



# Sibelius<sup>®</sup> Software

Using the ManuScript Language

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**Guide Part Number 9329-65696-00 REV A 5/16**

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# Chapter 1: Introduction

ManuScript is a simple, music-based programming language invented by Ben Sloman to write plug-ins for Sibelius. ManuScript is based on Simkin, an embedded scripting language developed by Simon Whiteside, and has been extended by him and the rest of the Sibelius team ever since. (Simkin is a spooky pet name for Simon sometimes found in Victorian novels.) For more information on Simkin, and additional help on the language and syntax, visit the Simkin website at [www.simkin.co.uk](http://www.simkin.co.uk).

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## Rationale

Providing a plug-in language for Sibelius addresses several different issues:

- Music notation is complex and infinitely extensible, so some users will sometimes want to add to a music notation program to expand its possibilities with these new extensions.
- It is useful to allow frequently repeated operations (for example, opening a MIDI file and saving it as a score) to be automated, using a system of scripts or macros.

Certain more complex techniques used in composing or arranging music can be partly automated, but there are too many to include as standard features in Sibelius.

There were several conditions that we wanted to meet in deciding what language to use:

The language had to be simple, as we want normal users (not just seasoned programmers) to be able to use it.

We wanted plug-ins to be usable on any computer, as the use of computers running both Windows and Mac OS X is widespread in the music world.

We wanted the tools to program in the language to be supplied with Sibelius.

We wanted musical concepts (pitch, notes, bars) to be easily expressed in the language.

We wanted programs to be able to talk to Sibelius easily (to insert and retrieve information from scores).

We wanted simple dialog boxes and other user interface elements to be easily programmed.

C/C++, the world's "standard" programming language(s), were unsuitable as they are not easy for the non-specialist to use, they would need a separate compiler, and you would have to recompile for each different platform you wanted to support (and thus create multiple versions of each plug-in).

The language Java was more promising as it is relatively simple and can run on any platform without recompilation. However, we would still need to supply a compiler for people to use, and we could not express musical concepts in Java as directly as we could with a new language.

So we decided to create our own language that is interpreted so it can run on different platforms, integrated into Sibelius without any need for separate tools, and can be extended with new musical concepts at any time.

The Manuscript language that resulted is very simple. The syntax and many of the concepts will be familiar to programmers of C/C++ or Java. Built into the language are musical concepts (Score, Staff, Bar, Clef, NoteRest) that are instantly comprehensible.

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## Technical Support

Since the Manuscript language is more the province of our programmers than our technical support team (who are not, in the main, programmers), we can't provide detailed technical help on it, any more than Oracle will help you with Java programming. This document and the sample plug-ins should give you a good idea of how to do some simple programming fairly quickly.

We would welcome any useful plug-ins you write – please contact us at [www.sibelius.com/plugins](http://www.sibelius.com/plugins) and we may put them on our web site; if we want to distribute the plug-in with Sibelius itself, we'll pay you for it.

Mailing list for plug-in developers

There is a growing community of plug-in developers working with Manuscript, and they can be an invaluable source of help when writing new plug-ins. To subscribe, go to <http://avid-listsrv1.avid.com/mail-man/listinfo/plugin-dev>.

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## System Requirements and Compatibility Information

Avid can only assure compatibility and provide support for hardware and software it has tested and approved.

For complete system requirements and a list of qualified computers, operating systems, hard drives, and third-party devices, visit: [www.avid.com/compatibility](http://www.avid.com/compatibility).



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## Conventions Used in Sibelius Documentation

Sibelius documentation uses the following conventions to indicate menu choices, keyboard commands, and mouse commands:

Convention	Action
File > Save	Choose Save from the File tab
Control+N	Hold down the Control key and press the N key
Control-click	Hold down the Control key and click the mouse button
Right-click	Click with the right mouse button

The names of Commands, Options, and Settings that appear on-screen are in a different font.

The following symbols are used to highlight important information:



*User Tips are helpful hints for getting the most from your Sibelius system.*



*Important Notices include information that could affect data or the performance of your Sibelius system.*



*Shortcuts show you useful keyboard or mouse shortcuts.*



*Cross References point to related sections in this guide and other Avid documentation.*



# Chapter 2: Sibelius Manuscript Language Tutorial

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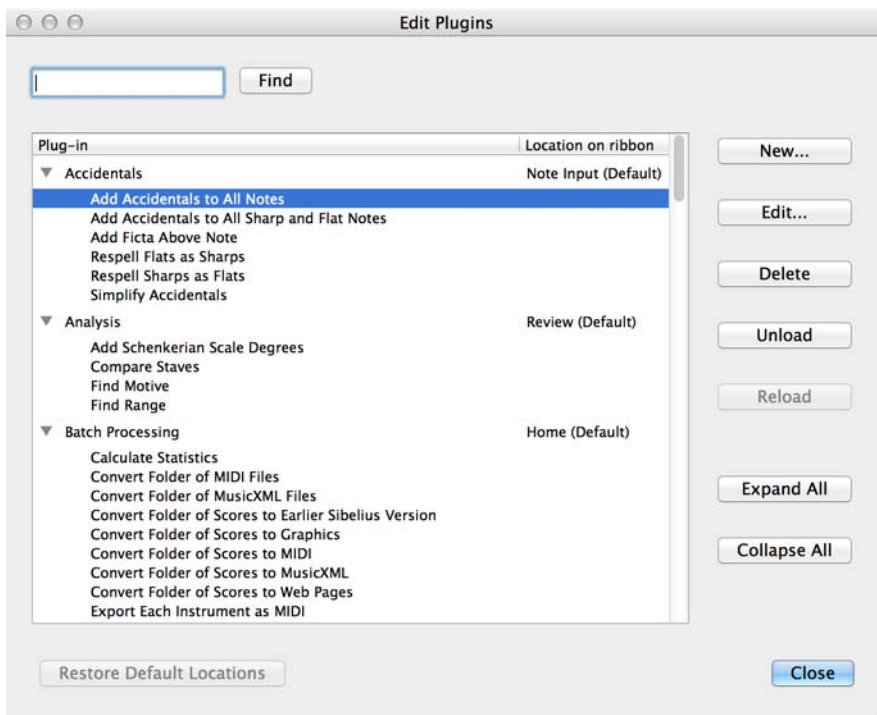
## Edit Plug-ins

### A Simple Plug-in

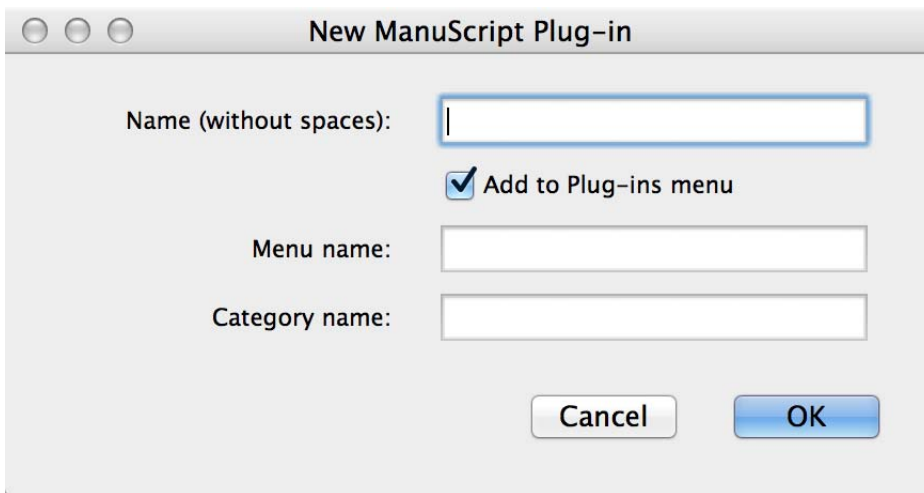
Let's start a simple plug-in. You are assumed to have some basic experience of programming (such as BASIC or C), so you're already familiar with ideas like variables, loops, and so on.

#### To create a new Sibelius plug-in:

- 1 Start Sibelius.
- 2 Choose File > Plug-ins > Edit Plug-ins. The following dialog appears:



3 Click New.



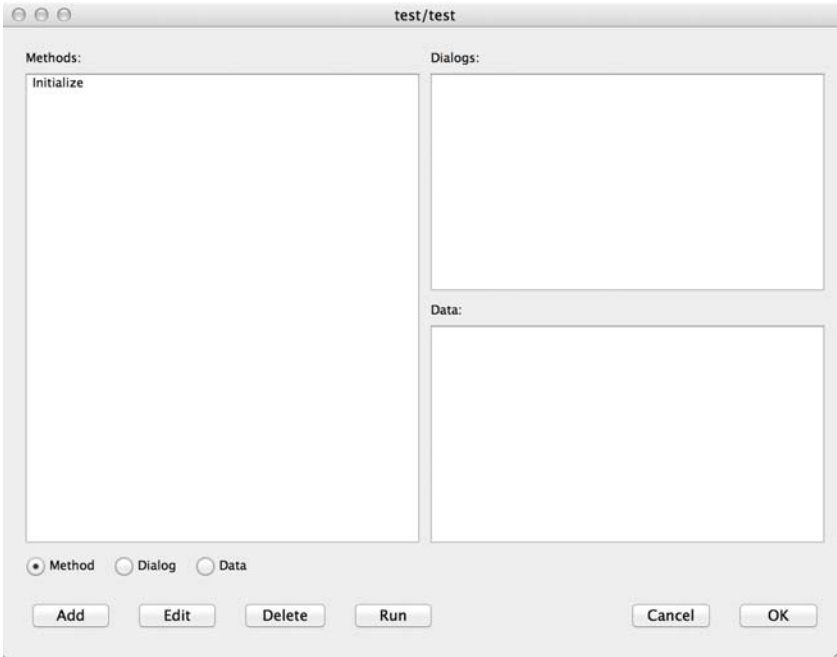
- 4 You are asked to type the internal name of your plug-in (used as the plug-in's filename), the name that should appear on the menu and the name of the category in which the plug-in should appear, which will determine which ribbon tab it appears on.

The reason for having two separate names for plug-ins is that filenames may be no longer than 31 characters on Macs running Mac OS 9 (which is only significant if you intend your plug-in to be used with versions of Sibelius prior to Sibelius 4), but the menu names can be as long as you like.

- 5 Type Test as the internal name, Test plug-in as the menu name and Tests as the category name, then click OK.
- 6 You'll see Test (user copy) added to the list in the Edit Plug-ins dialog under a new Tests branch of the tree view. Click Close. This shows the folder in which the plug-in is located (Tests, which Sibelius has created for you), the filename of the plug-in (minus the standard .plg file extension), and (user copy) tells you that this plug-in is located in your user application data folder, not the Sibelius program folder or application package itself.
- 7 If you look in the Home > Plug-ins gallery again you'll see a Tests category, with a Test plug-in underneath it.
- 8 Choose Home > Plug-ins > Tests > Test and the plug-in will run. You may first be prompted that you cannot undo plug-ins, in which case click Yes to continue (and you may wish to switch on the Don't say this again option so that you're not bothered by this warning in future.) What does our new Test plug-in do? It just pops up a dialog which says Test (whenever you start a new plug-in, Sibelius automatically generates in a one-line program to do this). You'll also notice a window appear with a button that says Stop Plug-in, which appears whenever you run any plug-in, and which can be useful if you need to get out of a plug-in you're working on that is (say) trapped in an infinite loop.
- 9 Click OK on the dialog and the plug-in stops.

## Three Types of Information

Let's look at what's in the plug-in so far. Choose File > Plug-ins > Edit Plug-ins again, then select Tests/Test (user copy) from the list and click Edit (or simply double-click the plug-in's name to edit it). You'll see a dialog showing the three types of information that can make up a plug-in:



### Methods

Methods are similar to procedures, functions, or routines in some other languages.

### Dialogs

The layout of any special dialogs you design for your plug-in.

### Data

Data are variables whose value is remembered between running the plug-in. You can only store strings in these variables, so they're useful for things like user-visible strings that can be displayed when the plug-in runs. For a more sophisticated approach to global variables, Manuscript provides custom user properties for all objects—see "Edit Plug-ins" on page 5.

### Methods

The actual program consists of the methods. As you can see, plug-ins normally have at least two methods, which are created automatically for you when you create a new plug-in:

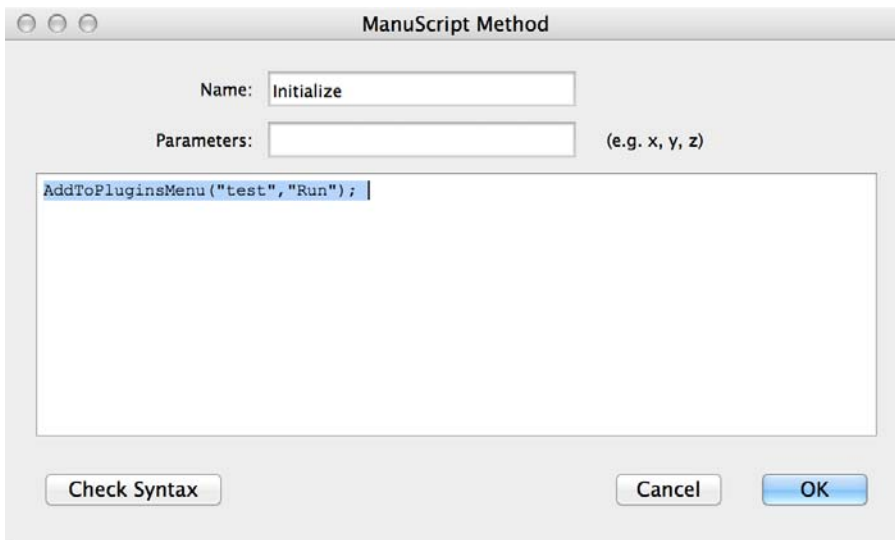
## Initialize

This method is called automatically whenever you start up Sibelius. Normally it does nothing more than add the name of the plug-in to the Plug-ins menu, although if you look at some of the supplied plug-ins you'll notice that it's sometimes also used to set default values for data variables.

## Run

This is called when you run the plug-in, you'll be startled to hear (it's like `main()` in C/C++ and Java). In other words, when you choose Home > Plug-ins > Tests > Test, the plug-in's Run method is called. If you write any other methods, you have to call them from the Run method—otherwise how can they ever do anything?

Click on Run, then click Edit (or you can just double-click Run to edit it). This shows a dialog where you can edit the Run method:



In the top field you can edit the name; in the next field you can edit the parameters (the variables where values passed to the method are stored); and below is the code itself:

```
Sibelius.MessageBox("Test");
```

This calls a method `MessageBox` which pops up the dialog box that says Test when you run the plug-in. Notice that the method name is followed by a list of parameters in parentheses. In this case there's only one parameter: because it is a string (that is, text) it is in double quotes. Notice also that the statement ends in a semicolon, as in C/C++ and Java. If you forget to type a semicolon, you'll get an error when the plug-in runs.

What is the role of the word `Sibelius` in `Sibelius.MessageBox`? In fact it's a variable representing the Sibelius program; the statement is telling Sibelius to pop up the message box (C++ and Java programmers will recognize that this variable refers to an "object"). If this hurts your brain, we'll go into it later.

---

## Editing the Code

Now try amending the code slightly. You can edit the code just like in a word processor, using the mouse and arrow keys, and you can also use Ctrl+X/C/V or ⌘X/C/V for cut, copy and paste respectively. If you right-click (Windows) or Control-click (Mac) you get a menu with these basic editing operations on them too.

Change the code to this:

```
x = 1;  
x = x + 1;  
Sibelius.MessageBox("1 + 1 = " & x);
```

You can check this makes sense (or, at least, some kind of sense) by clicking the Check Syntax button. If there are any blatant mistakes (e.g. missing semicolons) you will be notified where they are.

Then close the dialogs by clicking OK, OK again then Close. Run your amended plug-in from the Plug-ins menu and a message box with the answer  $1 + 1 = 2$  should appear.

How does it work? The first two lines should be obvious. The last line uses `&` to stick two strings together. You cannot use `+` as this works only for numbers (if you try it in the example above, you will get an interesting answer!).

One pitfall: try changing the second line to:

```
x += 1;
```

Then click Check syntax. You will encounter an error: this syntax (and the syntax `x++`) is allowed in various languages but not in Manuscript. You have to do `x = x+1;`.

## Where Plug-ins are Stored

Plug-ins supplied with Sibelius are stored in folders buried deep within the Sibelius program folder on Windows, and inside the application package (or “bundle”) on Mac. It is not intended that end users should add extra plug-ins to these locations themselves, as we have provided a per-user location for plug-ins to be installed instead. When you create a new plug-in or edit an existing one, the new or modified plug-in will be saved into the per-user location (rather than modifying or adding to the plug-ins in the program folder or bundle):

- On Windows, additional plug-ins are stored at `C:\Users\username\AppData\Roaming\Avid\Sibelius\Plugins`.
- On Mac, additional plug-ins are stored in subfolders at `/Users/username/Library/Application Support/Avid/Sibelius/Plugins`.

This is worth knowing if you want to give a plug-in to someone else. The plug-ins appear in subfolders which correspond to the categories in which they appear in the various Plug-ins galleries. The filename of the plug-in itself is the plug-in’s internal name plus the `.plg` extension, such as `Test.plg`.

(Sibelius includes an automatic plug-in installer, which you can access via `File > Plug-ins Install Plug-ins`. This makes it easy to download and install plug-ins from the Sibelius web site.)

## Line Breaks and Comments

As with C/C++ and Java, you can put new lines wherever you like (except in the middle of words), as long as you remember to put a semicolon after every statement. You can put several statements on one line, or put one statement on several lines.

You can add comments to your program, again like C/C++ and Java. Anything after `//` is ignored to the end of the line. Anything between `/*` and `*/` is ignored, whether just part of a line or several lines:

```
// comment lasts to the end of the line
/* you can put
several lines of comments here
*/
```

For instance:

```
Sibelius.MessageBox("Hi!"); // print the active score
```

or:

```
Sibelius /* this contains the application */ .Message-
Box("Hi!");
```

## Variables

`x` in the Test plug-in is a variable. In Manuscript a variable can be any sequence of letters, digits or `_` (underscore), as long as it does not start with a digit.

A variable can contain an integer (whole number), a floating point number, a string (text) or an object (such as a note)—more about objects in a moment. Unlike most languages, in Manuscript a variable can contain any type of data—you do not have to declare what type you want. Thus you can store a number in a variable, then store some text instead, then an object.

Try this:

```
x = 56; x = x+1;
Sibelius.MessageBox(x); // prints '57' in a dialog box
x = "now this is text"; // the number it held is lost
Sibelius.MessageBox(x); // prints 'now this is text' in a dia-
log
x = Sibelius.ActiveScore; // now it contains a score
Sibelius.MessageBox(x); // prints nothing in a dialog
```

Variables that are declared within a Manuscript method are local to that method; in other words, they cannot be used by other methods in the same plug-in. Global Data variables defined using the plug-in editor can be accessed by all methods in the plug-in, and their values are preserved over successive uses of the plug-in.

A quick aside about strings in Manuscript is in order at this point. Like many programming languages, Manuscript strings uses the back-slash `\` as an “escape character” to represent certain special things. To include a single quote character in your strings, use `\'`, and to include a new line you should use `\n`. Because of this, to include the backslash itself in a Manuscript string one has to write `\\`.



## Converting Between Numbers, Text, and Objects

Notice that the method **MessageBox** is expecting to be sent some text to display. If you give it a number instead (as in the first call to **MessageBox** above) the number is converted to text. If you give it an object (such as a score), no text is produced.

Similarly, if a calculation is expecting a number but is given some text, the text will be converted to a number:

```
x = 1 + "1"; // the + means numbers are expected  
Sibelius.MessageBox(x); // displays '2'
```

If the text doesn't start with a number (or if the variable contains an object instead of text), it is treated as 0:

```
x = 1 + "fred";  
Sibelius.MessageBox(x); // displays '1'
```

# Chapter 3: Reference

---

## Syntax

Here is an informal run-down of the syntax of Manuscript.

A method consists of a list of statements of the following kinds:

<b>Block</b>	<pre>{statements } for example:   {     a = 4;   }</pre>
<b>While</b>	<pre>while {expression } block for example:   while (i &lt; 3) {     Sibelius.MessageBox(i);     i = i + 1;   }</pre>

Switch	<pre>switch (test-expression) {   case (case-expression-1) block   [ case (case-expression-2) block ]   ...   [ default block ]</pre> <p>The switch statement consists of a “test” expression, multiple case statements and an optional default statement. If the value of test-expression matches one of the case-expressions, then the statement block following the matching case statement will be executed. If none of the case statements match, then the statement block following the default statement will be executed. For example:</p> <pre>switch (note.Accidental) {   case (DoubleSharp) {     Sibelius.MessageBox("Double sharp");   }   case (DoubleFlat) {     Sibelius.MessageBox("Double flat");   }   default {     Sibelius.MessageBox("No double");   } }</pre>
if else	<pre>if (expression) block [ else block ]</pre> <p>for example:</p> <pre>if (found) {   Application.ShowFindResults(found); } else {   Application.NotFindResults(); }</pre>
for each	<pre>for each variable in expression block</pre> <p>This sets variable to each of the sub-objects within the object given by the expression. Normally there is only one type of sub-object that the object can contain. For instance, a Note Rest (such as a chord) can only contain Note objects. However, if more than one type of sub-object is possible you can specify the type:</p> <pre>for each Type variable in expression block</pre> <p>for example:</p> <pre>for each NoteRest n in thisstaff {   n.AddNote(60); // add middle C }</pre>

<b>for</b>	<p><b>for</b> <i>variable = value to value</i> [<i> step value</i> ] <i>block</i></p> <p>The variable is stepped from the first value up to or down to the end value by the step value. It stops one step before the final value. So, for example:</p> <pre> for x=1 to note.NoteCount {     ... } </pre> <p>works correctly.</p>
<b>assignment</b>	<p><i>variable = expression ;</i></p> <p>for example: <i>value = value + 1 ;</i></p> <p>or</p> <p><i>variable.variable = expression ;</i></p> <p>for example: <b>Question.CurrentAnswer=True;</b></p>
<b>method call</b>	<p><i>variable.identifier (comma-separated expressions) ;</i></p> <p>for example: <b>thisbar.AddText (0, "Mozart", "text.system.composer" ) ;</b></p>
<b>self method call</b>	<p><i>identifier (comma-separated expressions) ;</i></p> <p>Calls a method in this plug-in, for example: <b>CheckIntervals ( ) ;</b></p>
<b>return</b>	<p><b>return</b> <i>expression ;</i></p> <p>Returns a value from a plug-in method, given by the expression. If a method doesn't contain a <b>return</b> statement, then a "null" value is returned (either the number zero, an empty string, or the <b>null</b> object described below).</p>

---

## Expressions

Here are the operators, literals and other beasts you're allowed in expressions.

<b>Self</b>	This is a keyword referring to the plug-in owning the method. You can pass yourself to other methods, for example: <code>other.Introduce(Self);</code>
<b>null</b>	This is a literal object meaning "nothing."
<b>Identifier</b>	This is the name of a variable or method (letters, digits or underscore, not starting with a digit) you can precede the identifier with @ to provide indirection; the identifier is then taken to be a string variable whose value is used as the name of a variable or method. <i>variable.variable</i>
<b>member variable</b>	This accesses a variable in another object.

**integer** for example:  
**. 1, 100, -1**

**floating point number** for example:  
**1.5, 3.15, -1.8**

Text in double quotes, for example: "some text." For strings that are rendered by Sibelius as part of the score, i.e. the contents of some text object, there is a small but useful formatting language allowing one to specify how the text should appear. These "styled strings" contain commands to control the text style. All commands start and end with a backslash (\) The full list of available styling commands is as follows:

<code>\n\</code>	New paragraph
<code>\N\</code>	New line
<code>\B\</code>	Bold on
<code>\b\</code>	Bold off
<code>\I\</code>	Italic on
<code>\i\</code>	Italic off
<code>\U\</code>	Underline on
<code>\u\</code>	Underline off
<code>\fArial Black\</code>	Font change to Arial Black (for example)
<code>\ctext.character.musictext\</code>	Character style change to Music text (for example)
<code>\f_\</code>	Font change to text style's default font, including removing any active character styles
<code>\s123\</code>	Size change to 123 (units are 1/32nds of a space, not points)
<code>\v\</code>	Vertical scale in percent
<code>\h\</code>	Horizontal scale in percent
<code>\t\</code>	Tracking (absolute) in 1/32nds of a space
<code>\p\</code>	Baseline adjustment: use normal, sub (for subscript) or super (for superscript)
<code>\\$keyword\</code>	Substitutes a string from the Score Info dialog (see below)

A consequence of this syntax is that backslashes themselves are represented by `\\`, to avoid conflicting with the above commands.

The substitution command `\\$keyword\` supports the following keywords: **Title, Composer, Arranger, Lyricist, MoreInfo, Artist, Copyright, Publisher** and **PartName**.

Each of these correspond to a field in the File > Score Info dialog.

**not** *expression*

**not** Logically negates an expression, for example:  
**not (x=0)**  
*expression and expression*

**and** Logical and, for example:  
**FoxFound and BadgerFound**  
*expression or expression*

**or** Logical or, for example:  
**FoxFound or BadgerFound**  
*expression = expression*

**equality** Equality test, for example:  
**Name="Clock"**

	<i>expression - expression</i>
<b>subtract</b>	Subtraction, for example: <code>12-1</code> <i>expression + expression</i>
<b>add</b>	Addition, for example: <code>12+1</code> <i>-expression</i>
<b>minus</b>	Inversion, for example: <code>-1</code> <i>expression &amp; expression</i>
<b>concatenation</b>	Add two strings, for example: <code>Name = "Fred" &amp; "Bloggs"; // 'Fred Bloggs'</code>
	You can't use + as this would attempt to add two numbers, and sometimes succeed (!). For instance: <code>x = "2" + "2"; // same as x = 4</code> <i>(expression)</i>
<b>subexpression</b>	For grouping expressions and enforcing precedence, e.g. <code>(4+1)*5</code> <code>variable.identifier (comma-separated expressions);</code>
<b>method call</b>	for example: <code>x = monkey.CountBananas();</code> <i>Identifier (comma-separated expressions);</i>
<b>self method call</b>	Calls a method in this plug-in, for example: <code>x = CountBananas();</code>

---

## Operators

### Condition Operators

You can put any expressions in parentheses after an **if** or **while** statement, but typically they will contain conditions such as = and <. The available conditions are very simple:

<code>a = b</code>	equals (for numbers, text or objects)
<code>a &lt; b</code>	less than (for numbers)
<code>a &gt; b</code>	greater than (for numbers)
<code>c and d</code>	both are true
<code>c or d</code>	either are true
<code>not c</code>	inverts a condition, e.g. <code>not (x=4)</code>
<code>&lt;=</code>	less than or equal to
<code>&gt;=</code>	greater than or equal to
<code>!=</code>	not equal to

Use = to compare for equality, not == as found in C/C++ and Java.

## Arithmetic

<b>a + b</b>	add
<b>a - b</b>	subtract
<b>a * b</b>	multiply
<b>a / b</b>	divide
<b>a % b</b>	remainder
<b>-a</b>	negate
<b>(a)</b>	evaluate first

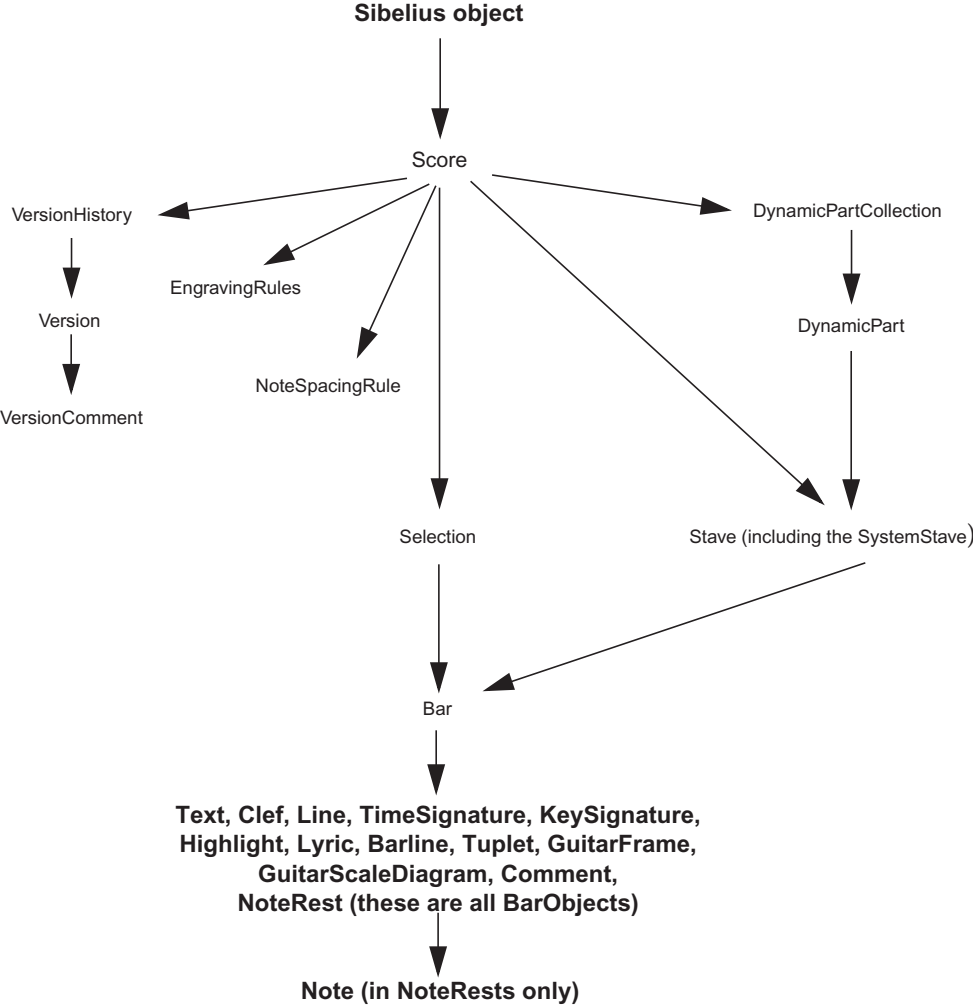
ManuScript will evaluate expressions from left to right, so that **2+3\*4** is 20, not 14 as you might expect. To avoid problems with evaluation order, use parentheses to make the order of evaluation explicit. To get the answer 14, you'd have to write **2+(3\*4)**.

ManuScript also now supports floating point numbers, so whereas in previous versions **3/2** would work out as 1, it now evaluates to 1.5. Conversion from floating point numbers to integers is achieved with the **RoundUp(expr)**, **RoundDown(expr)** and **Round(expr)** functions, which can be applied to any expression.

# Chapter 4: Object Reference

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## Hierarchy of Objects





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# All Objects

## Methods

### **AddToPluginsMenu**( "menu text", "function name" )

Adds a new menu item to the Plug-ins menu. When the menu item is selected the given function is called. This is normally only used by plug-ins themselves. This method may only be called once per plug-in (that is each plug-in may only add one item to the Plug-ins menu); subsequent method calls will be ignored.

### **Asc**( expression )

Returns the ASCII value of a given character (the expression should be a string of length 1).

### **CharAt**( expression , position )

Returns the character from the expression at the given (zero-based) position, for example **CharAt**( "Potato", 3 ) would give "a."

### **Chr**( expression )

Returns a character (as a string) with the given ASCII value. This can be used for inserting double quotes (") into strings with **Chr**( 34 ).

### **CreateArray**( )

Returns a new array object.

### **CreateHash**( )

Returns a new hash-table object.

### **GetValidationError**( object )

Returns the validation error, if any, of the specified *object*. Useful to pass validation errors to the plug-in trace window.

### **ExitPlugin**( )

Exits the plug-in cleanly without dropping into the plug-in editor

### **IsObject**( expression )

Returns 1 (or **True**) if expression evaluates to an object rather than a null, boolean, string, or any number.

(Not to be confused with the **ISPassage** variable of Selection objects!)

### **IsValid**( object )

Returns 1 (or **True**) if the object is valid, returns 0 (or **False**) if the object no longer exists (that is has been deleted).

**JoinStrings**(*expression*, *delimiter*)

Joins together (concatenates) an array of strings into a single string, separated by the string delimiter.

**Length**(*expression*)

Gives the number of characters in the value of the expression.

**Round**(*expression*)

Returns the nearest integer to the value of the expression, for example **Round**(1.5) would be “2” and **Round**(1.3) would be “1.”

**RoundDown**(*expression*)

Returns the nearest integer less than the value of the expression, for example **RoundDown**(1.5) would be “1.”

**RoundUp**(*expression*)

Returns the nearest integer greater than the value of the expression, for example **RoundUp**(1.5) would be “2.”

**SplitString**(*expression*, [*delimiter*], [*trimEmpty*])

Splits a string into an array of strings, using the given delimiter. The delimiter can be a single character or a string containing several characters – for instance “.,” would treat either a comma or full stop as a delimiter. The default delimiter is the space character. If the *trimEmpty* parameter is **True** then this will ignore multiple delimiters (which would otherwise produce some empty strings in the array). The default value of *trimEmpty* is **False**.

```
s=':a:b:c';
bits=SplitString(s,':', false);
// bits[0] = ''; bits[1] = 'a'; bits[2] = 'b' ...
s='a b c';
bits=SplitString(s,' ', true);
// bits[0] = 'a'; bits[1]='b' ...
```

**StopPlugin**(*[message]*)

Stops the plug-in, and shows the optional *message* in an alert box. Opens the plug-in editor at the line of code reached.

**Substring**(*expression*, *start*, [*length*])

This returns a substring of the expression starting from the given start position (zero-based) up to the end of the expression, for example **Substring**(“Potato”, 2) would give “tato”. When used with the optional length parameter, Substring returns a substring of the of the expression starting from the given start position (zero-based) of the given length, for example **Substring**(“Potato”, 2, 2) would give “ta”.

**Trace**(*expression*)

Sends a piece of text to be shown in the plug-in trace window, for example **Trace**(“Here 's a trace”);

**ValidationChecking**(*enable*[, *object1*[, *object2*]...])

If *enable* is the only parameter, validation checking is enabled for all types of objects, and across all plug-ins. If you supply one or more *object* parameters (such as **Tuplet**, **Score**, **BarObject**, and so on), only those objects will be checked, and only in the currently running plug-in. You should ensure **ValidationChecking** is set to **false** before you give your plug-ins to anybody else to use.

## User Properties

All objects (except for the **Sibelius** object, old-style Manuscript arrays created using **CreateArray()**, old-style Manuscript hashes created using **CreateHash()**, and **null**) can also have user properties assigned to them.

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## Accessibility

Accessed from the Sibelius object.

## Methods

None.

## Variables

### **ScoreDescription**

Returns **true** if Sibelius's built-in score description functionality is enabled (read/write).

---

## Bar

A Bar contains BarObject objects.

**for each variable in** produces the BarObjects in the bar

**for each type variable in** produces the BarObjects of the specified type in the bar

## Methods

**AddBarNumber**(*new bar number*[, *format*[, *extra\_text*[, *prepend*[, *skip this bar*]]]])

Adds a bar number change to the start of this bar. *new bar number* should be the desired external bar number. The optional *format* parameter takes one of the three pre-defined constants that define the bar number format; see “Global Constants” on page 127. The optional *extra\_text* parameter takes a string that will be added after the numeric part of the bar number, unless the optional boolean parameter *prepend* is **True**, in which case the *extra\_text* is added before the numeric part of the bar number. If the optional *skip this bar* parameter is **True**, the bar number change is created with the Don't increment bar number option set. Returns the BarNumber object created.

### **AddChordSymbolFromPitches** (*position*, *pitches* [, *instrument style*])

Adds a chord symbol from the given array of *pitches* at the specified *position*. The optional instrument style parameter operates the same as in the **AddGuitarFrame** method (see above). If the method is unable to create a chord symbol, the method returns null; otherwise it returns the GuitarFrame object created.

### **AddClef** (*pos*, *concert pitch clef* [, *transposed pitch clef*])

Adds a clef to the staff at the specified position. *concert pitch clef* determines the clef style when **Notes > Transposing Score** is switched off; the optional *transposed pitch clef* parameter determines the clef style when this is switched on. Clef styles should be an identifier like “clef.treble”; for a complete list of available clef styles, see “Clef Styles” on page 135. Alternatively you can give the name of a clef style, such as “Treble,” but bear in mind that this may not work in non-English versions of Sibelius. Returns the Clef object created.

### **AddComment** (*sr*, *text* [, *color* [, *maximized*]])

Adds a comment at the specified *sr* position in the current bar, displaying the specified *text*. The optional *color* parameter allows you to specify the color of the comment that is created (if not specified, the comment is created with its default color), and the optional *maximized* Boolean parameter allows you to set the comment to be minimized (if not specified, the comment is created maximized by default). If you want to specify the *maximized* parameter without specifying a particular color, set *color* to **-1**.

