



## AutoHotkey Kit for MuseScore

### Apply Palette Symbols

June 2022

**MuseScore:** <https://musescore.org/en/download> Current version 3.6.2

**AutoHotkey:** <https://www.autohotkey.com/> Current version 1.1.33.10 (August 2021)

"The ultimate automation scripting language for Windows."

Download the Unicode version <https://www.autohotkey.com/docs/Tutorial.htm#s11>

This macro group contains the files:

Apply\_Palette\_Symbols.pdf

Advanced\_AutoHotKey.zip

Apply\_Palette\_Symbols.txt

PixelMousing.txt

this document

Advanced AutoHotKey Workspace  
macros for MuseScore

tool

Info screen *Tools*  
on page 6

Change the .txt extension in .ahk

When the extensions are not visible then (for Windows 10): Open Windows File Explorer, switch the ribbon to the View tab and tick the File name extensions box. Now you'll be able to change the actual extension.

Set the path to your location of MuseScore3.exe at the top of the .ahk files:

Put the file Advanced AutoHotKey.workspace in the right location.

See <https://musescore.org/en/handbook/3/workspaces#Save-workspace>

Create a folder called 'AHK' in C:\.....\Documents\MuseScore3. This is your '*working directory*'. It will include the two .ahk files.

If you want some extra functionality it will include also a few images you have to create.

The macros have been developed and tested on a 3.7 Ghz AMD machine - 2 cores - 4 logical processors. Screen resolution 1920 x 1080 at 96 DPI.

### Description

You can create all symbols of the Advanced Workspace by typing shortcuts in an Inputbox. Each palette has its own info screen showing the shortcuts.

This eliminates a mass of mouse movements. An ergonomical timesaver.

The workspace has been extended with some extra Time Signatures, with the Gould arrow accidentals and with the Palette *Colored Numbers*. For this palette see also the repository *Colored Markers* which adds extra search possibilities to MuseScore.

FWIW: When you read the macro file you'll notice how easy customization is.

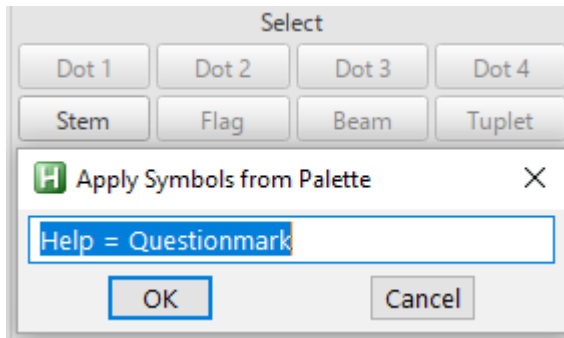
## **Z + A**      Apply Symbols from Palette

This is one of the most accessible key combinations.

In MuseScore the **Z** key is the shortcut for *Show symbol palette*.

You could 'liberate' the **Z** key by redefining the shortcut e.g. in Shift + Z.

Or change **Z + A** in another combination in which the first key is free.



Shown is the Inputbox positioned in the docked Inspector.

An alternative is its appearance near the mouse.

See the .ahk file for the alternative positioning.

Adjust its size and position manually. Now determine 4 numbers.

Use the tool *Window Spy* which comes with the installation of AutoHotkey.

Active Window Position:			
	x: 1635	y: 806	w: 289 h: 100
Client:	x: 0	y: 0	w: 273 h: 61

In the *auto-execute* section at the top of the file we enter the numbers. For the test screen:

**IB\_X := 1635**      *Position*  
**IB\_Y := 806**

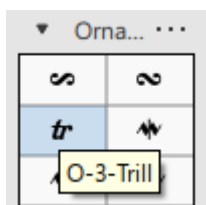
**W\_IB := 289**      *Size*  
**H\_IB := 100**

## **The macro explained**

Its operation presupposes the Advanced AutoHotKey.workspace.

In this workspace each palette element has its unique id.

E.g in the Palette Ornaments the trill.



The symbol has been renamed in O-3-Trill.



The macro will send **O-3** to the Palette Search box.

The script uses Ctrl+F9 as the shortcut for *Palette Search* and Ctrl+Alt+P for *Apply current palette element*. If you use other shortcuts search in the .ahk file for *Note about MuseScore shortcuts*.

