

# runSync

`runSync(func, id)`

## Description

Executes a function in the processor thread. By calling `runSync` in the controller thread, you can invoke a function that is executed in the processor thread. For example, by calling `runSync` in a parameter change callback, you can invoke an event function like [playNote](#), [releaseVoice](#), [controlChange](#), etc. The callback that called `runSync` is not stopped and continues its execution. The specified function will be executed in the next audio block. If `id` is specified, another call to `runSync` with the same ID overwrites the previous function if it has not been executed yet. Only the last function with the same ID will be executed in the next audio block.

**Available in:** Processor.

## Arguments

<b>func</b>	The name of the function to be called.	function
<b>id</b>	If this is specified, another call to <code>runSync</code> with the same ID overwrites the previous function if it has not been executed yet. Only the last function with the same ID will be executed in the next audio block.	variant, optional

## Example

```
-- fade all voices, triggered by a script parameter
defineSlotLocal("noteIDs")
noteIDs = {}

function onNote(event)
  local id = postEvent(event)
  table.insert(noteIDs, id)
end

function syncFadeAllVoices()
  for i, id in ipairs(noteIDs) do
    fade(id, nil, 0, 1000, true)
  end
  noteIDs = {}
end

function fadeAllVoices()
  if fadeVoices then
    runSync(syncFadeAllVoices, 1)
  end
end

defineParameter("fadeVoices", "Fade All Voices", false, fadeAllVoices)
```

**See Also:** [runAsync](#), [spawn](#), [wait](#), [waitBeat](#), [waitForRelease](#)