### **AddCommentWithName** (*sr*, *text*, *username* [, *color* [, *maximized*]])

Adds a comment that will display a given *username* at the specified *sr* position in the current bar, displaying the specified *text*. The optional *color* parameter allows you to specify the color of the comment that is created (if not specified, the comment is created with its default color), and the optional *maximized* Boolean parameter allows you to set the comment to be minimized (if not specified, the comment is created maximized by default). If you want to specify the *maximized* parameter without specifying a particular color, set *color* to **-1**.

### **AddGraphic** (*file name*, *pos* [, *below staff* [, *x displacement* [, *y displacement* [, *size ratio*]]]])

Adds a graphic above or below the bar at a given position. If *below staff* is **True**, Sibelius will position the graphic below the staff to which it is attached, otherwise it will go above (the default). You may additionally displace the graphic from its default position by specifying *x*- and *y displacements*. These should be expressed in millimeters, the latter defining an offset from the top or bottom line of the staff, as appropriate. By default, the graphic will be created 5mm away from the staff. To adjust the size of the graphic, you may set a floating point number for its *size ratio*. When set to 1.0 (the default), the graphic will be created with a height equal to that of the staff to which it is attached. A value of 0.5 would therefore halve its size, and 2.0 double it. The graphic may be rescaled to a maximum of five times the height of its parent staff. This function returns **True** if successful, otherwise **False**.

### **AddGraphicToBlankPage** (*file name*, *nth page*, *x offset*, *y offset* [, *size ratio*])

Adds a graphic to a blank page belonging to the current bar. *nth page* specifies the particular blank page you would like the graphic to, starting from 1. The *x offset* and *y offset* parameters are floating point values relative to the size of the page the graphic is being added to. For example, an *x offset* of 0.0 would position the graphic at the very left of the page; 0.5 in the centre. You may specify the size of the graphic by specifying a value for *size ratio*. This defaults to 1.0, which has the same effect as creating a graphic in Sibelius manually using **Create > Graphic**. (As with **AddGraphic**, 0.5 would halve its size, and 2.0 double it.) The graphic may be rescaled to a maximum of five times its initial size. This function returns **True** if successful, otherwise **False**.

**AddGuitarFrame**(*position*, *chord name*[, *instrument style*[, *fingerings*])

Adds a chord symbol for the given *chord name* to the bar. The optional *instrument style* parameter should refer to an existing instrument type that uses tab, and should be specified by identifier; see “Instrument Types” on page 136. If *instrument style* is not specified, Sibelius will create a chord symbol that will optionally display a chord diagram using the default tab tuning associated with the instrument type used by the staff to which the chord symbol will be attached. The *position* is in 1/256th quarters from the start of the bar. The optional *fingerings* parameter gives the fingerings string to display above (or below) the guitar frame, if supplied. If the method is unable to create a chord symbol, the method returns null; otherwise it returns the GuitarFrame object created.

**AddInstrumentChange**(*pos*, *styleID*[, *add\_clef*[, *show\_text*[, *text\_label*[, *show\_warning*[, *warning\_label*,  
[*full\_instrument\_name*[, *short\_instrument\_name*]]]]]])

Adds an instrument change to the bar at the specified position. *styleID* is the string representing the instrument type to change to (see “Instrument Types” on page 136 for a list). The optional boolean parameter *add\_clef*, **True** if not specified, determines whether Sibelius will add a clef change at the same position as the instrument change if required (that is if the clef of the new instrument is different to that of the existing instrument). *show\_text* is an optional boolean parameter, **True** if not specified, determining whether or not the text label attached to the instrument change should be created shown (the default) or hidden. *text\_label* is an optional string parameter; if specified, Sibelius will use this string instead of the default string (the new instrument’s long name). *show\_warning* is an optional boolean parameter, **True** if not specified, determining whether or not Sibelius should create a text object (using the Instrument change staff text style) above the last note preceding the instrument change, announcing the instrument change and giving the player time to pick up the new instrument. *warning\_label* is an optional string parameter; if specified, Sibelius will use this string instead of the default string (the word “To” followed by the new instrument’s short name). You can also override the names Sibelius will give the instruments on subsequent systems. If a null string is passed to either *full\_instrument\_name* or *short\_instrument\_name* (or if the arguments are omitted), the instrument names will remain unchanged. Returns the InstrumentChange object created.

**AddKeySignatureFromText**(*pos*, *key name*, *major key*[, *add double barline*[, *hidden*[, *one staff only*]])

Adds a key signature to the bar. The key signature is specified by text name, such as “Cb” or “C#”. The third parameter is a Boolean flag indicating if the key is major (or minor). Unless the fourth parameter is set to **False**, a double barline will ordinarily be created alongside the key signature change. You may additionally hide the key signature change by setting *hidden* to **True**, and make the change of key appear on the bar’s parent staff only with the *one staff only* flag. Returns the key signature object created.

**AddKeySignature**(*pos*, *num sharps*, *major key*[, *add double barline*[, *hidden*[, *one staff only*]])

Adds a key signature to the bar. The key signature is specified by number of sharps (+1 to +7), flats (–1 to –7), no accidentals (0) or atonal (–8). The third parameter is a Boolean flag indicating if the key is major (or minor). Unless the fourth parameter is set to **False**, a double barline will ordinarily be created alongside the key signature change. You may additionally hide the key signature change by setting *hidden* to **True**, and make the change of key appear on the bar’s parent staff only with the *one staff only* flag. Returns the key signature object created.

**AddLine** (*pos*, *duration*, *line style* [, *dx* [, *dy* [, *voicenum* [, *hidden*]]]])

Adds a line to the bar. The line style can be an identifier such as “line.staff.hairpin.crescendo” or a name, such as “Crescendo”. For a complete list of line style identifiers that can be used in any Sibelius score, see “Line Styles” on page 131. Style identifiers are to be preferred to named line styles as they will work across all language versions of Sibelius. Returns the Line object created, which may be one of a number of types depending on the Line style used.

**AddLiveTempoTapPoint** (*position*)

Adds a Live Tempo tap point at the rhythmic position specified by *position*, in 1/256th quarters from the start of the bar.

**AddLyric** (*position*, *duration*, *text* [, *syllable type* [, *number of notes* [, *voicenum*]]]])

This method adds a lyric to the bar. The position is in 1/256th quarters from the start of the bar, and the duration is in 1/256th quarter units. The two optional parameters allow you to specify whether the lyric is at the end of a word (value is “1”, and is the normal value) or at the start or middle of a word (value is “0”), and how many notes the lyric extends beneath (default value 1). You can also optionally specify the voice in which the lyric should be created; if *voicenum* is 0 or not specified, the lyric is created in all voices. Returns the LyricItem object created.

**AddNote** (*pos*, *sounding pitch*, *duration* [, *tied* [, *voice* [, *diatonic pitch* [, *string number*]]]])

Adds a note to staff, adding to an existing NoteRest if already at this position (in which case the duration is ignored); otherwise creates a new NoteRest. Will add a new bar if necessary at the end of the staff. The position is in 1/256th quarters from the start of the bar. The optional tied parameter should be **True** if you want the note to be tied. Voice 1 is assumed unless the optional voice parameter (with a value of 1, 2, 3 or 4) is specified. You can also set the diatonic pitch, that is the number of the “note name” to which this note corresponds, 7 per octave (35 = middle C, 36 = D, 37 = E and so on). If a diatonic pitch of zero is given, a suitable diatonic pitch will be calculated from the MIDI pitch. The optional *string number* parameter gives a string number for this note, which is only meaningful if the note is on a tablature stave. If this parameter is not supplied then a default string number is calculated based on the current tablature stave type and the guitar tab fingering options (specified on the Notes page of File > Preferences). Returns the Note object created (to get the NoteRest containing the note, use **Note.ParentNoteRest**).

**AddPageNumber** (*[blank page offset]*)

Creates and returns a page number change at the end of the bar. Due to the nature of adding a page number change, a page break will also be created at the end of the bar. Therefore, the page number change will actually be placed at the start of the *next* bar. The desired properties of the page number change can be set by calling the appropriate methods on the Page Number Change object returned.

The *blank page offset* flag allows you to create page number changes on blank pages. If a bar object is followed by one or more blank pages, each blank page may also have a page number change of its own. If unspecified, the page number change will be created on the next available page (whether it contains music or not) after the bar, otherwise the user may specify a 1-based offset which refers to the *n*th blank page after the bar itself.

### **AddPageNumberAtStartOfBar()**

Creates and returns a page number change at the start of the bar. This is useful for adding a page number change at the very start of the score, that is to change the initial page number, by using this method on the first bar of the score. If used on a bar later in the score, it will create the page number change at the end of the previous bar, but unlike the **AddPageNumber** method, it will not force a page break, so in general the **AddPageNumber** method is recommended.

### **AddRehearsalMark([consecutive[, mark[, new prefix and suffix[, prefix[, suffix[, override defaults]]]])**

Adds a rehearsal mark above the bar. If no parameters have been specified, the rehearsal mark will inherit the properties of the previous rehearsal mark in the score, incrementing accordingly. Optionally, the appearance of the rehearsal mark may be overridden. If *consecutive* is **False**, Sibelius will not continue the numbering of the new rehearsal marks consecutively, but allow the user to set a new *mark*. A *mark* may be expressed as a number or a string. For example both **5** and **"e"** are both valid and equivalent values. If *new prefix and suffix* is **True**, the values set for *prefix* and *suffix* will be applied to the new rehearsal mark. The final parameter, *override defaults*, is a Boolean defaulting to **False** whose purpose it is to mimic the behavior of the option with the same name in the Rehearsal Mark dialog in Sibelius.

### **AddSpecialBarline(barline type[, pos])**

Adds a special barline to a given position in a bar; see “Global Constants” on page 127. If no position has been specified, start repeat barlines will snap to the start of the bar by default. All other special barline types will snap to the end.

### **AddSymbol(pos, symbol index or name)**

Adds a symbol to the bar at the specified position. If the second parameter is a number, this is taken to be an index into the global list of symbols, corresponding to the symbol’s position in the **Create > Symbol** dialog in Sibelius (counting left-to-right, top-to-bottom from zero in the top-left hand corner). Some useful symbols have pre-defined constants; see “Global Constants” on page 127. There are also constants defined for the start of each group in the **Create > Symbol** dialog, so that to access the 8va symbol, for example, you can use the index **OctaveSymbols + 2**.

It’s better to use indices rather than names, because the names will be different across the various language versions of Sibelius. Returns the Symbol object created, or **null** if no symbol can be added to the score.

### **AddText(pos, text, style[, voicenum])**

Adds the text at the given position, using the given text style. A staff text style must be used for a normal staff, and a system text style for a system staff. The styles should be an identifier of the form “text.staff.expression”; for a complete list of text styles present in all scores, see “Text Styles” on page 129. Alternatively you can give the name of a text style, eg. “Expression”, but be aware that this may not work in non-English versions of Sibelius. You can also optionally specify the voice in which the lyric should be created; if *voicenum* is 0 or not specified, the text object is created in all voices. Returns the Text object created.

### **AddTextToBlankPage(xPos, yPos, text, style, pageOffset)**

Adds the *text* at the given position, using the given text *style*. A blank page text style must be used; you cannot add staff text or system text to a blank page. *style* takes a style ID, using the form “text.blankpage.title”; for a complete list of text styles present in all scores, see “Text Styles” on page 129. *xPos* and *yPos* are the absolute

position on the page. *pageOffset* takes a positive number for a blank page following a special page break (the first blank page is 1), and negative for a blank page preceding the first bar of the score (the blank page immediately before the first bar is -1, the one before that -2, and so on). Returns the Text object created.

To add text to a blank page, first create the special page break using the **Bar.BreakType** variable, and set the number of blank pages using **Bar.NumBlankPages** or **Bar.NumBlankPagesBefore**. Then use **Bar.AddTextToBlankPage**.

**AddTimeSignature**(*top, bottom, allow cautionary, rewrite music[, use symbol]*)

Returns an error string (which will be empty if there was no error) which if not empty should be shown to the user. The first two parameters are the top and bottom of the new time signature. The third tells Sibelius whether to display cautionary time signatures from this time signature. If *rewrite music* is **True** then all the bars after the inserted the time signature will be rewritten. You can also create common time and alla breve time signatures. If you're creating a time signature in 4/4 or 2/2, set *use symbol* to **True** and Sibelius will replace the numbers of the time signature with their symbolic equivalent.

**AddTimeSignatureReturnObject**(*top, bottom, allow cautionary, rewrite music[, use symbol]*)

As above, but returns the time signature object created, or null if unsuccessful.

**AddTuplet**(*pos, voice, left, right, unit[, style[, bracket[, fullDuration]]]*)

Adds a tuplet to a bar at a given position. The *left* and *right* parameters specify the ratio of the tuplet, for example 3 (left) in the time of 2 (right). The *unit* parameter specifies the note value (in 1/256th quarters) on which the tuplet should be based. For example, if you wish to create an eighth note (quaver) triplet group, you would use the value 128. The optional *style* and *bracket* parameters take one of the pre-defined constants that affect the visual appearance of the created tuplet; see "Global Constants" on page 127. If *fullDuration* is true, the bracket of the tuplet will span the entire duration of the tuplet. Returns the Tuplet object created.

N.B.: If **AddTuplet()** has been given illegal parameters, it will not be able to create a valid Tuplet object. Therefore, you should test for inequality of the returned Tuplet object with *null* before attempting to use it.

**Bar**[*array element*]

Returns the nth item in the bar (counting from 0) for example **Bar[0]**

**Clear**(*[voice number]*)

Clears a bar of all its items, leaving only a bar rest. If a particular voice number is specified, only the items in that voice will be removed.

**ClearNotesAndModifiers**(*[voice number]*)

Clears a bar of all its notes, rests, tuplets and slurs, replacing them with a single bar rest. If a particular voice number is specified, only the items in that voice will be removed.

**Delete**()

Deletes and removes an entire bar from a score. This, by definition, will affect all the staves in the score.



### **DeletePageNumber** ( [*blank page offset*] )

Deletes the page number change at the end of the bar, or if there are one or more blank pages after the bar, any page number change that occurs on any of those blank pages. If *blank page offset* is unspecified, the page number change on the first page after the bar will be deleted.

### **GetClefAt** (*pos*)

Returns a Clef object corresponding to the current clef at the specified rhythmic position.

### **GetKeySignatureAt** (*pos*)

Returns a KeySignature object corresponding to the current clef at the specified rhythmic position.

### **GetInstrumentTypeAt** (*pos*)

Returns an InstrumentType object representing the instrument type used by the bar at the specified rhythmic position.

### **GetPageNumber** ( [*blank page offset*] )

Returns the page number change object at the end of the bar, or if the bar contains no page number change, null. As with **AddPageNumber**, you may get the page number change from any of the blank pages that follow the bar by specifying a valid *blank page offset*.

### **InsertBarRest** (*voice number* [, *rest type*])

Inserts a bar rest into the bar, but only if the bar is void of any NoteRests (or an existing bar rest) using the same *voice number*. The optional *rest type* parameter allows you to specify the type of bar rest or repeat bar to be created, defined by the constants **WholeBarRest** (the default if rest type is not specified), **BreveBarRest**, **OneBarRepeat**, **TwoBarRepeat** and **FourBarRepeat**. Returns True if successful.

### **NthBarObject** (*n*)

Returns the nth object in the bar, counting from 0.

### **RemoveLiveTempoTapPoint** (*position*)

Removes a Live Tempo tap point at the rhythmic position specified by *position*, in 1/256th quarters from the start of the bar.

### **ResetSpaceAroundBar** (*above* , *below*

) Does the equivalent of `Layout > Reset Space Above Staff` and/or `Reset Space Below Staff` for the given bar. Set *above* to **True** to reset the space above the staff, and *below* to **True** to reset the space below the staff.

### **Respace** ( )

Respaces the notes in this bar.

## Variables

### **BarNumber**

The bar number of this bar. This is the internal bar number, which always runs consecutively from 1 (read only).

### **BarObjectCount**

The number of objects in the bar (read only).

### **BreakType**

The break at the end of this bar, given by the constants **MiddleOfSystem**, **EndOfSystem**, **MiddleOfPage**, **EndOfPage**, **NotEndOfSystem**, **EndOfSystemOrPage** or **SpecialPageBreak**. To learn the correspondence between these constants and the menu in the **Bars** panel of the Properties window, see the discussion in “Global Constants” on page 127.

When you set the break at the end of a bar to be **SpecialPageBreak**, Sibelius will add one blank page after the break. You can then adjust the number of pages by setting the value of either **Bar.NumBlankPages** or **Bar.NumBlankPagesBefore**, or tell Sibelius to restart the music on the next left or right page with **Bar.MusicRestartsOnPage**.

### **ExternalBarNumber**

This has been deprecated as of Sibelius 5, because it can only return a number, and bar numbers that appear in the score may now include text. Use **ExternalBarNumberString** instead, which returns the external bar number of this bar, taking into account bar number changes in the score (read only). Note that you cannot pass this bar number to any of the other Manuscript accessors; they all operate with the internal bar number instead.

### **ExternalBarNumberString**

The external bar number of this bar as a string, taking into account bar number changes and bar number format changes (read only). Note that you cannot pass this bar number to any of the other Manuscript accessors; they all operate with the internal bar number instead.

### **GapAfter**

Sets the gap (in spaces) after the bar (read/write)

### **GapBefore**

Sets the gap (in spaces) before the bar (read/write).

### **InMultirest**

Returns one of four global constants describing if and/or where the bar falls in a multirest (read only). The constants are **NoMultirest**, **StartsMultirest**, **EndsMultirest** and **MidMultirest**; see “Global Constants” on page 127.

### **Length**

The rhythmic length (read only).

### **MusicRestartsOnPage**

Tells Sibelius to restart the music on the next left or right page after a special page break, and can only be set if **BreakType** is **SpecialPageBreak**. This variable may be set to only *two* of the global special page break constants: **MusicRestartsOnNextLeftPage** or **MusicRestartsOnNextRightPage** (write only).

### **NthBarInSystem**

Returns the position of the bar in the system, relative to the first bar on the system (bar 0) (read only).

### **NumBlankPages**

The number of blank pages following the bar containing a special page break.

### **NumBlankPagesBefore**

The number of blank pages preceding the bar containing a special page break. This value only has an effect if a special page break exists in bar 1.

### **OnHiddenStave**

Returns **True** if the bar is currently hidden by way of **Hide Empty Staves** (read only).

### **OnNthPage**

Returns the zero-based page number on which the bar occurs in the current part (read only).

### **OnNthPageExternal**

Returns a string containing the external page number (which is the page number displayed in the score) of the page in which the bar occurs.

### **OnNthSystem**

Returns the zero-based system number (relative to its parent page) in which the bar occurs (read only).

### **ParentStaff**

The staff containing this bar (read only).

### **SectionEnd**

Corresponds to the **Section end** checkbox on the **Bars** panel of **Properties** (read/write).

### **Selected**

Returns **True** if the entire bar is currently selected (read only).

### **SpecialPageBreakType**

Returns the type of the special page break; see the documentation for the Special page break types in “Global Constants” on page 127 (read only).

## **SplitMultirest**

When **True**, a multirest intersecting the bar in question will be split (read/write).

## **Time**

The time at which the bar starts in the score in milliseconds (read only).

---

## Barline

Accessed from a Barlines object.

## Methods

None.

## **Variables**

### **BottomStaff**

Returns the Staff object at which the barline ends, relative to the current part.

### **BottomStaffNum**

Returns the number of the bottom staff included in the barline, relative to the current part.

### **TopStaff**

Returns the Staff object at which the barline starts, relative to the current part.

### **TopStaffNum**

Returns the number of the top staff included in the barline, relative to the current part.

---

## Barlines

Accessed from a Score object. Corresponds to the barline groupings in the score.

**for each** *barline* **in** iterates through all the barlines in the list, for example:

```
s = Sibelius.ActiveScore;
barlines = s.Barlines;
for each barline in barlines {
  // do something with barlines here
}
```

Array access [*int n*] returns the *n*th barline in the list, or null if the barline does not exist.

## Methods

### **AddBarline**(*top staff number*, *bottom staff number*)

Creates a new bar line inclusively spanning the staff numbers (relative to the current part) supplied. Returns the new Barline object created, or null if it fails.

### **ClearAll**()

Removes all the barlines from the score.

### **DeleteNthBarline**(*index*)

Removes a given barline identified by *index* from the score.

## Variables

### **NumChildren**

Returns the number of unique barlines in the score (read only).

---

## BarObject

BarObjects include Clef, Line, NoteRest & Text objects. All the methods and variables below apply to all specific types of BarObject—they are listed here instead of separately for each type. (To object-oriented programmers, the NoteRest, Clef and those types are derived from the base class BarObject.)

## Methods

### **Delete**()

Deletes an item from the score. This will completely remove text objects, clefs, lines and so on from the score; however, when a NoteRest is deleted, it will be converted into a rest of similar duration. To delete multiple items from a bar, see “Deleting Multiple Objects from a Bar” on page 35.

### **Deselect**()

Removes the object from the selection list of the parent score. If the selection is currently a passage selection, it is first changed to a multiple selection before the object is deselected. Returns **True** if the object is successfully removed from the selection.

### **FreezeMagneticLayoutPositions**()

Does the same as selecting an object and choosing Layout > Freeze Magnetic Layout Positions, that explicitly sets the object’s **Dx/Dy** to the position produced by Magnetic Layout, then disables Magnetic Layout for that object.

### **GetIsInVoice**(*voicenum*)

Returns **True** if the object is in the *voicenum* specified.

### **GetPlayedOnNthPass(*n*)**

Returns **True** if the object is set to play back the *n*th time.

### **NextItem([*voice*[, *item type*]])**

Returns the next item in the parent bar of the current item, or **null** if no item exists. If no arguments have been supplied, the very next item in the bar will be returned, regardless of its voice number and item type. You may additionally specify the voice number of the object you're looking for (1 to 4, or 0 for any voice number), and the item's type. Note that an item will only be returned if it exists in the same bar as the source item. By way of example, to find the next crescendo line in voice 2, you would type something along the lines of: **hairpin = item.NextItem(2, "CrescendoLine");**

### **PreviousItem([*voice*[, *item type*]])**

As above, but searches backwards.

### **RemoveVoice(*voicenum*)**

Removes the object from the specified *voicenum*, leaving the object in all remaining voices.

### **ResetPosition([*horizontal*[, *vertical*]])**

Performs **Layout > Reset Position** on the object. If you supply no parameters, this method will reset both the horizontal and vertical position of the object. If either or both of the optional Boolean parameters *horizontal* or *vertical* is set to **True**, you can reset the position of the object either horizontally or vertically independently if required.

### **ResetDesign()**

Performs **Layout > Reset Design** on the object.

### **Select()**

Appends the object to the selection list of the parent score. A multiple selection consisting of any number of individual objects can be built up by repeatedly calling **Select** on each object you wish to add to the list. Note that calling **Select** on a BarObject will first clear any existing passage selection.

### **SetAllVoices()**

Sets the object to be in all voices. This has no effect on some types of object, such as NoteRests.

### **SetVoice(*voicenum*[, *clear other voices*])**

Sets the object to be in voice *voicenum*, optionally removing the object from all other voices if the Boolean parameter *clear other voices* is **True**.

### **ShowInAll()**

Shows the object in the full score, and in all relevant parts; equivalent to **Edit > Hide** or **Show > Show In All**.

### **ShowInParts ( )**

Hides the object in the full score, and shows it in all relevant parts; equivalent to **Edit > Hide** or **Show > Show In Parts**.

### **ShowInScore ( )**

Hides the object in all relevant parts, and shows it in the full score; equivalent to **Edit > Hide** or **Show > Show In Score**.

### **SetPlayedOnNthPass (n, do play)**

Tells Sibelius whether or not the object should play back the *n*th time.

### **TimeOnNthPass (n)**

Returns the time at which the object occurs in the score in milliseconds on the *n*th pass through the score, where *n* is an integer specifying the pass (specify **1** for the first pass through the score), or returns **-1** in the case of an error (because the specified value of *n* is out of range).

## Variables

### **CanBeInMultipleVoices**

Returns **True** if the object can be in more than one voice (read-only).

### **Color**

The color of this BarObject (read/write). The color value is in 24-bit RGB format, with bits 0–7 representing blue, bits 8–15 green, bits 16–23 red and bits 24–31 ignored. Since Manuscript has no bitwise arithmetic, these values can be a little hard to manipulate; you may find the individual accessors for the red, green and blue components to be more useful (see below).

### **ColorAlpha**

The alpha channel component of the color of this BarObject, in the range 0–255 (read/write).

### **ColorRed**

The red component of the color of this BarObject, in the range 0–255 (read/write).

### **ColorGreen**

The green component of the color of this BarObject, in the range 0–255 (read/write).

### **ColorBlue**

The blue component of the color of this BarObject, in the range 0–255 (read/write).

### **CueSize**

**True** if the object is cue-size in the current part or score, and **False** if the object is normal size (read/write).

### **CurrentTempo**

Returns the tempo, in bpm, at the location of the object in the score (read only).

### **DrawOrder**

Returns the layer at which the object is currently drawn. When used to set the layer of an object, values from **1** (meaning the bottom layer) to **32** (meaning the highest layer) can be used; **0** is a special value that tells Sibelius to use the default layer for that type of object (read/write).

### **Dx**

The horizontal graphic offset of the object from the position implied by the **Position** field, in units of 1/32 spaces (read/write).

### **Dy**

The vertical graphic offset of the object from the centre staff line, in units of 1/32 spaces, positive going upwards (read/write).

### **HasCustomDrawOrder**

Returns **True** if the object is set to a layer other than its default layer (read only).

### **Hidden**

**True** if the object is hidden in the current part or score, and **False** if the object is shown (read/write).

### **OnNthBlankPage**

Returns **0** if the object occurs on a page of music, otherwise a number from **1** upwards indicating the *n*th blank page of the bar on which the object occurs (read only).

### **ParentBar**

The Bar containing this BarObject (read only).

### **Position**

Rhythmic position of the object in the bar (read only).

### **Selected**

Returns **True** if the object is currently selected (read only).

### **Time**

The time at which the object occurs in the score in milliseconds; if the score contains repeats, this will always return the time as if for the first pass through the score (read only). Returns **-1** in the case of an error.

### **Type**

A string describing the type of object, such as “NoteRest,” “Clef.” This is useful when hunting for a specific type of object in a bar. See “GuitarScaleDiagram” on page 56 for the possible values (read only).



## UsesMagneticLayout

Returns

**True** if the object is positioned by Magnetic Layout. Returns **False** if the object is set not to be taken into account by Magnetic Layout. To set whether or not an object should use Magnetic Layout, use one of the global constants **AlwaysDodge** (equivalent to **Edit > Magnetic Layout > n**), **SuppressDodge** (**Edit > Magnetic Layout > Off**) or **DefaultDodge** (**Edit > Magnetic Layout > Default**) (read/write).

## UsesMagneticLayoutSettingOverridden

Returns **True** if the object has had its Magnetic Layout settings overridden; otherwise **False**.

## VoiceNumber

Is **0** if the item belongs to more than one voice (a lot of items belong to more than one voice) and **1 to 4** for items that belong to voices 1 to 4 (read only).

## Voices

Returns or sets Sibelius's internal bitfield that represents the voices to which an object belongs; useful for copying the voices used by a given object (read/write).

## Deleting Multiple Objects from a Bar

If you wish to delete multiple objects from a bar, you should first build up a list of items to delete, then iterate over the list deleting each object in turn. It is not sufficient to simply delete the objects from the bar as you iterate over them, as this may cause the iterator to go out of sync. Therefore, code to delete all tuplets from a bar should look something like this:

```
counter = 0;
for each Tuplet tup in bar {
    name = "tuplet" & counter;
    @name = tup;
    counter = counter + 1;
}

// Delete objects in reverse order
while(counter > 0) {
    counter = counter - 1;
    name = "tuplet" & counter;
    tup = @name;
    tup.Delete();
}
```

---

## BarRest

Derived from a BarObject object.

### Methods

None.

### Variables

#### **PauseType**

Returns the type of fermata (pause), if any, on the bar rest. Returns one of the constants **PauseTypeNone** (0), **PauseTypeSquare** (1), **PauseTypeRound** (2), **PauseTypeTriangular** (3) (read/write).

#### **RestType**

Returns the type of bar rest via one of the constants **WholeBarRest** (0), **BreveBarRest** (1), **OneBarRepeat** (2), **TwoBarRepeat** (3), **FourBarRepeat** (4) (read only). To create a bar rest of a particular type, use **bar.InsertBarRest()** (see above).

---

## Bracket

Accessed from a BracketsAndBraces object.

### Methods

None.

### Variables

#### **BottomStave**

Returns the Staff object at which the bracket ends, relative to the current part.

#### **BottomStaveNum**

Returns the number of the bottom staff included in the bracket, relative to the current part.

#### **BracketType**

Returns the type of the bracket: **BracketFull**, **BracketBrace** or **BracketSub**.

#### **TopStave**

Returns the Staff object at which the bracket starts, relative to the current part.

## TopStaffNum

Returns the number of the top staff included in the bracket, relative to the current part.

## Brackets and Braces

Accessed from a Score object. Describes the brackets (which may be brackets, sub-brackets or braces) present in the score.

**for each** *bracket* **in** iterates through all the brackets in the list.

Array access [*int n*] returns the *n*th bracket in the list, or null if the bracket does not exist.

## Methods

**AddBracket** (*type*, *top staff number*, *bottom staff number*)

Creates a bracket of a given *type*, spanning the range of staves specified between *top staff number* and *bottom staff number* inclusive, and returns the new Bracket object. The staff numbers are relative to the current part view. Values for *type* are **BracketFull** (0), **BracketBrace** (1) and **BracketSub** (2).

**ClearAll**()

Removes all existing brackets, sub-brackets and braces from the current part, and returns the number of brackets removed.

**DeleteNthBracket** (*n*)

Deletes the *n*th bracket from the current part, and returns True if successful.

## Variables

**NumChildren**

Returns the number of child brackets, sub-brackets and braces in the list.

---

## Clef

Derived from a BarObject

## Methods

None.

## Variables

**ClefStyle**

The name of this clef, which may be different depending on the state of Notes ▶ Transposing Score (read only).

### **ConcertClefStyleId**

The concert pitch identifier of the style of this clef (read only).

### **ConcertClefStyle**

The concert pitch name of this clef (read only).

### **StyleId**

The identifier of the style of this clef, which may be different depending on whether or not **Notes ▶ Transposing Score** is switched on. This can be passed to the **Bar.AddClef** method to create a clef of this style (read only).

### **TransposingClefStyle**

The transposing score name of this clef (read only).

### **TransposingClefStyleId**

The transposing score identifier of the style of this clef (read only).

---

## Comment

Derived from a **BarObject**.

## Methods

None; create via **Bar** object.

## Variables

### **Maximized**

Returns True if the comment is maximized, otherwise returns False (read/write).

### **Text**

Returns the text of the comment (read/write).

### **TextWithFormatting**

Returns an array containing the various changes of font or style (if any) within the comment's text in a new element (read only). For example, "This text is **\B\b**, and this is *\I\i*" would return an array with eight elements containing the following data:

```
arr[0] = "This text is "  
arr[1] = "\B\  
arr[2] = "bold"  
arr[3] = "\b\  
arr[4] = ", and this is "  
arr[5] = "\I\  
arr[6] = "i"  
arr[7] = ""
```

```
arr[6] = "italic"  
arr[7] = "\\i\"
```

#### **TextWithFormattingAsString**

The comment's text including any changes of font or style (read only).

#### **TimeStamp**

Returns a **DateTime** object corresponding to the date the comment was created or last edited (read only).

#### **UserName**

Returns the username of the user who created or last edited the comment (read only).

---

## ComponentList

An array that is obtained from **Sibelius.HouseStyles** or **Sibelius.ManuscriptPapers**. It can be used in a **for each** loop or as an array with the **[n]** operator to access each Component object:

### Methods

None.

### Variables

#### **NumChildren**

Number of plug-ins (read only).

---

## Component

This represents a Sibelius "component," namely a house style or a manuscript paper. Examples:

```
// Create a new score using the first manuscript paper  
papers=Sibelius.ManuscriptPapers;  
score=Sibelius.New(papers[0]);  
// Apply the first house style to the new score  
styles=Sibelius.HouseStyles;  
score.pplyStyle(styles[0], "ALLSTYLES");
```

### Methods

None.

## Variables

### **Name**

The name of the component (read only).

---

## DateTime

This object returns information about the current date and time.

## Methods

None.

## Variables

### **Seconds**

Returns the number of seconds from the time in a date (read only).

### **Minutes**

Returns the number of minutes from the time in a date (read only).

### **Hours**

Returns the number of hours from the time in a date (read only).

### **DayOfMonth**

Returns the nth day on the month, 1-based (read only).

### **Month**

Returns the nth month of the year, 1-based (read only).

### **Year**

Returns the year (read only).

### **NthDayOfWeek**

Returns the nth day of the week, 0-based (read only).

### **NthDayOfYear**

Returns the nth day of the year, 0-based (read only).

### **LongDate**

Returns the date in a human-readable format, for example: 1st May 2008 (read only).

### **ShortDate**

Returns the date in a human-readable format, for example: 01/05/2008 (read only).

### **LongDateAndTime**

Returns the date and time in a human-readable format, for example: 1st May 2008 14:07 (read only).

### **ShortDateAndTime**

Returns the date and time in a human-readable format, for example: 01/05/2008 14:07 (read only).

### **TimeWithSeconds**

Returns the time in a human-readable format, for example: 14:07 (read only).

### **TimeWithoutSeconds**

Returns the time in a human-readable format, for example: 14:07:23 (read only).

---

## Dictionary

To create a dictionary, use the built-in function **CreateDictionary**(*name1*, *value1*, *name2*, *value2*, ... *nameN*, *valueN*). This creates a dictionary containing user properties called *name1*, *name2*, *nameN* with values *value1*, *value2*, *valueN* respectively.

### **To iterate over dictionaries:**

- 1 To iterate over element values in Dictionary objects, use **for each *n* in Dictionary** or **for each Value *n* in Dictionary**.
- 2 To iterate over element names in Dictionary objects, use **for each Name *n* in Dictionary**.
- 3 To iterate over **value.name** pairs in Dictionary objects, use **for each Pair *n* in Dictionary**; this returns a new Dictionary object: *n.Name* is the element name, *n.Value* is the element value.

## Methods

### **CallMethod**(*methodname*, *param1*, *param2*, ... *paramN*)

Calls the specified method *methodname* in the dictionary, passing in any other values that are required for the method as further parameters.

### **GetMethodNames**( )

Returns a sparse array containing the names of the methods belonging to a dictionary.

### **GetPropertyNames**( )

Returns a sparse array of the names of all the user properties in the dictionary (same as **\_\_propertyNames**).

### **MethodExists**(*methodname*)

Returns **True** if the specified method *methodname* exists in the dictionary.

### **PropertyExists**(*propertyname*)

Returns **True** if the specified user property *propertyname* exists in the dictionary.

### **SetMethod**(*methodname*, **Self**, *method*)

Binds a method to the dictionary. *methodname* is the name by which you want to access the method via the dictionary, **Self** refers to the plug-in in which the method is found, and *method* is the name of the method itself, found elsewhere in the plug-in.

## Variables

None.

## Converting Old-Style Hash Tables to Dictionaries

The Dictionary object is, among other things, a replacement for the old Hash object, which was a simple hash table object. You are recommended to use the new Dictionary object instead of the old Hash object in your plug-ins, but if you have an existing plug-in in which old-style hashes are used, you can convert them to Dictionaries as follows:

### **Hash.ConvertToDictionary**()

Returns a new Dictionary object, populated with strings converted from the old-style Hash.

---

## DocumentSetup

Accessed from a Score object. Corresponds to the settings in Layout ▶ Document Setup.

When you first access the DocumentSetup object, the units default to millimetres; if you want to use another unit of measurement, set **DocumentSetup.Units** before you set any of the other values. This will not, however, change the units displayed in Layout ▶ Document Setup; to do that, set **DocumentSetup.UnitsInDocumentSetupDialog**.

Be careful also that if you set **DocumentSetup.PageSize** after setting **DocumentSetup.PageWidth** or **DocumentSetup.PageHeight**, the page size specified will override any custom height/width you may have just set: so set the page size before you then adjust the width or height of the page.

## Methods

None.



## Variables

### **AboveTopStaveGap**

Returns or sets the top staff margin on each page in the units specified by the **Units** variable (read/write).

### **AboveTopStaveGapAfterFirstPage**

Returns or sets the top staff margin on pages after the first page in the units specified by the **Units** variable (read/write). To set this, first set **FirstPageHasUniqueVerticalStaveMargins** to **True**.

### **BelowBottomStaveGap**

Returns or sets the bottom staff margin on each page in the units specified by the **Units** variable (read/write). To set this, first set **FirstPageHasUniqueVerticalStaveMargins** to **True**.

### **BelowBottomStaveGapAfterFirstPage**

Returns or sets the bottom staff margin on each page after the first page in the units specified by the **Units** variable (read/write).

