GO | PROCEDURAL

Python Boot Camp – Day 2

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- Houdini Digital Assets

- GUI Toolkits

- Python Operators

- Pipeline Integration

- Performance Monitor

SIDE EFFECTS
SOFTWARE

Houdini Digital Assets (HDAs) Demo

SIDE EFFECTS
SOFTWARE

- Store Python code in PythonModule HDA script section

- Access PythonModule code with hou.Node.hdaModule()

- Use toolutils.createModuleSection() to store code in other script sections

```
import toolutils
# 'foobar' — the name to use for the submodule
# 'FooBar' — the name of the section storing the code
foobar = toolutils.createModuleSection(
    "foobar", kwargs["type"], "FooBar")
```

- Invoking function foo() defined in PythonModule

```
node = hou.node("/obj/hda_node1")

node.hdaModule().foo()
```

- Invoking function bar() defined in foo submodule

```
node.hdaModule().foo.bar()
```

- Retrieving HDA definition from a node

```
hda_def = node.type().definition()
```

- Adding/Updating a section in an HDA definition

```
hda_def.addSection("FooBar", "The section contents")
```

- Retrieving section FooBar from an HDA definition

```
section = hda_def.sections()["FooBar"]
```

- Retrieving the contents of a section

```
section.contents()
```
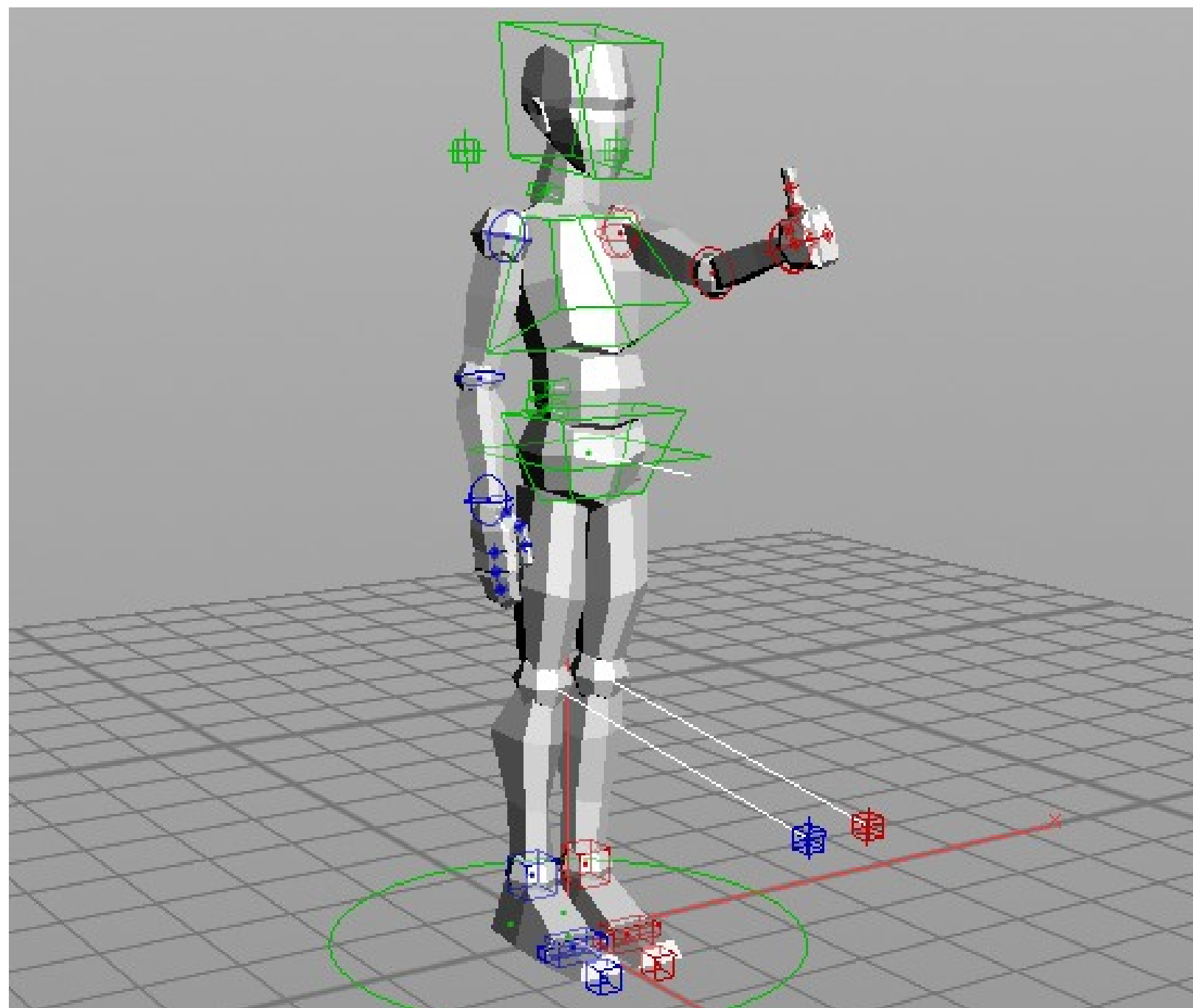
SIDE EFFECTS
SOFTWARE

- Parameters can have Python callbacks

- Callback script executed when parameter's value changes
  - For button parameters, value changes when button is clicked

- Callbacks can access functions in PythonModule section
  - hou.pwd().hdaModule()
  - hou.phm()

- Menu parameters can be populated using a Python script

- Script returns a list of strings

- List must have an even number of entries

  - Each pair of strings represent the internal name and label of an entry

  - i.e. (("one", "First Entry", "two", "Second Entry", "three", "Third Entry"))

- Single line script → Python expression

- Multi-line script → body of Python function, need **return**

Build a Pose Library

SIDE EFFECTS
SOFTWARE