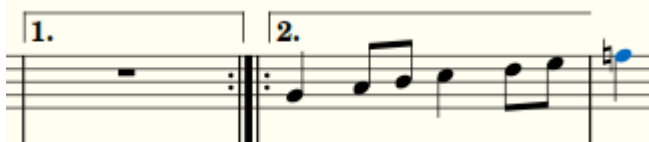
## Optional extra functionality

Plugins Help Palette Symbols    Tooltip as reminder    `ToolTip_1_X := 332`

`Rest; Duration: Measure;`    `Statusbar_Rest_Duration_Measure.png`

Create the image and put it in your working directory.

This ensures a more stable operation after entering the shortcut `1:| |:2.`



After creation of the barline the macro checks if the image is present in the Statusbar. If found the first volta can be created. Otherwise it must first select the note or rest in the first beat.

In the auto-exec section we let the macro know where to look for the image.

`SB_X1 := 0`    The search area of the Statusbar defined by its upper-left  
`SB_Y1 := 1038`    and lower-right corner.  
`SB_X2 := 237`    When using this shortcut the Statusbar must always occupy  
`SB_Y2 := 1079`    the same surface. The screen must be in a *Defined State*.

## The Defined State - a fixed screen layout

*Apply Symbols from Palette* is part of an extended group of macros originally published on <https://musescore.org/en/node/316166>

More complex macros will only work if they are executed in the same screen layout as in which the coordinates of hotspots and search areas were originally determined. E.g. to ensure that a click on an Inspector hotspot always hits the right target.

The next paragraphs are especially relevant when you consider enriching operations on palette items.

An example is the creation of a *pseudo barline*, Inputbox shortcut `bps`. Here the Y-offset of the element must be adjusted.

The Defined State reflects the preferences of your workflow. It is your ideal fixed layout of the screen. Do you prefer *full screen* or *maximized* screen? And which *toolbars* must be present? All this influences the **height** of the *docked* Inspector. But also the position and thus the surface coordinates of the Statusbar as seen above for the shortcut `1:| |:2.`

In choosing the **width** of the Inspector the main consideration is finding the optimal balance between maximum Canvas real estate and accessibility of important Inspector controls.

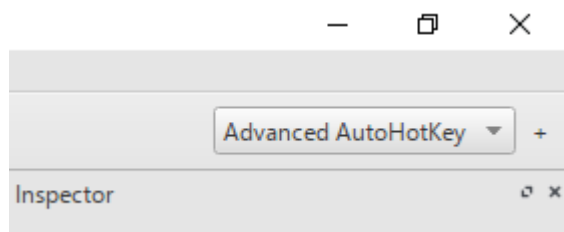
When the width of the Inspector inadvertently changes it is important that you can restore its width. The hotkey for this is `/ + W`. See page 5.

## A simple Defined State check

Whichever defined state you may have chosen in each defined state this **Inspector** image *will always occupy the same surface*.

Create this image and put it in your AHK working directory.

**Inspector** **IM\_01\_Inspector\_Inspector.png**



The image is part of the Inspector side panel. Shown is a Defined State consisting of a maximized screen and the toolbar *Note Input* combined with *Workspaces*.

The InspectorCheck is a subroutine at the end of the script.

ImageSearch, , , IM\_01\_X1, IM\_01\_Y1, IM\_01\_X2, IM\_01\_Y2, \*40 IM\_01\_Inspector\_Inspector.png

"Search for the image **IM\_01\_Inspector\_Inspector** ( **Inspector** ) within the rectangular surface determined by the upper-left corner with the coordinates **IM\_01\_X1** and **IM\_01\_Y1** and the lower-right corner with **IM\_01\_X2** and **IM\_01\_Y2** and allow 40 shades of color variation in the search. (\* 40)."

We inform AutoHotkey about the coordinates: the values are valid for the test screen

**IM\_01\_X1 := 1639**    These coordinates - values - belong as usual in *the auto-execute section* at the top of the .ahk file. The data will  
**IM\_01\_Y1 := 23**       be read automatically after launching it. Make the search  
**IM\_01\_X2 := 1697**    area a tiny bit bigger than the image. Use PixelMousing.  
**IM\_01\_Y2 := 43**

## Extra functionality of Gould arrow accidentals and voice colors

In the Defined State adding these accidentals will change the tuning of the notes. Determine the coordinates of these hotspots:



**IN\_111\_X := 1770**       Tuning       **IN\_112\_X := 1905**       Reset  
**IN\_111\_Y := 666**       **IN\_112\_Y := 666**

Selected elements take the color of their voice. AHK can search this color. The mouse will return to the note after the tuning, irrespective of a positional change of the note caused by the accidental. See *Mouse Select Color* page 14.

