



API 6: Areas from Rooms

Python in Dynamo

Related videos



MAKING A CUSTOM
NODE



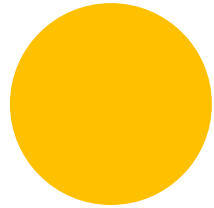
MAKING A CUSTOM
PACKAGE



PYTHON
FUNDAMENTALS



PYTHON IN
DYNAMO (SERIES)



Dynamo and Python

Areas from Rooms (API 6)

This video

- Navigate Revit API Docs
- Get parameter values
- Create areas
- Set element properties

```
Python Script
1 # Made by Gavin Crump
2 # Free for use
3 # BIM Guru, www.bimguru.com.au
4
5 #Reference for script name: https://github.com/Amoursol/dynamoPython/blob/master/dynamoAPI/dynamoAPICurrentGraphName.py
6 #Thanks to John Pierson for sharing the code for Dynamo file data
7
8 #Add CLR and Dynamo services for its API
9 import clr
10 clr.AddReference('DynamoRevitDS')
11 import Dynamo
12 from System import Environment
13
14 #Add document manager from Revit services
15 clr.AddReference('RevitServices')
16 import RevitServices
17 from RevitServices.Persistence import DocumentManager
18
19 # access to the current Dynamo instance and workspace
20 DynamoCurrent = Dynamo.Applications.DynamoRevit()
21 ActiveScript = DynamoCurrent.RevitDynamoModel.CurrentWorkspace
22 DynamoVersion = DynamoCurrent.RevitDynamoModel.Version
23
24 # ensure version 2.X, get name
25 if DynamoVersion.StartsWith("2."):
26     ScriptName = ActiveScript.Name + ".dyn"
27 else:
28     ScriptName = "Version not supported"
29
30 # get system user name
31 UserName = Environment.UserName
32
33 # get active document name and path
```

Let's get into
the example!

Rooms to Areas

3 part API based workflow

1. Room boundaries
2. Area lines from bounds
- 3. Areas from rooms**

Room Location

We need to use

[Location.Point](#) property to obtain the location point of a [SpatialElement](#)

Location Property

[SpatialElement Class](#)

[See Also](#)

The location of the element.

Syntax

C#

```
public override Location Location { get; }
```

Get Parameter

We need to use *GetParameters* method to get parameter values as a List

GetParameters Method

[Element Class](#) | [See Also](#)

Retrieves the parameters from the element via the given name.

Syntax



C#

```
public IList<Parameter> GetParameters(  
    string name  
)
```


Create Area

We need to use

Name and Number Properties can then be set for each Area

	Name	A human readable name for the Element. (Inherited from SpatialElement .)
	Number	The number. (Inherited from SpatialElement .)

Future Videos

Basic
samples

Revit API

Advanced
samples

And
more!



Crumple is on
github

<https://github.com/aussieBIMguru>



API 6: Areas from Rooms

Python in Dynamo