MusicStrings

4.1 Notes

A C Major scale of quarter notes, starting at middle C, can be written as:

C5q D5q E5q F5q G5q A5q B5q C6q

or as:

C5/0.25 D5/0.25 E5/0.25 F5/0.25 G5/0.25 A5/0.25 B5/0.25 C6/0.25

or, if you have **/durations** set to pulses, as:

C5/32 D5/32 E5/32 F5/32 G5/32 A5/32 B5/32 C6/32

In addition to the note letters, A to G, you can use R for a rest. Sharps, flats and naturals can be added by placing the character #, b or n immediately after the note letter so B-flat above middle C is writen as Bb5.

Please note that, if you are transcribing music, accidentals in SongBase apply only to the immediately following note and not to the end of the bar as in conventional music notation.

MusicStrings can optionally be split into bars (or measures) by using the vertical bar character (|):

C5q D5q E5q F5q | G5q A5q B5q C6q |

As an alternative to note letters, MIDI values, enclosed in square brackets, may be used:

[60]q [62]q [64]q [65]q | [67]q [69]q [71]q [72]q |

4.1.1 Durations

The duration characters are:

w	whole note
h	half note
q	quarter note
i	eighth note
s	sixteenth note
t	thirty-second note
x	sixty-fourth note
o	one-twenty-eighth note

Dotted duration can be achieved by putting the period character (.) immediately after the duration character.

MusicStrings

4.1.2 Chords

Chords are formed by adding the constituent notes together. A C Major chord can be written as:

    C5q+E5q+G5q

4.1.3 Ties

Two or more notes of the same pitch can be tied together by using the hyphen character (-). Place the hyphen immediately after the duration of the note at the start of the tie and immediately before the duraton of the note at the end of the tie. Notes in the middle of the tie have hyphens placed immediately before and after the note duration:

    C5q D5q E5q F5q- | F5-w- | F5-q G5q A5q B5q |

4.2 Tempo

A tempo of 120 beats per minute can be expressed as:

    T120

or as:

    T[allegro]

Note the use of a pre-defined numeric constant within the square brackets. More tempo constants are available from *Insert/Tempo*.

4.3 Constants

Constants are defined using the $ character followed by the constant name.

4.3.1 Numeric Constants

Numeric constants can be used anywhere that a number would appear in a MusicString. In addition to the pre-defined constants available from the *Insert* menu, you can define your own constants. For example, a scale with non-standard MIDI values could be defined as:

    $A1=70
    $G=68
    $F=67
    $E=65
    $D=63
    $C=62
    $B=60
    $A=58

and played as: [A]q [B]q [C]q [D]q [E]q [F]q [G]q [A1]q

MusicStrings

4.3.2 String Constants

Suppose you wanted to use the following arpeggio several times in your music:

    F3i A3i C4i F4i C4i A3i

You could define a string constant as:

    $arpeggioFoctave3=F3i~A3i~C4i~F4i~C4i~A3i

Then, in your music, you could refer to it as:

    {arpeggioFoctave3}

Note the use of curly brackets for string constants.

4.4 Voices

Voices are specified by the V character followed by a number from 0 to 15. Note that V9 is the percussion voice and has its own set of instruments.

4.5 Key Signatures

Key signatures are specified by the K character followed by a note letter (or a note letter followed by # or b) followed by maj or min to indicate a major or minor scale.

4.6 Instruments

Instruments are specified by the I character followed by a number from 0 to 127. You can use *Insert/Instrument* to pick one of the pre-defined values.

4.7 MIDI Controller

MIDI controller events can be specified by the X character followed by the controller number followed by the equals sign (=) followed by a value. You can use *Insert/Controller* to pick one of the pre-defined controllers.

4.8 Pitch Wheel

A change of pitch can be specified by the & character followed by a number from 0 to 16383. This affects all following notes:

&0	lowers the pitch by a full tone;
&8192	returns the pitch to no change;
&16383	raises the pitch by a full tone.