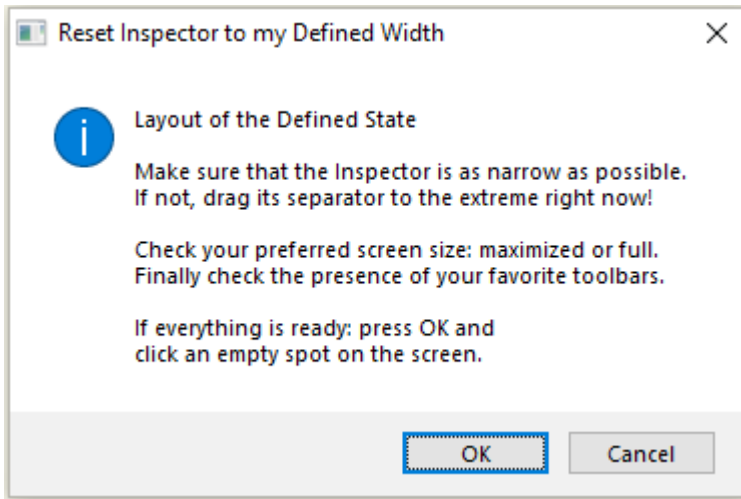
**ColorV1 := 0x0065bf**       ui/score/voice1/color  
**ColorV2 := 0x007f00**       ui/score/voice2/color  
**ColorV3 := 0xc53f00**       ui/score/voice3/color  
**ColorV4 := 0xc31989**       ui/score/voice4/color

Default colors. See  
MuseScore -> Preferences  
-> Advanced  
AHK uses 0x instead of #

## Resetting the width of the Inspector

For info screen  
Pixelmousing  
see page 14

After pressing / + **W** this message is displayed:



Determine the minimal width of the Inspector. This is a fixed number. Using PixelMousing you move the mouse from the extreme right to the point where the Inspector separator becomes active. Make a note of the X-coordinate.  
Enable drag at the pixel where the mouse cursor changes shape. Move the separator to the desired Inspector width. Disable drag. Make a note of the X-coordinate.

```
Min_Insp_Width := 1852           ; my found minimal Inspector width
Def_Insp_Width  := 1640           ; my defined inspector width
```

## Visual verification

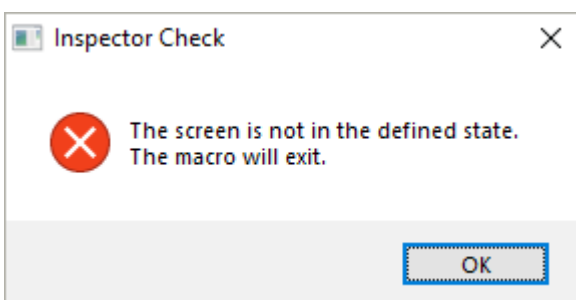
There is a calming appeal in having an on-screen indication that the Inspector has its defined width.

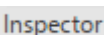


*Defined State: full screen, no toolbars*

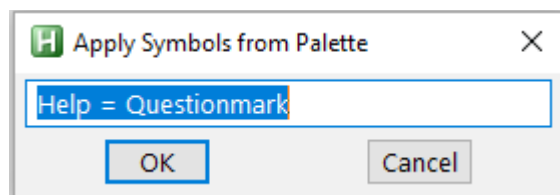
The indication is a tooltip. Its left border is aligned with the Inspector. Its position on the screen is described by the coordinates of its upper-left corner. So its X-coordinate is **Def\_Insp\_Width**.  
The picture shows a Defined State, fullscreen, no toolbars.  
Its Y-coordinate is 0, as high as possible. You can customize this in the auto-execute section. Searchterm (**\*change\***).