### **FirstPageHasUniqueVerticalStaveMargins**

Returns **True** if the After first page checkbox is switched on in Document Setup, specifying that the first page of the score has different top and bottom staff margins to subsequent pages; otherwise returns **False** (read/write).

### **Orientation**

Returns or sets the current page orientation. Values are **OrientationPortrait** (0) and **OrientationLandscape** (1). If you change the orientation, this will swap the **PageTopMargin** and **PageBottomMargin** values with the **PageLeftMargin** and **PageRightMargin** values, to reflect the change in orientation (read/write).

### **PageHeight**

Returns or sets the height of a page in the units specified by the **Units** variable (read/write).

### **PageSize**

Returns or sets the current page size. Values are listed in “PageSize Values” on page 171. If you attempt to set **PageSize** to **PageSizeCustom**, Sibelius will do nothing; to set a custom page size, set **PageWidth** and **PageHeight** individually. Setting any default **PageSize** value will also change the **PageWidth** and **PageHeight** values (read/write).

### **PageWidth**

Returns or sets the width of a page in the units specified by the **Units** variable (read/write).

### **MarginType**

Returns or sets the current page margin type. Values are **PageMarginsSame** (0), **PageMarginsMirrored** (1), **PageMarginsDifferent** (2) (read/write).

### **PageBottomMargin**

Returns or sets the bottom page margin in the units specified by the **Units** variable (read/write).

### **PageLeftMargin**

Returns or sets the left page margin in the units specified by the **Units** variable (read/write).

### **PageRightMargin**

Returns or sets the right page margin in the units specified by the **Units** variable (read/write).

### **PageTopMargin**

Returns or sets the top page margin in the units specified by the **Units** variable (read/write).

### **RightPageLeftMargin**

Returns or sets the left page margin for right-hand pages in the units specified by the **Units** variable (read/write). Setting this value automatically sets **MarginType** to **PageMarginsDifferent**.

### **RightPageRightMargin**

Returns or sets the right page margin for right-hand pages in the units specified by the **Units** variable (read/write). Setting this value automatically sets **MarginType** to **PageMarginsDifferent**.

### **StaffLeftMarginFullNames**

Returns or sets the margin to the left of staves showing full instrument names in the units specified by the **Units** variable (read/write).

### **StaffLeftMarginNoNames**

Returns or sets the margin to the left of staves showing no instrument names in the units specified by the **Units** variable (read/write).

### **StaffLeftMarginShortNames**

Returns or sets the margin to the left of staves showing short instrument names in the units specified by the **Units** variable (read/write).

### **StaffSize**

Returns or sets the staff size in the units specified by the **Units** variable (read/write).

### **Units**

Returns or sets the units of measurement for all of the relevant variables of the DocumentSetup object. Always returns 0 (millimeters). Values are **DocumentSetupUnitsmm** (0), **DocumentSetupUnitsInches** (1), **DocumentSetupUnitsPoints** (2) (read/write).

### **UnitsInDocumentSetupDialog**

Returns or sets the units of measurement currently shown in the Layout ▶ Document Setup dialog. Values are as for **Units**.

---

## DynamicPartCollection

Accessed from a Score object. Contains DynamicPart objects.

The DynamicPartCollection object always contains the full score as the first entry, whether or not any dynamic parts exist. The DynamicPart objects are returned in the order in which they were created (the last part returned is the most-recently created one). For scores in which dynamic parts were generated automatically, the parts will normally be returned in top to bottom score order.

The edit context for Manuscript is stored in the score itself which means that Manuscript can only ever access one part at a time – the “current” DynamicPart for that Score object. This is irrespective of the number of score windows open for a score, which dynamic parts are open, and even if the user has managed to create two different Manuscript Score objects referring to the same Sibelius score.

It is inadvisable to modify Staves, Bars, or any BarObjects that do not exist on Staves in **Score.Current-DynamicPart**. Doing so will create part overrides for part-specific properties of these objects which will be invisible until those Staves are added to the part. **DynamicPart.IncludesStaff()** can be used to test if a DynamicPart contains a particular Staff object.

Both DynamicPartCollection and DynamicPart refer to an underlying Score and part(s) and will generate errors if the Score and/or part(s) are no longer valid (for example, if a DynamicPart has been deleted). DynamicParts are never “re-used.” For example, if you delete a DynamicPart and create a new DynamicPart, the old Manuscript DynamicPart object will not refer to the newly-created DynamicPart.

**for each variable in** iterates through all valid DynamicPart objects for the Score, always starting first with the full score. Adding or deleting parts while iterating will have undefined results, and is not recommended.

Array access [*int n*] returns the *n*th part (0 is always the full score), or null if the part does not exist.

## Methods

### **CreateDefaultParts()**

Creates the default set of dynamic parts, as created automatically by Sibelius when clicking the **New Part** button in the Parts window. This method does nothing and returns **False** if the Score has no staves.

### **CreatePartFromStaff(staff)**

Creates a dynamic part from the specified Staff object, if valid. Returns the new DynamicPart object for success, or null for failure.

### **DeletePart(dynamic part)**

Deletes the specified part, if it’s valid. Returns **True** for success, **False** for failure. This method fails if the specified dynamic part is the currently active part for the Score, or is the full score, or refers to a different Score.

## Variables

### **NumChildren**

Returns the number of DynamicPart objects for the Score returned by iteration (read only).

---

## DynamicPart

Accessed from a `DynamicPartCollection` object.

**for each variable in** returns the `Staff` objects in the dynamic part, in top to bottom order. Warning: this can return a `Staff` that is not included in `Score.CurrentDynamicPart`.

### Methods

#### **AddStaffToPart** (*staff*)

Adds the specified *staff* to the bottom of the dynamic part. Returns **False** for failure. This method will cause an error if it is called on the full score, or if attempting to add a staff that is already present in the part or a staff from a different score.

#### **DeleteStaffFromPart** (*staff*)

Deletes the specified *staff* from the dynamic part. Returns `False` for failure. This method will cause an error if called on the full score, or if attempting to delete a staff that is not present in the part, or if deleting the last staff in a part, or attempting to delete a part from a different score.

#### **IncludesStaff** (*staff*)

Returns **True** if the specified *staff* is contained in this dynamic part.

### Variables

#### **IsFullScore**

Returns **True** if this is the full score (read only).

#### **IsSelectedInPartsWindow**

Returns **True** if the part is selected in the Parts window (read only).

#### **StaffCount**

Returns the number of staves in the part (read only).

#### **ParentScore**

Returns the `Score` object containing this dynamic part (read only).

---

# EngravingRules

Accessed via the Score object. Corresponds to selected settings in the House Style > Engraving Rules dialog.

## Methods

None.

## Variables

### **AdjustTranspositionIfKeySigWraps**

Returns **True** if Sibelius will adjust note spelling for transposing instruments in extreme keys, **False** otherwise; corresponds to the Adjust note spelling in transposing instruments in remote keys option on the Clefs and Key Signatures page (read/write).

### **BarlineWidth**

Returns or sets the width of normal barlines in spaces, from the Barlines page (read/write).

### **BeamThickness**

Returns or sets the thickness of beams in spaces, from the Beams and Stems page (read/write).

### **CautionaryNaturalsInKeySignatures**

Returns **True** if key changes will show cautionary naturals; **False** otherwise, from the Clefs and Key Signatures page (read/write).

### **CueNoteScale**

Returns or sets the percentage by which cue-sized notes are scaled relative to normal-sized notes, from the Notes and Tremolos page (read/write).

### **DashedBarlineWidth**

Returns or sets the width of dashed barlines in spaces, from the Barlines page (read/write).

### **DoubleBarlineSeparation**

Returns or sets the distance between the two lines in double barlines in spaces, from the Barlines page (read/write).

### **DoubleBarlineWidth**

Returns or sets the width of double barlines in spaces, from the Barlines page (read/write).

### **DoubleTremoloStyle**

Returns or sets the style used for double tremolos in the score, from the Notes and Tremolos page; values are **DoubleTremolosTouchingStems** (0), **DoubleTremolosBetweenStems** (1), **DoubleTremolosOuterTremoloTouchingStems** (2) (read/write).

### **ExtraSpacesAboveForSystemObjectPositions**

Returns or sets the *n* extra spaces above for System Object Positions value on the Staves page (read/write).

### **ExtraSpacesBelowVocalStaves**

Returns or sets the *n* extra spaces below vocal staves (for lyrics) value on the Staves page (read/write).

### **ExtraSpaceBetweenGroupsOfStaves**

Returns or sets the *n* extra spaces between groups of staves value on the Staves page (read/write).

### **FinalBarlineSeparation**

Returns or sets the distance between the two lines in final barlines in spaces, from the Barlines page (read/write).

### **FinalBarlineWidth**

Returns or sets the width of the thick line of final barlines in spaces, from the Barlines page (read/write).

### **GraceNoteScale**

Returns or sets the percentage by which grace notes are scaled relative to normal notes, from the Notes and Tremolos page (read/write).

### **InstrumentNamesFirstSystem**

Corresponding to the option for instrument names on the first system on the Instruments page; values are **InstrumentNamesFull** (0), **InstrumentNamesShort** (1), **InstrumentNamesNone** (2) (read/write).

### **InstrumentNamesNewSections**

Corresponding to the option for instrument names at the start of new sections on the Instruments page; values are **InstrumentNamesFull** (0), **InstrumentNamesShort** (1), **InstrumentNamesNone** (2) (read/write).

### **InstrumentNamesSubsequentSystems**

Corresponding to the option for instrument names on subsequent systems on the Instruments page; values are **InstrumentNamesFull** (0), **InstrumentNamesShort** (1), **InstrumentNamesNone** (2) (read/write).

### **JustifyGrandStaveInstruments**

Returns **True** if Justify both staves of grand staff instruments on the Staves page is switched on, otherwise **False** (read/write).

### **JustifyMultiStaveInstruments**

Returns **True** if Justify all staves of multi-staff instruments on the Staves page is switched on, otherwise **False** (read/write).

### **LegerLineThickness**

Returns or sets the thickness of leger lines in spaces, from the Notes and Tremolos page (read/write).

### **RespellRemoteKeysInTransposingScore**

Returns **True** if Sibelius will choose the equivalent key signature with one fewer flat or sharp for transposing instruments; **False** otherwise, corresponding to the option Respell remote key signatures in transposing score on the Clefs and Key Signatures page (read/write).

### **ShowNameOfPrevailingInstrumentChangeAtStartOfSystems**

Returns **True** if Sibelius will update the instrument name at the start of each system to reflect the current instrument change, **False** otherwise; corresponds to the Change instrument names at start of system after instrument changes option on the Instruments page (read/write).

### **SlurMiddleThickness**

Returns or sets the default thickness of the middle of slurs in spaces, from the Slurs page (read/write).

### **SlurOutlineWidth**

Returns or sets the thickness of slur ends in spaces, from the Slurs page (read/write).

### **SmallStaffSizeScale**

Returns or sets the percentage by which small staves are scaled relative to normal-sized staves, from the Staves page (read/write).

### **SpacesBetweenStaves**

Returns or sets the *n* spaces between staves value on the Staves page (read/write).

### **SpacesBetweenSystems**

Returns or sets the *n* spaces between systems value on the Staves page (read/write).

### **StaffJustificationPercentage**

Returns or sets the Justify staves when page is at least *n*% full value on the Staves page (read/write).

### **StaffLineWidth**

Returns or sets the width of a staff line in spaces, from the Staves page (read/write).

### **StemThickness**

Returns or sets the thickness of stems in spaces, from the Beams and Stems page (read/write).

### **TieMiddleThickness**

Returns or sets the thickness of the middle of ties in spaces, from the Ties 1 page (read/write).

### **TieOutlineWidth**

Returns or sets the thickness of tie ends in spaces, from the Ties 1 page (read/write).

---

## File

Retrievable using **for each** on a folder.

### Methods

#### **Delete()**

Deletes a file, returning **True** if successful.

#### **Rename(*newFileName*)**

Renames a file, returning **True** if successful.

### Variables

#### **CreationDate**

Returns the file's creation date and time as a **DateTime** object, in local time (read only).

#### **CreationDateAndTime**

A string giving the date and time the file was last modified in GMT (read only).

#### **ModificationDate**

Returns the file's modification date and time as a **DateTime** object, in local time (read only).

#### **Name**

The complete pathname of the file, no extension (read only).

#### **NameWithExt**

The complete pathname of the file, with extension (read only).

#### **NameNoPath**

Just the name of the file, no extension (read only).

#### **Path**

Returns just the path to the file (read only).

#### **Type**

A string giving the name of the type of the object; **File** for file objects (read only).



---

## Folder

Retrievable from methods of the Sibelius object.

**for each** *variable* **in** produces the Sibelius files in the folder, as File objects

**for each** *type variable* **in** produces the files of type *type* in the folder, where *type* is a Windows extension.

Useful values are SIB (Sibelius files), MID (MIDI files) or OPT (PhotoScore files), because they can all be opened directly by Sibelius. On the Macintosh files of the corresponding Mac OS Type are also returned (so, for example, **for each MID f** will return all files whose names end in .MID, and all files of type “Midi”).

Both these statements return subfolders recursively.

## Methods

**FileCount** (*Type*)

Returns the number of files of type *Type* in the folder. As above, useful values are SIB, MID or OPT.

## Variables

**FileCount**

The number of Sibelius files in the folder (read only).

**FileCountAllTypes**

The number of files of all types in the folder (read only).

**Name**

The name of the folder (read only).

**Type**

A string giving the name of the type of the object; Folder for folder objects (read only).

---

## GuitarFrame

Derived from a `BarObject`. This refers to chord symbols as created by `Create > Chord Symbol`, whether or not they show a guitar chord diagram (guitar frame), but is called `GuitarFrame` in `ManuScript` for historical reasons.

### Methods

#### `CopyOutSuffixes()`

Returns an array containing a list of the suffix elements present in the chord. If the chord symbol is an unrecognised chord type, the array returned will be empty. The values that can be returned in the array are as follows:

<code>halfdim</code>	<code>dim</code>
<code>add6/9</code>	<code>6/9</code>
<code>sus2/4</code>	<code>aug</code>
<code>omit5</code>	<code>alt</code>
<code>omit3</code>	<code>b13</code>
<code>maj13</code>	<code>#11</code>
<code>add13</code>	<code>13</code>
<code>maj11</code>	<code>11</code>
<code>dim13</code>	<code>#9</code>
<code>dim11</code>	<code>b9</code>
<code>maj9</code>	<code>b6</code>
<code>add9</code>	<code>#5</code>
<code>maj7</code>	<code>b5</code>
<code>dim9</code>	<code>#4</code>
<code>dim7</code>	<code>nc</code>
<code>sus9</code>	<code>9</code>
<code>sus4</code>	<code>7</code>
<code>add4</code>	<code>6</code>
<code>sus2</code>	<code>5</code>
<code>add2</code>	<code>m</code>
<code>maj</code>	<code>/</code>

#### `GetChromaticPitchesOfChordInClosePosition(consider root)`

Returns an array containing the chromatic pitches of the notes in the chord, assuming a voicing in close position. If `consider root` is `True` (it defaults to `False`), the pitches returned will be offset according to the chromatic value of the root note on which the chord is based.

#### `GetEndStringForNthBarre(barreNum)`

Returns the string number on which the `nth` barré ends.

#### `GetPitchOfNthString(stringNum)`

Returns the pitch of the given (open) string `stringNum`, as a MIDI pitch.

### **GetPositionOfFingerForNthBarre**(*barreNum*)

Returns the fret position that the *nth* barré occupies.

### **GetPositionOfFingerOnNthString**(*stringNum*)

Returns the position of the black dot representing the finger position on a given string *stringNum*, relative to the top of the frame. A return value of 0 means the string is open (that is a hollow circle appears at the top of the diagram), and -1 means that the string is not played (that is an X appears at the top of the diagram). Used in conjunction with **GetPitchOfNthString**( ), you can calculate the resulting pitch of each string.

### **GetStartStringForNthBarre**(*barreNum*)

Returns the string number from which the *nth* barré begins.

### **IsNthStringPartOfBarre**(*stringNum*)

Returns **True** if the given string is part of a barré.

### **NthStringHasClosedMarkingAtNut**(*nth string*)

Returns **True** if there's an X marking at the top or left of the specified string.

### **NthStringHasOpenMarkingAtNut**(*nth string*)

Returns **True** if there's an O marking at the top or left of the specified string.

## Variables

### **BassAsString**

The note name of the chord symbol's altered bass note (for example: "F").

### **ChordNameAsStyledString**

The name of the chord represented by this chord symbol as it appears in the score, for example: "Cm^7" (read only).

### **ChordNameAsPlainText**

The name of the chord represented by this chord symbol as it appears when editing the chord symbol, so that in its plain text representation, for example: "Cmmaj7" (read only).

### **ChromaticRoot**

The chromatic pitch (C = 0, B = 11) of the chord symbol's root note (read only).

### **ChromaticBass**

The chromatic pitch (C = 0, B = 11) of the chord symbol's altered bass note (read only).

**DiatonicRoot**

The diatonic pitch, that is the number of the “note name” to which this note corresponds, 7 per octave (0 = C, 1 = D, 2 = E and so on), of the chord symbol’s root note (read only).

**DiatonicBass**

The diatonic pitch, that is the number of the “note name” to which this note corresponds, 7 per octave (0 = C, 1 = D, 2 = E and so on), of the chord symbol’s altered bass note (read only).

**Fingerings**

The fingerings string for this chord. This is a textual string with as many characters as the guitar frame has strings (for example, six for standard guitars). Each character corresponds to a guitar string. Use to denote that a string has no fingering.

**FrameIsVisible**

True if the chord symbol is currently showing a guitar chord diagram (read only).

**Horizontal**

True if the guitar chord diagram is horizontally orientated, False if it is vertically orientated (read/write).

**LowestVisibleFret**

The number of the top fret shown in the guitar chord diagram; setting the special value **-1** resets the lowest visible fret to the default for that chord diagram (read/write).

**NumBarresInChord**

The number of unique barrés in the guitar chord diagram (read only).

**NumberOfFrets**

The number of frets in the guitar chord diagram, that is the number of horizontal lines; setting the special value **-1** resets the number of frets to the default for that chord diagram (read/write).

**NumberOfStrings**

The number of strings in the guitar chord diagram, for example, the number of vertical lines (read only).

**NumPitchesInClosePosition**

The number of unique pitches in the chord, assuming a voicing in close position with no duplicates.

**Recognized**

Returns **True** if the chord symbol is a specific recognized chord type, and **False** otherwise, that is if the chord symbol is shown in red in the score because Sibelius is unable to parse the user’s input (read only).

**RootAsString**

The note name of the chord symbol’s root (for example, “C#”).

## **ScaleFactor**

The scale factor of the guitar chord diagram (as adjustable via the **Scale** parameter on the **General** panel of **Properties**), expressed as a percentage (read/write).

## **ShowFingerings**

Set to **True** if the fingerings string should be displayed, **False** otherwise (read only).

## **SuffixText**

The suffix part of the chord symbol as it appears in the score, or an empty string if the chord isn't recognised (read only).

## **TextIsVisible**

True if the chord symbol is currently showing a text chord symbol (read only).

## **TransposingChromaticRoot**

Returns the chromatic pitch of the root note for the specified chord symbol as if the score is shown at transposed pitch, but regardless of whether or not **Notes ▶ Transposing Score** is switched on.

## **TransposingChromaticBass**

Returns the chromatic pitch of the altered bass note for the specified chord symbol, if present, as if the score is shown at transposed pitch, but regardless of whether or not **Notes > Transposing Score** is switched on.

## **TransposingDiatonicRoot**

Returns the diatonic pitch of the root note for the specified chord symbol as if the score is shown at transposed pitch, but regardless of whether or not **Notes > Transposing Score** is switched on.

## **TransposingDiatonicBass**

Returns the diatonic pitch of the altered bass note for the specified chord symbol, if present, as if the score is shown at transposed pitch, but regardless of whether or not **Notes > Transposing Score** is switched on.

## **TransposingRootAsString**

Returns a string representing the pitch of the root note for the specified chord symbol as if the score is shown at transposed pitch, but regardless of whether or not **Notes > Transposing Score** is switched on.

## **TransposingBassAsString**

Returns a string representing the pitch of the altered bass note for the specified chord symbol, if present, as if the score is shown at transposed pitch, but regardless of whether or not **Notes > Transposing Score** is switched on.

## **VisibleComponents**

The visible parts of the chord symbol, that is whether it displays a text chord symbol only (**TextOnly**), a guitar chord diagram only (**FrameOnly**), both a text chord symbol and a guitar chord diagram (**FrameAndText**), or whether or not the chord symbol shows a guitar chord diagram based on the type of instrument to which it is attached (**InstrumentDependent**) (read/write).

---

## GuitarScaleDiagram

Derived from a BarObject. This refers to guitar scale diagrams as created by Create ▶ Guitar Scale Diagram.

### Methods

#### **GetDotFingeringsOnNthString**(*nth string*)

Returns an array of strings containing the text that has been entered on the dots on a given string.

#### **GetDotSymbolsOnNthString**(*nth string*)

Returns an array of values describing the appearance of each of the dots on a given string. The possible values are **DotStyleCircle**, **DotStyleFilledCircle**, **DotStyleSquare**, **DotStyleFilledSquare**, **DotStyleDiamond**, and **DotStyleFilledDiamond**.

#### **GetPitchesOfDotsOnNthString**(*nth string*)

Returns an array containing the pitches of all the dots on a given string, in ascending order of pitch.

#### **GetPitchOfNthString**(*stringNum*)

Returns the pitch of the given (open) string *stringNum*, as a MIDI pitch.

### Variables

#### **Fingerings**

The fingerings string for this scale diagram. This is a textual string with as many characters as the scale diagram has strings (for example, six for standard guitars). Each character corresponds to a guitar string. Use – to denote that a string has no fingering.

#### **Horizontal**

True if the guitar scale diagram is horizontally orientated, False if it is vertically orientated (read/write).

#### **LowestVisibleFret**

The number of the top fret shown in the guitar scale diagram; setting the special value **-1** resets the lowest visible fret to the default for that scale diagram (read/write).

#### **NumberOfFrets**

The number of frets in the guitar scale diagram, for example, the number of horizontal lines; setting the special value **-1** resets the number of frets to the default for that scale diagram (read/write).

#### **NumberOfStrings**

The number of strings in the guitar scale diagram, for example, the number of vertical lines (read only).

**Root**

Returns the chromatic pitch ( $C = 0$ ) of the scale's root note (read only).

**ScaleFactor**

The scale factor of the guitar scale diagram (as adjustable via the **Scale** parameter on the **General** panel of Properties), expressed as a percentage (read/write).

**ScaleType**

Returns the type of the guitar scale diagram, as specified in the list of “GuitarScaleDiagram Type Values” on page 169 (read only).

**ShowFingerings**

Set to **True** if the fingerings string should be displayed, **False** otherwise (read only).

---

## HitPointList

Retrievable as the **HitPoints** variable of a score. It can be used in a **for each** loop or as an array with the **[n]** operator—this gives access to a HitPoint object. The HitPoint objects are stored in time order, so be careful if you remove or modify the time of the objects inside a loop. If you want to change the times of all the hit points by the same value then use the **ShiftTimes** function.

### Methods

**Clear()**

Removes all hit points from the score.

**CreateHitPoint(*timeMs*, *label*)**

Creates a hit point in the score at the given time (specified in milliseconds) with a specified string label. Returns the index in the HitPointList at which the new hit point was created.

**Remove(*index*)**

Removes the given hit point number.

**ShiftTimes(*timeMs*)**

Adds the given time (in milliseconds) onto all the hit points. If the time is negative then this is subtracted from all the hit points.

### Variables

**NumChildren**

Number of hit points (read only).

---

## HitPoint

Individual element of the HitPointList object.

### Methods

None.

### Variables

#### **Bar**

The bar in which this hit point occurs (read only).

#### **Label**

The name of the hit point (read/write).

#### **Position**

The position within the bar at which this hit point occurs (read only).

#### **Time**

The time of the hit point in milliseconds. Note that changing this value may change the position of the hit point in the HitPointList (read/write).

---

## InstrumentChange

Derived from a Bar object. Provides information about any instrument changes that may exist in the score.

### Methods

None.

### Variables

#### **StyleIdword**

Returns the style ID of the new instrument; see “Instrument Types” on page 136 (read only).

#### **TextLabel**

Returns the text that appears above the staff containing the instrument change in the score (read only).



---

## InstrumentTypeList

Contains a list of `InstrumentType` objects common to a given score.

**for each** *type variable* **in** returns each instrument type in the list, in alphabetical order by the instrument type's style ID.

Array access [*int n*] returns the *n*th instrument type, in the same order as using a **for each** iterator, or null if the instrument type does not exist.

### Methods

None.

### Variables

#### **NumChildren**

Returns the number of unique instrument types in the list (read only).

---

## InstrumentType

Provides information about an individual instrument type.

### Methods

#### **Clone()**

Makes an exact copy of an existing instrument type.

#### **PitchOfNthString**(*string num*)

Returns the pitch of a given string in a tablature staff, with string number 0 being the lowest string on the instrument.

### Variables

#### **Balance**

Returns the instrument's default balance, in the range 0–100 (read only).

#### **Category**

Returns an index representing the category of the staff type belonging to this instrument type; 0 = pitched; 1 = percussion; 2 = tablature (read only).

### **ChromaticTransposition**

Returns the number of half-steps (semitones) describing the transposition of transposing instruments; such as for B-flat Clarinet, this returns **-2** (read/write).

### **ChromaticTranspositionInScore**

Returns the number of half-steps (semitones) describing the transposition of transposing instruments in a score shown at concert pitch. Typically this is only used by instruments that transpose by octaves, so this will return, for example, **12** for piccolo or **-12** for guitars (read only).

### **ComfortableRangeHigh**

Returns the highest comfortable note (MIDI pitch) of the instrument (read only).

### **ComfortableRangeLow**

Returns the lowest comfortable note (MIDI pitch) of the instrument (read only).

### **ConcertClefStyleId**

Returns the style ID of the normal clef style of the instrument (read only).

### **DefaultSoundId**

Returns the default sound ID used by the instrument (read only).

### **DiatonicTransposition**

Returns the number of diatonic steps describing the transposition of transposing instruments; such as for B-flat Clarinet, this returns **-1** (read/write).

### **DiatonicTranspositionInScore**

Returns the number of diatonic steps describing the transposition of transposing instruments in a score shown at concert pitch (read only).

### **DialogName**

Returns the name of the instrument as displayed in the **Create ▶ Instruments** dialog in Sibelius (read/write).

### **FullName**

Returns the name of the instrument as visible on systems showing full instrument names (read only).

### **HasBracket**

Returns **True** if the instrument has a bracket (read only).

### **HasKeySignatureOrTuning**

Returns **True** if the instrument type has the **Key signature / Tuning** checkbox switched on in the **Edit Staff Type** dialog.

**InstrumentTypeForChordDiagrams**

Returns the style ID of the tab instrument type that determines the tuning used for chord diagrams shown for this instrument, that is corresponding to the Tab instrument to use for string tunings in the New/Edit Instrument dialogs.

**IsVocal**

Returns **True** if the instrument type used has the Vocal staff option switched on, meaning that, for example, the default positions of dynamics should be above the staff rather than below (read only).

**NumStaveLines**

Returns the number of staff lines in the staff (read only).

**NumStrings**

Returns the number of strings in a tablature staff (read only).

**OtherClefStyleId**

Returns the style ID of the clef style of the second staff of grand staff instruments, piano for example (read only).

**Pan**

Returns the instrument's default pan setting, in the range **-127** (hard left) to **127** (hard right) (read only).

**ProfessionalRangeHigh**

Returns the highest playable note (MIDI pitch) of the instrument for a professional player (read only).

**ProfessionalRangeLow**

Returns the lowest playable note (MIDI pitch) of the instrument for a professional player (read only).

**ShortName**

Returns the name of the instrument as visible on systems showing short instrument names (read only).

**StyleId**

Returns the style ID of the instrument; see “Global Constants” on page 127 (read only).

**TransposingClefStyleId**

Returns the style ID of the clef to be used when Notes > Transposing Score is switched on (read only).

---

## KeySignature

Derived from a BarObject.

### Methods

None.

### Variables

#### **AsText**

The name of the key signature as a string (read only).

#### **IsOneStaffOnly**

True if this key signature belongs to one staff only (read only).

#### **Major**

True if this key signature is a major key (read only).

#### **Sharps**

The number of sharps (positive) or flats (negative) in this key signature (read only).

---

## Line

Anything you can create from the **Create > Line** dialog is a line object, such as CrescendoLine, DiminuendoLine, and so on. These objects are derived from a BarObject.

### Methods

None.

### Variables

#### **Duration**

The total duration of the line, in 1/256th quarters (read/write).

#### **EndBarNumber**

The bar number in which the line ends (read only).

#### **EndPosition**

The position within the final bar at which the line ends (read only).

**RhDx**

The horizontal graphic offset of the right-hand side of the line, in units of 1/32 spaces (read/write).

**RhDy**

The vertical graphic offset of the right-hand side of the line from the centre staff line, in units of 1/32 spaces, positive going upwards (read/write).

**StyleId**

The identifier of the line style associated with this line (read only).

**StyleAsText**

The name of the line style associated with this line (read only).

---

## LyricItem

Derived from a BarObject

### Methods

None.

### Variables

The total duration of the lyric line, in 1/256th quarters (see “Line” on page 62) (read/write).

**NumNotes**

Gives the number of notes occupied by this lyric item (read/write). Note that changing this value will not automatically change the length of the lyric line; you also need to set the lyric line’s **Duration** variable to the correct length.

**StyleAsText**

The text style name (read/write).

**StyleId**

he identifier of the text style of this lyric (read/write).

**SyllableType**

An integer indicating whether the lyric is the end of a word (**EndOfWord**) or the start or middle of one (**MiddleOfWord**) (read/write). This affects how the lyric is justified, and the appearance of hyphens that follow it. **EndOfWord** and **MiddleOfWord** are global constants; see “SyllableTypes for LyricItems” on page 164.

**Text**

The text as a string (read/write).

---

## NoteRest

Derived from a BarObject. A NoteRest contains Note objects, stored in order of increasing diatonic pitch.

**for each variable in** returns the notes in the NoteRest.

### Methods

**AddAcciaccaturaBefore** (*sounding pitch*, [*duration*], [*tied*], [*voice*], [*diatonic pitch*], [*string number*], [*force stem dir*]))

Adds a grace note with a slash on its stem (acciaccatura) before a given NoteRest. The duration should be specified as normal, for example, 128 would create a grace note with one beam/flag. The optional *tied* parameter should be **True** if you want the note to be tied. Voice 1 is assumed unless the optional *voice* parameter (with a value of 1, 2, 3 or 4) is specified. If *force stem dir* is set to **True** (the default), stems of graces notes in voices 1 and 3 will always point upwards, and stems of notes in voices 2 and 4, downwards. You can also set the diatonic pitch, that is the number of the “note name” to which this note corresponds, 7 per octave (35 = middle C, 36 = D, 37 = E and so on). If a diatonic pitch of zero is given then a suitable diatonic pitch will be calculated from the MIDI pitch. The optional string number parameter gives a string number for this note, which is only meaningful if the note is on a tablature stave. If this parameter is not supplied then a default string number is calculated based on the current tablature stave type and the guitar tab fingering options (specified on the Note Input page of File > Preferences). Returns the Note object created (to get the NoteRest containing the note, use **Note.Parent-NoteRest**).

Note that adding a grace note before a NoteRest will *always* create an additional grace note, just to the left of the note/rest to which it is attached. If you wish to create grace notes with more than one pitch, you should call **AddNote** on the object returned.

**AddAppoggiaturaBefore** (*sounding pitch*, [*duration*], [*tied*], [*voice*], [*diatonic pitch*], [*string number*], [*force stem dir*]))

Identical to **AddAcciaccaturaBefore**, only no slash is added to the note’s stem.

**AddNote** (*pitch*, [*tied*], [*diatonic pitch*], [*string number*]))

Adds a note with the given MIDI pitch (60 = middle C), for example to create a chord. The optional second parameter specifies whether or not this note is tied (True or False). The optional third parameter gives a diatonic pitch, which is the number of the ‘note name’ to which this note corresponds, 7 per octave (35 = middle C, 36 = D, 37 = E etc.). If this parameter is 0 then a default diatonic pitch will be calculated from the MIDI pitch. The optional fourth parameter gives a string number for this note, which is only meaningful if the note is on a tablature stave. If this parameter is not supplied then a default string number is calculated based on the current tablature stave type and the guitar tab fingering options (specified on the Notes page of File > Preferences). Returns the Note object created.

**Delete** ()

Deletes all the notes in the NoteRest, converting the entire chord into a rest of similar duration.

## **FlipStem()**

Flips the stem of this NoteRest—this acts as a toggle.

## **GetArticulation(articulation number)**

Returns **True** or **False** depending on whether the given articulation is currently set on this note. The valid articulation numbers are defined in “Articulations” on page 163.

## **NoteRest[array element]**

Returns the nth note in the chord, in order of increasing diatonic pitch (counting from 0). For example, **NoteRest[0]** returns the lowest note (in terms of diatonic pitch—see **AddNote** below).

## **RemoveNote(note)**

Removes the specified Note object.

## **SetArticulation(articulation number, set)**

If *set* is **True**, turns on the given articulation; otherwise turns it off. The valid articulation numbers are defined in “Articulations” on page 163.

## **Transpose(degree, interval type[, keep double accs])**

Transposes the entire NoteRest up or down by a specified *degree* and *interval type*. To transpose up, use positive values for *degree*; to transpose down, use negative values. Note that degrees are 0-based, so 0 is equal to a unison, 1 to a second and so on. For descriptions of the various available interval types, see “Global Constants” on page 127. By default, Sibelius will transpose using double sharps and flats where necessary, but this behavior may be suppressed by setting the *keep double accs* flag to **False**.

For help in calculating the interval and degree required for a particular transposition, see the documentation for the **Sibelius.CalculateInterval** and **Sibelius.CalculateDegree** methods.

## Variables

### **ArpeggioDx**

The horizontal offset of the arpeggio line on the NoteRest (read/write), in units of 1/32nd of a space (the distance between two adjacent staff lines).

### **ArpeggioType**

The type of note-attached arpeggio line present on the NoteRest. Values are **ArpeggioTypeNone**, **ArpeggioTypeNormal**, **ArpeggioTypeUp**, **ArpeggioTypeDown** (read/write).

### **ArpeggioTopDy**

The vertical offset of the top of the note-attached arpeggio line on the NoteRest (read/write), in units of 1/32nd of a space.

### **ArpeggioBottomDy**

The vertical offset of the bottom of the note-attached arpeggio line on the NoteRest (read/write), in units of 1/32nd of a space.

### **ArpeggioHidden**

Returns **True** if the note-attached arpeggio line on the NoteRest is hidden (read/write).

### **Articulations**

Lets you copy a set of articulations from one NoteRest to another (read/write), for example:

```
destNr.Articulations = sourceNr.Articulations;
```

### **Beam**

Takes values **StartBeam**, **ContinueBeam**, **NoBeam** and **SingleBeam**. (see “Global Constants” on page 127 for details). These correspond to the keys 7, 8, \* (/ on Mac) and / (\* on Mac) on the third (F9) Keypad layout.

### **DoubleTremolos**

Gives the number of double tremolo strokes starting at this note, in the range 0–7. Means nothing for rests. To create a double tremolo between two successive notes, ensure they have the same duration and set the **DoubleTremolos** of the first one (read/write).

### **Duration**

The duration of the note rest (read only).

### **FallDx**

The horizontal offset of a fall, if present on the NoteRest (read/write), in units of 1/32nd of a space.

### **FallType**

\The type of note-attached fall present on the NoteRest. Values are **FallTypeNone**, **FallTypeNormal** and **FallTypeDoit** (read/write)

### **FeatheredBeamType**

Returns one of three values, based on whether a note is set to produce a feathered beam. Values are **FeatheredBeamNone** (0), **FeatheredBeamAccel** (1) and **FeatheredBeamRit** (2) (read/write).

### **GraceNote**

**True** if it's a grace note (read only).

### **HasStemlet**

Returns **True** if the note is showing a stemlet, according either to the state of the Use stemlets on beamed rests option on the Beams and Stems page of Engraving Rules or the stemlet button on the Keypad (read only).



### **Highest**

The highest Note object in the chord (read only).

### **IsAcciaccatura**

**True** if it's an acciaccatura, that is. a grace note with a slash through its stem (read only).

### **IsAppoggiatura**

**True** if it's an appoggiatura, that is a grace note without a slash through its stem (read only).

### **Lowest**

The lowest Note object in the chord (read only).

### **NoteCount**

The number of notes in the chord (read only).

### **ParentTupletIfAny**

If the NoteRest intersects a tuplet, the innermost Tuplet object at that point in the score is returned. Otherwise, *null* is returned (read only).

