

# BLENDER+PYTHON TERMINOLOGY GUIDE

V 1.0

## **bpy**

Blender's official Python library that allows users to interact with the current Blender session

### **bpy.data**

Submodule to directly access data saved in the .blend file (such as cameras, meshes, and brushes)

### **bpy.context**

Submodule to access the current "input" of the user, such as selection, currently active scene or camera

### **bpy.ops**

Submodule to access all of Blender's operators

### **bpy.types**

Submodule to access all the Python classes Blender registers and stores (including classes defining operators and panels)

### **bpy.props**

Submodule defining common datatypes (strings of text, numbers, enumerators) utilized by Blender, often used to define settings for operators or data in the .blend file

## **Operator**

A class registered in Blender that operates on the current Blender session, such as deleting an object or saving user preferences

### **Invoke**

Run the function, assuming the existence of a user interface and interactivity.

### **Execute**

Run the function, not assuming the existence of a user interface (ie Blender may be running from the terminal) or user interactivity

## **Extension**

A resource that users can subscribe to. A universal standard that currently can be adopted add-ons and themes.

### **Repository**

A collection of extensions, stored either on a webpage or a hard drive, that are accessible to search, download, and manage from within Blender.

### **Manifest**

A text file containing metadata describing the extension for Blender and repositories to understand

## **Decorator**

A function that takes another function as an argument and returns a new function with enhanced functionality.

### **@staticmethod**

A built-in decorator used to define a method that doesn't operate on an instance of the class (i.e., it doesn't use self). Static methods are called on the class itself, not on an instance of the class.

### **@classmethod**

A built-in decorator used to define a method that operates on the class itself (i.e., it uses cls). Class methods can access and modify class state that applies across all instances of the class.

### **@property**

A built-in decorator used to define a method as a property, which allows you to access it like an attribute. This is useful for encapsulating the implementation of a method while still providing a simple interface.

## **Info Area**

A UI area defined in Blender that prints most user actions as Python code

### **System Console**

A console managed by Blender for logging info, warnings, or errors while using the app

### **Interactive Console**

A UI area defined in Blender that allows users to run Python code line-by-line on the current Blender session

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