## Warning message

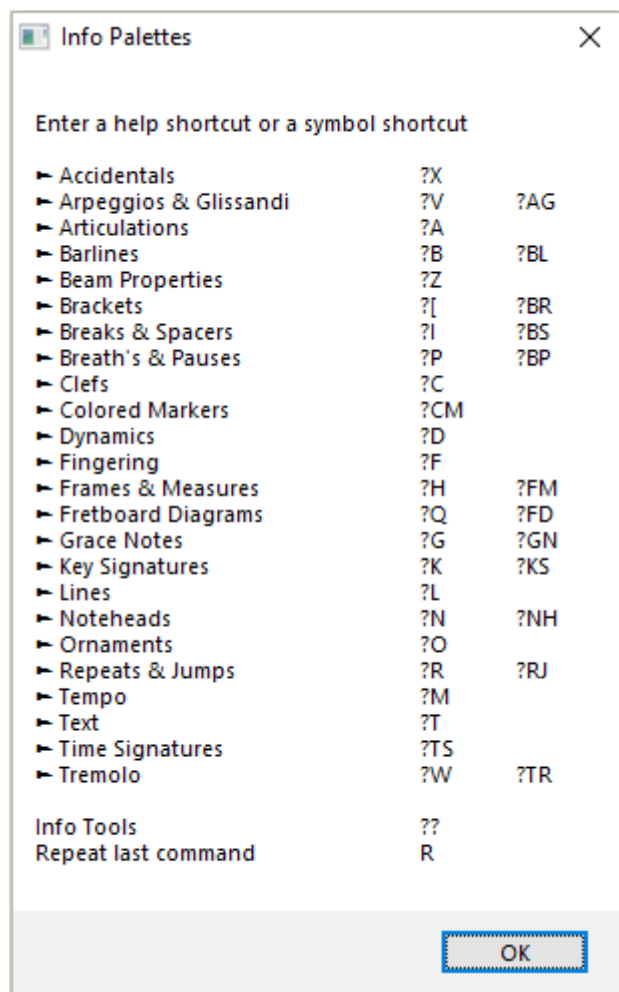


You get this message if the image  is not found.