### **PositionInTuplet**

Returns the position of the NoteRest relative to the duration and scale-factor of its parent tuplet. If the NoteRest does not intersect a tuplet, its position within the parent Bar is returned as usual (read only).

### **RestPosition**

The vertical position of a rest (read/write).

### **ScoopDx**

The horizontal offset of a scoop or plop, if present on the NoteRest (read/write), in units of 1/32nd of a space.

### **ScoopType**

The type of note-attached scoop present on the NoteRest. Values are **ScoopTypeNone**, **ScoopTypeNormal**, **ScoopTypePlop** (read/write).

### **StemFlipped**

**True** if the stem is flipped (read only).

### **StemletType**

Provides information about whether the NoteRest is set to display a stemlet using the options on the Keypad. Returns either **StemletCustomOff** (in which case the NoteRest definitely does not show a stemlet), **StemletCustomOn** (in which case the NoteRest definitely *does* show a stemlet), or **StemletUseDefault** (in which case you should use the read-only variable **HasStemlet** to determine whether the NoteRest currently shows a stemlet) (read/write).

## Stemweight

Returns the stemweight of a note, taking beams into account (read only). For an unbeamed note, this is the sum of the stave positions of all the notes in the NoteRest, where the stave position of the middle line is zero and the position increases as you move up the stave and decreases as you move downwards. For a beamed note, it is the sum of all the stemweights of the NoteRests under the beam (treated as though they were unbeamed).

There are some special cases. If a note has its stem direction forced due to voicing, then the stemweight will be one of the global constants **StemweightUp** or **StemweightDown**. If a note has its stem direction forced due to the “flip” flag being set, the stemweight will be either **StemweightFlipUp** or **StemweightFlipDown**. Finally, cross-stave notes have stemweight equal to **StemweightCross**.

If the stemweight is less than zero, the stem will point up, otherwise it will point down.

## SingleTremolos

Gives the number of tremolo strokes on the stem of this note, in the range -1 (for “z on stem”) to 7. Means nothing for rests (read/write).

---

## Note

Only found in NoteRests. Correspond to individual noteheads.

## Methods

### Delete()

Removes a single note from a chord.

### Transpose(*degree*, *interval type*[, *keep double accs*])

Transposes and returns a single Note object up or down by a specified *degree* and *interval type*\*. To transpose up, use positive values for *degree*; to transpose down, use negative values. Note that degrees are 0-based, so 0 is equal to a unison, 1 to a second and so on. For descriptions of the various available interval types, see “Global Constants” on page 127. By default, Sibelius will transpose using double sharps and flats where necessary, but this behavior may be suppressed by setting the *keep double accs* flag to **False**. For help in calculating the interval and degree required for a particular transposition, see the documentation for the **Sibelius.CalculateInterval** and **Sibelius.CalculateDegree** methods.

\* N.B.: Individual note objects cannot be transposed diatonically.

## Variables

### Accidental

The accidental, for which global constants such as **Sharp**, **Flat** and so on are defined; see “Global Constants” on page 127 (read only).

## AccidentalStyle

The style of the accidental (read/write). This can be any of following four global constants: **NormalAcc**, **HiddenAcc**, **CautionaryAcc** (which forces an accidental to appear always) and **BracketedAcc** (which forces the accidental to be drawn inside brackets).

## Bracketed

The bracketed state of the note, as shown on the F9 layout of the Keypad (read/write).

## Color

The color of this Note (read/write). The color value is in 24-bit RGB format, with bits 0–7 representing blue, bits 8–15 green, bits 16–23 red and bits 24–31 ignored. Since Manuscript has no bitwise arithmetic, these values can be a little hard to manipulate; you may find the individual accessors for the red, green and blue components to be more useful (see below).



*When all Notes in a given NoteRest are the same color, then that color is also promoted to the parent NoteRest itself. This allows backwards compatibility with versions of Sibelius prior to 8.3 that did not support the individual coloring of Notes. Coloring of NoteRest-attached objects, such as articulations and rhythm dots is not supported.*

## ColorAlpha

The alpha channel component of the color of this Note, in the range 0–255 (read/write).

## ColorRed

The red component of the color of this Note, in the range 0–255 (read/write).

## ColorGreen

The green component of the color of this Note, in the range 0–255 (read/write).

## ColorBlue

The blue component of the color of this Note, in the range 0–255 (read/write).

## DiatonicPitch

The diatonic pitch of the note, that is the number of the “note name” to which this note corresponds, 7 per octave (35 = middle C, 36 = D, 37 = E and so on). (read/write)



*If Note.DiatonicPitch is changed from the full score (not a dynamic part), the written pitch and spelling of any accidental is changed in both the full score and the part (where there is no difference in spelling). If changed from a part, Sibelius respells any accidental in the part only, leaving the full score unchanged. In both cases, while there may be a difference in written pitch, Sibelius guarantees that there is never a difference in the sounding pitch of a note between a part and the full score.*

### **IsAccidentalVisible**

Returns **True** if the accidental on the note is visible, which is the equivalent of whether or not the corresponding button on the Keypad is illuminated for that note (read only).

### **Name**

The pitch of the note as a string (read only).

### **NoteStyle**

The index of the notehead style of this Note (read/write). The styles correspond to those accessible from the **Notes** panel of the Properties window in Sibelius; see “Note Style Names” on page 162 for a complete list of the defined NoteStyles.

### **NoteStyleName**

The name of the notehead style of this Note (read/write). If an attempt is made to apply a non-existent style name, the note in question will retain its current notehead.

### **OriginalDeltaSr**

The **Live start** position of this notehead (in 1/256th quarters), as shown in the **Playback** panel of Properties (read/write). This value can be positive or negative, indicating that the note is moved forwards or backwards.

### **OriginalDuration**

The **Live duration** of this notehead (in 1/256th quarters), as shown in the **Playback** panel of Properties (read/write).

### **OriginalVelocity**

The **Live velocity** of this notehead (in MIDI volume units, 0–127), as shown in the **Playback** panel of Properties (read/write). Note that the word “original” refers to the fact that this data is preserved from the original performance if the score was imported from a MIDI file or input via Flexi-time. For further details on this value, and the ones following below, read the **Live Playback** section in Sibelius Reference.

### **ParentNoteRest**

The NoteRest object that holds this note (read only).

### **Pitch**

The MIDI pitch of the note, in semitones, 60 = middle C (read only).

### **Slide**

Is **True** if the note has a slide, **False** otherwise (read/write).

### **StringNum**

The string number of this note, only defined if the note is on a tablature stave. If no string is specified, reading this value will give –1. Strings are numbered starting at 0 for the bottom string and increasing upwards (read only).

### **Tied**

Is **True** if the note is tied to the following note (read/write).

### **WrittenAccidental**

The accidental, taking transposition into account (read only).

### **WrittenDiatonicPitch**

The written diatonic pitch of the note, taking transposition into account if **Score.TransposingScore** is **True** (35 = middle C).

### **WrittenName**

The written pitch of the note as a string (taking transposition into account) (read only).

### **WrittenPitch**

The written MIDI pitch of the note, taking transposition into account if **Score.TransposingScore** is **True** (60 = middle C) (read only).

### **UseOriginalDeltaSrForPlayback**

Is **True** if the Live start position of this Note should be used for Live Playback. Corresponds to the Live start position checkbox in the Playback panel of the Properties window.

### **UseOriginalDurationForPlayback**

Is **True** if the Live duration of this Note should be used for Live Playback. Corresponds to the Live duration checkbox in the Playback panel of the Properties window.

### **UseOriginalVelocityForPlayback**

Is **True** if the Live velocity of this Note should be used for Live Playback. Corresponds to the Live velocity checkbox in the Playback panel of the Properties window.

---

## NoteSpacingRule

Provides access to the settings from the Appearance > House Style > Note Spacing Rule dialog. Obtained by way of the Score object, for example:

```
nsr = Sibelius.ActiveScore.NoteSpacingRule;
```

### Methods

None.

### Variables

The following variables are listed in the same order as the options to which they correspond in the Note Spacing Rule dialog.

**FixedBarRestWidth**

The width of an empty bar if the Fixed empty bar width  $n$  spaces radio button is chosen (read/write). This value is only used if **DetermineEmptyBarWidthBySrLength** is **False**.

**DetermineEmptyBarWidthBySrLength**

Returns **True** if Empty bar width is determined by time signature is chosen , otherwise **False** (read/write).

**StartOfBarGap**

The value of Before first note in bar  $n$  spaces (read/write).

**MinimumDurationSpace**

The value of Short notes  $n$  spaces (read/write).

**SpaceForSixteenth**

The value of 16th note (semiquaver)  $n$  spaces (read/write).

**SpaceForEighth**

The value of 8th note (quaver)  $n$  spaces (read/write).

**SpaceForQuarter**

The value of Quarter note (crotchet)  $n$  spaces (read/write).

**SpaceForHalf**

The value of Half note (minim)  $n$  spaces (read/write).

**SpaceForWhole**

The value of Whole note (semibreve)  $n$  spaces (read/write).

**SpaceForDoubleWhole**

The value of Double whole note (breve)  $n$  spaces (read/write).

**AllowSpaceForVoiceConflicts**

Returns **True** if Allow extra space for colliding voices is switched on, otherwise **False** (read/write).

**SpaceAroundGraceNote**

The value of Space around grace notes  $n$  spaces (read/write).

**ExtraSpaceAfterLastGraceNote**

The value of Extra space after last grace note  $n$  spaces (read/write).

**IncludeChordSymbols**

Returns **True** if Allow space for chord symbols is switched on, otherwise **False** (read/write).

**ExtraSpaceBetweenGuitarFrames**

The value of Minimum gap between chord symbols *n* spaces (read/write).

**MinSpaceAroundNote**

The value of Around noteheads (and dots) *n* spaces (read/write).

**MinSpaceBeforeAccidental**

The value of Before accidentals *n* spaces (read/write).

**MinSpaceBeforeArpeggio**

The value of Before arpeggio *n* spaces (read/write).

**MinSpaceAfterHook**

The value of After tails with stems up *n* spaces (read/write).

**MinSpaceAroundLegerLine**

The value of Around leger lines *n* spaces (read/write).

**MinSpaceAtStartOfBar**

The value of After start of bar *n* spaces (read/write).

**MinSpaceAtEndOfBar**

The value of Before end of bar *n* spaces (read/write).

**MinTieSpacing**

The value of Min space (tie above/below note) *n* spaces (read/write).

**MinTieSpacingChords**

The value of Min space (tie between notes) *n* spaces (read/write).

**IncludeLyrics**

Returns **True** if Allow space for lyrics is switched on, otherwise **False** (read/write).

**AllowFirstLyricOverhang**

Returns **True** if Allow first lyric to overhang barline is switched on, otherwise **False** (read/write).

**AllowSpaceForHyphen**

Returns **True** if Allow extra space for hyphens is switched on, otherwise **False** (read/write).

**SpaceBetweenLyrics**

The value of Minimum gap between lyrics *n* spaces (read/write).

---

## PageNumberChange

Provides access to get and set the attributes of a page number change at the end of a bar or on a blank page.

### Methods

#### **SetFormatChangeOnly** (*format change only*)

If *format change only* is **True**, this has the same effect as switching *off* the **New page number** check box on the **Page Number Change** dialog in Sibelius. The page numbering will therefore continue counting consecutively, but it's possible to (for example) hide a group of page numbers and restore visibility at a later point on the score without having to keep track of the previous page numbers.

#### **SetHideOrShow** (*page number visibility*)

Takes one of the three **Page number visibility** global constants to determine the visibility of the initial page number change and its subsequent pages; see “Global Constants” on page 127.

#### **SetPageNumber** (*page number*)

Takes an integral number specifying the new number you wish to assign to the page.

#### **SetPageNumberFormat** (*format*)

Takes one of the four **Page number format** global constants to change the format used to display the page number change; see “Global Constants” on page 127.

### Variables

#### **BarNumber**

Returns the bar number expressed as an integer (read only).

#### **HideOrShow**

Returns one of the three **Page number visibility** global constants; see “Global Constants” on page 127 (read only).

#### **PageNumber**

Returns the page number expressed as an integer. For example, page x when using Roman numerals would be 10, or 24 with alphabetic (read only).

#### **PageNumberAsString**

Returns the page number change as visible on the corresponding page in Sibelius (read only).

#### **PageNumberBlankPageOffset**

Returns the blank page offset of the page number change, or 0 if there are no blank pages following the bar containing the page number change (read only).



## **PageNumberFormat**

Returns one of four **Page number format** global constants describing the format of the page number change; see “Global Constants” on page 127 (read only).

---

## PluginList

An array that is obtained from `Sibelius.Plugins`. It can be used in a `for each` loop or as an array with the `[n]` operator to access each Plugin object.

### Methods

#### **Contains**(*pluginName*)

Returns **True** if a plug-in with the given name is installed. This can be used to query whether a plugin is installed before you try to call it.

### Variables

#### **NumChildren**

Number of plug-ins (read only).

---

## Plugin

This represents an installed plugin. Typical usage:

```
for each p in Sibelius.Plugins
{
    trace("Plugin: " & p.Name);
}
```

### Methods

The following methods are intended to allow you to check the existence of specific methods, data and dialogs in plug-ins, which allows you to check in advance that calling a method in another plug-in will succeed, and fail gracefully if the method is not found:

#### **MethodExists**(*method*)

Returns **True** if the specified *method* exists in the current Plugin object.

#### **DataExists**(*data*)

##### **Returns**

**True** if the specified *data* exists in the current Plugin object.

#### **DialogExists**(*dialog*)

Returns **True** if the specified *dialog* exists in the current Plugin object.

## Variables

### **File**

The File object corresponding to the file that the plug-in was loaded from (read only).

### **Name**

The name of the plug-in (read only).

---

## RehearsalMark

Derived from a BarObject and found in the system staff only. RehearsalMarks have an internal numbering and a visible text representation, both of which can be read from Manuscript.

## Methods

None.

## Variables

### **Mark**

The internal number of this rehearsal mark. By default rehearsal marks are consecutive (with the first one numbered zero), but the user can also create marks with specific numbers.

### **MarkAsText**

The textual representation of this rehearsal mark as drawn in the score. This is determined by the House Style ▶ Engraving Rules options, and can take various forms (numerical or alphabetical).

---

## Score

You can obtain the Score object by way of the Sibelius object, for example:

```
score = Sibelius.ActiveScore;
```

A Score contains one SystemStaff and one or more Staff objects.

**for each variable in** returns each staff in the score or the current dynamic part in turn (not the system staff).

**for each type variable in** returns the objects in the score in chronological order, from the top staff to the bottom staff (for simultaneous objects) and then from left to right (again, not including the system staff).

## Methods

### **AddBars(*n*)**

Adds *n* bars to the end of the score.

**ApplyStyle**(*style file*, "style", ["style"])

Imports named styles from the given house style file (.lib) into the score. The style file parameter can either be a full path to the file, or just the name of one of the styles that appears in the House Style ▶ Import House Style dialog. You can import as many “style” elements as you like in the same method. Style names are as follows:

**HOUSE**, **TEXT**, **SYMBOLS**, **LINES**, **NOTEHEADS**, **CLEFS**, **DICTIONARY**, **SPACINGRULE**,  
**DEFAULTPARTAPPEARANCE**, **INSTRUMENTSANDENSEMBLES**, **MAGNETICLAYOUTOPTIONS**  
OR **ALLSTYLES**.

For instance:

```
score2.ApplyStyle("C:\NewStyle.lib", "HOUSE", "TEXT");
```

Note that the constant **HOUSE** refers, for historical reasons, only to those options in the House Style > Engraving Rules and Layout > Document Setup dialogs, not the entire house style. To import the entire House Style, use the **ALLSTYLES** constant.

**ClefStyleId**(*clef style name*)

Returns the identifier of the clef style with the given name, or the empty string if there is no such clef style.

**CreateInstrument**(*style ID* [, *change names* , ["full name" , ["short name"]]])

Creates a new instrument, given the *style ID* of the instrument type required (see “Instrument Types” on page 136). If you want to supply the instrument names to be used in the score, set the optional *change names* parameter to **True**, then supply strings for the *full name* and *short name*. Returns **True** if the instrument was created successfully and **False** if the instrument type could not be found.

**CreateInstrumentAtBottom**(*style ID* [, *change names* , ["full name" , ["short name"]]])

Behaves the same way as **CreateInstrument**, only the new instrument is always created below all other instruments that currently exist in the score. This can be useful when programatically copying a list of staves/instruments from one score to another, as you can guarantee the ordering of the staves will be the same in both scores.

**CreateInstrumentAtBottomReturnStave**(*style ID* [, *change names* , ["full name" , ["short name"]]])

As above, but returns the Staff object created, or null if unsuccessful.

**CreateInstrumentAtTop**(*style ID* [, *change names* , ["full name" , ["short name"]]])

Behaves in exactly the same way as **CreateInstrumentAtBottom**, only the new instrument is always created above all other instruments that currently exist in the score.

**CreateInstrumentAtTopReturnStave**(*style ID* [, *change names* , ["full name" , ["short name"]]])

As above, but returns the Staff object created, or null if unsuccessful.

**CreateInstrumentReturnStave**(*style ID*[, *change names* , [{"full name" , ["short name"]}]])

Like **CreateInstrument**, but returns the Staff object created, or null if unsuccessful. Note that if the instrument being created contains more than one staff (such as piano or harp), the top staff of the instrument in question will be returned.

**ExportPartsAsPDF**(*filename*[, *single file*[, *part IDs*[, *include score*]]])

Exports one dynamic part, a selection of dynamic parts, or all dynamic parts in PDF format, either concatenated into a single file, or as separate files. The *filename* parameter should be a complete path. It may contain the following tokens, which Sibelius will expand automatically to generate a complete filename:

**%f** = Score filename

**%t** = Score title (as specified in the Title field in File > Info)

**%p** = Part name (as specified in the Part name field in File > Info)

**%n** = Part number

**%o** = Total number of parts

**%d** = Date (format YYYY-MM-DD)

**%h** = Time (format HHMM)

The Boolean parameter *single file* specifies whether the chosen parts should be extracted into separate PDF files or concatenated into a single PDF file. This parameter defaults to **True** if not specified.

To specify which parts to export, create a sparse array of part IDs, and pass this in as the third parameter, *part IDs*. For example:

```
s = Sibelius.ActiveScore;
partsToExport = CreateSparseArray();
parts = s.DynamicParts;
firstNPartsToExport = 2;
i = 0;
for each part in parts {
  if (i <= firstNPartsToExport) { // <= because the first "part" in
the
  //DynamicPartsCollection is the full score.
  partsToExport.Push(part);
  }
  i = i + 1;
}
s.ExportPartsAsPDF("c:\\%f - %p.pdf", true, partsToExport);
```

To export all parts, pass in 0 instead of a sparse array.

The final optional Boolean parameter, *include score*, defaults to **False**. If set to **True**, the full score will also be exported along with the parts.

**ExportScoreAsPDF**(*filename*)

Exports the full score as a PDF, with the specified *filename*, which should be a complete path. The *filename* parameter may use the same tokens as the **ExportPartsAsPDF**( ) method—see above.

**ExtractParts**( [*show\_dialogs* [, *parts path* [, *open parts*]])

Extracts parts from the score. The first optional Boolean parameter can be **False**, in which case the parts are extracted without showing an options dialog. The second optional parameter specifies a folder into which to extract the parts (must end with a trailing folder separator). The third optional Boolean parameter, which defaults to **True**, specifies whether the extracted parts should be opened immediately, or simply saved.

**FreezeMagneticLayoutPositions**( )

Does the same as selecting the whole score and choosing **Layout > Magnetic Layout > Freeze Positions**, which explicitly sets the **Dx/Dy** of every object to the position produced by Magnetic Layout, then disables Magnetic Layout for each object.

**GetLocationTime**( *bar number* [, *position* [, *pass*]])

Returns the time of a given bar (by passing in its *bar number*) and optional *position* within that bar in the score in milliseconds. If the score contains repeats, the value returned will always be the time on the first pass through the score, but you can supply the optional *pass* parameter to specify a particular pass in the repeat structure. If the bar and position are not valid, the return value will be **-1**.

**GetVersions**( )

Returns the score's VersionHistory object (see "VersionHistory" on page 124).

**HideEmptyStaves**( *startStaveNum* , *endStaveNum* , *startBarNum* , *endBarNum* )

Hides any empty staves between *startStaveNum* and *endStaveNum*, from *startBarNum* to *endBarNum*. Both the staff numbers and bar numbers are 1-based, and refer to the active part.

**InsertBars**( *n* , *barNum* [, *length*])

Inserts *n* bars before bar number *barNum*. If no *length* has been specified, the bar will be created with the correct length according to the current time signature. However, irregular bars may also be created by specifying a value for *length*.

**InternalPageNumToExternalPageNum**( *pagenum* )

Returns a string containing the external page number of the given internal page number *pagenum*.

**LineStyleId**( *line style name* )

Returns the identifier of the line style with the given name, or the empty string if there is no such line style.

**NoteStyleIndex**( *notehead style name* )

Returns the index of the note style with the given name, or **-1** if there is no such note style.

**NthStaff**( *staff index from 1* )

Returns the *n*th staff of the score or the current dynamic part.

**OptimizeStaffSpacing** (*from staff number* [, *to staff number* [, *from bar* [, *to bar*]]])

Does the equivalent of **Layout > Optimize Staff Spacing** for the given range of staves or a whole score. *from staff number* must be specified; if *to staff number* is not specified, Sibelius will optimize the distances between *from staff number* and the bottom staff in the score; if *from bar* is not specified, Sibelius sets it to **1**; if *to bar* is not specified, Sibelius sets it to the last bar of the score.

**PlayLiveTempo** (*play*)

Switches **Play > Live Tempo** on or off; set *play* to **True** to switch it on, or **False** to switch it off.

**RemoveAllHighlights** ()

Removes all highlights in this score.

**RemoveVideo** ()

Removes an attached video from the score.

**RenameTextStyle** ("old name" , "new name" )

Renames a text style to a new name.

**Save** (*filename*)

Saves the score, overwriting any previous file with the same name.

**SaveAs** (*filename*, *type* [, *use\_defaults* , *foldername*])

Saves the score in a specified format, overwriting any previous file with the same name. The optional argument *use\_defaults* only applies to graphics files, and specifies whether or not the default settings are to be used. When set to **False**, the **Export Graphics** dialog will appear and allow the user to make any necessary adjustments. The optional *foldername* specifies the folder in which the file is to be saved, and will create the specified folder if it does not exist. The *foldername* parameter must not end with a path separator (which is “\” on Windows).

The possible values for *type* are:

<b>SIBL</b>	Sibelius format (current version)
<b>EMF</b>	EMF
<b>BMP</b>	Windows bitmap
<b>PICT</b>	PICT format
<b>PDF</b>	PDF format
<b>PNG</b>	PNG format
<b>Midi</b>	MIDI format
<b>EPSF</b>	EPS format
<b>TIFF</b>	TIFF format
<b>XML</b>	Uncompressed MusicXML
<b>MXL</b>	Compressed MusicXML

So, to save a file using the current Sibelius file format, you would write **score.SaveAs("filename.sib", "SIBL");**

**SaveAsAudio**(*filename*[, *include all staves*[, *play from start*]])

Creates a WAV file (PC) or AIFF file (Mac) of the score, using Sibelius's File ▶ Export ▶ Audio feature. If *include all staves* is **True** (the default), Sibelius will first clear any existing selection from the score so every instrument will be recorded; only selected staves will otherwise be exported. When *play from start* is **True** (also the default), Sibelius will record the entire score from beginning to end, otherwise from the current position of the playback line. Note that **SaveAsAudio** will only have an effect if the user's current playback configuration consists of solely VST and/or AU devices. The function returns **True** if successful, otherwise **False** (including if the user clicks **Cancel** during export).

**SaveAsSibelius2**(*filename*[, *foldername*])

Saves the score in Sibelius 2 format, overwriting any previous file with the same name. The optional *foldername* specifies the folder in which the file is to be saved. Note that saving as Sibelius 2 may alter some aspects of the score; see Sibelius Reference for full details.

**SaveAsSibelius3**(*filename*[, *foldername*])

Saves the score in Sibelius 3 format. See documentation for **SaveAsSibelius2** above.

**SaveAsSibelius4**(*filename*[, *foldername*])

Saves the score in Sibelius 4 format. See documentation for **SaveAsSibelius2** above.

**SaveAsSibelius5**(*filename*[, *foldername*])

Saves the score in Sibelius 5 format. See documentation for **SaveAsSibelius2** above.

**SaveAsSibelius6**(*filename*[, *foldername*])

Saves the score in Sibelius 6 format. See documentation for **SaveAsSibelius2** above.

**SaveAsSibelius7**(*filename*[, *foldername*])

Saves the score in Sibelius 7 format. See documentation for **SaveAsSibelius2** above.

**SaveCopyAs**(*filename*[, *foldername*])

Saves a copy of the score in the current version's format without updating the existing score's file name in Sibelius.

**SetPlaybackPos**(*bar number*, *sr*)

Sets the position of the playback line to a given *bar number* and rhythmic (*sr*) position.

**ShowEmptyStaves**(*startStaveNum*, *endStaveNum*, *startBarNum*, *endBarNum*)

Shows any empty staves currently hidden using Layout ▶ Hiding Staves ▶ Hide Empty Staves between *startStaveNum* and *endStaveNum*, from *startBarNum* to *endBarNum*. Both the staff numbers and bar numbers are 1-based, and refer to the active part.

**StaveTypeId**(*stave type name*)

Returns the identifier of the stave type with the given name, or the empty string if there is no such stave type.



### **SystemCount**(*page num*)

The number of systems on a page (the first page of the score is page 1).

### **SymbolExists**(*symbol*)

Returns **True** if the symbol index or name *symbol* is found in the score, otherwise **False**.

### **SymbolIndex**(*symbol name*)

Returns the index of the symbol with the given name, or **-1** if there is no such symbol.

### **TextStyleId**(*text style name*)

Returns the identifier of the text style with the given name, or the empty string if there is no such text style.

### **ViewLiveTempo**(*view*)

Switches View > Live Tempo on or off; set *view* to **True** to switch it on, or **False** to switch it off.

## Variables

### **Arranger**

Arranger of score from File > Score Info (read/write).

### **Artist**

Artist of score from File > Score Info (read/write)

### **Barlines**

Returns a Barlines object containing information about the barline groupings in the score (read only).

### **BarPlaybackOrder**

Returns a sparse array containing a list of integers that describes the order in which the bars will be played, according to the repeat structure of the score or the settings in Play > Interpretation > Repeats. To set the order in which bars should be played, pass in a sparse array containing a list of integers describing the order in which bars should be played back. To return to the score's automatically-determined playback order, pass in **null** (read/write).

### **BarPlaybackOrderString**

Returns a string describing the order in which the bars will be played, according to the repeat structure of the score. The string uses the same format as the read-out in Play > Interpretation > Repeats, for example, "1-8, 1-5,9-12". To set the order in which bars should be played, pass in a string of the appropriate format. To return the score's automatically-determined playback order, pass in **null** (read/write).

### **BracketsAndBraces**

Returns a BracketsAndBraces object containing information about the brackets and braces in the score (read only).

**Composer**

Composer of score from File > Score Info (read/write).

**ComposerDates**

Value of Composer's dates from File > Score Info (read/write).

**Copyist**

Copyist of score from File > Score Info (read/write).

**Copyright**

Copyright of score from File > Score Info (read/write).

**CurrentDynamicPart**

Returns or sets the current DynamicPart object for the Score (read/write). Sibelius will not automatically display the new part: use `Sibelius.ShowDynamicPart()` to change the displayed part.

**CurrentPlaybackPosBar**

Returns the bar number in which the playback line is currently located.

**CurrentPlaybackPosSr**

Returns the rhythmic position within the bar at which the playback line is currently located.

**Dedication**

Dedication of score from File > Score Info (read/write).

**DocumentSetup**

Returns a DocumentSetup object representing the settings in Layout > Document Setup (read only).

**DynamicParts**

Returns a DynamicPartCollection object representing the dynamic parts present in the Score. This object will always stay up to date, even if parts are added or deleted (read only).

**EnableScorchPrinting**

Corresponds to the Allow printing and saving checkbox in the Export Scorch Web Page dialog (read/write).

**EngravingRules**

Returns an EngravingRules object corresponding to selected settings in the House Style > Engraving Rules dialog (read only).

**FileName**

The filename for the score (read only).

**FocusOnStaves**

is **True** if View > Focus on Staves is switched on (read/write). See also **Staff.ShowInFocusOnStaves**.

**HitPoints**

The HitPointList object for the score (read/write).

**InstrumentChanges**

Value of Instrument changes from File > Score Info (read/write).

**InstrumentTypes**

Returns an **InstrumentTypeList** containing the score's instrument types, on which one may execute a **for each** loop to get information about each instrument type within the score.

**IsDynamicPart**

Returns **True** if the current active score view is a part (read only).

**LiveMode**

Is **True** (1) if Play > Live Playback is on (read/write).

**Lyricist**

Lyricist of score from File > Score Info (read/write).

**MagneticLayoutEnabled**

Returns **True** if the current score has Layout > Magnetic Layout switched on (read/write).

**MainMusicFontName**

Returns the name of the font specified as the Main music font (such as "Opus" or "Reprise") in House Style > Edit All Fonts (read/write).

**MainTextFontName**

Returns the name of the font specified as the Main text font (such as "Times New Roman" or "Arial") in House Style > Edit All Fonts (read/write).

**MusicTextFontName**

Returns the name of the font specified as the Music text font (such as "Opus Text" or "Reprise Text") in House Style > Edit All Fonts (read/write).

**NumberOfPrintCopies**

The number of copies to be printed (read/write).

**OpusNumber**

Opus number of score from File > Score Info (read/write).

**OriginalProgramVersion**

The version of Sibelius in which this score was originally created, as an integer in the following format:

(major version) \* 1000 + (minor version) \* 100 + (revision) \* 10. So Sibelius at the time of this writing would be 8.3.1 would be returned as **8310**.

**OtherInformation**

More information concerning the score from File > Score Info (read/write).

**PageCount**

The number of pages in the score (read only).

**PartName**

Value of Part Name from File > Score Info (read/write).

**Publisher**

Publisher of score from File > Score Info (read/write).

**Redraw**

Set this to **True (1)** to make the score redraw after each change to it, **False (0)** to disallow redrawing (write only).

**ScoreDuration**

The duration of the score in milliseconds (read only).

**ScoreEndTime**

The duration of the score, plus the score start time (see above), in milliseconds (read only).

**ScoreHeight**

Height of a page in the score, in millimetres (read only).

**ScoreStartTime**

The value of Timecode of first bar, from Play > Video and Time > Timecode and Duration, in milliseconds (read only).

**ScoreWidth**

Width of a page in the score, in millimetres (read only).

**Selection**

The Selection object for the score, which is a list of selected objects (read only).

**ShowMultiRests**

Is **True** (1) if Layout > Show MultiRests is on (read/write).

**StaffCount**

The number of staves in the score (read only).

**StaffHeight**

Staff height, in millimetres (read only).

**Subtitle**

Subtitle of score from(read/write).

**SystemCount**

The number of systems in the score (read only).

**SystemObjectPositions**

Returns a SystemObjectPositions object corresponding to the settings in House Style > System Object Positions for the score (read only).

**SystemStaff**

The SystemStaff object for the score (read only).

**Title**

Title of score from File ▶ Score Info (read/write).

**TransposingScore**

Is **True** (1) if Notes > Transposing Score is on (read/write).

**UsingManualBarPlayOrder**

Returns **True** if Manual repeats playback is chosen in Play > Interpretation > Repeats, otherwise **False** (read only).

**YearOfComposition**

Value of Year of composition from File > Score Info (read/write).

---

## Selection

**for each** *variable in* returns every BarObject (which is an object within a bar) in the selection.

**for each** *type variable* in produces each object of type *type* in the selection. Note that if the selection is a system selection (which is surrounded by a double purple box in Sibelius) then objects in the system staff will be returned in such a loop.

## Methods

### **Clear()**

Removes any existing selection(s) from the current active score.

### **ClipboardContainsData**( [*clipboard Id*])

Returns **True** if the given clipboard contains data. As with the **Copy** and **Paste** methods, 0 (or no arguments) refers to Sibelius's internal clipboard, and all other numeric values will interrogate the temporary clipboard with the matching ID.

### **Copy**( [*clipboard Id*])

Copies the music within the current selection to Sibelius's internal clipboard or a Manuscript-specific temporary clipboard, which goes out of scope along with the **Selection** object itself. If no *clipboard Id* is specified, or if it is set to 0, the selection will be copied to Sibelius's internal clipboard. Any other numeric value you pass in will store the data in a temporary clipboard adopting the ID you specify. Used in conjunction with **Paste** or **PasteToPosition** (see below).

### **Delete**( [*remove staves*])

Deletes the music currently selected in the active score. Akin to making a selection manually in Sibelius and hitting **Delete**. If *remove staves* is omitted or set to **True**, Sibelius will completely remove any wholly selected staves from the score. If you wish Sibelius to simply hide such staves instead, set this flag to **False**.

### **ExcludeStaff**( *staff number*)

If a passage selection already exists in the current active score, an individual staff may be removed from the selection using this method.

### **HideSelectedEmptyStaves**()

If the current selection contains staves that are empty, they will be hidden (equivalent to selecting a passage and choosing **Layout > Hiding Staves > Hide Empty Staves**).

### **IncludeStaff**( *staff number*)

If a passage selection already exists in the current active score, a non-consecutive staff may be added to the selection using this method.

**Paste** (*[clipboard Id[,reset positions]]*)

Pastes the music from a given clipboard to the start of the selection in the current active score. If no *clipboard Id* is specified, or if it is set to 0, the data will be pasted from Sibelius's internal clipboard. Any other numeric value you pass in will take the data from a temporary clipboard you must have previously created with a call to **Copy** (see above). Returns **True** if successful.

If *reset positions* is **False**, the positions of any objects that have been moved by the user in the source selection will be retained in the copy. This is the default behaviour. If you wish Sibelius to reset objects to their default positions, set this flag to **True**. This can be useful when copying one or more single objects (which is a non-passage selection).

Note that pasting into a score using this method will overwrite any existing music. Only one copy of the music will ever be made, so if your selection happens to span more bars or staves than is necessary, the data will *not* be duplicated to fill the entire selection area.

**PasteToPosition** (*stave num, bar num, position[, clipboard Id[,reset positions]]*)

Pastes the music from a given clipboard to a specific location in the current active score. The optional parameters and pasting behavior works in the same way as calls to **Paste**.

**RestoreSelection** ()

Restores the selection previously recorded with a call to **StoreCurrentSelection**. Usefully called at the end of a plug-in to restore the initial selection.

**SelectPassage** (*start barNum[, end barNum[, top staveNum[, bottom staveNum[, start pos[, end pos]]]]*)

Programmatically makes a passage selection around a given area of the current active score. When no *end barNum* is given, only the *start barNum* will be selected. If neither a *top-* nor *bottom staveNum* has been specified, every stave in the score will be selected, whereas if only a *top staveNum* has been supplied, only that one staff will be selected. Sibelius will begin the selection from the start of the first bar if no *start pos* has been given, similarly completing the selection at the end of the final bar if no *end pos* has been supplied.

NB: The *start pos* and *end pos* you supply may be altered by Manuscript: Sibelius requires a passage selection to begin and end at a NoteRest if it doesn't encompass the entire bar.

**SelectSystemPassage** (*start barNum[, end barNum[, start pos[, end pos]]*)

Programmatically makes a system selection around a given area of the current active score. When no *end barNum* is given, only the *start barNum* will be selected. Sibelius will begin the selection from the start of the first bar if no *start pos* has been given, similarly completing the selection at the end of the final bar if no *end pos* has been supplied.

NB: The *start pos* and *end pos* you supply may be altered by Manuscript: Sibelius requires a passage selection to begin and end at a NoteRest if it doesn't encompass the entire bar.

**StoreCurrentSelection** ()

Stores the current selection in the active score internally. Can be retrieved with a call to **RestoreSelection** (see below). Usefully called at the start of a plug-in to store the initial selection.

**Transpose**(*degree*, *interval type*[, *keep double accs*[, *transpose keys*]])

Transposes the currently selected music up or down by a specified *degree* and *interval type*. To transpose up, use positive values for *degree*; to transpose down, use negative values. Note that degrees are 0-based, so 0 is equal to a unison, 1 to a second and so on. For descriptions of the various available interval types, see “Global Constants” on page 127. By default, Sibelius will transpose using double sharps and flats where necessary, but this behavior may be suppressed by setting the *keep double accs* flag to **False**. Sibelius will also transpose any key signatures within the selection by default, but can be overridden by setting the fourth parameter to **False**.

For help in calculating the interval and degree required for a particular transposition, see the documentation for the **Sibelius.CalculateInterval** and **Sibelius.CalculateDegree** methods.

## Variables

### **BottomStaff**

The number of the bottom staff of a passage (read only).

### **FirstBarNumber**

The internal bar number of the first bar of a passage (read only).

