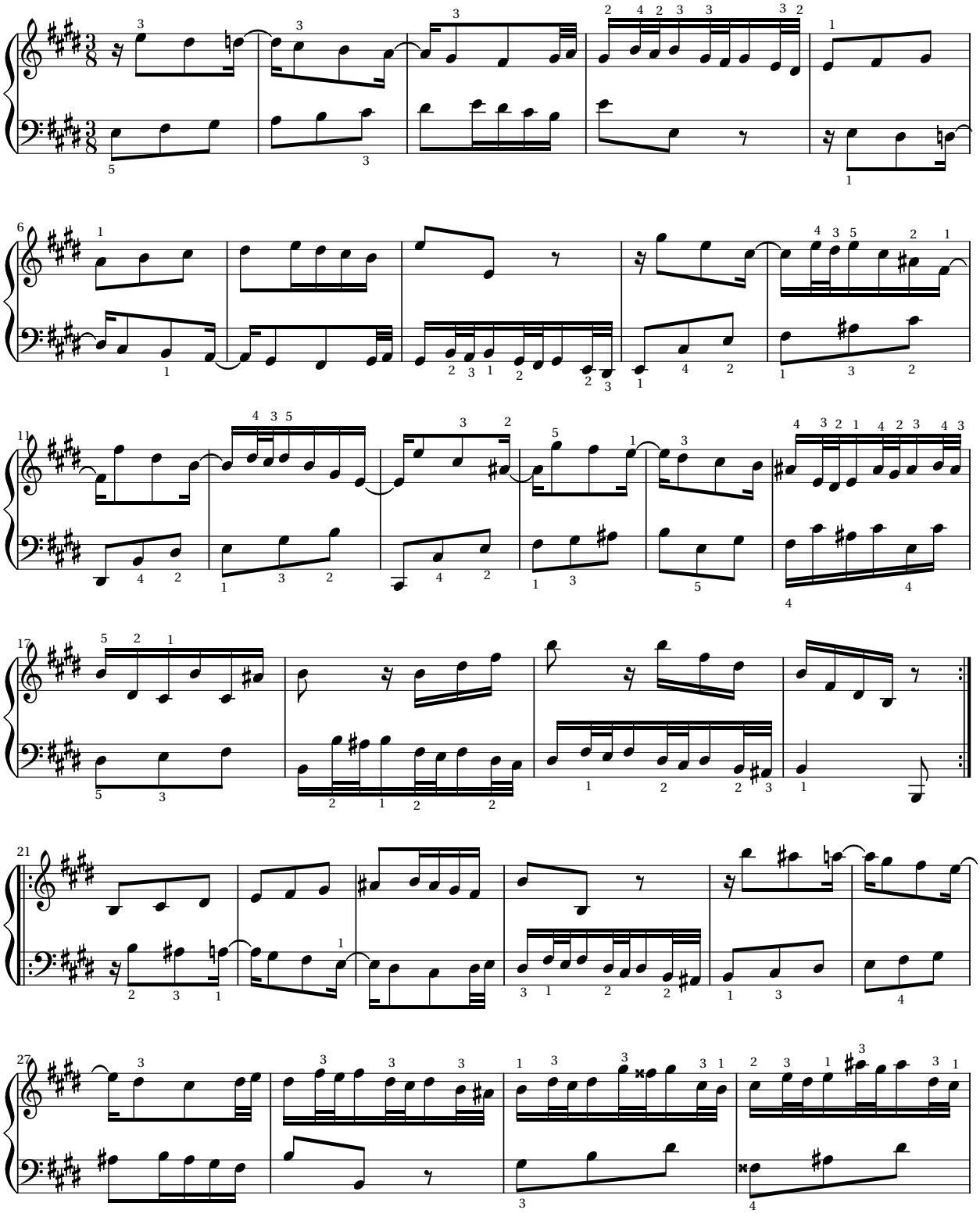


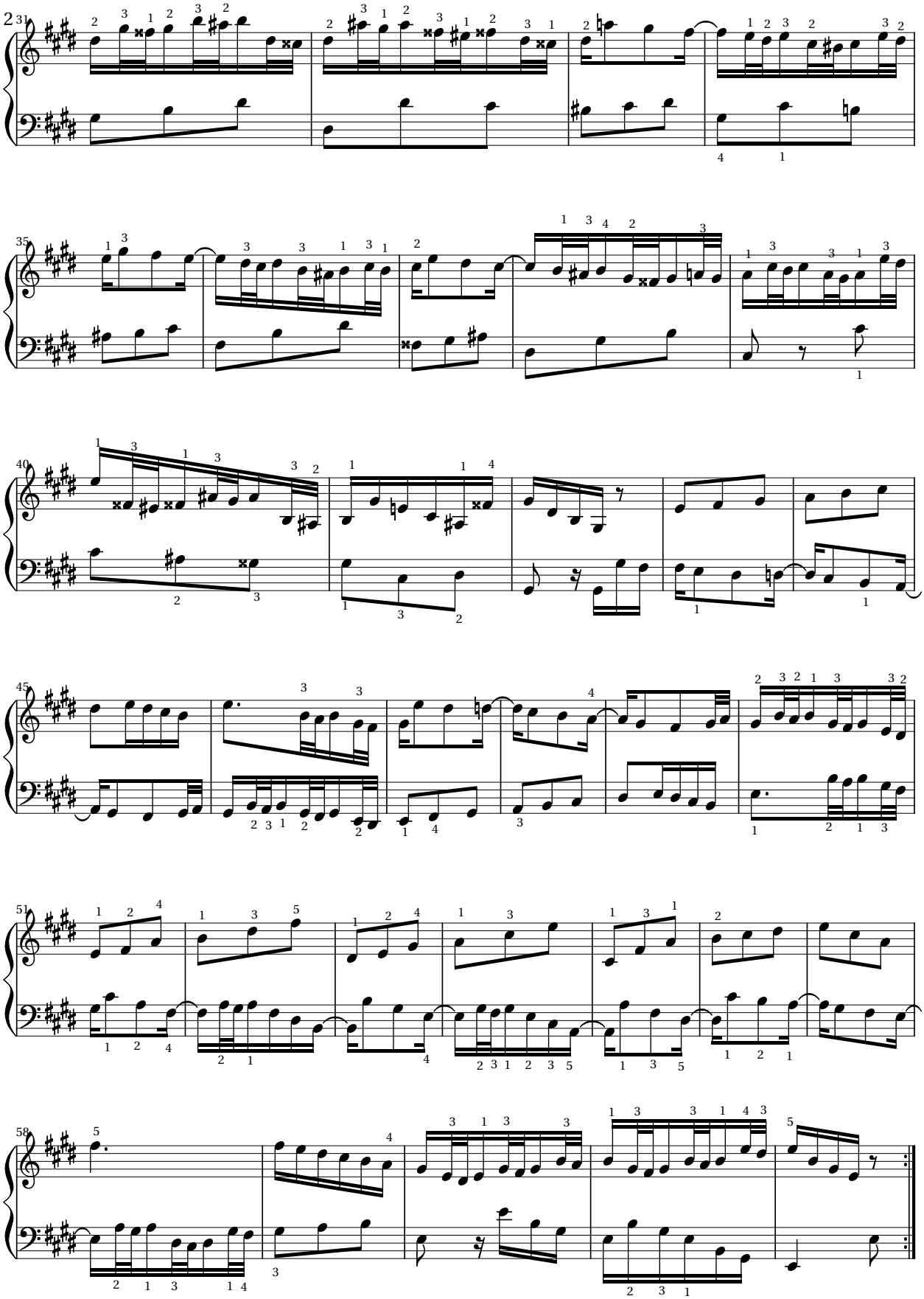

2
11
13
15
17
17
20
20

Inventio 6

BWV 777

J.S. Bach





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