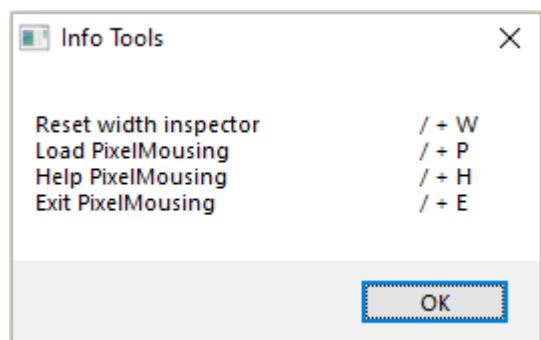
## Reference section - Info screens



After pressing *Enter* or inputting **?** we get

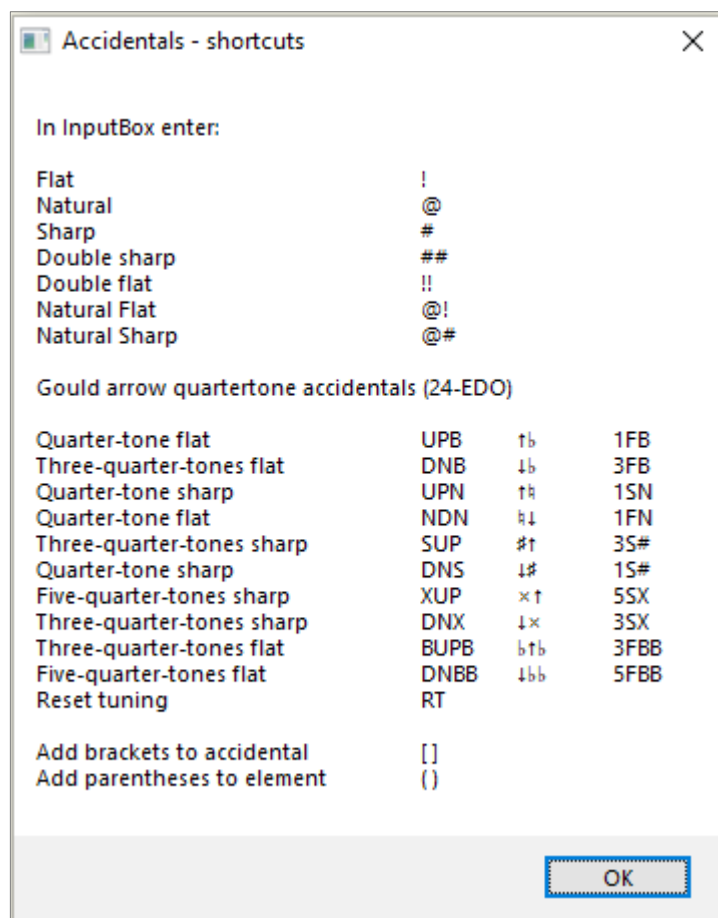


### ?? Info Tools



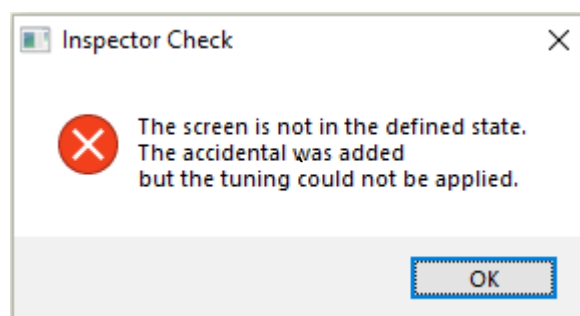
Help screen PixelMousing:  
see page 14

## Accidentals



In Defined State:  
automatic tuning Gould accidentals  
see page 4

### Protection against unpredictable edits



## Arpeggios & Glissandi

Arpeggios & Glissandi - shortcuts

In InputBox enter:

Arpeggio	A	ARP	
Arpeggio point up	APU	APU	ARPUP
Arpeggio point down	APD	APD	ARPDOWN
Arpeggio bracket	AB	AB	
Arpeggio arrow up	AAU	AAU	
Arpeggio arrow down	AAD	AAD	
Glissando line straight	GLS	GLS	
Glissando line wiggle	GLW	GLW	
Fall	F	FALL	
Doit	D	DOIT	
Plop	P	PLOP	
Scoop	S	SCOOP	
Slide out down	SOD	SOD	
Slide out up	SOU	SOU	
Slide in above	SIA	SIA	
Slide in below	SIB	SIB	

OK

## Articulations

Articulations - shortcuts

In InputBox enter:

Accent	A	
Accent staccato	A.	.A
Bend	B	
Downbow	DB	
Fade in	FI	
Fade out	FO	
Fermata	FM	
Harmonic	H	
Laissez vibrer	LV	
Long fermata	LFM	
Long fermata Henze	LFMH	
Louré	L	
Marcato	M	
Marcato staccato	M.	.M
Marcato tenuto	MT	TM
Muted	+	
Open	O	
Portato	P.	
Sawtooth line segment	SLS	
Idem wide line segment	SWLS	
Short fermata	SFM	
Short fermata Henze	SFMH	
Snap pizzicato	SP	
Soft accent	SA	
Soft accent staccato	SA.	
Soft accent tenuto	SAT	
Idem SAT staccato	SAT.	
Staccato	.	
Staccatissimo	..	
Staccatissimo stroke	..S	S..
Staccatissimo wedge	..W	W..
Stress	STR	
Tenuto	T	
Tenuto accent	TA	AT
Tenuto staccato	T.	.T
Tremolo bar	TB	
Unstress	UNSTR	
Upbow	UB	
Very long fermata	VLFM	
Very short fermata	VFSM	
Vibrato large faster	VLF	
Vibrato large slowest	VLS	
Volume swell	VS	

OK

## Barlines

Barlines - shortcuts

In InputBox enter:

Barline normal	BN	
Barline double	BD	
Barline start repeat	BSR	:
Barline end repeat	BER	:
Barline end-start repeat	BESR	: :
Barline dashed	DASH	----
Barline final	BF	
Barline dotted	B.	....
Barline tick 1 span #	BT1	
Barline tick 2 span #	BT2	
Barline short 1 span #	BS1	
Barline short 2 span #	BS2	
Barline pseudo (symbol)	BPS	

Combination  
 1-1-:|: 1-2- 1:|:2

# To reset these barlines use Inspector

OK

**1:|:2** See page 3

**BPS** See page 13



## Beam Properties

Beam Properties - shortcuts

In InputBox enter:

Start a beam	=SB
Middle beam	=MB
No beam	=NB
Start second level beam	=16B
Beam 16th sub	=16B
Start third level beam	=32B
Beam 32th sub	=32B
Autobeam	=AB
Feathered beam slower #	=FBS
Feathered beam faster #	=FBF

# Select beam. Reset in Inspector

OK

## Brackets

Brackets - shortcuts

In InputBox enter:

Bracket	[ [
Brace	[ {
Square	[ S
Line	[ L

OK

## Breaks and Spacers

Breaks & Spacers - shortcuts

In InputBox enter:

System break	SB
Page break	PB
Section break	XB
Staff spacer down	SSD
Staff spacer up	SSU
Staff spacer fixed	SSF

OK

## Breath's and Pauses

Breath's & Pauses - shortcuts

In InputBox enter:

Breath mark (comma)	BM,	
Breathmark tick-like	BM'	
Breathmark salzedo	BM,)	SALZ
Breathmark upbow-like	BMV	
Curved caesura	C)	
Caesura straight	C/	
Short caesura	C	
Thick caesura	C//	