### **FirstBarNumberString**

The external bar number (including any bar number format changes) of the first bar of a passage (read only).

### **FirstBarSr**

The position of the start of the passage selection in the first bar (read only).

### **IsPassage**

True if the selection represents a passage, as opposed to a multiple selection (read only).

### **IsSystemPassage**

True if the selection includes the system staff (read only).

### **LastBarNumber**

The internal bar number of the last bar of a passage (read only).

### **LastBarNumberString**

The external bar number (including any bar number format changes) of the last bar of a passage (read only).

### **LastBarSr**

The position of the end of the passage selection in the last bar (read only).

### **TopStaff**

The number of the top staff of a passage (read only).



## Copying Entire Bars

Copying passages from one location in a score to another—or even from one score to another—is very simple. Here is an example function demonstrating how one might go about achieving this:

```
CopyBar(scoreSrc, barFirstSrc, barLastSrc, scoreDest, barFirst-
Dest,
        barLastDest) // This is the function signature

{
    sel = scoreSrc.Selection;
    sel.SelectPassage(barFirstSrc.BarNumber, barLastSrc.BarNumber,
                    barFirstSrc.ParentStaff.StaffNum,
                    barLastSrc.ParentStaff.StaffNum);

    sel.Copy(0);
    selDest = scoreDest.Selection;
    selDest.SelectPassage(barFirstDest.BarNumber, barLastDest.Bar-
Number,
                        barFirstDest.ParentStaff.StaffNum,
                        barLastDest.ParentStaff.StaffNum);

    selDest.Paste(0);
}
```

Note that you may use any temporary clipboard or Sibelius's own internal clipboard if the source and destination locations are in the same score, however you can only use Sibelius's internal clipboard if the data is being transferred between two individual scores. This is because the temporary clipboards belong to the `Selection` object itself.

## Copying Multiple Selections from One Bar to Another

Using a combination of the `BarObject`'s `Select` method and the `Selection` object's `Copy` and `PasteToPosition` methods, it is possible to copy an individual or multiple selection from one location in a score to another. Bear in mind that `Paste` will always paste the material to the very start of the selection, so if you're copying a selection that doesn't start at the very beginning of a bar, you'll have to store the position of the first item and pass it to `PasteToPosition` when you later come to paste the music to another bar.

This example code below copies all items from position 256 or later from one bar to another. It is assumed that `sourceBar` is a valid `Bar` object, and `destStaffNum` and `destBarNum` contain the destination staff number and bar number respectively:

```
sel = Sibelius.ActiveScore.Selection; // Get a Selection object for
this score
sel.Clear(); // Clear the current selection
clipboardToUse = 1; // This clipboard ID we're going to use
copyFromPos = 256; // Copy all objects from this point in the
source bar
posToCopyTo = 0; // Variable used to store the position of the
first object copied
for each obj in sourceBar { // Iterate over all objects in the bar
    if (obj.Position >= copyFromPos) { // Ignore objects before the
start threshold
        obj.Select(); // Select each relevant object in turn
        if (posToCopyTo = 0) {
            posToCopyTo = obj.Position; // Remember the position of the
first item
        }
    }
}
sel.Copy(clipboardToUse); // Copy the objects we've selected to the
clipboard

sel.PasteToPosition(destStaffNum, destBarNum, posToCopyTo, clip-
boardToUse); // And paste them to the destination bar at the rele-
vant offset
```

---

## Sibelius

There is a predefined variable that represents the Sibelius program. You can use the `Sibelius` object to open scores, close scores, display dialogs or (most commonly) to get currently open Score objects.

**for each** *variable in* returns each open score.

## Methods

**AppendLineToFile**(*filename, text[, use\_unicode]*)

Appends a line of text to the file specified (adds line feed). See comment for **AppendTextFile** above for explanation of the *use\_unicode* parameter. Returns `True` if successful.

### **AppendLineToRTFFile**(*filename*, *text*)

Appends a line of text to the file specified. Times New Roman 12pt is used, unless you specify a change of formatting. To change formatting, use the following backslash expressions:

`\B\` bold on

`\I\` italic on

`\U\` underline on

`\n\` new line

`\b\` bold off

`\i\` italic off

`\u\` underline off

`\fontname\` change to given font name (for example `\fArial\` to switch to Arial)

`\spoints\` set the font size to a specific point size (for example `\s16\` to set the font to 16pts).

Note the difference in meaning of `\s` in the context of adding data to an RTF file, versus its use in the context of styling text directly within Sibelius (see “Syntax” on page 12 following).

### **AppendTextFile**(*filename*, *text* [, *use\_unicode*])

Appends text to the file specified. If the optional Boolean parameter *use\_unicode* is **True**, then the string specified will be exported in Unicode format; if this parameter is **False** then it will be converted to 8-bit Latin-1 before being added to the text file. This parameter is **True** by default. Returns **True** if successful.

### **CalculateDegree**(*source pitch*, *dest pitch*, *upward interval*)

Takes two note names in the form of a string (for example C, G#, Bb, Fx or Ebb) and a boolean that should be **True** if the interval you’re wishing to calculate is upward. Returns a 0-based number describing the degree between the two notes.

For example, `CalculateDegree("C#", "G", False)` would return 3.

### **CalculateInterval**(*source pitch*, *dest pitch*, *upward interval*)

Takes two note names in the form of a string (for example C, G#, Bb, Fx or Ebb) and a boolean that should be **True** if the interval you’re wishing to calculate is upward. Returns a number representing an Interval Type (see “Global Constants” on page 127). You can use the value returned in calls to `NoteRest.Transpose` and `Selection.Transpose`.

For example, `CalculateInterval("Bb", "G#", True)` would return `IntervalAugmented`.

### **Close**(*show dialogs*)

Closes the current score or part view; if the current view is the last tab in the current window, the window will therefore also be closed. If the optional Boolean parameter is **True** then warning dialogs may be shown about saving the active score, and if it is **False** then no warnings are shown (and the score will not be saved).

### **CloseAllWindows** (*show dialogs*)

Closes all open document windows. If the optional Boolean parameter is **True** then warning dialogs may be shown about saving any unsaved scores, and if it is **False** then no warnings are shown (and the scores will not be saved).

### **CloseDialog** (*dialogName, pluginName, returnValue*)

Closes the dialog *dialogName* belonging to the plug-in *pluginName* (normally this should be set to **self**), returning the Boolean value *returnValue*, which can be set to **True** (1) or **False** (0). Normally you do not need to use this method to close a dialog, as you can set buttons (typically with labels like **OK** or **Cancel**) to close the dialog and return a value, but if you want greater control over when a dialog is closed, this method provides it.

### **CloseWindow** (*show dialogs*)

Closes the current window (that closes all of the open tabs in the current window). If the optional Boolean parameter is **True** then warning dialogs may be shown about saving the score, and if it is **False** then no warnings are shown (and the score will not be saved).

### **CreateFolder** (*foldername*)

Creates the folder of specified *foldername*; returns the Folder object created if successful, or null if it fails.

### **CreateProgressDialog** (*caption, min value, max value*)

Creates the progress dialog, which shows a slider during a long operation.

### **CreateRTFFile** (*filename*)

Creates the Rich Text Format (RTF) file specified. Any existing file with the same name is destroyed. Returns **True** if successful.

### **CreateTextFile** (*filename*)

Creates the plain text file specified. Any existing file with the same name is destroyed. Returns **True** if successful.

### **DestroyProgressDialog** ( )

Destroys the progress dialog.

### **EnableControlById** (*plugin, dialog, controlID, enable*)

Dynamically enables or disables a given control on a plug-in dialog: *plugin* is a plug-in object, for example **Self**; *dialog* is a dialog object, and therefore should not be passed in quotation marks; *controlID* is the string corresponding to the control to be enabled or disabled; and *enable* is a Boolean parameter, which enables the control when set to **True** and disables the control when set to **False**.

### **EnableNthControl** (*nth control, enable*)

Dynamically enables or disables a given control on a plug-in dialog. Can be called either before a dialog has been displayed (in which case the operation will apply to the next dialog you show), or while a dialog is already visible (in which case the operation will affect the top-most currently visible dialog).

Note that, using this method, controls can only be identified according to their order upon creation; for this reason, you are strongly recommended to use `EnableControlById()` instead. To find out the creation order, open the appropriate dialog in the plug-in editor, right click on the dialog's client area and choose `Set Creation Order` from the contextual menu that appears. Note that *n*th control expects a 0-based number, unlike the display given by `Set Creation Order`. By default, all controls will be enabled; to disable any given control, set *enable* to `false`.

**FileExists**(*filename*)

Returns `True` if a file exists or `False` if it doesn't.

**FolderExists**(*foldername*)

Returns `True` if a folder exists or `False` if it doesn't.

**GetDocumentsFolder**()

Returns the user's My Documents (Windows) or Documents (Mac) folder.

**GetElapsedCentiSeconds**(*timer number*)

Returns the time since `ResetStopWatch` was called for the given stop watch, in 100ths of a second.

**GetElapsedMilliseconds**(*timer number*)

Returns the time since `ResetStopWatch` was called for the given stop watch, in 1000ths of a second.

**GetElapsedSeconds**(*timer number*)

Returns the time since `ResetStopWatch` was called for the given stop watch in seconds.

**GetFile**(*file path*)

Returns a new File object representing a file path for example `file=Sibelius.GetFile("c:\\on-ion\\foo.txt");`

**GetFolder**(*file path*)

Returns a new Folder object representing a file path for example `folder=Sibelius.GetFolder("c:\\");`

**GetNotesForChord**(*chord name*)

Returns a Manuscript array giving the MIDI pitches corresponding to the named chord symbol.

**GetNotesForGuitarChord**(*chord name*)

Returns a Manuscript array giving the MIDI pitches and string numbers corresponding to the named guitar chord, using the most suitable fingering according to the user's preferences. Strings are numbered starting at 0 for the bottom string and increasing upwards. The array returned has twice as many entries as the number of notes in the chord, because the pitches and string numbers are interleaved thus:

`array[0] = MIDI pitch for note 0`

`array[1] = string number for note 0`

`array[2] = MIDI pitch for note 1`

`array[3] = string number for note 1`

...

#### **GetScoresFolder()**

Returns a new Folder object representing the default Scores folder (as defined on the Files page of File ▶ Preferences).

#### **GetSyllabifier()**

Returns a new Syllabifier object, providing access to Sibelius's internal syllabification engine.

#### **GetUserApplicationDataFolder()**

Returns the user's Application Data (Windows) or Application Support (Mac) folder.

#### **GoToEnd()**

Moves the playback line to the end of the score.

#### **GoToStart()**

Moves the playback line to the start of the score.

#### **IsDynamicPartOpen(dynamic part)**

Returns **True** if the specified part and its corresponding Score is valid and is visible in a Score window within Sibelius.

#### **IsFontFamilyInstalled(font name)**

Returns **True** if a font with the name *font name* exists on the system, otherwise **False**.

#### **LaunchApplication(path[,parameters[,hide]])**

Launches an external application specified via its *path*, which must be a complete path to the application to be launched. You can optionally pass in a sparse array of *parameters* (or a string if you want to pass in only a single parameter); omit this or set it to **null** to pass no parameters to the launched application. To prevent the launched application from gaining the focus once it is launched, set the optional *hide* parameter to **True**; if unspecified, this defaults to **False**, so the launched application will gain the focus.

#### **LiveTempoTap()**

Equivalent to tapping a beat during Live Tempo recording.

#### **MakeSafeFileName(filename)**

Returns a "safe" version of filename. The function removes characters that are illegal on Windows or Unix, and truncates the name to 31 characters so it will be viewable on Mac OS 9.

#### **MessageBox(string)**

Shows a message box with the string and an OK button.

**MoveActiveViewToBar** (*bar number* [, *position*])

Brings a given internal bar number into view. Has the same effect as **Go to Bar** in Sibelius. An optional position within the bar may also be specified, but if omitted, the very start of the bar will be brought into view.

**MoveActiveViewToSelection** (*[start of selection]*)

Brings the object(s) currently selected into view. If *start of selection* is **False**, the end of the selection will be brought into view. If the optional argument is **True** or omitted, the start of the selection will be visible. Has the same effect as **Shift + Home/End** in Sibelius.

**New** (*[manuscript paper]*)

Creates and shows a new score. If the optional parameter *manuscript paper* is not supplied, Sibelius will create a blank score; *manuscript paper* should be the filename of the manuscript paper you want to create, minus its **.sib** file extension, optionally including the name of the category (subfolder) in which it is located, for example both "**String orchestra**" and "**Orchestral/String orchestra**" will work. Returns the score object corresponding to the new score.

**NthScore** (*score index from 0*)

Returns the *n*th open score (zero-based), or null if the specified index is not valid.

**Open** (*filename* [, *quiet*])

Opens and displays the given file. Filename must include its extension, for example **Song.sib**. If the optional boolean parameter *quiet* is set to **True**, then no error messages or dialogs will be displayed, even if the file could not be opened for some reason. Returns **True** if the file is opened successfully, **False** otherwise.

**Play** ()

Plays the current score, from the current position of the playback line.

**PlayFromSelection** ()

Plays from the current selection.

**PlayFromStart** ()

Plays from the start of the score.

**PrependScreenreaderText** (*string*)

Prepends *string* to the default screen reader description.

**Print** (*number of copies* [, *dynamic part* [, *showdialog*]])

Prints the specified number of copies of the current score or dynamic part using default settings. If *number of copies* is missing or a negative number, then the default number of copies for the score or part is printed, and if set to 0 no printing occurs. The optional *dynamic part* parameter must be a valid object of the active Score (this does not affect or use **Score.CurrentDynamicPart** for the Score printed); if it is not supplied, the active Score is printed instead. Returns **True** for success, **False** for failure. The second optional parameter, *showdi-*

*alog*, is a Boolean: if set to **True**, Sibelius will show the Print dialog, and if not specified or set to **False**, Sibelius will not show the dialog.

#### **PrintAllDynamicParts** (*[score]*)

Prints the default number of copies of all dynamic parts, but does not print the full score. Prints the currently-active Score if the optional *score* parameter is not passed in. Returns **True** for success, **False** for failure.

#### **RandomNumber** ()

Returns a random number.

#### **RandomSeed** (*start number*)

Restarts the random number sequence from the given number.

#### **RandomSeedTime** ()

Restarts the random number sequence based on the current time.

#### **RefreshDialog** ()

Refreshes the data being displayed by any controls on the currently active plug-in dialog. For example, if a text object gets its string from a global variable and the value stored in this global variable has changed whilst the dialog is visible, calling RefreshDialog will update the text object on the dialog accordingly. Returns True if successful.

#### **ResetStopWatch** (*timer number*)

Resets the given stop watch. *timer number* must be an integer greater than 0.

#### **ReadTextFile** (*filename*, [*unicode*])

Reads the given filename into an array of strings, one per line. If the *unicode* parameter is true, the file is treated as Unicode, otherwise it is treated as ANSI (that is 8-bit) text, which is the default. The resulting array can be used in two ways:

```
lines = Sibelius.ReadTextFile("file.txt");
for each l in lines {
    trace(l);
}
```

or:

```
lines = Sibelius.ReadTextFile("file.txt");
for i=0 to lines.NumChildren {
    trace(lines[i]);
}
```

#### **ScreenreaderText** (*string*)

Replaces Sibelius's default screen reader description with *string*.



**SelectFileToOpen**(*caption, file, initial\_dir, default extension, default type, default type description*)

Shows a dialog prompting the user to select a file to open. All parameters are optional. The method returns a file object describing the selection. For example:

```
file=Sibelius.SelectFileToOpen("Save  
Score","*.sib","c:\","sib","SIBE","Sibelius File");
```

Note that the *initial\_dir* parameter has no effect on Mac, because it is unsupported by Mac OS X.

**SelectFileToSave**(*caption, file, initial\_dir, default extension, default type, default type description*)

Shows a dialog prompting the user to select a file to save to. All parameters are optional. The method returns a file object describing the selection. File types and extensions:

Description	Type	Extension
EMF graphics	"EMF"	emf
Windows bitmap	"BMP"	bmp
Macintosh PICT bitmap	"PICT"	pict
Sibelius score	"SIBE"	sib
MIDI file	"Midi"	mid
House style file	"SIBS"	lib
PhotoScore file	"SCMS"	opt
Web page	"TEXT"	html
TIFF graphics	"TIFF"	tif
PNG graphics	"PNG"	png

Note that the *initial\_dir* parameter has no effect on Mac, because it is unsupported by Mac OS X.

**SelectFolder** (*[caption]*)

Allows the user to select a folder and returns a Folder object. The optional string parameter *caption* sets the caption of the dialog that appears.

**SetCurrentScoreViewType**(*view type*)

Allows plug-ins to switch between Panorama and normal view; values are **ViewTypePage** (0) and **ViewTypePanorama** (1).

**SetFocusToControl**(*pluginName, dialogName, controlId*)

Sets the focus on a specific control in a plug-in dialog. *pluginName* will normally be set to **self**, *dialogName* is the name of the dialog in which the control is found, and *controlID* is the ID of the control to receive the focus, which must be specified in quotation marks.

### **ShowDialog**(*dialogName*, *pluginName*)

Shows a dialog *dialogName* from a dialog description and sends messages and values to the given plug-in object *pluginName* (normally set to **Self**). Returns the value **True** (1) or **False** (0) depending on which button you clicked to close the dialog (typically OK or Cancel).

### **ShowDynamicPart**(*dynamic part*[, *newWindow*])

Shows the specified dynamic part. The second optional Boolean parameter *newWindow* allows you to specify whether the part should open in a new tab (specify **False**, the default) or a new window (specify **True**). Returns **True** if the specified part can be shown, **False** otherwise. Can be used to bring a Score to the front by way of **Sibelius.ShowDynamicPart(Score.CurrentDynamicPart)**.

### **ShowTraceWindow**()

Shows the Plug-in Trace Window, or forces it to the front if it is already shown but currently behind another window.

### **optartLiveTempoRecording**()

Starts recording Live Tempo; equivalent to choosing Play > Record Live Tempo

### **StopLiveTempoRecording**()

Stops recording Live Tempo.

### **Stop**()

Stops the current score from playing.

### **UpdateProgressDialog**(*progress pos*, *status message*)

Returns 0 if the user clicked Cancel.

### **YesNoMessageBox**(*string*)

Shows a message box with Yes and No buttons. Returns **True** if Yes is chosen, else **False**.

## Variables

### **ActiveScore**

Is the active Score object (read/write). Setting **Sibelius.ActiveScore** makes active the current dynamic part (which may be the full score rather than a part) of the score. If that window is not currently shown, a new window may be created according to the user's preferences. Returns null if it fails to make the specified score or part active.

### **ApplicationLanguage**

Returns the language of the version of Sibelius currently running, always in English—such as **English**, **German**, **French** and so on. (read only)

### **ApplicationLanguageIsoString**

Returns the two-letter ISO 3166 identifier of the language in which Sibelius is currently running, such as **en**, **de**, **fr**, and so on (read only).

### **CurrentTime**

Returns a string containing the current time in the format hh:mm:ss, based on your own computer's locale (read only).

### **CurrentDateShort**

Returns a string containing the current date in the format dd/mm/yyyy, based on your own computer's locale (read only).

### **CurrentDateLong**

Returns a string containing the current date in the format dd MM yyyy, based on your own computer's locale (read only).

### **CurrentDate**

Returns the current date and time as a `DateTime` object in local time (read only).

### **FontFamilies**

Returns a sparse array of strings containing the names of all the available font families on the system (read only).

### **HouseStyles**

The list of house styles available, as a `ComponentList`.

### **LocalizedApplicationLanguage**

Returns the language in which Sibelius is currently running, in the localized language, for example it returns **Deutsch** when running in German (read only).

### **ManuscriptPapers**

The list of manuscript papers available, as a `ComponentList`.

## OSVersionString

The current operating system in which the plug-in is running, as one of the following strings:

Windows 95	Mac OS X
Windows 98	Mac OS X Jaguar
Windows ME	Mac OS X Panther
Windows NT 3.x	Mac OS X Tiger
Windows NT 4	Mac OS X Leopard
Windows 2000	Mac OS X Snow Leopard
Windows XP	Mac OS X Lion
Windows Vista	Mac OS X Mountain Lion
Windows 7	
Windows 8	

If the operating system is unrecognized, the variable returns **Unknown system version**.

## PathSeparator

Returns the current path separator character (which is “\” on Windows, “/” on Mac).

## Plugins

The list of plug-ins installed. See the documentation for the **Plugin** object

## Playing

Is **True** if a score is currently being played (read only).

## ProgramVersion

The current version of Sibelius in which the plug-in is running, as an integer in the following format  
(major version) \* 1000 + (minor version) \* 100 + (revision) \* 10  
So Sibelius 3.1.3 would be returned as **3130**.

## ScoreCount

Is the number of scores being edited (read only).

## SuppressDefaultScreenreaderText

Set to **True** to suppress the default score description for screen readers for blind and visually impaired users (read/write).

## ViewHighlights

Is **True** if View > Highlights is switched on (read/write).

## ViewNoteVelocities

Is **True** if View > Live Playback Velocities is switched on (read/write).

## ViewNoteColors

The current View > Note Colors setting used (read/write).

Description	Value
None	0
Notes out of Range	1
Pitch Spectrum	2
Voice Colors	3

---

## SoundInfo

The SoundInfo object contains information about the playback of a given staff.

To get the SoundInfo object for a staff, use for example:

```
staff = Sibelius.ActivateScore.NthStaff(1);
soundinfo = staff.SoundInfoAtPosition(1,0,0);
```

The SoundInfo object can be moved around the staff once you have created it, and it will return information about the sound IDs in use throughout the staff.

## Methods

### Clone()

Returns a new SoundInfo object using the same credentials as the object on which the method is called.

### CreateAt([barNumber],[position],[nthRepeat]])

Returns a new SoundInfo object at the specified *bar number*, at the specified rhythmic *position* in the bar (for example **256** for the second quarter note position), as if played through at the *nth repeat* (for example **2** for the second repeat). If no *bar number* is specified, the information returned will refer to bar 1. If no *position* is specified, the information will refer to the start of the bar. If *nth repeat* is not specified, the information returned will refer to the first pass through the score.

### MoveTo([barNumber],[position],[nthRepeat]])

Uses the same parameters as **CreateAt()**. Allows the caller to move the existing SoundInfo object to an entirely new location on the current staff.

### MoveToNext()

Moves to the next sound change event. If there are no more changes, it returns **false** and doesn't move.

### MoveToPrevious()

Moves to the previous sound change event. If there are no changes before, it returns **false** and doesn't move.

## Variables

### **ActualSoundId**

The actual sound ID at the current location (read only).

### **BarNum**

Returns the current location's bar number (read only).

### **IsDrumStave**

Returns **true** if the current location is on a drum staff (read only).

### **NthRepeat**

Returns or sets the *n*th repeat (or pass) of the current location's bar (read/write).

### **NumTimesBarPlayed**

The number of times the bar at the current location is played (read only).

### **PatchName**

The name of the patch in use at the current location (read only).

### **Position**

Returns or sets the current location's position within the bar (read/write).

### **RequestedSoundId**

The requested sound ID at the current location (read only).

### **SoundChangeIndex**

The current index in the bar play sequence. This allows differentiation between different identical sound changes (read only).

### **SoundSetName**

Returns the name of the sound set in use at the current location (read only).

### **StaveNum**

Returns the 1-based stave number (read only)

---

## SparseArray

To create a sparse array, use the built-in method **CreateSparseArray**(*a1, a2, a3, a4...an*).

**for each** allows you to iterate over the contents of a sparse array.

## Methods

### **Concat**(*array1*, *array2* ... *arrayN*)

Concatenate zero or more sparse arrays to this one, and return it as a one-level deep copy (so if a sparse array contains other arrays, for example, then the new sparse array will contain references to those arrays, not copies of them). This method does not modify the original sparse array.

### **Join**(*[separator]*)

Returns the array as a string, with each populated element separated by the optional *separator*. If you don't specify *separator*, the default separator is a comma.

### **Push**(*value1*, *value2*, *value3* ... *valueN*)

Pushes one or more values to the end of the array.

### **Pop**( )

Returns the last element of the array, and removes it from the array.

### **Reverse**( )

Reverses the sparse array in place, modifying the sparse array being operated on. The reversed array only populates the elements needed to create the reversed array.

### **Slice**(*start*[, *end*])

Returns a new sparse array of the elements starting from *start* and up to, but not including, the optional *end*. *start* and *end* can be negative indices referring to offsets from the end of the array.

## Variables

### **Length**

Returns or sets the length of the array (read/write).

### **ValidIndices**

Returns a sparse array containing only the populated indices of the original sparse array, that is those that are not null.

## Converting Old-style Arrays to New Sparse Arrays

The `SparseArray` object is a replacement for the old `Array` object, which was a more limited kind of array that could only hold strings and integers, but no other kind of objects. You are recommended to use the new `SparseArray` object for all arrays in your plug-ins, but if you have an existing plug-in in which old-style Arrays are used, you can convert them to `SparseArrays` as follows:

### **Array.ConvertToSparseArray**( )

Returns a new `SparseArray` object, populated with strings converted from the old-style `Array`.

---

## SpecialBarline

Derived from a BarObject, these can only be found in system staves.

### Methods

None.

### Variables

#### **BarlineType**

The name of the type of special barline, expressed as a string.

#### **BarlineInternalType**

The type of the barline, expressed as a numeric ID which maps to one of the SpecialBarline global constants (see “Global Constants” on page 127).

---

## Staff

These can be normal staves or the system staff. The system staff contains objects that apply to all staves, such as SpecialBarlines and text using a system text style.

A Staff contains Bar objects.

**for each** *variable* **in** returns each object in the staff.

**for each** *type variable* **in** returns each item of **type** *type* in the staff in chronological order (that is in order of rhythmic position in each bar).

### Methods

#### **AddClef**(*pos*, *concert pitch clef*[, *transposed pitch clef*])

Adds a clef to the staff at the specified position. *concert pitch clef* determines the clef style when Notes ▶ Transposing Score is switched off; the optional *transposed pitch clef* parameter determines the clef style when this is switched on. Clef styles should be an identifier like “clef.treble”; for a complete list of available clef styles, see “Clef Styles” on page 135. Alternatively you can give the name of a clef style, such as “Treble,” but bear in mind that this may not work in non-English versions of Sibelius.

#### **AddLine**(*pos*, *duration*, *line style*, [*dx*, [*dy*, [*voicenum*ber, [*hidden*]]]])

Adds a line to staff (please see the documentation in Bar object below).

#### **AddNote**(*pos*, *sounding pitch*, *duration*, [*tied* [, *voice* [, *diatonic pitch* [, *string number*]]]])

Adds a note to staff, adding to an existing NoteRest if already at this position (in which case the duration is ignored); otherwise creates a new NoteRest. Will add a new bar if necessary at the end of the staff. The position is



in 1/256th quarters from the start of the score. The optional *tied* parameter should be **True** if you want the note to be tied. Voice 1 is assumed unless the optional *voice* parameter (with a value of 1, 2, 3 or 4) is specified. You can also set the diatonic pitch, that is the number of the “note name” to which this note corresponds, 7 per octave (35 = middle C, 36 = D, 37 = E and so on). If a diatonic pitch of zero is given then a suitable diatonic pitch will be calculated from the MIDI pitch. The optional string number parameter gives a string number for this note, which is only meaningful if the note is on a tablature stave. If this parameter is not supplied then a default string number is calculated based on the current tablature stave type and the guitar tab fingering options (specified on the Note Input page of File > Preferences). Returns the Note object created (to get the NoteRest containing the note, use **Note.ParentNoteRest**).

When adding very short notes to tuplets, Sibelius may be unable to find a legal place for the note in the bar. Should this happen, Sibelius will return null. You should therefore check for a valid object if there is any likelihood that this situation may arise in your code.

N.B.: If you add a note to a score that intersects an existing tuplet, Sibelius will try to snap the note to the closest sensible place within that tuplet. However, you are advised to use *Tuplet.AddNote()* for this purpose as it is void of any ambiguity.

**AddStaffAbove**(*ossia*, [*start bar number*[, *end bar number*[, *start pos*[, *end pos*]]]])

Adds a new staff above the staff. Set *ossia* to **True** to create an ossia (small) staff. The other, optional parameters determine where the staff should be visible: if you do not specify a *start bar number*, the staff will be visible from the start of the score; if you do not specify an *end bar number*, the staff will be visible to the end of the score. If you specify a start and/or end bar number, the staff will be hidden outside that range by way of an instrument change to the **No instrument (hidden)** instrument type. *start pos* and *end pos* represent the rhythmic position within the *start bar number* and *end bar number* respectively, and if not specified, *start pos* will default to the start of the bar, and *end pos* will default to the end of the bar. Returns the staff created, or null if the call fails.

**AddStaffBelow**(*ossia*, [*start bar number*[, *end bar number*[, *start pos*[, *end pos*]]]])

Adds a new staff below the staff. See **AddStaffAbove**( ) above for details.

**AddSymbol**(*pos*, *symbol index or name*)

Adds a symbol to staff (please see the documentation in Bar object below).

**CurrentKeySignature**(*bar number*)

Returns a KeySignature valid at the bar number passed.

**NthBar**(*n*)

Returns the *n*th bar in the staff, counting from 1.

**ResetSpaceAroundStaff**(*above*, *below*[, *from bar*[, *to bar*]])

Does the equivalent of Layout > Reset Space Above Staff and/or Reset Space Below Staff for the given range of bars in a staff. Set *above* to **True** to reset the space above the staff, and *below* to **True** to reset the space below the staff. If *from bar* is not specified, Sibelius sets it to 1; if *to bar* is not specified, Sibelius sets it to the last bar of the score.

### **SetSound**(*styleID*[, *set SoundStage*])

Changes the initial playback sound of this staff to be the default sound for the given default instrument *styleID*. For a complete list of default instrument style IDs in Sibelius, see “Instrument Types” on page 136. If the optional Boolean parameter is set to **False**, then the SoundStage information (volume, pan and distance) for this staff will be unchanged. If it is omitted or set to **True**, then the SoundStage information will be set to the default for the new sound.

### **SetSoundID**(*soundID*)

Changes the initial playback sound of this staff to the given *soundID*.

### **SoundIDAtPosition**(*[bar number, [position, [nth repeat]]]*)

Returns a new SoundInfo object at the specified *bar number*, at the specified rhythmic *position* in the bar (for example **256** for the second quarter note position), as if played through at the *nth repeat* (for example **2** for the second repeat). If no *bar number* is specified, the information returned will refer to bar 1. If no *position* is specified, the information will refer to the start of the bar. If *nth repeat* is not specified, the information returned will refer to the first pass through the score.

### **Staff**[*array element*]

Returns the *nth* bar (counting from 1) for example **Staff[1]**.

## Variables

### **BankHigh**

Controls MIDI controller 0, used to select the “coarse” bank number for this stave, and corresponding to the Mixer control of the same name. The range is 0–127, or –1 if you don’t want to send this controller message at the start of playback. Note that not all MIDI devices support multiple banks (read/write).

### **BankLow**

Controls MIDI controller 32, used to select the “fine” bank number for this stave, and corresponding to the Mixer control of the same name. The range is 0–127, or –1 if you don’t want to send this controller message at the start of playback. Note that not all MIDI devices support multiple banks (read/write).

### **BarCount**

Number of bars in the staff (read only).

### **Channel**

The MIDI channel number of this staff, numbered 1–16 (read/write).

### **Distance**

The reverb “distance” of this staff, corresponding to the control of the same name in the Mixer. This is a percentage, used to scale the overall reverb settings from the Performance dialog (read/write).

**FullInstrumentName**

Gives the full instrument name of the staff, empty for an unnamed staff (read/write).

**FullInstrumentNameWithFormatting**

Gives the full instrument name of the staff including any changes of font or style, if any (read/write).

**NumStavesInSameInstrument**

The number of staves belonging to the default instrument from which this staff was created (read only).

**InitialClefStyle**

The name of the initial clef on a staff, depending on the state of Notes > Transposing Score (read only).

**InitialClefStyleId**

The style identifier of the initial clef on a staff, depending on the state of Notes > Transposing Score (read only).

**InitialInstrumentType**

Returns an InstrumentType object for the instrument type at the start of the staff.

**InitialKeySignature**

Returns the KeySignature object at the start of this staff (read only).

**InitialStyleId**

Returns the style identifier of the staff (read only). To create an instrument from such an ID, pass the style as the first argument to **Score.CreateInstrument**. For a complete list of all the default instrument names in Sibelius, see “Instrument Types” on page 136.

**InstrumentName**

Gives the full instrument name of the staff in the form that is displayed on the Instruments and Staves dialog in Sibelius (read only). For an unnamed stave, this will be “[Piano]” for example, where Piano is the default instrument name of the stave (see below). To get the internal name (which will be empty for unnamed staves), use the read/write variables **FullInstrumentName** or **ShortInstrumentName** instead.

**IsSystemStaff**

**True** or **False** depending on whether this staff is a system staff or not (read only).

**IsVocalStaff**

Returns **True** if the instrument type used by the staff has the **Vocal staff** option switched on, meaning that the default positions of dynamics should be above the staff rather than below (read only).

### **MuteMode**

Specifies whether or not this staff will play back. Corresponds to the mute button in the Mixer. The supported values are defined as global constants (see “Global Constants” on page 127) and are **Muted**, **HalfMuted** and **NotMuted** (read/write).

### **Pan**

The MIDI stereo panning position of this staff (corresponding to the pan control in the Mixer). Permissible values are -100 to 100, with positive values being to the right and negative to the left (read/write).

### **ParentScore**

Returns the staff’s parent Score object (read only).

### **ShortInstrumentName**

Gives the short instrument name of the staff, empty for an unnamed staff (read/write).

### **ShortInstrumentNameWithFormatting**

Gives the short instrument name of the staff including any changes of font or style, if any (read/write).

### **ShowInFocusOnStaves**

If **True** then this staff will be shown when **Layout > Focus on Staves** is switched on (see also **Score.FocusOnStaves**). This variable cannot be set to **False** unless it is also **True** for at least one other staff in the score (read/write).

### **Solo**

**True** or **False** depending on whether this staff plays back in “solo” mode, corresponding to the Mixer button of the same name (read/write).

### **SoundIdOverrideIfAny**

Returns a string containing the sound ID override set in the mixer for the staff. If no override has been set, an empty string is returned (read only).

### **Small**

**True** if the staff is small (such as an ossia staff), **False** if it is normal sized (read/write).

### **StaffNum**

Returns the number of this stave, counting from 1 at the top of the currently-viewed part. Returns 0 for for SystemStaff objects (read only).

### **Volume**

The overall MIDI volume of this staff, corresponding to its fader in the Mixer. Permissible values are 0–127 (read/write).

---

## Syllabifier

Acts as a wrapper around Sibelius's internal Syllabification engine, exposing its functionality to Manuscript.

### Methods

#### **AbbreviateUsingApostrophe** (*useApostrophe*)

When the **abbreviate** flag is set to **True** when calling **Syllabify**, Sibelius will replace vowels that have been combined with the previous syllable with an apostrophe if this option is switched on—for example *Vege-ta-bles* vs *Veg'-ta-bles*. Calling this method will cause the syllabification engine to recalculate its result if necessary.

#### **GetNthSyllable** (*n*)

Once a string has been syllabified by calling the **Syllabify** method, you can use this method to return each individual syllable as a string

#### **NthSyllableEndsWord** (*n*)

Once a string has been syllabified by calling the **Syllabify** method, you can use this method to find out whether each syllable occurs at the end of a word

#### **Syllabify** (*textToSyllabify* [, *language* [, *abbreviate* = *False*]])

Breaks a string down into its syllabic components, returning the number of syllables in the resultant syllabification, or 0 if an error has occurred. The rules of the specified language will be used, and you may legally supply either a language ID, or the localized language name. To get the individual syllables, you should call the **GetNthSyllable** and **NthSyllableEndsWord** methods documented below.

If the **language** argument is omitted, Sibelius will attempt to automatically identify the language of the text. If this is not possible, or if an unrecognised language ID or name has been supplied, 0 will be returned.

When **abbreviate** is **True**, each ambiguous word in the string will be syllabified using the minimal number of syllables. For example, syllabifying “Everybody likes vegetables” would return “Eve-ry-bod-y likes vege-ta-bles” with this flag set to **True**, otherwise “E-ve-ry-bod-y likes veg-e-ta-bles”.

### Variables

#### **AbbreviateUsingApostrophe**

Returns **True/False** depending on whether the syllabification engine is set to abbreviate combined syllables with an apostrophe (read only – call method with same name for write access)

#### **AvailableLanguageIds**

Returns an array containing a list of the available syllabification languages as three-letter non-translatable IDs – such as **ENG** (English), **GER** (German), **LAT** (Latin). These IDs are identical in all localized versions of Sibelius (read only)

### **AvailableLanguages**

Returns an array containing a list of the available syllabification languages as localized strings (read only)

### **NumberOfSyllables**

Returns the number of syllables in the hyphenated string generated by calling the **Syllabify** method (read only)

### **SyllabifiedString**

Returns the resultant hyphenated string generated by calling the **Syllabify** method (read only)

---

## SymbolItem and SystemSymbolItem

Derived from a BarObject. For system symbols (such as symbols belonging to the system staff, retrieved with **for each** on the system staff object), the type of symbol objects is SystemSymbolItem, not SymbolItem.

