

*Developer Technical Services*

# Assignment - Maya Nodes Part 1

Topics Covered

* Build Maya Custom Node with MPxNode simpleNode Plug-in
* Topics Covered
* Write a skeleton of a custom node “simpleNode” with MPxNode class from scratch
* Add simple attribute using MFnNumericAttribute class  Overview
* In this exercise, we will implement a custom node simpleNode, it has two attributes: “input”, ”output”

Whenever the “input” attribute changes value, the “output” attribute will always be the “input” attribute value multiplied by 2.  Exercises

* Go to “simpleNode python Plug-in\Exercise” folder, open simpleNode.py, the skeleton of the command is already there.
* In simpleNode.py, adding declaration of “output” attributes and also declare your unique node ID
* In simpleNode.py, implement functions that are declared in simpleNode.py.

Relevant classes and methods:

MFnNumericAttribute::create()

MPxNode::attributeAffects(), MPxNode::addAttribute()

MDataBlock::outputValue(), MDataBlock::setClean() MDataHandle::set()

* In simpleNode.py, implement both initializePlugin() and uninitializePlugin() functions to handle registration and de-registration of the simpleNode node.

Relevant classes and methods:

MFnPlugin:: registerNode()

MFnPlugin:: deregisterNode()

* Result

In script editor, execute:

createNode simpleNode;

Open “Attribute Editor”, you will see there are two attributes listed, “input”, “output”. If you change “input” value, “output” value will be 2\* input.