OK

## Colored Marker Numbers

### Dynamics

Dynamics - shortcuts

In InputBox enter:

PPP	PP	P	MP	MF	F	FF	FFF
RF	RFZ	FZ	SF	SFZ	SFF	SFFZ	
SFPP	SFP	FP	M*	R*	S*	Z*	N*

OK

Colored Marker Numbers - shortcuts

User text style 'Colored Numbers'  
Font Edwin, bold, 12pt,  
independent on staff size

In InputBox enter:

Colored Marker Number 1	CM1
Colored Marker Number 2	CM2
etc. 3...14	
Colored Marker 15	CM15

# 15 is the color of 'invisible' elements

OK



## Clefs

Clefs - shortcuts

In InputBox enter:

Treble	CLT
Treble 8va	CLT8VA
Treble 15ma	CLT15MA
Treble 8vb	CLT8VB
Treble 15vb	CLT15VB
Double Treble 8vb	CLDT8VB
Treble optional 8vb	CLTO8VB
French violin clef	CLFVC
Soprano	CLS
Mezzo Soprano	CLMS
Alto	CLA
Tenor	CLTEN
Baritone	CLBAR
Bass	CLB
Bass 8va	CLB8VA
Bass 15ma	CLB15MA
Bass 8vb	CLB8VB
Bass 15mb	CLB15MB
Baritone F clef	CLBARF
Subbass	CLSB
Percussion	CLP
Percussion 2	CLP2
Tablature	CLTAB
Tablature 4 lines	CLTAB4

OK

## Fingering

Fingering - shortcuts

In InputBox enter:

Piano		LH Guitar	
0	P0	0	0
1	P1	1	1
2	P2	2	2
3	P3	3	3
4	P4	4	4
5	P5	5	5
		T	TH

Circled String		RH Guitar	
0	0c	p	-P
1	1c	i	-I
2	2c	m	-M
3	3c	a	-A
4	4c	c	-C
5	5c	Th pos	TP
6	6c		

Lute			
RH thumb		LT	
RH first finger		L1	
RH second finger		L2	
RH third finger		L3	

Finger substitution above	FSA
Finger substitution below	FSB

OK

## Frames and Measures

Frames & Measures - shortcuts

In InputBox enter:

Insert vertical frame	VF
Insert horizontal frame	HF
Insert text frame	TF
Insert one measure	1M

OK

## Grace Notes

Grace Notes - shortcuts

In InputBox enter:

Acciaccatura	AC
Acciaccatura #	ACS
Appoggiatura	AP
Appoggiatura #	APS
Grace quarter	G4
Grace 16th	G6
Grace 16th *	G6S
Grace 32nd	G3
Grace 32nd *	G3S
Grace eight after	G8A
Grace 16th after	G6A
Grace 16th after Δ	G6AS
Grace 32nd after	G3A
Grace 32nd after Δ	G3AS

# diatonically raised + slur

For all 16th and 32nd Grace Notes:  
 After the first to create another: press Y  
 To stop adding grace notes: press N

\* Adds a slur from first grace-note-before to main note  
 Δ Adds a slur from main-note-before to main-note-after

More gracenotes? Type Y.  
Stop? Type N.

OK

## Fretboard Diagrams

Fretboard diagrams - shortcuts

In InputBox enter:

QA	QA7	QAm
QB	QB7	QBm
QC	QC7	QCm
QD	QD7	QDm
QE	QE7	QEm
QF	QF7	QFm
QG	QG7	QGm

OK

## Key Signatures

Key Signatures - shortcuts

In InputBox enter:

MAJOR	MINOR	ENTER
G	E	1#
D	B	2#
A	F#	3#
E	C#	4#
B	G#	5#
F#	D#	6#
C#	A#	7#
F	D	1b
Bb	G	2b
Eb	C	3b
Ab	F	4b
Db	Bb	5b
Gb	Eb	6b
Cb	Ab	7b
C	A	0#0b
Open Atonal		XSIG

OK

## Noteheads

Noteheads - shortcuts

In InputBox enter:

Alt brevis	*AB
Circled	*C
Circled large	*CL
Cross	*X
Diamond	*D
Diamond old	*DO
Large arrow	*LAR
Normal	*N
Plus	*+
Slash	*//
Slashed forwards	*/
Slashed backwards	*\
Triangle up	*TU
Triangle down	*TD
With X	*XX
X circle	*XC
Do	DO
Re	RE
Mi	MI
Fa	FA
Sol	SOL
La	LA
Ti	TI
Add parentheses to element	()