### Methods

None.

### Variables

#### **Index**

The index of this symbol in the list of symbols. This corresponds to its position in the **Create ▶ Symbol** dialog, counting from zero left-to-right and top-to-bottom (read only).

#### **Name**

The name of this symbol. May be translated in non-English language versions of Sibelius (read only).

#### **Size**

The draw size of the symbol, corresponding to the four available options in the Symbols dialog in Sibelius. The four available values are **NormalSize**, **CueSize**, **GraceNoteSize** and **CueGraceNoteSize**, all defined as global constants (read/write).

---

## SystemObjectPositions

Accessed from a Score object. Corresponds to the settings in **House Style ▶ System Object Positions**.

### Methods

#### **GetNthStaffShowsSystemObjects(*staffNum*)**

Returns **True** if the given staff number *staffNum* (relative to the current part) is showing system objects above it, otherwise **False**.

### **SetNthStaffShowsSystemObjects(*staffNum*, *show*)**

Tells the staff with the given staff number *staffNum* (relative to the current part) either to show or not show system objects above it. This will have no effect if you pass in the top staff in the part, or if the maximum number of staves allowed to show system objects has already been met.

### **Clear(*[removeBelowBottomStaff]*)**

Allows you to clear all the system object positions (apart from the compulsory one above the top staff) in a single operation; set the optional Boolean parameter *removeBelowBottomStaff* to **True** to also clear the **Below** bottom staff system object position.

## Variables

### **NumStavesShowingSystemObjects**

Returns the current number of staves showing system object positions (read only)

### **ShowSystemObjectsBelowBottomStaff**

Returns **True** if system objects should show below the bottom staff, otherwise **False** (read/write).

---

## SystemStaff, Staff, Selection, Bar and, all BarObject-derived Objects

## Variables

### **IsALine**

Returns true if the object is a line object. (Note that this is a variable, not a method, unlike the **IsObject()** method for all objects.)

### **Type**

A string giving the name of the type of an object. The strings for the first 4 types above are "**SystemStave**", "**Stave**", "**MusicSelectionList**", and "**Bar**". Note that this variable is also a member of all objects that occur in bars.

---

## SystemStaff

There is one SystemStaff object per score. The SystemStaff contains objects which apply to all staves, such as SpecialBarlines and text using a system text style. Unlike normal staves, the SystemStaff does not appear in the score itself. As such, most of the variables and methods supported for Staff objects are not available on a SystemStaff. Those that are supported by SystemStaff are as follows.

## Methods

**CurrentKeySignature**(*bar number*)

Returns a KeySignature valid at the bar number passed.

**CurrentTimeSignature**(*bar number*)

Returns a TimeSignature valid at the bar number passed.

**NthBar**(*n*)

Returns the *n*th bar in the staff, counting from 1.

**SystemStaff**[*array element*]

Returns the *n*th bar (counting from 1) for example **SystemStaff[1]**.

## Variables

**BarCount**

Number of bars in the staff (read only).

**InitialKeySignature**

Returns the KeySignature object at the start of this staff (read only).

**IsSystemStaff**

Returns **True** for a SystemStaff (read only).

---

## Text and SystemTextItem

Derived from a BarObject. For system text (such as text belonging to the system staff, retrieved with **for each** on the system staff object), the type of text objects is SystemTextItem, not Text.

## Methods

None.

## Variables

**JumpAtEndOfBar**

Returns **True** if the system text object has Jump at bar end (in the Playback panel of the Inspector) set, otherwise **False**. Always returns **False** for staff text objects (read/write).

**StyleAsText**

The text style name (read/write).



### **StyleId**

The identifier of the text style of this piece of text (read/write).

### **Text**

The text as a string (read/write).

### **TextWithFormatting**

Returns an array containing the various changes of font or style (if any) within the string in a new element (read only). For example, "This text is \B\bold\b, and this is \I\italic\I" would return an array with eight elements containing the following data:

```
arr[0] = "This text is "  
arr[1] = "\B\  
arr[2] = "bold"  
arr[3] = "\b\  
arr[4] = ", and this is "  
arr[5] = "\I\  
arr[6] = "italic"  
arr[7] = "\i\  

```

### **TextWithFormattingAsString**

The text including any changes of font or style (read only).

---

## TimeSignature

Derived from a BarObject.

### Methods

None.

### Variables

#### **AllowCautionary**

Returns **True** if the time signature is set to show a cautionary at the end of the previous system, if it occurs at the start of a system (read/write).

#### **Denominator**

The time signature's bottom number (read only).

#### **Numerator**

The time signature's top number (read only).

## Text

The time signature as text. You can use this to detect common time and alla breve time signatures by comparing it to the global constants **CommonTimeString** and **AllaBreveTimeString**, which define the Unicode characters used by these symbols. Other time signatures will be of the form “4n4” (read only).

---

## TreeNode

These are used internally by Manuscript to implement arrays and hashes (returned with the **CreateArray** and **CreateHash** methods), and to represent global data (defined in the plugin editor). Each **TreeNode** can contain a label, a piece of data and a list of “children,” which are also **TreeNode**s. Normally, any access to a **TreeNode** object will access the data that is held, so that you don’t need to know anything about them, but there are also some extra variables and methods that may be useful in some circumstances. These can be called on any array, hash or global variable, and on any member of such a structure.

## Methods

### **WriteToString**

Returns a string that represents the structure of this **TreeNode** object. In this representation, the data of a **TreeNode** is surrounded by double quotes and the label is not. Note that a label need not be defined. Any children of the **TreeNode** (also **TreeNode** objects themselves) are contained within curly braces { and }. To obtain child **TreeNode**s, use the normal array operator, as described in the documentation for arrays and hashes.

## Variables

### **Label**

The label of this **TreeNode**.

### **NumChildren**

The number of child **TreeNode**s belonging to this **TreeNode** object.

---

## Tuplet

Derived from a **BarObject**.

## Methods

### **AddNestedTuplet**(*posInTuplet*, *left*, *right*, *unit*[, *style*[, *bracket*[, *fullDuration*]]])

Nests a new tuplet bracket within an existing tuplet at a position relative to the duration and scale-factor of the existing tuplet. The *left* and *right* parameters specify the ratio of the new tuplet, for example 3 (left) in the time of 2 (right). The *unit* parameter specifies the note value (in 1/256th quarters) on which the tuplet should be based. For example, if you wish to create an eighth note (quaver) triplet group, you would use the value 128. The optional *style* and *bracket* parameters take one of the pre-defined constants that affect the visual appearance of the

created tuplet; see “Global Constants” on page 127. If *fullDuration* is true, the bracket of the tuplet will span the entire duration of the tuplet. Returns the Tuplet object created.

NB: If **AddNestedTuplet()** has been given illegal parameters, it will not be able to create a valid Tuplet object. Therefore, you should test for inequality of the returned Tuplet object with *null* before attempting to use it.

**AddNote**(*posInTuplet*, *pitch*, *duration*[, *tied*[, *diatonic pitch*[, *string number*]]])

Adds a note to an existing tuplet, adopting the same voice number as used by the tuplet itself. Please note that *posInTuplet* is relative to the duration and scale-factor of the tuplet bracket itself. Therefore, if you wanted to add a quarter note/crotchet to the second beat of a quarter note/crotchet triplet, you would simply use the value 256 – not 341!

**utils.SplitTuplet**(*tuplet*, *splitpoint*)

Split the tuplet object *tuplet* at the specified *splitpoint*, which is a number in relation to the tuplet’s parent bar. It then splits a nest of tuplets at that point in the bar. This method is provided by the *utils.plg*—see “Utils” on page 118.

## Variables

### **Bracket**

The bracket type of the tuplet (such as. none, auto; see “Global Constants” on page 127).

### **FullDuration**

True if the bracket of the tuplet spans its entire duration.

### **Left**

The left side of the tuplet, for example 3 in 3:2 (read only).

### **ParentTupletIfAny**

If the tuplet intersects a tuplet, the innermost Tuplet object at that point in the score is returned. Otherwise, *null* is returned (read only).

### **PlayedDuration**

The true rhythmic duration of the tuplet, for example for quarter-note (crotchet) triplet this would be the duration of a minim (read only).

### **PositionInTuplet**

Returns the position of the tuplet relative to the duration and scale-factor of its parent tuplet. If the tuplet does not intersect a tuplet, its position within the parent Bar is returned as usual (read only).

### **Right**

The rightside of the tuplet, for example 2 in 3:2 (read only).

## Style

The style of the tuplet (for example, number, ratio, ratio + note; see “Global Constants” on page 127).

## Text

The text shown above the tuplet (read only).

## Unit

The unit used for the tuplet, for example 256 for a triplet of quarter notes (read only).

---

## Utils

Sibelius installs a plug-in called `utils.plg` that contains a set of useful and common methods that can be called directly by other plug-ins. It is not intended to be run as a plug-in in its own right, so does not appear in the Plug-ins menu.

## Methods

The methods available via `utils.plg` are as follows:

**`utils.AbsoluteValue(value)`**

Returns the absolute value of a number, that is its numerical value without regard to its sign.

**`utils.AddFractions(x,y)`**

Adds two fractions *x* and *y*, passed in as Manuscript arrays. Returns an array with the result of the addition.

**`utils.BinaryString(x)`**

Returns a binary string (such as “101010”) equivalent to the number *x*.

**`utils.bwAND(x, y)`**

Equivalent to the C++ bitwise AND (&) operator. For example, `utils.bwAND(129, 1)` is equal to 1.

**`utils.bwOR(x, y)`**

Equivalent to the C++ bitwise inclusive OR (|) operator. For example, `utils.bwOR(64, 4)` is equal to 68.

**`utils.bwXOR(x, y)`**

Equivalent to the C++ bitwise exclusive XOR (^) operator. For example, `utils.bwXOR(4, 6)` is equal to 2.

**`utils.CapableOfDeletion()`**

Returns **True** if the object can be deleted using `Delete()`, which is determined by checking Sibelius’s version number.

**utils.CaseInsensitiveComparison(*s1*, *s2*)**

Returns **True** if the two strings *s1* and *s2* match, ignoring case.

**utils.CastToBool(*x*)**

Returns the variable *x* explicitly cast as a Boolean.

**utils.CastToInt(*x*)**

Returns the variable *x* explicitly cast as an integer.

**utils.CastToStr(*x*)**

Returns the variable *x* explicitly cast as a string.

**utils.CombineArraysOfBool(*arr1*, *arr2*)**

Concatenates two arrays containing Boolean values and returns the result.

**utils.CombineArraysOfInt(*arr1*, *arr2*)**

Concatenates two arrays containing integral values and returns the result.

**utils.CombineArraysOfString(*arr1*, *arr2*)**

Concatenates two arrays containing string values and returns the result.

**utils.CopyTextFile(*source*, *dest*)**

Copies an existing text file from one location to another, returning **True** if successful.

**utils.CreateArrayBlanket(*value*, *size*)**

Returns an array with *size* elements, each containing a blanket value specified by the first parameter.

**utils.DeleteStaff(*score*, *nth staff*, *retain selection*)**

Deletes an entire staff and its content from a given score, returning **True** if successful. If *retain selection* is **True**, Sibelius will ensure any item(s) that were selected prior to the staff's deletion are still selected.

**utils.DenaryValue(*x*)**

Returns a number in base 10 equivalent to binary number *x*, which must be provided as a string.

**utils.DivideFractions(*x*, *y*)**

Divides fraction *x* by fraction *y*, passed in as Manuscript arrays. Returns an array with the result of the division.

**utils.ExtractFileName(*filename*)**

Returns just the filename portion of a string *filename* containing both a path and a filename.

**utils.Format**(*str*, [*val1*, *val2*, *val3* ...])

Provides a simple means of replacing human-readable data types in a string. Each successive instance of **%s** in *str* is replaced with the value of the next remaining unused argument. for example **s = utils.Format("The %s brown %s jumps %s the lazy %s", "quick", "fox", "over", "dog");**

**utils.FormatTime**(*ms*)

Formats a time, given in milliseconds, to a human-readable string using the format **mm'ss.z** (where *z* is centiseconds).

**utils.FractionAsDecimal**(*x*)

Returns the decimal equivalent of the fraction *x*, which is passed in as an array.

**utils.FractionDenominator**(*x*)

Returns the denominator of fraction *x*, which is passed in as an array.

**utils.FractionNumerator**(*x*)

Returns the numerator of fraction *x*, which is passed in as an array.

**utils.GetAppDir**()

Returns the path of the Sibelius executable as a string.

**utils.GetArrayIndex**(*arr*, *value*)

Returns the index of *value* in the array *arr*, or **-1** if it doesn't exist in the array.

**utils.GetBits**(*x*)

Returns an array containing the list of powers of two whose cumulative sum equates to the value of *x*.

**utils.GetGlobalApplicationDataDir**()

Returns the path of the system's global application data area as a string.

**utils.GetLocationTime**(*score*, *barNum*, *position*)

Returns the precise time (in milliseconds) of a given location in a score. The position should be local to the start of the bar number you have supplied. Use the *utils* library to achieve this if your plug-in needs to be backwards compatible with Sibelius 4; otherwise call the *Score* object's function with the same name.

**utils.GetMillisecondsFromTime**(*time*)

If you pass in a time expressed in milliseconds (one minute being 60,000), this function returns the milliseconds portion of the number (in this case 60,000 modulus 1000 = 0).

**utils.GetMinutesFromTime**(*time*)

If you pass in a time expressed in milliseconds, this function returns the minutes portion of the number (for example if *time* = 120,262 milliseconds, this function returns 2).

### **utils.GetObjectTime(score, obj)**

Returns the precise time (in milliseconds) that the object *obj* occurs from the start of a given score, taking into account tempo changes, performance markings and any other events in the score that have an effect on playback. Use this method to achieve this if your plug-in needs to be backwards compatible with Sibelius 4; otherwise use the `Time` property of the `BarObject` object whose time you wish to determine.

### **utils.GetPluginId(plugin)**

This enables you to identify a plug-in by entering the line of code `PluginUniqueID = "someUniqueId"`; in a plug-in's `Initialize` method. When you pass a plug-in object to this function, it scans the plug-in's code and returns its unique ID if it has one, otherwise an empty string.

### **utils.GetSibeliusPluginsFolder()**

This is a wrapper around the deprecated `GetPluginsFolder()` function, and returns the path of the `Plugins` folder.

### **utils.GetSibMajorVersion()**

Returns the major version number of Sibelius.

### **utils.GreatestCommonDivisor(m, n)**

Returns the greatest common divisor of two non-zero integers, that is the largest positive integer that divides both numbers without remainder.

### **utils.IsInArray(arr, value)**

Returns `True` if *value* exists in the array *arr*.

### **utils.IsNumeric(str[, integer only])**

Returns `True` if the string *str* is numeric. Set the optional Boolean parameter *integer only* to `True` if you want the method to only return `True` if *str* is an integer (so that you can disallow floating point numbers).

### **utils.LowerCase(str)**

Returns the ANSI string *str* in lowercase.

### **utils.MakeFraction(x, y)**

Creates a fraction with *x* as the numerator and *y* as the denominator. The fraction is returned as a normal `ManuScript` array. (Manipulating fractions means you never have to worry about rounding errors.)

### **utils.max(x, y)**

Returns the greater of two numbers.

### **utils.min(x, y)**

Returns the lesser of two numbers.

**utils.MultiplyFractions(*x*,*y*)**

Multiplies fraction *y* by fraction *x*, passed in as Manuscript arrays. Returns an array with the result of the multiplication.

**utils.PatternCount(*pattern*,*str*)**

Returns the number of times the substring *pattern* exists in *str*.

**utils.Pos(*subStr*,*str*)**

Returns the zero-based position of the first instance of the sub-string *subStr* in *str*, or -1 if it isn't found.

**utils.PosReverse(*subStr*,*str*)**

Returns the zero-based position of the *last* instance of the sub-string *subStr* in *str*, or -1 if it isn't found.

**utils.RaisePower(*x*,*y*)**

Raises *x* to the *y*th power, where *y* is a positive integer.

**utils.Replace(*inStr*,*toFind*,*replaceWith*,*replaceAll*)**

Replaces a sub-string in a string with a new value. It looks for *toFind* in the string *inStr*, and if it finds it, replaces it with *replaceWith*. If the Boolean *replaceAll* is **False**, it only changes the first instance found; if it's **True**, it replaces all instances.

**utils.ReverseArrayOfBool(*arr*)**

Reverses the order of the elements in an array of Booleans.

**utils.ReverseArrayOfInt(*arr*)**

Reverses the order of the elements in an array of integers.

**utils.ReverseArrayOfString(*arr*)**

Reverses the order of the elements in an array of strings.

**utils.RoundToNDecimalPlaces(*number*,*precision*)**

Returns a string containing the number *number* rounded to *precision* decimal places. The method handles the input as a string, in order to avoid rounding errors which would otherwise spoil results beyond the tenth decimal place or so.

**utils.SetDefaultIfNotInArray(*value*,*arr*,*DefaultIndex*)**

Scans the array *arr* for the value specified by the first parameter. *Value* is returned if it exists in the array, otherwise, *arr*[*DefaultIndex*].

**utils.shl(*x*,*y*)**

Bitwise left-shift. Shifts the value *x* left by *y* bits. Equivalent to C++ << operator.



**utils.shr**(*x*, *y*)

Bitwise right-shift. Shifts the value *x* right by *y* bits. Equivalent to C++ >> operator.

**utils.SortArray**(*arr*, *show progress*)

Sorts the array *arr* using a case-insensitive alphabetic sort. Set *show progress* to **True** to see a progress bar while the sort is carried out, or set it to **False** if you don't want to see a progress bar.

**utils.SortArrayCustom**(*arr*, *show progress*, *plug-in name*, *method*)

Sorts the array *arr* using a custom sort order routine *method*, which must be passed into this method. *plug-in name* is the name of the plug-in that contains the sort order routine *method*. You can write your own sort order routine: it must be a method that takes two strings (*strA* and *strB*) and returns **1** or **0** based on the results of the comparison.

**utils.SortArrayNumeric**(*arr*, *show progress*)

Sorts the array *arr* in ascending numeric order. Set *show progress* to **True** to see a progress bar while the sort is carried out, or set it to **False** if you don't want to see a progress bar.

**utils.SplitTuplet**(*tuplet*, *splitpoint*)

Split the tuplet object *tuplet* at the specified *splitpoint*, which is a number in relation to the tuplet's parent bar. It then splits a nest of tuplets at that point in the bar.

**utils.StartComponentManager**(*componentName*, *callbackFunc*)

Returns an array of filenames (strings) found on the system inside a folder with a given name, following the same rules of precedence as Sibelius's internal component manager. Files in the user's application data area take priority over those in the global application data area, followed lastly by those in the Sibelius's application directory itself.

*callbackFunc* should point to a function in the calling script that scans a supplied directory for files with a specific extension.

Such a function might look something like this:

```
GetFooFiles(dir) { // This is the function signature
  components = CreateArray();
  for each FOO file in dir {
    components[components.NumChildren] = file.NameWithExt;
  }
  return(components);
}
```

In the scenario above, the call to start the component manager would look like this (where "Foo Files" is the name of the directory containing your files):

```
files = utils.StartComponentManager("Foo Files", "myPlugin.Get-
FooFiles");
```

**utils.SubtractFractions(*x*,*y*)**

Subtracts fraction *y* from fraction *x*, passed in as Manuscript arrays. Returns an array with the result of the subtraction.

**utils.UpperCase(*str*)**

Returns the ANSI string *str* in uppercase.

---

## VersionHistory

Each Score object has a VersionHistory object (obtained by way of the *score.GetVersions()* method), which in turn provides a list of Version objects. Each Version object represents a specific version, and also provides a list of VersionComment objects, which represent the per-version comments (as opposed to bar-attached comments, which are represented to Manuscript as Comment objects, derived from BarObject objects).

### Methods

**AddVersion([*name*[,*comment*]])**

Adds a new version object and returns it if successful (or null if not), with an optional *name* and *comment* for the version.

**DeleteNthVersion(*n*)**

Deletes the *n*th Version object, returning **True** if successful.

**GetNthVersion(*n*)**

Returns the *n*th Version object.

### Variables

**NumChildren**

Returns the number of versions in the score's VersionHistory object.

---

## Version

Accessed via a Score object's VersionHistory object.

### Methods

**AddComment(*text*)**

Adds a new comment with the specified *text*, and returns the VersionComment object created.

### **Close()**

Closes all views of the version that are currently open in Sibelius, returning **True** if it has actually closed anything.

### **GetNthComment (n)**

Gets the *n*th comment as a **VersionComment** object, or returns null if the index is out of range.

### **DeleteNthComment (n)**

Deletes the *n*th comment, returning **True** if successful, or null if the index is out of range.

### **OpenAndReturnScore()**

Opens the specified version in Sibelius (if it's not already open) and returns its **Score** object.

## Variables

### **EndDate**

Returns a **DateTime** object representing the version's end date (read only). **IsOpen** Returns **True** if the version is currently open in Sibelius (read only).

### **Name**

Returns the name of the version (read/write).

### **NumComments**

Returns the number of comments in the version (read only).

### **StartDate**

Returns a **DateTime** object representing the version's start date (read only).

---

## VersionComment

Accessed via **Version** objects.

## Methods

None.

## Variables

### **Text**

Returns or changes the text of the comment, and this cannot be undone (read/write).

**TimeStamp**

Returns a DateTime object representing the time at which the comment was created.

**UserName**

Returns the name of the user who created the comment (read only).

# Chapter 5: Global Constants

---

## Global Constants

These are useful variables held internally within ManuScript and are accessible from any plug-in. They are called “constants” because you are encouraged not to change them.

Many of the constants are the names of note values, which you can use to specify a position in a bar easily. So instead of writing **320** you can write **Quarter+Sixteenth** or equally **Crotchet+Semiquaver**.

## Truth Values

<b>True</b>	1
<b>False</b>	0

## Measurements

<b>Space</b>	32
<b>StaffHeight</b>	128

## Positions and Durations

<b>Long</b>	4096	<b>Sixteenth</b>	64
<b>Breve</b>	2048	<b>Semiquaver</b>	64
<b>DottedBreve</b>	3072	<b>DottedSixteenth</b>	96
<b>Whole</b>	1024	<b>DottedSemiquaver</b>	96
<b>Semibreve</b>	1024	<b>ThirtySecond</b>	32
<b>DottedWhole</b>	1536	<b>Demisemiquaver</b>	32
<b>Half</b>	512	<b>DottedThirtySecond</b>	48
<b>Minim</b>	512	<b>DottedDemisemiquaver</b>	48

<b>DottedHalf</b>	768	<b>SixtyFourth</b>	16
<b>DottedMinim</b>	768	<b>Hemidemisemiquaver</b>	16
<b>Quarter</b>	256	<b>DottedSixtyFourth</b>	24
<b>Crotchet</b>	256	<b>DottedHemidemisemiquaver</b>	24
<b>DottedQuarter</b>	384	<b>OneHundredTwentyEighth</b>	8
<b>DottedCrotchet</b>	384	<b>Semihemidemisemiquaver</b>	8
<b>Eighth</b>	128	<b>DottedOneHundredTwentyEighth</b>	12
<b>Quaver</b>	128	<b>DottedSemihemidemisemiquaver</b>	12
<b>DottedEighth</b>	192		
<b>DottedQuaver</b>	192		

## Style Names

For the `ApplyStyle()` method of Score objects. Instead of the capitalized strings in quotes, you can use the equivalent variables in mixed upper and lower case. Note again that the constant `HOUSE` refers to the options in House Style > Engraving Rules and Layout > Document Setup only; to apply the entire House Style, use the `ALLSTYLES` constant.

<b>House</b>	“HOUSE”	<b>Dictionary</b>	“DICTIONARY”
<b>Text</b>	“TEXT”	<b>SpacingRule</b>	“SPACINGRULE”
<b>Symbols</b>	“SYMBOLS”	<b>CustomChordNames</b>	“CUSTOMCHORD-NAMES”
<b>Lines</b>	“LINES”	<b>DefaultPartAppearance</b>	“DEFAULTPARTAPPEARANCE”
<b>Noteheads</b>	“NOTEHEADS”	<b>InstrumentsAndEnsembles</b>	“INSTRUMENTSANDENSEMBLES”
<b>Clefs</b>	“CLEFS”	<b>AllStyles</b>	“ALLSTYLES”

## Bar Number Formats

These constants can be used for the **format** argument of the **AddBarNumber** method.

<b>BarNumberFormatNormal</b>	0
<b>BarNumberFormatNumberLetterLower</b>	1
<b>BarNumberFormatNumberLetterUpper</b>	2

## Text Styles

Here is a list of all the text style identifiers which are guaranteed to be present in any score in Sibelius. In previous versions of Manuscript text styles were identified by a numeric index; this usage has been deprecated but will continue to work for old plug-ins. New plug-ins should use the identifiers given below. For each style we first give the English name of the style and then the identifier.

<b>Instrument names</b>	“text.instrumentname”	<b>Time signatures (one staff only)</b>	“text.staff.timesig.onestaffonly”
<b>1st and 2nd endings</b>	“text.staff.1st_n_2nd_endings”	<b>Tuplets</b>	“text.staff.tuplets”
<b>Auto page break warnings</b>	“text.staff.autopagebreak.warnings”	<b>Bar numbers</b>	“text.system.barnumber”
<b>Boxed text</b>	“text.staff.boxed”	<b>Metronome mark</b>	“text.system.metronome”
<b>Expression</b>	“text.staff.expression”	<b>Multirests (numbers)</b>	“text.system.multirestnumbers”
<b>Chord diagram fingering</b>	“text.staff.fingering.chord_diagrams”	<b>Composer</b>	“text.system.page_aligned.composer”
<b>Footnote</b>	“text.staff.footnote”	<b>Composer (on title page)</b>	“text.system.page_aligned.composer.ontitlepage”
<b>Block lyrics</b>	“text.staff.lyrics.block”	<b>Copyright</b>	“text.system.page_aligned.copyright”
<b>Multirests (tacet)</b>	“text.staff.multirests.tacet”	<b>Dedication</b>	“text.system.page_aligned.dedication”

<b>Plain text</b>	“text.staff.plain”	<b>Footer (inside edge)</b>	“text.system.page_aligned.footer.inside”
<b>Small text</b>	“text.staff.small”	<b>Footer (outside edge)</b>	“text.system.page_aligned.footer.outside”
<b>Chord symbol</b>	“text.staff.space.chordsymbol”	<b>Worksheet footer (first page, l)</b>	“text.system.page_aligned.footer.worksheet.left”
<b>Figured bass</b>	“text.staff.space.figuredbass”	<b>Header</b>	“text.system.page_aligned.header”
<b>Fingering</b>	“text.staff.space.fingering”	<b>Worksheet header (first page, l)</b>	“text.system.page_aligned.header.worksheet.left”
<b>Chord diagram fret</b>	“text.staff.space.fretnumbers”	<b>Worksheet header (first page, r)</b>	“text.system.page_aligned.header.worksheet.right”
<b>Lyrics above staff</b>	“text.staff.space.hypen.lyrics.above”	<b>Header (after first page)</b>	“text.system.page_aligned.header_notp1”
<b>Lyrics (chorus)</b>	“text.staff.space.hypen.lyrics.chorus”	<b>Header (after first page, inside edge)</b>	“text.system.page_aligned.header_notp1.inside”
<b>Lyrics line 1</b>	“text.staff.space.hypen.lyrics.verse1”	<b>Instrument name at top left</b>	“text.system.page_aligned.instrname_topleft”
<b>Lyrics line 2</b>	“text.staff.space.hypen.lyrics.verse2”	<b>Lyricist</b>	“text.system.page_aligned.lyricist”
<b>Lyrics line 3</b>	“text.staff.space.hypen.lyrics.verse3”	<b>Page numbers</b>	“text.system.page_aligned.pagenumber”
<b>Lyrics line 4</b>	“text.staff.space.hypen.lyrics.verse4”	<b>Subtitle</b>	“text.system.page_aligned.subtitle”
<b>Lyrics line 5</b>	“text.staff.space.hypen.lyrics.verse5”	<b>Title</b>	“text.system.page_aligned.title”
<b>Nashville chord numbers</b>	“text.staff.space.nashvillechords”	<b>Title (on title page)</b>	“text.system.page_aligned.title_ontitlepage”



<b>Common symbols</b>	“text.staff.symbol.common”	<b>Rehearsal mark</b>	“text.system.rehearsalmarks”
<b>Figured bass (extras)</b>	“text.staff.symbol.figured.bass.extras”	<b>Repeat (D.C./D.S./To Coda)</b>	“text.system.repeat”
<b>Note tails</b>	“text.staff.symbol.noteflags”	<b>Tempo</b>	“text.system.tempo”
<b>Special noteheads etc.</b>	“text.staff.symbol.noteheads.special”	<b>Timecode</b>	“text.system.timecode”
<b>Percussion instruments</b>	“text.staff.symbol.percussion”	<b>Duration at end of score</b>	“text.system.timecode.duration”
<b>Special symbols</b>	“text.staff.symbol.special”	<b>Hit points</b>	“text.system.timecode.hitpoints”
<b>Tablature letters</b>	“text.staff.tab.letters”	<b>Time signatures (huge)</b>	“text.system.timesig.huge”
<b>Tablature numbers</b>	“text.staff.tab.numbers”	<b>Time signatures (large)</b>	“text.system.timesig.large”
<b>Technique</b>	“text.staff.technique”	<b>Time signatures</b>	“text.system.timesig.normal”

## Line Styles

<b>Arpeggio</b>	“line.staff.arpeggio”	<b>Bracketed slur below</b>	“line.staff.slur.down.bracketed”
<b>Arpeggio down</b>	“line.staff.arpeggio.down”	<b>Dashed slur below</b>	“line.staff.slur.down.dashed”
<b>Arpeggio up</b>	“line.staff.arpeggio.up”	<b>Dotted slur below</b>	“line.staff.slur.down.dotted”
<b>Unused 2</b>	“line.staff.arrow”	<b>Slur above</b>	“line.staff.slur.up”
<b>Arrow</b>	“line.staff.arrow.black.right”	<b>Bracketed slur above</b>	“line.staff.slur.up.bracketed”
<b>Dashed arrow</b>	“line.staff.arrow.black.right.dashed”	<b>Dashed slur above</b>	“line.staff.slur.up.dashed”

<b>Double arrow</b>	“line.staff.arrow.black.rig ht.left”	<b>Dotted slur above</b>	“line.staff.slur.up.dotted”
<b>Vertical arrow (2)</b>	“line.staff.arrow.black.ver tical”	<b>String indicator above (1)</b>	“line.staff.string.above.1”
<b>White arrow</b>	“line.staff.arrow.white.rig ht”	<b>String indicator above (2)</b>	“line.staff.string.above.2”
<b>Dashed white arrow</b>	“line.staff.arrow.white.rig ht.dashed”	<b>String indicator above (3)</b>	“line.staff.string.above.3”
<b>Double white arrow</b>	“line.staff.arrow.white.rig ht.left”	<b>String indicator above (4)</b>	“line.staff.string.above.4”
<b>Vertical arrow</b>	“line.staff.arrow.white.ver tical”	<b>String indicator above (5)</b>	“line.staff.string.above.5”
<b>Beam</b>	“line.staff.beam”	<b>String indicator above (6)</b>	“line.staff.string.above.6”
<b>Guitar Bend</b>	“line.staff.bend”	<b>String indicator above (7)</b>	“line.staff.string.above.7”
<b>Guitar hold bend</b>	“line.staff.bend.hold”	<b>String indicator above (8)</b>	“line.staff.string.above.8”
<b>Box</b>	“line.staff.box”	<b>String indicator below (1)</b>	“line.staff.string.below.1”
<b>Bracket above</b>	“line.staff.bracket.above”	<b>String indicator below (2)</b>	“line.staff.string.below.2”
<b>Bracket above (end)</b>	“line.staff.bracket.above.e nd”	<b>String indicator below (3)</b>	“line.staff.string.below.3”
<b>Bracket above (start)</b>	“line.staff.bracket.above.s tart”	<b>String indicator below (4)</b>	“line.staff.string.below.4”
<b>Bracket below</b>	“line.staff.bracket.below”	<b>String indicator below (5)</b>	“line.staff.string.below.5”
<b>Bracket below (end)</b>	“line.staff.bracket.below.e nd”	<b>String indicator below (6)</b>	“line.staff.string.below.6”
<b>Bracket below (start)</b>	“line.staff.bracket.below.s tart”	<b>String indicator below (7)</b>	“line.staff.string.below.7”
<b>Vertical bracket</b>	“line.staff.bracket.verti cal”	<b>String indicator below (8)</b>	“line.staff.string.below.8”

<b>Vertical bracket 2</b>	“line.staff.bracket.vertical.2”	<b>Tie</b>	“line.staff.tie”
<b>Dashed line</b>	“line.staff.dashed”	<b>Trill</b>	“line.staff.trill”
<b>Vertical dashed line</b>	“line.staff.dashed.vertical”	<b>Tuplet</b>	“line.staff.tuplet”
<b>Dotted line</b>	“line.staff.dotted”	<b>Vertical line</b>	“line.staff.vertical”
<b>Glissando (straight)</b>	“line.staff.gliss.straight”	<b>Vibrato</b>	“line.staff.vibrato”
<b>Glissando (wavy)</b>	“line.staff.gliss.wavy”	<b>Guitar vibrato bar</b>	“line.staff.vibrato.bar”
<b>Guitar effect</b>	“line.staff.guitareffect”	<b>Wide vibrato</b>	“line.staff.vibrato.wide”
<b>Crescendo</b>	“line.staff.hairpin.crescendo”	<b>Dashed system line</b>	“line.system.dashed”
<b>Bracketed crescendo</b>	“line.staff.hairpin.crescendo.bracketed”	<b>Wide dashed system line</b>	“line.system.dashed.wide”
<b>Dashed crescendo</b>	“line.staff.hairpin.crescendo.dashed”	<b>1st ending</b>	“line.system.repeat.1st”
<b>Dotted crescendo</b>	“line.staff.hairpin.crescendo.dotted”	<b>1st and 2nd ending</b>	“line.system.repeat.1st_n_2nd”
<b>Crescendo from silence</b>	“line.staff.hairpin.crescendo.fromsilence”	<b>2nd ending</b>	“line.system.repeat.2nd”
<b>Diminuendo</b>	“line.staff.hairpin.diminuendo”	<b>2nd ending (closed)</b>	“line.system.repeat.2nd.closed”
<b>Bracketed diminuendo</b>	“line.staff.hairpin.diminuendo.bracketed”	<b>3rd ending</b>	“line.system.repeat.3rd”
<b>Dashed diminuendo</b>	“line.staff.hairpin.diminuendo.dashed”	<b>Repeat ending (closed)</b>	“line.system.repeat.closed”
<b>Dotted diminuendo</b>	“line.staff.hairpin.diminuendo.dotted”	<b>Repeat ending (open)</b>	“line.system.repeat.open”
<b>Diminuendo to silence</b>	“line.staff.hairpin.diminuendo.tosilence”	<b>Accel.</b>	“line.system.tempo.accel”
<b>Guitar artificial harmonic</b>	“line.staff.harmonic.artificial”	<b>Accel. (italic)</b>	“line.system.tempo.accel.italic”
<b>Guitar harp harmonic</b>	“line.staff.harmonic.harp”	<b>Accel. (italic, text only)</b>	“line.system.tempo.accel.italic.textonly”

<b>Guitar pinch harmonic</b>	“line.staff.harmonic.pinch”	<b>Molto accel.</b>	“line.system.tempo.accel.molto”
<b>Guitar touch harmonic</b>	“line.staff.harmonic.touch”	<b>Molto accel. (text only)</b>	“line.system.tempo.accel.molto.textonly”
<b>Guitar harmonics</b>	“line.staff.harmonics”	<b>Poco accel.</b>	“line.system.tempo.accel.poco”
<b>Hauptstimme</b>	“line.staff.hauptstimme”	<b>Poco accel. (text only)</b>	“line.system.tempo.accel.poco.textonly”
<b>Guitar let ring</b>	“line.staff.letting”	<b>Accel. (text only)</b>	“line.system.tempo.accel.textonly”
<b>Lyric line</b>	“line.staff.lyric”	<b>Tempo change (arrow right)</b>	“line.system.tempo.arrowright”
<b>Guitar palm mute</b>	“line.staff.mute.palm”	<b>Rall.</b>	“line.system.tempo.rall”
<b>Nebenstimme</b>	“line.staff.nebenstimme”	<b>Rall. (italic)</b>	“line.system.tempo.rall.italic”
<b>2 octaves down</b>	“line.staff.octava.minus15”	<b>Rall. (italic, text only)</b>	“line.system.tempo.rall.italic.textonly”
<b>Octave down</b>	“line.staff.octava.minus8”	<b>Molto rall.</b>	“line.system.tempo.rall.molto”
<b>2 octaves up</b>	“line.staff.octava.plus15”	<b>Molto rall. (text only)</b>	“line.system.tempo.rall.molto.textonly”
<b>Octave up</b>	“line.staff.octava.plus8”	<b>Poco rall.</b>	“line.system.tempo.rall.poco”
<b>Pedal</b>	“line.staff.pedal”	<b>Poco rall. (text only)</b>	“line.system.tempo.rall.poco.textonly”
<b>Pedal lift</b>	“line.staff.pedal.lift”	<b>Rall. (text only)</b>	“line.system.tempo.rall.textonly”
<b>Pedal lift again</b>	“line.staff.pedal.lift.again”	<b>Rit.</b>	“line.system.tempo.rit”
<b>Pedal lift finally</b>	“line.staff.pedal.lift.finally”	<b>Rit. (italic)</b>	“line.system.tempo.rit.italic”

<b>Pedal (no line)</b>	“line.staff.pedal.noline”	<b>Rit. (italic, text only)</b>	“line.system.tempo.rit.italic.textonly”
<b>Guitar pick scrape</b>	“line.staff.pick.scrape”	<b>Molto rit.</b>	“line.system.tempo.rit.molto”
<b>Line</b>	“line.staff.plain”	<b>Molto rit. (text only)</b>	“line.system.tempo.rit.molto.textonly”
<b>Portamento</b>	“line.staff.port.straight”	<b>Poco rit.</b>	“line.system.tempo.rit.poco”
<b>Guitar rake</b>	“line.staff.rake”	<b>Poco rit. (text only)</b>	“line.system.tempo.rit.poco.textonly”
<b>Guitar slide</b>	“line.staff.slide”	<b>Rit. (text only)</b>	“line.system.tempo.rit.textonly”
<b>Slur below</b>	“line.staff.slur.down”		

## Clef Styles

Here is a list of all the clef style identifiers that are guaranteed to be present in any score in Sibelius, for use with the `Staff.AddClef` method. For each style we first give the English name of the style, and then the identifier.

