

ParameterDefinition

The ParameterDefinition class describes the properties of parameters.

On this page:

[ParameterDefinition Class](#), [getDisplayString](#)

Class Hierarchy

- [AudioFile](#)
- [Element](#)
 - [Bus](#)
 - [Instance](#)
 - [Layer](#)
 - [Program](#)
 - [Effect](#)
 - [MidiModule](#)
 - [ModulationMatrixRow](#)
 - [Slot](#)
 - [Zone](#)
- [Event](#)
- [LoadProgress](#)
- [ParameterDefinition](#)

Classes

ParameterDefinition Class

Description

The [ParameterDefinition](#) object describes the properties of a parameter.

Available in: Controller, Processor

Fields

.name	Returns the name of the parameter.	string
.longName	Returns the long name of the parameter.	string
.id	Returns the ID of the parameter.	number
.type	Returns the data type of the parameter.	string
.default	Returns the default value of the parameter.	number
.min	Returns the minimum value of the parameter.	number
.max	Returns the maximum value of the parameter.	number
.readOnly	Returns <code>true</code> if the value of the parameter is read-only and <code>false</code> if it is not.	boolean
.writeAlways	Returns <code>true</code> if the value is always set and <code>false</code> if it is not. If this returns <code>true</code> , the parameter sends a changed message even if the actual value did not change when it was set.	boolean
.automatable	Returns <code>true</code> if the parameter can be automated and <code>false</code> if it cannot.	boolean
.persistent	Returns <code>true</code> if the parameter restores from the VST preset and <code>false</code> if it does not.	boolean
.unit	Returns the unit of the parameter value, for example, dB.	string

Example

```
-- print the parameter definition with corresponding data type of the parent layer's level parameter
function onLoadIntoSlot()

    local def = this.parent:getParameterDefinition("Level")

    print("Name = "..def.name..", "..type(def.name))
    print("Long Name = "..def.longName..", "..type(def.longName))
    print("ID = "..def.id..", "..type(def.id))
    print("Type = "..def.type..", "..type(def.type))
    print("Default = "..def.default..", "..type(def.default))
    print("Min = "..def.min..", "..type(def.min))
    print("Max = "..def.max..", "..type(def.max))
    print("Read Only = "..tostring(def.readOnly)..", "..type(def.readOnly))
    print("Write Always = "..tostring(def.writeAlways)..", "..type(def.writeAlways))
    print("Automatable = "..tostring(def.automatable)..", "..type(def.automatable))
    print("Persistent = "..tostring(def.persistent)..", "..type(def.persistent))
    print("Unit = "..def.unit..", "..type(def.unit).."\n")

end
```

Methods

getDisplayString

`getDisplayString(value)`

Description

The internal precision of parameter values is usually higher than the precision of the corresponding display string on the user interface. You can use this function to obtain the display string of the specified parameter and value. You specify the parameter with [getParameterDefinition](#).

Available in: Controller, Processor

Arguments

value	The value for the display string.	number or string
--------------	-----------------------------------	------------------

The data type of the value for `getDisplayString` must match the data type of the corresponding parameter value.

Return Values

Returns the display string of the specified parameter and value.

Example

```
-- get the display string of a value
value = -2.471
print("value = " . value)
print("Display String = " . this.program.getParameterDefinition("Level").getDisplayString(-2.471))
```