OK

## Lines

Lines - shortcuts

In InputBox enter:

Ambitus #	AM
Cresc	C
Dim	D
Downprall line	DPL
Guitar vibrato	GV
Guitar vibrato wide	GVW
Hairpin crescendo	<
Hairpin decrescendo	>
Let ring	LR
Line	L
mf cresc pin	MFCP
Note anchored line	NAL
Palm mute	PM
Prall prall line	PPL
Prima volta	1V
Seconda volta	2V
Seconda volta open	2VO
Slur	S
Terza volta	3V
Text line	TL
Tremolo sawtooth wide	TSAW
Trill line	TRL
Upprall line	UPL
Vibrato sawtooth	VSAW
# Select clef	
Pedline continue-continue	PCC
Pedline continue-release	PCR
Pedline start-continue	PSC
Pedline start-stop	PSS
Pedline start-asterisk	PS*
Pedline start-release	PSR
Octaves	8VA
	8VB
	15MA
	15MB
	22MA
	22MB
Combination	
┌─1─┐:┌─2─┐	1:┌:┌─2

OK

## Ornaments

Ornaments - shortcuts

In InputBox enter:

Inverted turn	-T	-TURN
Turn	+T	+TURN TURN
Turn with slash	+T/	
Trill	TR	
Short trill	SHTR	
Upper Mordent, Prall	UM	PR
Lower, Inverted Mordent	IM	
Tremblement	TRMB	
Prall mordent	PRM	
Up prall	UPR	
Mordent upper prefix	MUP	
Up mordent	UPM	
Down prall	DPR	
Prall down	PRD	
Down mordent, Prall up	DM	PRU
Prall up, Line Prall	LPR	
Slide	SL	SLIDE

OK

1:┌:┌─2 See page 3

## Repeats and Jumps

Repeats and Jumps - shortcuts

In InputBox enter:

Repeat measure	RM!	!RM	R-M	R M
Segno	S!	!S	S1	SEGNO
Segno serpent § (variation)	SS	SV	S2	
Coda Φ	C!	!C	C1	CODA
Varied coda	VC	CV	C2	
Fine	F!	!F	FINE	
To Coda	TC			
Da Capo	DC			
Da Capo al Fine	DCAF			
Da Capo al Coda	DCAC			
Dalle Segno al Coda	DSAC			
Dalle Segno al Fine	DSAF			
D.S.	DS			
Start repeat	SR	:		
End repeat	ER	:		
End-start repeat	ESR	:  :		

OK

## Tempo

Tempo - shortcuts

In InputBox enter:

Half note =80	M2	MINIM		
Half note dotted =80	M2.	MINIM.		
Quarter =80	M4	CROTCHET		
Quarter dotted =80	M4.	CROTCHET.		
Eight =80	M8	QUAVER		
Eight dotted =80	M8.	QUAVER.		
Grave 35	GRA	GRAV	GRAVE	
Largo 50	LAR	LARG	LARGO	
Lento 52	LEN	LENT	LENTO	
Adagio 71	ADA	ADAG	ADAGI	ADAGIO
Andante 92	AND	ANDA	ANDAN	ANDANTE
Moderato 114	MOD	MODE	MODER	MODERATO
Allegretto 116	ALTO	A>	ALLEGRE	ALLEGRETTO
Allegro 144	ALRO	A<	ALLEGRO	
Vivace 172	VIV	VIVA	VIVAC	VIVACE
Presto 187	PRE	PRES	PREST	PRESTO

METRIC MODULATION

Quarter=dotted quarter	MM4=4.	MMC=C.
Dotted quarter=quarter	MM4.=4	MMC.=C
Half=quarter	MM2=4	MMM=C
Quarter=half	MM4=2	MMC=M
Eight=eight	MM8=8	MMQ=Q
Quarter=quarter	MM4=4	MMC=C

OK

## Text

Text - shortcuts

In InputBox enter:

Stafftext	#T	ST	STAFF	
System text	#S	SY	SYS	SYSTEM
Expression text	#E	EX	EXPR	
Change Instrument	#CI	CI		
Staff type change	#STC	STC		
Rehearsal mark	#RM	RM		
Swing	#SW	SW		
Pizzicato	#P	PIZZ	PI	
Arco	#A	ARCO	AR	
Tremolo	#TR	TREM	TREMOLO	
Mute	#M	MUTE	MU	
Open	#O	OPEN	OP	

OK

## Time Signatures

Time Signatures - shortc...

