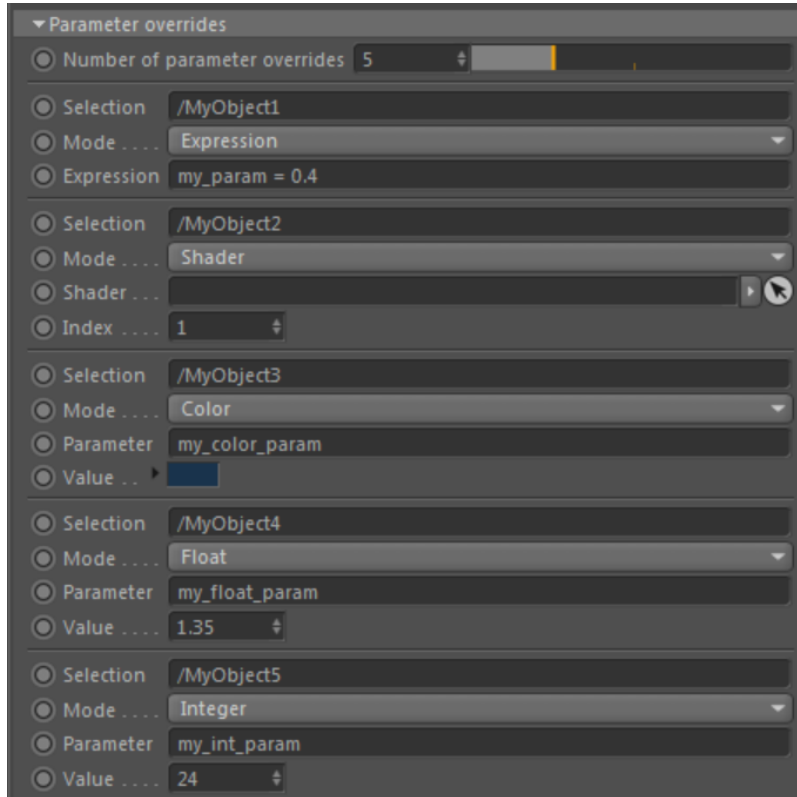


Arnold Procedural Parameter Overrides



The parameter overrides on the [Arnold Procedural](#) object UI are stored in the *BaseContainer* between the id **10000** and **20000** with an offset of 100. The first override starts at *10000*, the second at *10100*, etc. The following IDs are used.

```
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SELECTION = 10001
C4DAI_PROCEDURAL_PARAM_OVERRIDE_MODE = 10002

// Shader mode
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SHADER = 10003
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SHADER_USE_INDEX = 10010
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SHADER_INDEX = 10004
// Expression mode
C4DAI_PROCEDURAL_PARAM_OVERRIDE_EXPRESSION = 10005
// Parameter mode
C4DAI_PROCEDURAL_PARAM_OVERRIDE_PARAM_NAME = 10006
C4DAI_PROCEDURAL_PARAM_OVERRIDE_COLOR_VALUE = 10007
C4DAI_PROCEDURAL_PARAM_OVERRIDE_FLOAT_VALUE = 10008
C4DAI_PROCEDURAL_PARAM_OVERRIDE_INT_VALUE = 10009
// Displacement mode
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_SHADER = 10011
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_SHADER_USE_INDEX = 10012
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_SHADER_INDEX = 10013
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_OVERRIDE_PARAMS = 10014
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_HEIGHT = 10015
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_PADDING = 10016
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_ZERO_VALUE = 10017
C4DAI_PROCEDURAL_PARAM_OVERRIDE_DISP_AUTOBUMP = 10018
// Subdivision mode
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SUBDIV_TYPE = 10019
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SUBDIV_ITERATIONS = 10020
```

Here's a simple script to list the Selection expression of all parameter overrides.

```

# parameter ids (from arnold_procedural.h)
C4DAI_PROCEDURAL_NUM_PARAM_OVERRIDES = 500
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SELECTION = 10001

# find the Arnold Procedural object
proc = doc.SearchObject("Arnold Procedural")

# read the overrides
numParamOverrides = proc[C4DAI_PROCEDURAL_NUM_PARAM_OVERRIDES]
for i in range(numParamOverrides):
    offset = i * 100
    selection = proc[C4DAI_PROCEDURAL_PARAM_OVERRIDE_SELECTION + offset]
    print "%d. override Selection: %s" % (i+1, selection)

```

To add new overrides you just have to modify the BaseContainer of the object.

```

# parameter ids (from arnold_procedural.h)
C4DAI_PROCEDURAL_NUM_PARAM_OVERRIDES = 500
C4DAI_PROCEDURAL_PARAM_OVERRIDE_SELECTION = 10001
C4DAI_PROCEDURAL_PARAM_OVERRIDE_MODE = 10002
C4DAI_PROCEDURAL_PARAM_OVERRIDE_MODE_EXPR = 0
C4DAI_PROCEDURAL_PARAM_OVERRIDE_EXPRESSION = 10005

# find the Arnold Procedural object
proc = doc.SearchObject("Arnold Procedural")

# add a new Expression override
numParamOverrides = proc[C4DAI_PROCEDURAL_NUM_PARAM_OVERRIDES]
numParamOverrides += 1
proc[C4DAI_PROCEDURAL_NUM_PARAM_OVERRIDES] = numParamOverrides
offset = (numParamOverrides - 1) * 100
proc[C4DAI_PROCEDURAL_PARAM_OVERRIDE_SELECTION + offset] = "/MyObject"
proc[C4DAI_PROCEDURAL_PARAM_OVERRIDE_MODE + offset] = C4DAI_PROCEDURAL_PARAM_OVERRIDE_MODE_EXPR
proc[C4DAI_PROCEDURAL_PARAM_OVERRIDE_EXPRESSION + offset] = "base_color = (0.1, 0.7, 0.8)"

# update the scene
c4d.EventAdd()

```

Look at this [script](#) how to read and modify all types of parameter overrides.