<b>Alto</b>	“clef.alto”	<b>Small tab</b>	“clef.tab.small”
<b>Baritone C</b>	“clef.baritone.c”	<b>Small tab (taller)</b>	“clef.tab.small.taller”
<b>Baritone F</b>	“clef.baritone.f”	<b>Tab (taller)</b>	“clef.tab.taller”
<b>Bass</b>	“clef.bass”	<b>Tenor</b>	“clef.tenor”
<b>Bass down 8</b>	“clef.bass.down.8”	<b>Tenor down 8</b>	“clef.tenor.down.8”
<b>Bass up 15</b>	“clef.bass.up.15”	<b>Treble</b>	“clef.treble”
<b>Bass up 8</b>	“clef.bass.up.8”	<b>Treble down 8</b>	“clef.treble.down.8”
<b>Null</b>	“clef.null”	<b>Treble (down 8)</b>	“clef.treble.down.8.bracketed”
<b>Percussion</b>	“clef.percussion”	<b>Treble down 8 (old)</b>	“clef.treble.down.8.old”
<b>Percussion 2</b>	“clef.percussion_2”	<b>Treble up 15</b>	“clef.treble.up.15”
<b>Soprano</b>	“clef.soprano”	<b>Treble up 8</b>	“clef.treble.up.8”

<b>Mezzo-soprano</b>	“clef.soprano.mezzo”	<b>French violin</b>	“clef.violin.french”
<b>Tab</b>	“clef.tab”	<b>Sub-bass F</b>	“clef.sub-bass.f”

## Instrument Types

Here is a list of all the instrument type identifiers that are guaranteed to be present in any score in Sibelius. For each style we first give the English name of the style and then the identifier. Note that only the tablature stave types can be used with guitar frames; the rest are included for completeness.

<b>Alp-Horn in F</b>	instrument.brass.alp-horn.f
<b>Alp-Horn in G</b>	instrument.brass.alp-horn.g
<b>Baritone Bugle in G</b>	instrument.brass.bugle.baritone.g
<b>Contrabass Bugle in G</b>	instrument.brass.bugle.contrabass.g
<b>Euphonium Bugle in G</b>	instrument.brass.bugle.euphonium.g
<b>Mellophone Bugle in G</b>	instrument.brass.bugle.mellophone.g
<b>Soprano Bugle in G</b>	instrument.brass.bugle.soprano.g
<b>Cimbasso in Bb</b>	instrument.brass.cimbasso.bflat
<b>Cimbasso in Eb</b>	instrument.brass.cimbasso.eflat
<b>Cimbasso in F</b>	instrument.brass.cimbasso.f
<b>Cornet in A</b>	instrument.brass.cornet.a
<b>Cornet in Bb</b>	instrument.brass.cornet.bflat
<b>Soprano Cornet in Eb</b>	instrument.brass.cornet.soprano.eflat
<b>Euphonium in Bb [treble clef]</b>	instrument.brass.euphonium
<b>Euphonium in Bb [bass clef, treble transp.]</b>	instrument.brass.euphonium.bassclef
<b>Euphonium in C [bass clef]</b>	instrument.brass.euphonium.bassclef.bassclef
<b>Euphonium in Bb [bass clef]</b>	instrument.brass.euphonium.bflat.bassclef.bassclef
<b>Flugelhorn</b>	instrument.brass.flugelhorn
<b>Horn in A [no key]</b>	instrument.brass.horn.a.nokeysig
<b>Horn in Ab alto [no key]</b>	instrument.brass.horn.alto.aflat.nokeysig
<b>Alto Horn in Eb</b>	instrument.brass.horn.alto.eflat

<b>Alto Horn in F</b>	instrument.brass.horn.alto.f
<b>Horn in B [no key]</b>	instrument.brass.horn.b.nokeysig
<b>Baritone in Bb [treble clef]</b>	instrument.brass.horn.baritone
<b>Baritone in C [treble clef]</b>	instrument.brass.horn.baritone.2
<b>Baritone in Bb [bass clef, treble transp.]</b>	instrument.brass.horn.baritone.bassclef
<b>Baritone in C [bass clef]</b>	instrument.brass.horn.baritone.bassclef.bassclef
<b>Bass in Bb</b>	instrument.brass.horn.bass.bflat
<b>Bass in Bb [bass clef, treble transp.]</b>	instrument.brass.horn.bass.bflat.bassclef
<b>Bass in C</b>	instrument.brass.horn.bass.c
<b>Bass in Eb</b>	instrument.brass.horn.bass.eflat
<b>Bass in Eb [bass clef, treble transp.]</b>	instrument.brass.horn.bass.eflat.bassclef
<b>A Basso Horn [no key]</b>	instrument.brass.horn.basso.a.nokeysig
<b>Bb Basso Horn [no key]</b>	instrument.brass.horn.basso.bflat.nokeysig
<b>C Basso Horn [no key]</b>	instrument.brass.horn.basso.c.nokeysig
<b>Horn in Bb [no key]</b>	instrument.brass.horn.bflat.nokeysig
<b>Horn in C [no key]</b>	instrument.brass.horn.c.nokeysig
<b>Horn in D [no key]</b>	instrument.brass.horn.d.nokeysig
<b>Horn in Db [no key]</b>	instrument.brass.horn.dflat.nokeysig
<b>Horn in E [no key]</b>	instrument.brass.horn.e.nokeysig
<b>Horn in Eb</b>	instrument.brass.horn.eflat
<b>Horn in Eb [no key]</b>	instrument.brass.horn.eflat.nokeysig
<b>Horn in F</b>	instrument.brass.horn.f
<b>Horn in F [bass clef]</b>	instrument.brass.horn.f.bassclef
<b>Horn in F [no key]</b>	instrument.brass.horn.f.nokeysig
<b>Horn in F# [no key]</b>	instrument.brass.horn.fsharp.nokeysig
<b>Horn in G [no key]</b>	instrument.brass.horn.g.nokeysig
<b>Tenor Horn</b>	instrument.brass.horn.tenor

<b>Mellophone in Eb</b>	instrument.brass.mellophone.eflat
<b>Mellophone in F</b>	instrument.brass.mellophone.f
<b>Mellophonium in Eb</b>	instrument.brass.mellophonium.eflat
<b>Mellophonium in F</b>	instrument.brass.mellophonium.f
<b>Ophicleide</b>	instrument.brass.ophicleide
<b>Brass</b>	instrument.brass.section
<b>Serpent</b>	instrument.brass.serpent
<b>Sousaphone in Bb</b>	instrument.brass.sousaphone.bflat
<b>Sousaphone in Eb</b>	instrument.brass.sousaphone.eflat
<b>Trombone</b>	instrument.brass.trombone
<b>Alto Trombone</b>	instrument.brass.trombone.alto
<b>Bass Trombone</b>	instrument.brass.trombone.bass
<b>Trombone in Bb [bass clef, treble transp.]</b>	instrument.brass.trombone.bassclef.trebleclef
<b>Contrabass Trombone</b>	instrument.brass.trombone.contrabass
<b>Tenor Trombone</b>	instrument.brass.trombone.tenor
<b>Trombone in Bb [treble clef]</b>	instrument.brass.trombone.trebleclef
<b>Trumpet in A</b>	instrument.brass.trumpet.a
<b>Trumpet in B [no key]</b>	instrument.brass.trumpet.b.nokeysig
<b>Bass Trumpet in Bb</b>	instrument.brass.trumpet.bass.bflat
<b>Bass Trumpet in Eb</b>	instrument.brass.trumpet.bass.eflat
<b>Trumpet in Bb</b>	instrument.brass.trumpet.bflat
<b>Trumpet in Bb [no key]</b>	instrument.brass.trumpet.bflat.nokeysig
<b>Trumpet in C</b>	instrument.brass.trumpet.c
<b>Trumpet in D</b>	instrument.brass.trumpet.d
<b>Trumpet in Db</b>	instrument.brass.trumpet.dflat
<b>Trumpet in E [no key]</b>	instrument.brass.trumpet.e.nokeysig
<b>Trumpet in Eb</b>	instrument.brass.trumpet.eflat



<b>Trumpet in F</b>	instrument.brass.trumpet.f
<b>Trumpet in G [no key]</b>	instrument.brass.trumpet.g.nokeysig
<b>Piccolo Trumpet in A</b>	instrument.brass.trumpet.piccolo.a
<b>Piccolo Trumpet in Bb</b>	instrument.brass.trumpet.piccolo.bflat
<b>Tenor Trumpet in Eb</b>	instrument.brass.trumpet.tenor.eflat
<b>Tuba</b>	instrument.brass.tuba
<b>Tuba in F</b>	instrument.brass.tuba.f
<b>Tenor Tuba (Wagner, in Bb)</b>	instrument.brass.tuba.tenor
<b>Tenor Tuba [bass clef]</b>	instrument.brass.tuba.tenor.bassclef
<b>Wagner Tuba in Bb</b>	instrument.brass.tuba.wagner.bflat
<b>Wagner Tuba in F</b>	instrument.brass.tuba.wagner.f
<b>Applause</b>	instrument.exotic.applause
<b>Birdsong</b>	instrument.exotic.birdsong
<b>Helicopter</b>	instrument.exotic.helicopter
<b>Ondes Martenot</b>	instrument.exotic.ondes-martenot
<b>Sampler</b>	instrument.exotic.sampler
<b>Seashore</b>	instrument.exotic.seashore
<b>Tape</b>	instrument.exotic.tape
<b>Telephone</b>	instrument.exotic.telephone
<b>Theremin</b>	instrument.exotic.theremin
<b>Bajo [notation]</b>	instrument.fretted.bajo.5lines
<b>Bajo, 6-string [tab]</b>	instrument.fretted.bajo.tab
<b>Bajo, 4-string [tab]</b>	instrument.fretted.bajo.tab.4lines
<b>Bajo, 5-string [tab]</b>	instrument.fretted.bajo.tab.5lines
<b>Alto Balalaika [notation]</b>	instrument.fretted.balalaika.alto.5lines
<b>Alto Balalaika [tab]</b>	instrument.fretted.balalaika.alto.tab
<b>Bass Balalaika [notation]</b>	instrument.fretted.balalaika.bass.5lines

<b>Bass Balalaika [tab]</b>	instrument.fretted.balalaika.bass.tab
<b>Contrabass Balalaika [notation]</b>	instrument.fretted.balalaika.contrabass.5lines
<b>Contrabass Balalaika [tab]</b>	instrument.fretted.balalaika.contrabass.tab
<b>Prima Balalaika [notation]</b>	instrument.fretted.balalaika.prima.5lines
<b>Prima Balalaika [tab]</b>	instrument.fretted.balalaika.prima.tab
<b>Second Balalaika [notation]</b>	instrument.fretted.balalaika.second.5lines
<b>Second Balalaika [tab]</b>	instrument.fretted.balalaika.second.tab
<b>Bandola [notation]</b>	instrument.fretted.bandola.5lines
<b>Bandola [tab]</b>	instrument.fretted.bandola.tab
<b>Bandolón [notation]</b>	instrument.fretted.bandolon.5lines
<b>Bandolón [tab]</b>	instrument.fretted.bandolon.tab
<b>Bandurria [notation]</b>	instrument.fretted.bandurria.5lines
<b>Bandurria [tab]</b>	instrument.fretted.bandurria.tab
<b>Banjo [notation]</b>	instrument.fretted.banjo.5lines
<b>Banjo (aDADE tuning) [tab]</b>	instrument.fretted.banjo.aDADE.tab
<b>Banjo (aEADE tuning) [tab]</b>	instrument.fretted.banjo.aEADE.tab
<b>Banjo (gCGBD tuning) [tab]</b>	instrument.fretted.banjo.gCGBD.tab
<b>Banjo (gCGCD tuning) [tab]</b>	instrument.fretted.banjo.gCGCD.tab
<b>Banjo (gDF#AD tuning) [tab]</b>	instrument.fretted.banjo.gDFAD.tab
<b>Banjo (gDGBD tuning) [tab]</b>	instrument.fretted.banjo.gDGBD.tab
<b>Banjo (gDGCD tuning) [tab]</b>	instrument.fretted.banjo.gDGCD.tab
<b>Tenor Banjo [notation]</b>	instrument.fretted.banjo.tenor.5lines
<b>Tenor Banjo [tab]</b>	instrument.fretted.banjo.tenor.tab
<b>Bordonúa [notation]</b>	instrument.fretted.bordonua.5lines
<b>Bordonúa [tab]</b>	instrument.fretted.bordonua.tab
<b>Cavaquinho [notation]</b>	instrument.fretted.cavaquinho.5lines
<b>Cavaquinho [tab]</b>	instrument.fretted.cavaquinho.tab

<b>Charango [notation]</b>	instrument.fretted.charango.5lines
<b>Charango [tab]</b>	instrument.fretted.charango.tab
<b>Cuatro [notation]</b>	instrument.fretted.cuatro.5lines
<b>Cuatro, Puerto Rico [tab]</b>	instrument.fretted.cuatro.puerto-rico.tab
<b>Cuatro, Venezuela [tab]</b>	instrument.fretted.cuatro.venezuela.tab
<b>Resonator guitar [notation]</b>	instrument.fretted.guitar.resonator.5lines
<b>Resonator Guitar, A6 tuning [tab]</b>	instrument.fretted.guitar.resonator.a6.tab
<b>Resonator Guitar, B11 tuning [tab]</b>	instrument.fretted.guitar.resonator.b11.tab
<b>Resonator Guitar, C#m tuning [tab]</b>	instrument.fretted.guitar.resonator.c#m.tab
<b>Resonator Guitar, C6+A7 tuning [tab]</b>	instrument.fretted.guitar.resonator.c6-a7.tab
<b>Resonator Guitar, C6 + high G tuning [tab]</b>	instrument.fretted.guitar.resonator.c6-highg.tab
<b>Resonator Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.resonator.c6.tab
<b>Resonator Guitar, C#m7 tuning [tab]</b>	instrument.fretted.guitar.resonator.cm7.tab
<b>Resonator Guitar, E13 Hawaiian tuning [tab]</b>	instrument.fretted.guitar.resonator.e13-hawaiian.tab
<b>Resonator Guitar, E13 Western tuning [tab]</b>	instrument.fretted.guitar.resonator.e13-western.tab
<b>Resonator Guitar, open A tuning [tab]</b>	instrument.fretted.guitar.resonator.open.A.tab
<b>Resonator Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.resonator.open.G.tab
<b>Dulcimer</b>	instrument.fretted.dulcimer
<b>Dulcimer [notation]</b>	instrument.fretted.dulcimer.5lines
<b>Dulcimer (DAA tuning) [tab]</b>	instrument.fretted.dulcimer.daa.tab
<b>Dulcimer (DAD tuning) [tab]</b>	instrument.fretted.dulcimer.dad.tab
<b>Gamba [notation]</b>	instrument.fretted.gamba.5lines
<b>Gamba [tab]</b>	instrument.fretted.gamba.tab
<b>12-string Acoustic Guitar [notation]</b>	instrument.fretted.guitar.12-string.5lines
<b>12-string Acoustic Guitar, DADGAD tuning [tab]</b>	instrument.fretted.guitar.12-string.dadgad.tab
<b>12-string Acoustic Guitar, double D tuning [tab]</b>	instrument.fretted.guitar.12-string.double-d.tab

<b>12-string Acoustic Guitar, dropped D tuning [tab]</b>	instrument.fretted.guitar.12-string.dropped-d.tab
<b>12-string Acoustic Guitar, open D tuning [tab]</b>	instrument.fretted.guitar.12-string.open-d.tab
<b>12-string Acoustic Guitar, open E tuning [tab]</b>	instrument.fretted.guitar.12-string.open-e.tab
<b>12-string Acoustic Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.12-string.open-g.tab
<b>12-string Acoustic Guitar, standard tuning (no rhythms) [tab]</b>	instrument.fretted.guitar.12-string.tab
<b>12-string Acoustic Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.12-string.tab.rhythms
<b>Acoustic Guitar [notation]</b>	instrument.fretted.guitar.acoustic.5lines
<b>Acoustic Guitar, DADGAD tuning [tab]</b>	instrument.fretted.guitar.acoustic.dadgad.tab
<b>Acoustic Guitar, double D tuning [tab]</b>	instrument.fretted.guitar.acoustic.double-d.tab
<b>Acoustic Guitar, dropped D tuning [tab]</b>	instrument.fretted.guitar.acoustic.dropped-d.tab
<b>Acoustic Guitar, modal D tuning [tab]</b>	instrument.fretted.guitar.acoustic.modal-d.tab
<b>Acoustic Guitar, Nashville tuning [tab]</b>	instrument.fretted.guitar.acoustic.nashville.tab
<b>Acoustic Guitar, open A tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-a.tab
<b>Acoustic Guitar, open C tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-c.tab
<b>Acoustic Guitar, open D tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-d.tab
<b>Acoustic Guitar, open Dm cross-note tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-dm.tab
<b>Acoustic Guitar, open E tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-e.tab
<b>Acoustic Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.acoustic.open-g.tab
<b>Acoustic Guitar, standard tuning (no rhythms) [tab]</b>	instrument.fretted.guitar.acoustic.tab
<b>Acoustic Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.acoustic.tab.rhythms
<b>4-string Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.4-string.5lines
<b>4-string Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.4-string.tab

<b>5-string Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.5-string.5lines
<b>5-string Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.5-string.tab
<b>Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.5lines
<b>6-string Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.6-string.5lines
<b>6-string Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.6-string.tab
<b>Acoustic Bass [notation]</b>	instrument.fretted.guitar.bass.acoustic.5lines
<b>Acoustic Bass [tab]</b>	instrument.fretted.guitar.bass.acoustic.tab
<b>5-string Electric Bass [notation]</b>	instrument.fretted.guitar.bass.electric.5-string.5lines
<b>5-string Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.5-string.tab
<b>Electric Bass [notation]</b>	instrument.fretted.guitar.bass.electric.5lines
<b>6-string Electric Bass [notation]</b>	instrument.fretted.guitar.bass.electric.6-string.5lines
<b>6-string Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.6-string.tab
<b>5-string Fretless Electric Bass</b>	instrument.fretted.guitar.bass.electric.fretless.5-string.5lines
<b>5-string Fretless Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.fretless.5-string.tab
<b>Fretless Electric Bass [notation]</b>	instrument.fretted.guitar.bass.electric.fretless.5lines
<b>6-string Fretless Electric Bass</b>	instrument.fretted.guitar.bass.electric.fretless.6-string.5lines
<b>6-string Fretless Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.fretless.6-string.tab
<b>Fretless Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.fretless.tab
<b>Electric Bass [tab]</b>	instrument.fretted.guitar.bass.electric.tab
<b>5-string Fretless Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.fretless.5-string.5lines
<b>5-string Fretless Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.fretless.5-string.tab
<b>Fretless Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.fretless.5lines
<b>6-string Fretless Bass Guitar [notation]</b>	instrument.fretted.guitar.bass.fretless.6-string.5lines
<b>6-string Fretless Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.fretless.6-string.tab
<b>Fretless Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.fretless.tab
<b>Semi-Acoustic Bass [notation]</b>	instrument.fretted.guitar.bass.semi-acoustic.5lines

<b>Semi-Acoustic Bass [tab]</b>	instrument.fretted.guitar.bass.semi-acoustic.tab
<b>Bass Guitar [tab]</b>	instrument.fretted.guitar.bass.tab
<b>Bass Guitar [tab, with rhythms]</b>	instrument.fretted.guitar.bass.tab.rhythms
<b>Classical Guitar [notation]</b>	instrument.fretted.guitar.classical.5lines
<b>Classical Guitar, DADGAD tuning [tab]</b>	instrument.fretted.guitar.classical.dadgad.tab
<b>Classical Guitar, double D tuning [tab]</b>	instrument.fretted.guitar.classical.double-d.tab
<b>Classical Guitar, dropped D tuning [tab]</b>	instrument.fretted.guitar.classical.dropped-d.tab
<b>Classical Guitar, open D tuning [tab]</b>	instrument.fretted.guitar.classical.open-d.tab
<b>Classical Guitar, open E tuning [tab]</b>	instrument.fretted.guitar.classical.open-e.tab
<b>Classical Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.classical.open-g.tab
<b>Classical Guitar, standard tuning (no rhythms) [tab]</b>	instrument.fretted.guitar.classical.tab
<b>Classical Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.classical.tab.rhythms
<b>Electric Guitar [notation]</b>	instrument.fretted.guitar.electric.5lines
<b>7-string Electric Guitar, low A tuning [tab]</b>	instrument.fretted.guitar.electric.7-string.low-a.tab
<b>7-string Electric Guitar, low B tuning [tab]</b>	instrument.fretted.guitar.electric.7-string.tab
<b>Electric Guitar, DADGAD tuning [tab]</b>	instrument.fretted.guitar.electric.dadgad.tab
<b>Electric Guitar, double D tuning [tab]</b>	instrument.fretted.guitar.electric.double-d.tab
<b>Electric Guitar, dropped D tuning [tab]</b>	instrument.fretted.guitar.electric.dropped-d.tab
<b>Electric Guitar, open D tuning [tab]</b>	instrument.fretted.guitar.electric.open-d.tab
<b>Electric Guitar, open E tuning [tab]</b>	instrument.fretted.guitar.electric.open-e.tab
<b>Electric Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.electric.open-g.tab
<b>Electric Guitar, standard tuning (no rhythms) [tab]</b>	instrument.fretted.guitar.electric.tab
<b>Electric Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.electric.tab.rhythms
<b>Kora</b>	instrument.fretted.guitar.kora
<b>Semi-acoustic Guitar [notation]</b>	instrument.fretted.guitar.semi-acoustic.5lines
<b>Semi-acoustic Guitar, DADGAD tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.dadgad.tab

<b>Semi-acoustic Guitar, double D tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.double-d.tab
<b>Semi-acoustic Guitar, dropped D tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.dropped-d.tab
<b>Semi-acoustic Guitar, open D tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.open-d.tab
<b>Semi-acoustic Guitar, open E tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.open-e.tab
<b>Semi-acoustic Guitar, open G tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.open-g.tab
<b>Semi-acoustic Guitar, standard tuning (no rhythms) [tab]</b>	instrument.fretted.guitar.semi-acoustic.tab
<b>Semi-acoustic Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.semi-acoustic.tab.rhythms
<b>10-string Hawaiian Steel Guitar [tab]</b>	instrument.fretted.guitar.steel.hawaiian.10-string.tab
<b>Hawaiian Steel Guitar [notation]</b>	instrument.fretted.guitar.steel.hawaiian.5lines
<b>6-string Hawaiian Steel Guitar, standard tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab
<b>6-string Hawaiian Steel Guitar, alternate tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.alternative
<b>6-string Hawaiian Steel Guitar, slack key Bb Mauna Loa tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.bflat.mauna.loa
<b>6-string Hawaiian Steel Guitar, slack key C Mauna Loa tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.c.mauna.loa
<b>6-string Hawaiian Steel Guitar, slack key Wahine CGDGBD tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.cgdgbd.wahine
<b>6-string Hawaiian Steel Guitar, slack key Wahine CGDGBE tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.cgdgbe.wahine
<b>6-string Hawaiian Steel Guitar, slack key Wahine DGDF#BD tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.dgd-fbd.wahine
<b>6-string Hawaiian Steel Guitar, slack key G Mauna Loa tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.g.mauna.loa
<b>6-string Hawaiian Steel Guitar, slack key G Taro Patch tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.g.taro.patch
<b>6-string Hawaiian Steel Guitar, slack key Wahine GCDGBE tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.6-string.tab.gcdgbe.wahine
<b>8-string Hawaiian Steel Guitar [tab]</b>	instrument.fretted.guitar.steel.hawaiian.8-string.tab

<b>8-string Hawaiian Steel Guitar, alternate tuning [tab]</b>	instrument.fretted.guitar.steel.hawaiian.8-string.tab.alternative
<b>Hawaiian Steel Guitar [tab]</b>	instrument.fretted.guitar.steel.hawaiian.tab
<b>Pedal Steel Guitar [notation]</b>	instrument.fretted.guitar.steel.pedal.5lines
<b>Pedal Steel Guitar [tab]</b>	instrument.fretted.guitar.steel.pedal.tab
<b>Guitarra [notation]</b>	instrument.fretted.guitarra.5lines
<b>Guitarra, Coimbra [tab]</b>	instrument.fretted.guitarra.coimbra.tab
<b>Guitarra, Lisboa [tab]</b>	instrument.fretted.guitarra.lisboa.tab
<b>Guitarra, Portuguesa [tab]</b>	instrument.fretted.guitarra.portuguesa.tab
<b>Guitarrón [notation]</b>	instrument.fretted.guitarron.5lines
<b>Guitarrón [tab]</b>	instrument.fretted.guitarron.tab
<b>Laúd [notation]</b>	instrument.fretted.laud.5lines
<b>Laúd [tab]</b>	instrument.fretted.laud.tab
<b>Tenor Lute [notation]</b>	instrument.fretted.lute.5lines
<b>Bass Lute [notation]</b>	instrument.fretted.lute.bass-d.french.english.5lines
<b>Bass Lute, D tuning, French/English [tab]</b>	instrument.fretted.lute.bass-d.french.english.tab
<b>Bass Lute, D tuning, Italian [tab]</b>	instrument.fretted.lute.bass-d.italian.tab
<b>Bass Lute, D tuning, Spanish [tab]</b>	instrument.fretted.lute.bass-d.spanish.tab
<b>Tenor Lute, G tuning, Italian [tab]</b>	instrument.fretted.lute.italian.tab
<b>Tenor Lute, G tuning, Spanish [tab]</b>	instrument.fretted.lute.spanish.tab
<b>Tenor Lute, G tuning, French/English [tab]</b>	instrument.fretted.lute.tab
<b>Tenor Lute, A tuning, French/English [tab]</b>	instrument.fretted.lute.tenor-a.french.english.tab
<b>Tenor Lute, A tuning, Italian [tab]</b>	instrument.fretted.lute.tenor-a.italian.tab
<b>Tenor Lute, A tuning, Spanish [tab]</b>	instrument.fretted.lute.tenor-a.spanish.tab
<b>Treble Lute [notation]</b>	instrument.fretted.lute.treble-d.french.english.5lines
<b>Treble Lute, D tuning, French/English [tab]</b>	instrument.fretted.lute.treble-d.french.english.tab
<b>Treble Lute, D tuning, Italian [tab]</b>	instrument.fretted.lute.treble-d.italian.tab



<b>Treble Lute, D tuning, Spanish [tab]</b>	instrument.fretted.lute.treble-d.spanish.tab
<b>Mandolin [notation]</b>	instrument.fretted.mandolin.5lines
<b>Mandolin [tab]</b>	instrument.fretted.mandolin.tab
<b>Oud [notation]</b>	instrument.fretted.oud.5lines
<b>Oud [tab]</b>	instrument.fretted.oud.tab
<b>Qanoon</b>	instrument.fretted.qanoon.5lines
<b>Requinto [notation]</b>	instrument.fretted.requinto.5lines
<b>Requinto [tab]</b>	instrument.fretted.requinto.tab
<b>Santoor</b>	instrument.fretted.santoor.5lines
<b>Sitar [notation]</b>	instrument.fretted.sitar.5lines
<b>Sitar (Ravi Shankar) [tab]</b>	instrument.fretted.sitar.ravi-shankkar.tab
<b>Sitar (Vilayat Khan) [tab]</b>	instrument.fretted.sitar.vilayat-khan.tab
<b>Tambura (Female) [notation]</b>	instrument.fretted.tambura.female
<b>Tambura (Male) [notation]</b>	instrument.fretted.tambura.male
<b>Tiple [notation]</b>	instrument.fretted.tiple.5lines
<b>Tiple, Argentina [tab]</b>	instrument.fretted.tiple.argentina.tab
<b>Tiple, Colombia ADF#B tuning [tab]</b>	instrument.fretted.tiple.colombia.tab.adfb
<b>Tiple, Colombia DGBE tuning [tab]</b>	instrument.fretted.tiple.colombia.tab.dgbe
<b>Tiple, Cuba [tab]</b>	instrument.fretted.tiple.cuba.tab
<b>Tiple, Peru [tab]</b>	instrument.fretted.tiple.peru.tab
<b>Tiple, Santo Domingo [tab]</b>	instrument.fretted.tiple.santo.domingo.tab
<b>Tiple, Uruguay [tab]</b>	instrument.fretted.tiple.uruguay.tab
<b>Tres [notation]</b>	instrument.fretted.tres.5lines
<b>Tres, GCE tuning [tab]</b>	instrument.fretted.tres.tab
<b>Tres, ADF# tuning [tab]</b>	instrument.fretted.tres.tab.adf
<b>Tres, GBE tuning [tab]</b>	instrument.fretted.tres.tab.gbe
<b>Ukulele [notation]</b>	instrument.fretted.ukulele.5lines

<b>Ukulele [tab]</b>	instrument.fretted.ukulele.tab
<b>Vihuela [notation]</b>	instrument.fretted.vihuela.5lines
<b>Vihuela [tab]</b>	instrument.fretted.vihuela.tab
<b>Zither</b>	instrument.fretted.zither
<b>Keyboard</b>	instrument.keyboard
<b>Accordion</b>	instrument.keyboard.accordion
<b>Bandoneon</b>	instrument.keyboard.bandoneon
<b>Celesta</b>	instrument.keyboard.celesta
<b>Clavichord</b>	instrument.keyboard.clavichord
<b>Harmonium</b>	instrument.keyboard.harmonium
<b>Harpsichord</b>	instrument.keyboard.harpsichord
<b>Keyboards</b>	instrument.keyboard.keyboards
<b>Tape Sampler Keyboard [Brass]</b>	instrument.keyboard.tape sampler.brass
<b>Tape Sampler Keyboard [Choir]</b>	instrument.keyboard.tape sampler.choir
<b>Tape Sampler Keyboard [Flute]</b>	instrument.keyboard.tape sampler.flute
<b>Tape Sampler Keyboard [Strings]</b>	instrument.keyboard.tape sampler
<b>Melodeon</b>	instrument.keyboard.melodeon
<b>Electric Organ</b>	instrument.keyboard.organ.electric
<b>Organ [manuals]</b>	instrument.keyboard.organ.manuals
<b>Manual [solo organ manuals]</b>	instrument.keyboard.organ.manuals.solo
<b>Ped. [Organ pedals]</b>	instrument.keyboard.organ.pedals
<b>Pedal [solo organ pedals]</b>	instrument.keyboard.organ.pedals.solo
<b>Piano</b>	instrument.keyboard.piano
<b>Electric Piano</b>	instrument.keyboard.piano.electric
<b>Electric Clavichord</b>	instrument.keyboard.piano.electric.clavichord
<b>Electric Stage Piano</b>	instrument.keyboard.piano.electric.stage
<b>Overdriven Electric Piano</b>	instrument.keyboard.piano.electric.overdriven

<b>Honky-tonk Piano</b>	instrument.keyboard.piano.honky-tonk
<b>Synthesizer</b>	instrument.keyboard.synthesizer
<b>Unnamed (2 lines)</b>	instrument.other.2lines
<b>Unnamed (3 lines)</b>	instrument.other.3lines
<b>Unnamed (4 lines)</b>	instrument.other.4lines
<b>Unnamed (bass staff)</b>	instrument.other.bassclef
<b>No instrument (barlines shown)</b>	instrument.other.none.barlines
<b>No instrument (bar rests shown)</b>	instrument.other.none.barrests
<b>No instrument (hidden)</b>	instrument.other.none.hidden
<b>Solo</b>	instrument.other.solo.real
<b>Unnamed (treble staff)</b>	instrument.other.trebleclef
<b>Almglocken</b>	instrument.pitchedpercussion.almglocken
<b>Antique Cymbals</b>	instrument.pitchedpercussion.antiquecymbals
<b>Chimes</b>	instrument.pitchedpercussion.bells.chimes
<b>Chimes [no key]</b>	instrument.pitchedpercussion.bells.chimes.nokeysig
<b>Bell lyre [marching band]</b>	instrument.pitchedpercussion.bells.marching
<b>Orchestral Bells</b>	instrument.pitchedpercussion.bells.orchestral
<b>Tubular Bells</b>	instrument.pitchedpercussion.bells.tubular
<b>Cimbalom</b>	instrument.pitchedpercussion.cimbalom
<b>Crotales</b>	instrument.pitchedpercussion.crotales
<b>Steel Drums</b>	instrument.pitchedpercussion.drums.steel
<b>Steel Drums [bass clef, treble transp.]</b>	instrument.pitchedpercussion.drums.steel.bassclef
<b>Gamelan Kengong</b>	instrument.pitchedpercussion.gamelan.kengong
<b>Gamelan Slentam</b>	instrument.pitchedpercussion.gamelan.slentam
<b>Glockenspiel</b>	instrument.pitchedpercussion.glockenspiel
<b>Alto Glockenspiel</b>	instrument.pitchedpercussion.glockenspiel.alto
<b>Soprano Glockenspiel</b>	instrument.pitchedpercussion.glockenspiel.soprano

<b>Handbells</b>	instrument.pitchedpercussion.handbells
<b>Harp</b>	instrument.pitchedpercussion.harp
<b>Lever Harp</b>	instrument.pitchedpercussion.harp.lever
<b>Kalimba</b>	instrument.pitchedpercussion.kalimba
<b>Marimba [grand staff]</b>	instrument.pitchedpercussion.marimba
<b>Marimba [treble staff]</b>	instrument.pitchedpercussion.marimba.trebleclef
<b>Alto Metallophone</b>	instrument.pitchedpercussion.metallophone.alto
<b>Bass Metallophone</b>	instrument.pitchedpercussion.metallophone.bass
<b>Soprano Metallophone</b>	instrument.pitchedpercussion.metallophone.soprano
<b>Roto-toms</b>	instrument.pitchedpercussion.roto-toms
<b>Temple Blocks</b>	instrument.pitchedpercussion.templeblocks
<b>Timpani [with key]</b>	instrument.pitchedpercussion.timpani
<b>Timpani [no key]</b>	instrument.pitchedpercussion.timpani.nokeysig
<b>Vibraphone</b>	instrument.pitchedpercussion.vibraphone
<b>Wood Blocks [5 lines]</b>	instrument.pitchedpercussion.woodblocks
<b>Xylophone</b>	instrument.pitchedpercussion.xylophone
<b>Alto Xylophone</b>	instrument.pitchedpercussion.xylophone.alto
<b>Bass Xylophone</b>	instrument.pitchedpercussion.xylophone.bass
<b>Contra Bass Bar</b>	instrument.pitchedpercussion.xylophone.contrabass.bar
<b>Gyl</b>	instrument.pitchedpercussion.xylophone.gyl
<b>Soprano Xylophone</b>	instrument.pitchedpercussion.xylophone.soprano
<b>Xylorimba</b>	instrument.pitchedpercussion.xylorimba
<b>Alto</b>	instrument.singers.alto
<b>Solo Alto</b>	instrument.singers.alto.solo
<b>Altus</b>	instrument.singers.altus
<b>Baritone</b>	instrument.singers.baritone
<b>Solo Baritone</b>	instrument.singers.baritone.solo

