

# Slot

The Slot class inherits all properties and methods of the [Element](#) class.

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## Element

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## Class Hierarchy

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- [Element](#)
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  - [Effect](#)
  - [Instance](#)
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    - [Program](#)
  - [MidiModule](#)
  - [ModulationMatrixRow](#)
  - [Slot](#)
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## Methods

### findBusses

```
findBusses(recursive, nameOrFilterFunction)
```

### Description

Function to find busses in the specified [Element](#) object. For example, `this.parent` specifies the parent of the script module as the [Element](#) object to be searched in. If `recursive` is set to `true`, subelements will also be searched. The function returns an array with the [Bus](#) objects of the found busses. Particular busses can be searched by name or through a filter function. If searching by name, `findBusses` accepts only the [Bus](#) objects that match the specified name. The filter function uses the [Bus](#) object of each bus as argument. Only those [Bus](#) objects that return `true` for the search criteria defined in the filter function will be accepted by `findBusses`. Without a name or filter function the [Bus](#) objects of all busses in the searched [Element](#) objects will be returned.

**Available in:** Controller, Processor.

### Arguments

<b>recursive</b>	If set to <code>false</code> , only the specified <a href="#">Element</a> object will be searched. If set to <code>true</code> , subelements will also be searched. The default is <code>false</code> .	boolean
<b>nameOrFilterFunction</b>	The name of the busses searched for or a filter function. Only the <a href="#">Bus</a> objects that match the name or return <code>true</code> for the search criteria of the filter function will be accepted. Set this to <code>nil</code> to deactivate any name filter or search criteria.	string or function, optional

### Return Values

Returns an array with the [Bus](#) objects of the found busses.

### Example

```
-- find all busses and print their names
busses = this.program:findBusses(true)

if busses[1] then
  for i, bus in ipairs(busses) do
    print(bus.name)
  end
else
  print("Could not find any busses!")
end
```

## findEffects

```
findEffects(recursive, nameOrFilterFunction)
```

### Description

Function to find effects in the specified [Element](#) object. For example, `this.parent` specifies the parent of the script module as [Element](#) object to be searched in. To specify a bus to be searched in, use [getBus](#) or [findBusses](#). If `recursive` is set to `true`, subelements will also be searched. The function returns an array with the [Effect](#) objects of the found effects. Particular effects can be searched by name or through a filter function. If searching by name, `findEffects` accepts only the [Effect](#) objects that match the specified name. The filter function uses the [Effect](#) object of each effect as argument. Only those [Effect](#) objects that return `true` for the search criteria defined in the filter function will be accepted by `findEffects`. Without a name or filter function the [Effect](#) objects of all effects in the searched [Element](#) objects will be returned.

**Available in:** Controller, Processor.

### Arguments

<b>recursive</b>	If set to <code>false</code> , only the specified <a href="#">Element</a> object will be searched. If set to <code>true</code> , subelements will also be searched. The default is <code>false</code> .	boolean
<b>nameOrFilterFunction</b>	The name of the effects searched for or a filter function. Only the <a href="#">Effect</a> objects that match the name or return <code>true</code> for the search criteria of the filter function will be accepted. Set this to <code>nil</code> to deactivate any name filter or search criteria.	string or function, optional

### Return Values

Returns an array with the [Effect](#) objects of the found effects. Returns an empty table if no effects are found.

### Example

```
-- find all effects and print their names
effects = this.program:findEffects(true)

if effects[1] then
  for i, effect in ipairs(effects) do
    print(effect.name)
  end
else
  print("Could not find any effects!")
end
```

## getBus

`getBus(nameOrPosition)`

### Description

Function to retrieve the [Bus](#) object of a bus in the specified [Element](#) object. For example, `this.parent` specifies the parent of the script module as the [Element](#) object to be searched in. This function does not search in subelements. A particular bus can be searched by name or position. The position is the number indexing the busses in the specified [Element](#) object. If several busses share the same name, only the first match will be returned. If no argument is set, the function returns the first bus it finds.

**Available in:** Controller, Processor.

### Arguments

**nameOrPosition**

The name or position of the bus. Set this to `nil` to deactivate the search filter.

string or number, optional

### Return Values

Returns the [Bus](#) object of the found bus. Returns `nil` if no bus is found.

### Example

```
-- locate the first bus in the program and print its name
bus = this.program:getBus()

if bus then
  print(bus.name)
else
  print("Could not find a bus!")
end
```

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## setProgram

```
setProgram(programOrNil, index)
```

### Description

Function to set a program in the specified slot of the **Program Table** or the **Slot Rack** of the plug-in instance. Before calling this function, you must access the **Instance** object with `this.program.instance`. The program is determined by its **Program** object. To specify the slot in the **Program Table**, you must use the `index` argument. To specify the slot in the **Slot Rack**, you must use a **Slot** object, for example, via `getSlot`. The program can be removed from the **Slot Rack** by using `nil` as argument.

An **Element** object can only have one parent. It cannot be child of multiple parents. Therefore, each program can exist only once in the **Program Table**. Furthermore, an **Element** object that you retrieved from the running plug-in instance cannot be added twice to the **Program Table**. It must be removed before it can be added again. The **Element** objects that you retrieve through `loadPreset` or `loadPresetAsync` can be added freely to the **Program Table**, because these functions create a copy of the **Element** objects when reading them.

**Available in:** Controller.

### Arguments

<b>programOrNil</b>	The <b>Program</b> object of the program. Programs can be removed from the <b>Slot Rack</b> by using <code>nil</code> .	<b>Program</b> or <code>nil</code>
<b>index</b>	The index of the slot in the <b>Program Table</b> where you want to set the program.	number, optional

### Example

To explore the following script:

1. Download [Program.vstpreset](#).
2. Drag the preset on the **MediaBay** to import it to the user folder for VST presets.
3. Create an empty program and add a script module.
4. Paste the script into the text editor of the script module and execute the script.

```
-- set Program.vstpreset in slot 3 of the Program Table and slot 1 of the Slot Rack

-- get the file path for user VST presets
path = getUserPresetPath()

-- load the VST preset
loadedProgram = loadPreset(path.."/Program/Program.vstpreset")

-- set loadedProgram in slot 3 of the Program Table
this.program.instance:setProgram(loadedProgram, 3)

-- set program in slot 1 of the Slot Rack
program = this.program.instance:getProgram(3)
this.program.instance:getSlot(1):setProgram(program)

-- clear slot 2 of the Slot Rack
this.program.instance:getSlot(2):setProgram(nil)
```

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