



Sonic Pi

API Cheatsheet

v1.0

*Designed by
Sam Aaron & Carrie Anne Philbin*

API

play(note, *args)		
Arguments	note	The note to play (as a MIDI number)
	*args	An optional list of arguments to pass to the current synth.
Description	Play the current synth at the specified pitch (supplied as a MIDI note). Optional arguments may be passed to further control the synth. These optional arguments are unique to each synth and are defined as part of the synth description.	
Related	See with_synth for changing the current synth and play_synth for playing a specific synth.	
Examples	play 60 play 60, "attack", 1	

play_synth(synth_name, *args)		
Arguments	synth_name	The name of the synth to play.
	*args	An optional list of arguments to pass to the specified synth.
Description	Play the specified synth with the supplied arguments. Ignores the current synth setting. The optional arguments are unique to each synth and are defined as part of the synth description.	
Examples	play_synth "pretty_bell" play_synth "pretty_bell", "note", 60, "attack", 1	

repeat(&block)		
Arguments	&block	The block of code to repeat.
Description	Repeat the block of code forever. Warning, this code will not terminate - so any code below will not get executed. Consider putting inside a thread with in_thread .	
Examples	<pre>repeat do play 60 sleep 0.25 end</pre>	

with_tempo(n)		
Arguments	n	The new tempo in beats per second (BPS)
Description	Sets the current tempo to the new value in BPS. This value is global and the same for all threads.	
Examples	with_tempo 200	

current_tempo		
Arguments		
Description	Returns the current tempo in beats per second (BPS)	
Examples	<pre>current_tempo with_tempo current_tempo * 2</pre>	

play_pattern(notes, *args)		
Arguments	notes	A list of MIDI notes to play.
	*args	Optional arguments to pass to the current synth.
Description	Plays the specified MIDI notes with the current synth at the current tempo.	

play_pattern(notes, *args)	
Example	<pre>play_pattern [40, 42, 44, 45] play_pattern [40, 42, 44], "attack", 1</pre>

play_pattern_timed(notes, times, *args)		
Arguments	notes	A list of MIDI notes to play.
	times	A list of separation times between each note in seconds.
	*args	Optional arguments to pass to the current synth.
Description	<p>Plays the specified MIDI notes with the specified separation times with the current synth at the current tempo.</p> <p>The list of times is a list of durations to be slept between each note. For example, a times list of [1, 2, 0.5] would result in a sleep of 1 second between the first and second notes, a sleep of 2 seconds between the second and third notes and a sleep of 0.5 seconds between the third and fourth notes. If there are more notes, the times are re-used in a circular fashion. For example if there is a fifth note, the time between the fourth and fifth notes will be 1 second, and if there's a sixth note, the time between the fifth and sixth notes will be 2 seconds etc. If there are fewer notes than times, the remaining times are ignored.</p>	
Example	<pre>play_pattern_timed [40, 42, 44, 45], [0.5, 0.5, 0.5] play_pattern_timed [40, 42, 44], [1, 2], "attack", 1</pre>	

play_chord(notes, *args)		
Arguments	notes	A list of MIDI notes to play.
	*args	Optional arguments to pass to the current synth.
Description	Plays the specified MIDI notes simultaneously with the current synth	
Examples	<pre>play_chord [40, 42, 44, 45] play_chord [40, 42, 44], "attack", 1</pre>	

in_thread(&block)	
Arguments	<i>Code block</i>
Description	Runs the block of code in a separate thread. This means the code will execute concurrently to the following code after the call to in_thread .
Examples	<pre>in_thread do play 60 sleep 0.5 end</pre>

stop	
Arguments	<i>No arguments</i>
Description	Stop all sounds.
Example	stop

Available Synths	
Synth Name	Available Arguments
dull_bell	note, attack, release
pretty_bell	note, attack, release
fm	note, divisor, depth
beep	note, attack, release
saw_beep	note, attack, release