In InputBox enter:

FOR	ENTER
2/4	2/4
3/4	3/4
4/4	4/4
5/4	5/4
6/4	6/4
7/4	7/4
C	C4/4
C	C2/2
2/2	2/2
3/2	3/2
3/8	3/8
4/8	4/8
2+3/8	2+3/8
3+2/8	3+2/8
6/8	6/8
7/8	7/8
3+3+2/8	3+3+2/8
9/8	9/8
3+2+2+3/8	3+2+2+3/8
11/8	11/8
12/8	12/8
4/16	4/16
5/16	5/16
6/16	6/16

OK

## Tremolo

Tremolos - shortcuts

In InputBox enter:

1/8	stroke through stem	8		Q
1/16	stroke through stem	16	.6	SQ
1/32	stroke through stem	32	.2	DSQ
1/64	stroke through stem	64	.4	HDSQ
1/8	between notes	8=		Q=
1/16	between notes	16=	6=	SQ=
1/32	between notes	32=	2=	DSQ=
1/64	between notes	64=	4=	HDSQ=
Buzzroll		BR		BUZZ

OK

Additive time signatures:  
see note on page 13

## Supplement

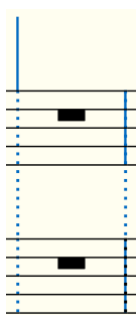
### The Pseudo barline

The 'pseudo barline' symbol got the shortcut **BPS**.

The barlines are members of a family whose Palette names all begin with a B. So in the Barlines Palette its name became *B-13-Symbol*.

In the .ahk file this resulted in these lines:

```
If (PaletteSymbol = "bps")           ; pseudo barline (symbol)
Send b-13
```



The pseudo barline makes it possible that a Grand staff has a dotted barline between its staves. After selecting a barline and pressing **Z + A ▶ BPS** the pseudo barline is initially positioned above the staff.

If the screen is in the Defined State the macro succeeds in adding an Y-offset of 4 spaces to get the barline on the right height within the staff.

Adding the pseudo barline was inspired by a forum discussion about Dotted Connected Barlines.

### A note about additive (or composite) time signatures

These time signatures use the **+** sign to show the subdivision in beat groups. In the .ahk file the line for sending a TimeSig like 3/8 is

```
If (PaletteSymbol = "3/8")
Send 3/8
```

But for the Time Sig 2+3/8 it is

```
If (PaletteSymbol = "2+3/8")
Send {Raw}2+3/8
```

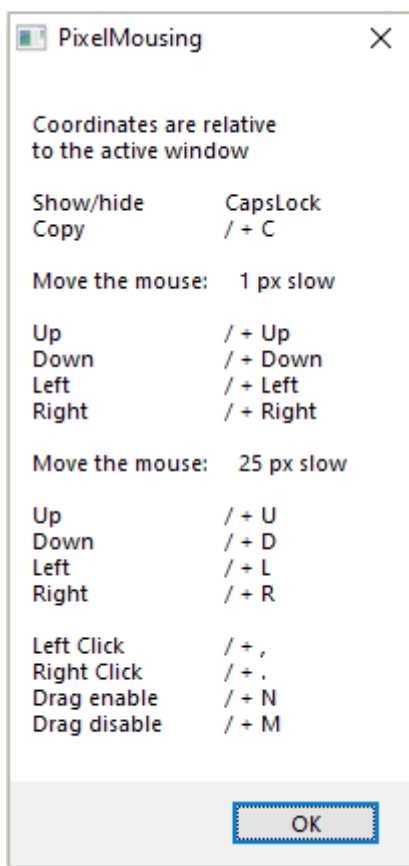
The difference is explained by the presence of the **+** sign.

Normally the **+** sign means *Shift* in AutoHotkey.

{Raw} must be added to send the plus sign literally.

Important if you create your own composite time signatures.

## Info PixelMousing



## Liberate prefix key /

In MuseScore the **/** key is the shortcut for *Add acciaccatura*.  
You could 'liberate' the **/** key by redefining the shortcut e.g. in **Shift + /**.

## Mouse Select Active Voice Color

With the AHK command **PixelSearch** any color can be found.  
Selected notes of headtype quarter will be found at small zoomfactors.

**ALT + Z** Search all voice colors - mouse selects active voice color.  
Now the mouse is on the element.

**Z + X** Right-click to access contextual menu.

If the search fails  
this message  
will pop up.