<b>Bass</b>	instrument.singers.bass
<b>Solo Bass</b>	instrument.singers.bass.solo
<b>Bassus</b>	instrument.singers.bassus
<b>Cantus</b>	instrument.singers.cantus
<b>Choir</b>	instrument.singers.choir
<b>Contralto</b>	instrument.singers.contralto
<b>Countertenor</b>	instrument.singers.counter-tenor
<b>Mean</b>	instrument.singers.mean
<b>Mezzo-soprano</b>	instrument.singers.mezzo-soprano
<b>Quintus</b>	instrument.singers.quintus
<b>Secundus</b>	instrument.singers.secundus
<b>Soprano</b>	instrument.singers.soprano
<b>Solo Soprano</b>	instrument.singers.soprano.solo
<b>Tenor</b>	instrument.singers.tenor
<b>Solo Tenor</b>	instrument.singers.tenor.solo
<b>Treble</b>	instrument.singers.treble
<b>Solo Treble</b>	instrument.singers.treble.solo
<b>Voice</b>	instrument.singers.voice
<b>Voice [male]</b>	instrument.singers.voice.male
<b>Contrabass</b>	instrument.strings.contrabass
<b>Bass [Double]</b>	instrument.strings.contrabass.bass
<b>Double Bass</b>	instrument.strings.contrabass.double-bass
<b>Solo Contrabass</b>	instrument.strings.contrabass.solo
<b>String Bass</b>	instrument.strings.contrabass.string
<b>Upright Bass</b>	instrument.strings.contrabass.upright
<b>Hurdy-gurdy</b>	instrument.strings.hurdy-gurdy
<b>Sarangi</b>	instrument.strings.sarangi

<b>Strings</b>	instrument.strings.section
<b>Strings [reduction]</b>	instrument.strings.section.reduction
<b>Bass Viol</b>	instrument.strings.viol.bass
<b>Tenor Viol</b>	instrument.strings.viol.tenor
<b>Treble Viol</b>	instrument.strings.viol.treble
<b>Viola</b>	instrument.strings.viola
<b>Solo Viola</b>	instrument.strings.viola.solo
<b>Violin 1</b>	instrument.strings.violin.1
<b>Violin 2</b>	instrument.strings.violin.2
<b>Violin I</b>	instrument.strings.violin.I
<b>Violin II</b>	instrument.strings.violin.ii
<b>Solo Violin</b>	instrument.strings.violin.solo
<b>Violoncello</b>	instrument.strings.violoncello
<b>Solo Violoncello</b>	instrument.strings.violoncello.solo
<b>Anvil</b>	instrument.unpitched.anvil
<b>Cha-cha bell [1 line]</b>	instrument.unpitched.bells.cha-cha
<b>Mambo bell [1 line]</b>	instrument.unpitched.bells.mambo
<b>Sleigh Bells</b>	instrument.unpitched.bells.sleigh
<b>Brake Drum [1 line]</b>	instrument.unpitched.brake-drum.1line
<b>Cabasa [1 line]</b>	instrument.unpitched.cabasa
<b>Cabasa [2 lines]</b>	instrument.unpitched.cabasa.2lines
<b>Castanets</b>	instrument.unpitched.castanets
<b>Shaker, Caxixi [1 line]</b>	instrument.unpitched.caxixi.1line
<b>Claves [1 line]</b>	instrument.unpitched.claves
<b>Shaker, Cocoa Bean Rattle [1 line]</b>	instrument.unpitched.cocoa bean.1line
<b>Finger Cymbals [1 line]</b>	instrument.unpitched.cymbals.finger.1line
<b>Percussion [1 line]</b>	instrument.unpitched.drums.1line

<b>Percussion [2 lines]</b>	instrument.unpitched.drums.2lines
<b>Berimbau</b>	instrument.unpitched.drums.2lines.berimbau
<b>Percussion [3 lines]</b>	instrument.unpitched.drums.3lines
<b>Percussion [4 lines]</b>	instrument.unpitched.drums.4lines
<b>Percussion [5 lines]</b>	instrument.unpitched.drums.5lines
<b>Agogos [2 lines]</b>	instrument.unpitched.drums.agogos
<b>Bass Drum</b>	instrument.unpitched.drums.bass
<b>Bass Drum [5 lines]</b>	instrument.unpitched.drums.bass.5lines
<b>Marching Bass Drum [3 lines]</b>	instrument.unpitched.drums.bass.marching.3lines
<b>Marching Bass Drum [5 lines]</b>	instrument.unpitched.drums.bass.marching.5lines
<b>Itótele [Batá Drum]</b>	instrument.unpitched.drums.bata.itotele
<b>Iyá [Batá Drum]</b>	instrument.unpitched.drums.bata.iya
<b>Okónkolo [Batá Drum]</b>	instrument.unpitched.drums.bata.okonkolo
<b>Bongos [2 lines]</b>	instrument.unpitched.drums.bongos
<b>Bongo Bell [High]</b>	instrument.unpitched.drums.bongos.bell.high
<b>Bongo Bell [Low]</b>	instrument.unpitched.drums.bongos.bell.low
<b>Box</b>	instrument.unpitched.drums.box.3lines
<b>Cajon [2 lines]</b>	instrument.unpitched.drums.cajon
<b>Congas [2 lines]</b>	instrument.unpitched.drums.congas
<b>Congas [1 line]</b>	instrument.unpitched.drums.congas.1line
<b>Congas [3 lines]</b>	instrument.unpitched.drums.congas.3lines
<b>Congas [4 lines]</b>	instrument.unpitched.drums.congas.4lines
<b>Cuíca [3 lines]</b>	instrument.unpitched.drums.cuica.3lines
<b>Cymbals</b>	instrument.unpitched.drums.cymbal
<b>Marching Cymbals [5 lines]</b>	instrument.unpitched.drums.cymbals.marching.5lines
<b>Djembe [3 lines]</b>	instrument.unpitched.drums.djembe.3lines
<b>Drum Set (Rock)</b>	instrument.unpitched.drums.drumset

<b>Drum Set (Alternative)</b>	instrument.unpitched.drums.drumset.alternative
<b>Drum Set (Brushes)</b>	instrument.unpitched.drums.drumset.brushes
<b>Drum Set (Dance)</b>	instrument.unpitched.drums.drumset.dance
<b>Drum Set (Disco)</b>	instrument.unpitched.drums.drumset.disco
<b>Drum Set (Electronica)</b>	instrument.unpitched.drums.drumset.electronic
<b>Drum Set (Fusion)</b>	instrument.unpitched.drums.drumset.fusion
<b>Drum Set (Garage)</b>	instrument.unpitched.drums.drumset.garage
<b>Drum Set (Hip-hop)</b>	instrument.unpitched.drums.drumset.hip-hop
<b>Drum Set (Industrial)</b>	instrument.unpitched.drums.drumset.industrial
<b>Drum Set (Jazz)</b>	instrument.unpitched.drums.drumset.jazz
<b>Drum Set (Lo-Fi)</b>	instrument.unpitched.drums.drumset.lo-fi
<b>Drum Set (Metal)</b>	instrument.unpitched.drums.drumset.metal
<b>Drum Set (Motown)</b>	instrument.unpitched.drums.drumset.motown
<b>Drum Set (New Age)</b>	instrument.unpitched.drums.drumset.new age
<b>Drum Set (Pop)</b>	instrument.unpitched.drums.drumset.pop
<b>Drum Set (Reggae)</b>	instrument.unpitched.drums.drumset.reggae
<b>Drum Set (Stadium Rock)</b>	instrument.unpitched.drums.drumset.rock.stadium
<b>Drum Set (Rods)</b>	instrument.unpitched.drums.drumset.rods
<b>Drum Set (Drum Machine)</b>	instrument.unpitched.drums.drumset.tr-808
<b>Dumbek [3 lines]</b>	instrument.unpitched.drums.dumbek.3lines
<b>Kidi [Ewe Drum]</b>	instrument.unpitched.drums.ewe.kidi
<b>Sogo [Ewe Drum]</b>	instrument.unpitched.drums.ewe.sogo
<b>Gankokwe (Bell)</b>	instrument.unpitched.drums.gankokwe
<b>Jam Blocks [2 lines]</b>	instrument.unpitched.drums.jamblocks
<b>Jawbone [1 line]</b>	instrument.unpitched.drums.jawbone.1line
<b>Pandeiro [2 lines]</b>	instrument.unpitched.drums.pandeiro
<b>Rain Stick (High) [1 line]</b>	instrument.unpitched.drums.rainstick.high.1line



<b>Rain Stick (Low) [1 line]</b>	instrument.unpitched.drums.rainstick.low.1line
<b>Egg Shaker (High) [1 line]</b>	instrument.unpitched.drums.shaker.high.1line
<b>Egg Shaker (Low) [1 line]</b>	instrument.unpitched.drums.shaker.low.1line
<b>Egg Shaker (Medium) [1 line]</b>	instrument.unpitched.drums.shaker.medium.1line
<b>Side Drum</b>	instrument.unpitched.drums.side
<b>Snare Drum</b>	instrument.unpitched.drums.snare
<b>Marching Snare Drums [5 lines]</b>	instrument.unpitched.drums.snare.5lines
<b>Surdo [2 lines]</b>	instrument.unpitched.drums.surdo
<b>Tabla</b>	instrument.unpitched.drums.table
<b>Taiko Drum</b>	instrument.unpitched.drums.taiko
<b>Tenor Drum</b>	instrument.unpitched.drums.tenor
<b>Marching Tenor Drums [5 lines]</b>	instrument.unpitched.drums.tenor.marching
<b>Quads [5 lines]</b>	instrument.unpitched.drums.tenor.marching.quads
<b>Tom-toms [5 lines]</b>	instrument.unpitched.drums.tom-toms
<b>Tom-toms [4 lines]</b>	instrument.unpitched.drums.tom-toms.4lines
<b>Udu</b>	instrument.unpitched.drums.udu
<b>Shaker, Egg Shaker [1 line]</b>	instrument.unpitched.egg shaker.1line
<b>Finger Click [1 line]</b>	instrument.unpitched.fingerclick
<b>Gamelan Gong Ageng (High) [1 line]</b>	instrument.unpitched.gamelan.gong-ageng.high
<b>Gamelan Gong Ageng (Low) [1 line]</b>	instrument.unpitched.gamelan.gong-ageng.low
<b>Gamelan Kempyang and Ketuk [2 lines]</b>	instrument.unpitched.gamelan.kempyang-ketuk
<b>Gamelan Khendang Ageng [1 line]</b>	instrument.unpitched.gamelan.khendang-ageng
<b>Gamelan Khendang Ciblon [1 line]</b>	instrument.unpitched.gamelan.khendang-ciblon
<b>Large Gong [1 line]</b>	instrument.unpitched.gong.large.1line
<b>Medium Gong [1 line]</b>	instrument.unpitched.gong.medium.1line
<b>Gourd [1 line]</b>	instrument.unpitched.gourd
<b>Guira [1 line]</b>	instrument.unpitched.guira

<b>Guiro (High) [1 line]</b>	instrument.unpitched.guiro.high
<b>Guiro (Medium) [1 line]</b>	instrument.unpitched.guiro.medium
<b>Handclap [1 line]</b>	instrument.unpitched.handclap
<b>Shaker, Kayamba [1 line]</b>	instrument.unpitched.kayamba.1line
<b>Maracas</b>	instrument.unpitched.maracas
<b>Shaker, Gourd Maracas [1 line]</b>	instrument.unpitched.maracas.gourd.1line
<b>Maracas [High]</b>	instrument.unpitched.maracas.high
<b>Maracas [Medium]</b>	instrument.unpitched.maracas.medium
<b>Mark tree [1 line]</b>	instrument.unpitched.marktree
<b>Shaker, Nsak Rattle [1 line]</b>	instrument.unpitched.nsak.1line
<b>Finger Snaps</b>	instrument.unpitched.orff.fingersnaps
<b>Hand Claps</b>	instrument.unpitched.orff.handclaps
<b>Patsch</b>	instrument.unpitched.orff.patsch
<b>Stamp</b>	instrument.unpitched.orff.stamp
<b>Salsa bell [1 line]</b>	instrument.unpitched.salsa.bell
<b>Shaker [1 line]</b>	instrument.unpitched.shaker
<b>Shaker, Shekere [1 line]</b>	instrument.unpitched.shekere.1line
<b>Tam-tam</b>	instrument.unpitched.tam-tam
<b>Tambourine</b>	instrument.unpitched.tambourine
<b>Timbales [2 lines]</b>	instrument.unpitched.timbales.2lines
<b>Timbales [5 lines]</b>	instrument.unpitched.timbales.5lines
<b>Triangle</b>	instrument.unpitched.triangle
<b>Shaker, Wasembe Rattle (High) [1 line]</b>	instrument.unpitched.wasembe.high.1line
<b>Shaker, Wasembe Rattle (Low) [1 line]</b>	instrument.unpitched.wasembe.low.1line
<b>Shaker, Wasembe Rattle (Medium) [1 line]</b>	instrument.unpitched.wasembe.medium.1line
<b>Whip</b>	instrument.unpitched.whip
<b>Whistle</b>	instrument.unpitched.whistle

<b>Wind Chimes [1 line]</b>	instrument.unpitched.wind-chimes.1line
<b>Wood Block [1 line]</b>	instrument.unpitched.woodblock.1line
<b>Bagpipes</b>	instrument.wind.bagpipe
<b>Basset Horn</b>	instrument.wind.basset-horn
<b>Bassoon</b>	instrument.wind.bassoon
<b>Contrabassoon</b>	instrument.wind.bassoon.contrabassoon
<b>Quart Bassoon</b>	instrument.wind.bassoon.quart
<b>Quint Bassoon</b>	instrument.wind.bassoon.quint
<b>Clarinet in A</b>	instrument.wind.clarinet.a
<b>Clarinet in Ab</b>	instrument.wind.clarinet.aflat
<b>Alto Clarinet in Eb</b>	instrument.wind.clarinet.alto.eflat
<b>Alto Clarinet in Eb [bass clef, treble transp.]</b>	instrument.wind.clarinet.alto.eflat.bassclef
<b>Bass Clarinet in Bb</b>	instrument.wind.clarinet.bass.bflat
<b>Bass Clarinet in Bb [score sounds 8vb]</b>	instrument.wind.clarinet.bass.bflat.8vb-score
<b>Bass Clarinet in Bb [bass clef, treble transp.]</b>	instrument.wind.clarinet.bass.bflat.bassclef
<b>Clarinet in Bb</b>	instrument.wind.clarinet.bflat
<b>Clarinet in C</b>	instrument.wind.clarinet.c
<b>Contra Alto Clarinet in Eb</b>	instrument.wind.clarinet.contra.alto.eflat
<b>Contra Alto Clarinet in Eb [score sounds 8vb]</b>	instrument.wind.clarinet.contra.alto.eflat.8vb-score
<b>Contra Alto Clarinet in Eb [bass clef, treble transp.]</b>	instrument.wind.clarinet.contra.alto.eflat.bassclef
<b>Contrabass Clarinet in Bb</b>	instrument.wind.clarinet.contrabass.bflat
<b>Contrabass Clarinet in Bb [score sounds 15mb]</b>	instrument.wind.clarinet.contrabass.bflat.15mb-score
<b>Contrabass Clarinet in Bb [bass clef, treble transp.]</b>	instrument.wind.clarinet.contrabass.bflat.bassclef
<b>Clarinet in D</b>	instrument.wind.clarinet.d

<b>Clarinet in Eb</b>	instrument.wind.clarinet.eflat
<b>Clarinet in G</b>	instrument.wind.clarinet.g
<b>Cor Anglais</b>	instrument.wind.coranglais
<b>Didgeridoo</b>	instrument.wind.didgeridoo
<b>Duduk</b>	instrument.wind.duduk
<b>English Horn</b>	instrument.wind.englishhorn
<b>Flageolet</b>	instrument.wind.flageolet
<b>Flute</b>	instrument.wind.flute
<b>Alto Flute</b>	instrument.wind.flute.alto
<b>Bansuri</b>	instrument.wind.flute.bansuri
<b>Bass Flute</b>	instrument.wind.flute.bass
<b>Eb Flute</b>	instrument.wind.flute.eflat
<b>G Flute</b>	instrument.wind.flute.g
<b>Harmonica</b>	instrument.wind.harmonica
<b>Heckelphone</b>	instrument.wind.heckelphone
<b>Mey</b>	instrument.wind.mey
<b>Nai</b>	instrument.wind.nai
<b>Oboe</b>	instrument.wind.oboe
<b>Baritone Oboe</b>	instrument.wind.oboe.baritone
<b>Bass Oboe</b>	instrument.wind.oboe.bass
<b>Oboe d'Amore</b>	instrument.wind.oboe.damore
<b>Ocarina</b>	instrument.wind.ocarina
<b>Panpipes</b>	instrument.wind.panpipes
<b>Piccolo</b>	instrument.wind.piccolo
<b>Military Piccolo in Db</b>	instrument.wind.piccolo.dflat
<b>Alto Recorder</b>	instrument.wind.recorder.alto
<b>Bass Recorder</b>	instrument.wind.recorder.bass

<b>Great Bass Recorder</b>	instrument.wind.recorder.bass.great
<b>Contrabass Recorder</b>	instrument.wind.recorder.contrabass
<b>Descant Recorder</b>	instrument.wind.recorder.descant
<b>Sopranino Recorder</b>	instrument.wind.recorder.sopranino
<b>Soprano Recorder</b>	instrument.wind.recorder.soprano
<b>Tenor Recorder</b>	instrument.wind.recorder.tenor
<b>Treble Recorder</b>	instrument.wind.recorder.treble
<b>Alto Saxophone</b>	instrument.wind.saxophone.alto
<b>Baritone Saxophone</b>	instrument.wind.saxophone.baritone
<b>Baritone Saxophone [score sounds 8vb]</b>	instrument.wind.saxophone.baritone.8vb-score
<b>Baritone Saxophone [bass clef, treble transp.]</b>	instrument.wind.saxophone.baritone.bassclef
<b>Bass Saxophone</b>	instrument.wind.saxophone.bass
<b>Bass Saxophone [score sounds 15mb]</b>	instrument.wind.saxophone.bass.15mb-score
<b>Bass Saxophone [bass clef, treble transp.]</b>	instrument.wind.saxophone.bass.bassclef
<b>C Melody Saxophone</b>	instrument.wind.saxophone.c-melody
<b>Contrabass (Tubax) Saxophone</b>	instrument.wind.saxophone.contrabass
<b>Contrabass (Tubax) Saxophone [score sounds 15mb]</b>	instrument.wind.saxophone.contrabass.15mb-score
<b>Contrabass (Tubax) Sax [bass clef, treble transp.]</b>	instrument.wind.saxophone.contrabass.bassclef
<b>F Mezzo Soprano Saxophone</b>	instrument.wind.saxophone.mezz-soprano.f
<b>Sopranino Saxophone</b>	instrument.wind.saxophone.sopranino
<b>Piccolo Saxophone in Bb [Soprillo]</b>	instrument.wind.saxophone.sopranino.bflat
<b>Soprano Saxophone</b>	instrument.wind.saxophone.soprano
<b>C Soprano Saxophone</b>	instrument.wind.saxophone.soprano.c
<b>Subcontrabass (Tubax) Saxophone</b>	instrument.wind.saxophone.subcontrabass
<b>Subcontrabass (Tubax) Saxophone [score sounds 15mb]</b>	instrument.wind.saxophone.subcontrabass.15mb-score

<b>Subcontrabass (Tubax) Sax [bass clef, treble transp.]</b>	instrument.wind.saxophone.subcontrabass.bassclef
<b>Tenor Saxophone</b>	instrument.wind.saxophone.tenor
<b>Tenor Saxophone [score sounds 8vb]</b>	instrument.wind.saxophone.tenor.8vb-score
<b>Tenor Saxophone [bass clef, treble transp.]</b>	instrument.wind.saxophone.tenor.bassclef
<b>Woodwind</b>	instrument.wind.section
<b>Shakuhachi</b>	instrument.wind.shakuhachi
<b>Tin Whistle</b>	instrument.wind.whistle.tin

## Beam Options

For the **Beam** variable of NoteRest objects.

<b>NoBeam</b>	1
<b>StartBeam</b>	2
<b>ContinueBeam</b>	3
<b>SingleBeam</b>	4

## Bracket Types

For the **AddBracket ( )** method of BracketList objects, and the **BracketType** variable of Bracket objects.

<b>BracketFull</b>	0
<b>BracketBrace</b>	1
<b>BracketSub</b>	2

## Breaks

These constants are used by the `SetBreakType( )` method of Score objects.

<b>MiddleOfSystem</b>	1
<b>EndOfSystem</b>	2
<b>MiddleOfPage</b>	3
<b>EndOfPage</b>	4
<b>NotEndOfSystem</b>	5
<b>EndOfSystemOrPage</b>	6
<b>Default</b>	7
<b>SpecialPageBreak</b>	8

These constants correspond to the menu entries in the **Bars** panel of the Properties window in the following way:

### **MiddleOfSystem**

Middle of system. The bar can only appear in the middle of a system, not at the end.

### **EndOfSystem**

No menu entry; created by `Layout > Lock Format`. The bar can only appear at the end of a mid-page system, not the middle of a system or the end of a page.

### **MiddleOfPage**

Middle of page. The bar can appear anywhere except at the end of a page.

### **EndOfPage**

Page break. The bar can only appear at the end of a page.

### **NotEndOfSystem**

No menu entry. The bar can appear anywhere except the end of a mid-page system.

### **EndOfSystemOrPage**

System break. The bar can only appear at the end of a mid-page system or the end of a page.

### **Default**

No break. The bar can appear anywhere.

Note that in older versions of Manuscript the constant **MiddleOfSystem** was called **NoBreak** and the constant **EndOfSystem** was called **SystemBreak**. These older names were confusing, because they implied a correlation with the similarly-named menu items in the Properties window that was not accurate. The old names

are still supported for old plug-ins, but should not be used for new plug-ins. For consistency, the old constant **PageBreak** has also been renamed **EndOfPage**, even though this did correlate correctly with the Properties window.

## Accidentals

For the **Accidental** variable of Note objects.

<b>DoubleSharp</b>	2
<b>Sharp</b>	1
<b>Natural</b>	0
<b>Flat</b>	-1
<b>DoubleFlat</b>	-2

## Note Style Names

For the **NoteStyle** variable of Note objects; these correspond to the noteheads available from the Notes panel of the Properties window in the manuscript papers that are supplied with Sibelius.

<b>NormalNoteStyle</b>	0	<b>BackSlashedNoteStyle</b>	12
<b>CrossNoteStyle</b>	1	<b>ArrowDownNoteStyle</b>	13
<b>DiamondNoteStyle</b>	2	<b>ArrowUpNoteStyle</b>	14
<b>BeatWithoutStemNoteStyle</b>	3	<b>InvertedTriangleNoteStyle</b>	15
<b>BeatNoteStyle</b>	4	<b>ShapedNote1NoteStyle</b>	16
<b>CrossOrDiamondNoteStyle</b>	5	<b>ShapedNote2NoteStyle</b>	17
<b>BlackAndWhiteDiamondNoteStyle</b>	6	<b>ShapedNote3NoteStyle</b>	18
<b>HeadlessNoteStyle</b>	7	<b>ShapedNote4StemUpNoteStyle</b>	19
<b>StemlessNoteStyle</b>	8	<b>ShapedNote4StemDownNoteStyle</b>	23
<b>SilentNoteStyle</b>	9	<b>ShapedNote5NoteStyle</b>	20
<b>CueNoteStyle</b>	10	<b>ShapedNote6NoteStyle</b>	21
<b>SlashedNoteStyle</b>	11	<b>ShapedNote7NoteStyle</b>	22



## MuteMode Constants

These are the possible values of **Staff.MuteMode**:

<b>Muted</b>	0
<b>HalfMuted</b>	1
<b>NotMuted</b>	2

## Articulations

Used with **Note.GetArticulation** and **Note.SetArticulation**.

<b>Custom3Artic</b>	15
<b>TriPauseArtic</b>	14
<b>PauseArtic</b>	13
<b>SquarePauseArtic</b>	12
<b>Custom2Artic</b>	11
<b>DownBowArtic</b>	10
<b>UpBowArtic</b>	9
<b>PlusArtic</b>	8
<b>HarmonicArtic</b>	7
<b>MarcatoArtic</b>	6
<b>AccentArtic</b>	5
<b>TenutoArtic</b>	4
<b>WedgeArtic</b>	3
<b>StaccatissimoArtic</b>	2
<b>StaccatoArtic</b>	1
<b>Custom1Artic</b>	0

## SyllableTypes for LyricItems

Used in LyricItem.

<b>MiddleOfWord</b>	0
<b>EndOfWord</b>	1

## Accidental Styles

As used by **Note.AccidentalStyle**.

<b>NormalAcc</b>	"0"
<b>HiddenAcc</b>	"1"
<b>CautionaryAcc</b>	"2"
<b>BracketedAcc</b>	"3"

## Time Signature Strings

These define the unicode characters used to draw common time and alla breve time signatures, so that you can recognize these by comparison with **TimeSignature.Text**.

**CommonTimeString**

**AllaBreveTimeString**

## Symbols

There are a lot of symbols in Sibelius. We've defined named constants for the indices of some of the most frequently used symbols, which can be passed to **Bar.AddSymbol**. For other symbols, you can work out the required index by "counting along" in the **Create > Symbol** dialog of Sibelius, or by using the method **Score.SymbolIndex**. To help with the "counting along," we've defined a constant for the start of every group of symbols in the **Create > Symbol** dialog, and these are also given below. Then for example you can access the 8va symbol as **OctaveSymbols + 2**.

<b>Common Symbol Indices</b>	
<b>SegnoSymbol</b>	"1"
<b>CodaSymbol</b>	"2"
<b>RepeatBeatSymbol</b>	"5"
<b>RepeatBarSymbol</b>	"6"
<b>RepeatTwoBarsSymbol</b>	"7"

<b>TrillSymbol</b>	"32"
<b>BracketedTrillSymbol</b>	"33"
<b>MordentSymbol</b>	"36"
<b>InvertedMordentSymbol</b>	"37"
<b>TurnSymbol</b>	"38"
<b>InvertedTurnSymbol</b>	"39"
<b>ReversedTurnSymbol</b>	"40"
<b>TripleMordentSymbol</b>	"41"
<b>InvertedTripleMordentSymbol</b>	"42"
<b>PedalSymbol</b>	"48"
<b>PedalPSymbol</b>	"49"
<b>PedalUpSymbol</b>	"50"
<b>LiftPedalSymbol</b>	"51"
<b>HeelOneSymbol</b>	"52"
<b>HeelTwoSymbol</b>	"53"
<b>ToeOneSymbol</b>	"54"
<b>ToeTwoSymbol</b>	"55"
<b>CommaSymbol</b>	"247"
<b>TickSymbol</b>	"248"
<b>CaesuraSymbol</b>	"249"
<b>ThickCaesuraSymbol</b>	"250"
<b>Indices at the Start of Each Group of Symbols</b>	
<b>RepeatSymbols</b>	"0"
<b>GeneralSymbols</b>	"16"
<b>OrnamentSymbols</b>	"32"
<b>KeyboardSymbols</b>	"48"
<b>ChromaticPercussionSymbols</b>	"64"

<b>DrumPercussionSymbols</b>	"80"
<b>MetallicPercussionSymbols</b>	"96"
<b>OtherPercussionSymbols</b>	"112"
<b>BeaterPercussionSymbols</b>	"128"
<b>PercussionTechniqueSymbols</b>	"160"
<b>GuitarSymbols</b>	"176"
<b>ArticulationSymbols</b>	"208"
<b>AccidentalSymbols</b>	"256"
<b>NoteSymbols</b>	"288"
<b>NoteheadSymbols</b>	"320"
<b>RestSymbols</b>	"368"
<b>ConductorSymbols</b>	"400"
<b>ClefSymbols</b>	"416"
<b>OctaveSymbols</b>	"448"
<b>BreakSymbols</b>	"464"
<b>TechniqueSymbols</b>	"480"
<b>AccordionSymbols</b>	"496"
<b>HandbellSymbols</b>	"528"
<b>MiscellaneousSymbols</b>	"544"
<b>Symbol Size Constants</b>	
<b>NormalSize</b>	"0"
<b>CueSize</b>	"1"
<b>GraceNoteSize</b>	"2"
<b>CueGraceNoteSize</b>	"3"

## Special Page Break Types

<b>NoPageBreak</b>	"0"
<b>MusicRestartsAfterXPages</b>	"1"
<b>MusicRestartsOnNextLeftPage</b>	"2"
<b>MusicRestartsOnNextRightPage</b>	"3"

## Interval Types

<b>IntervalDiatonic</b>	"-1"
<b>Interval5xDiminished</b>	"0"
<b>Interval4xDiminished</b>	"1"
<b>Interval3xDiminished</b>	"2"
<b>Interval2xDiminished</b>	"3"
<b>IntervalDiminished</b>	"4"
<b>IntervalMinor</b>	"4"
<b>IntervalMajor</b>	"5"
<b>IntervalPerfect</b>	"5"
<b>IntervalAugmented</b>	"6"
<b>Interval2xAugmented</b>	"7"
<b>Interval3xAugmented</b>	"8"
<b>Interval4xAugmented</b>	"9"
<b>Interval5xAugmented</b>	"10"

## InMultirest Values

<b>NoMultirest</b>	"0"
<b>StartsMultirest</b>	"1"
<b>EndsMultirest</b>	"2"
<b>MidMultirest</b>	"3"

## Page Number Visibility Values

<b>PageNumberShowAll</b>	"0"
<b>PageNumberHideFirst</b>	"1"
<b>PageNumberHideAll</b>	"2"

## Page Number Format Values

<b>PageNumberFormatNormal</b>	"0"
<b>PageNumberFormatRomanUpper</b>	"1"
<b>PageNumberFormatRomanLower</b>	"2"
<b>PageNumberFormatLetterLower</b>	"3"

## Special Barlines

<b>SpecialBarlineStartRepeat</b>	"0"
<b>SpecialBarlineEndRepeat</b>	"1"
<b>SpecialBarlineDashed</b>	"2"
<b>SpecialBarlineDouble</b>	"3"
<b>SpecialBarlineFinal</b>	"4"
<b>SpecialBarlineInvisible</b>	"5"
<b>SpecialBarlineBetweenStaves</b>	"6"
<b>SpecialBarlineNormal</b>	"7"
<b>SpecialBarlineTick</b>	"8"
<b>SpecialBarlineShort</b>	"9"

## Bar Rest Type Values

<b>WholeBarRest</b>	"0"
<b>BreveBarRest</b>	"1"
<b>OneBarRepeat</b>	"2"
<b>TwoBarRepeat</b>	"3"
<b>FourBarRepeat</b>	"4"

## GuitarScaleDiagram Type Values

<b>ScaleTypeMajor</b>	"0"
<b>ScaleTypeMinor</b>	"1"
<b>ScaleTypeHarmonicMinor</b>	"2"
<b>ScaleTypeMelodicMinor</b>	"3"
<b>ScaleTypeDorian</b>	"4"
<b>ScaleTypePhrygian</b>	"5"
<b>ScaleTypeLydian</b>	"6"
<b>ScaleTypeMixolydian</b>	"7"
<b>ScaleTypeLocrian</b>	"8"
<b>ScaleTypeWholeTone</b>	"9"
<b>ScaleTypeDiminishedHalfWhole</b>	"10"
<b>ScaleTypeDiminishedWholeHalf</b>	"11"
<b>ScaleTypeAlteredDominant</b>	"12"
<b>ScaleTypeLocrianSharp2</b>	"13"
<b>ScaleTypeLydianFlat7</b>	"14"
<b>ScaleTypeMajorBebop</b>	"15"
<b>ScaleTypeDominantBebop</b>	"16"
<b>ScaleTypeLydianSharp5</b>	"17"
<b>ScaleTypePhrygianDominant</b>	"18"

<b>ScaleTypeAugmentedArpeggio</b>	“19”
<b>ScaleTypeMajor7thArpeggio</b>	“20”
<b>ScaleType7thArpeggio</b>	“21”
<b>ScaleTypeMin7Flat5Arpeggio</b>	“22”
<b>ScaleTypeDiminished7thArpeggio</b>	“23”
<b>ScaleTypeMajorPentatonic</b>	“24”
<b>ScaleTypeMinorPentatonic</b>	“25”
<b>ScaleTypeOther</b>	“26”

## FeatheredBeamType Values

For the **FeatheredBeamType** variable of NoteRest objects.

<b>FeatheredBeamNone</b>	"0"
<b>FeatheredBeamAccel</b>	"1"
<b>FeatheredBeamRit</b>	"2"

## Units Values

For the DocumentSetup object.

<b>DocumentSetupUnitsmm</b>	"0"
<b>DocumentSetupUnitsInches</b>	"1"
<b>DocumentSetupUnitsPoints</b>	"2"

## Orientation Values

For the **Orientation** variable of DocumentSetup objects.

<b>OrientationPortrait</b>	"0"
<b>OrientationLandscape</b>	"1"



## PageSize Values

For the **PageSize** variable of DocumentSetup objects.

<b>PageSizeLetter</b>	"0"
<b>PageSizeTabloid</b>	"1"
<b>PageSizeA5</b>	"2"
<b>PageSizeB5</b>	"3"
<b>PageSizeA4</b>	"4"
<b>PageSizeB4</b>	"5"
<b>PageSizeA3</b>	"6"
<b>PageSizeUSBand</b>	"7"
<b>PageSizeStatement</b>	"8"
<b>PageSizeHymn</b>	"9"
<b>PageSizeOctavo</b>	"10"
<b>PageSizeExecutive</b>	"11"
<b>PageSizeQuarto</b>	"12"
<b>PageSizeConcert</b>	"13"
<b>PageSizeFolio</b>	"14"
<b>PageSizeLegal</b>	"15"
<b>PageSize9_5x12_5</b>	"16"
<b>PageSize10x13</b>	"17"
<b>PageSizeCustom</b>	"18"

## MarginType Values

For the **MarginType** variable of DocumentSetup objects.

<b>PageMarginsSame</b>	"0"
<b>PageMarginsMirrored</b>	"1"
<b>PageMarginsDifferent</b>	"2"

## Tuplets

These define the constants that can be passed as a *style* parameter to `Bar.AddTuplet()` and `Tuplet.AddNestedTuplet()`.

<b>TupletNoNumber</b>	"0"
<b>TupletLeft</b>	"1"
<b>TupletLeftRight</b>	"2"
<b>TupletLeftRightNote</b>	"3"

These define the constants that can be passed as a *bracket* parameter:

<b>TupletBracketOff</b>	"0"
<b>TupletBracketOn</b>	"1"
<b>TupletBracketAuto</b>	"2"

## SingleTremolos

For the **singleTremolos** variable of `NoteRest` objects, the constants are numbers in the range 0 to 7, representing the number of tremolo beams on the stem of the note or chord. For a “z on stem” (for buzz rolls), use the value -1 or the constant **ZOnStem**.

## DoubleTremolo Values

For the double tremolo style variables of `EngravingRules` objects.

<b>DoubleTremolosTouchingStems</b>	"0"
<b>DoubleTremolosBetweenStems</b>	"1"
<b>DoubleTremolosOuterTremoloTouchingStems</b>	"2"

## Instrument Name Values

For the instrument name variables of `EngravingRules` objects.

<b>InstrumentNamesFull</b>	"0"
<b>InstrumentNamesShort</b>	"1"
<b>InstrumentNamesNone</b>	"2"

## Types of Objects in a Bar

The **Type** field for objects in a bar can return one of the following values:

**Clef, SpecialBarline, TimeSignature, KeySignature  
Line, ArpeggioLine, Bend, CrescendoLine, DiminuendoLine, GlissandoLine,  
OctavaLine, PedalLine, RepeatTimeLine, Slur, Trill, Box, BeamLine, Tuplet,  
RitardLine, Highlight  
LyricItem, Text, SystemTextItem, GuitarFrame, GuitarScaleDiagram,  
RehearsalMark, InstrumentChange  
BarRest, NoteRest, Graphic, Comment, Bracket, BarNumber  
SymbolItem, SystemSymbolItem**

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## What's New in Sibelius 8.3?

With Sibelius 8.3, ManuScript language lets you color notes. The following Note Variables have been added:

### **Color**

The color of this Note (read/write). The color value is in 24-bit RGB format, with bits 0–7 representing blue, bits 8–15 green, bits 16–23 red and bits 24–31 ignored. Since ManuScript has no bitwise arithmetic, these values can be a little hard to manipulate; you may find the individual accessors for the red, green and blue components to be more useful (see below).

### **ColorAlpha**

The alpha channel component of the color of this Note, in the range 0–255 (read/write).

### **ColorRed**

The red component of the color of this Note, in the range 0–255 (read/write).

### **ColorGreen**

The green component of the color of this Note, in the range 0–255 (read/write).

### **ColorBlue**

The blue component of the color of this Note, in the range 0–255 (read/write).



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