Step by Step Guide for Element ID Conflict Checker

Short Description

Detects conflicts between the Element ID properties. The script returns the number of elements with the same Element ID.

Files to Download

Python Script

https://graphisoftse-my.sharepoint.com/:u:/g/personal/tlorantfy_graphisoft_com/ETKD4V5bWKNHi7l26kgHF8MB04kaCPd8cGUBDHlqziHjtw?e=Nhw1ho

Example ARCHICAD Project

https://graphisoftse-my.sharepoint.com/:u:/g/personal/tlorantfy_graphisoft_com/EQaB3PSsEE9GhTZ4QDIDGBEBqsFgz4SneMzwntqUf5pSvg?e=wq3AoI

Step by Step Tryout Guide

1. Download the Python script.
2. Download the example project file and open it in ARCHICAD.
3. Run the Python script (from Python Palette or in any external application).
4. The output is written into the console.

Demo Video

https://ttprivatenew.s3.amazonaws.com/pulse/tlorantfy-graphisoft/attachments/13773663/elementID_conflict_demo.mp4

Example Output

[Conflict] 3 elements have 'DOO - 001' as element ID:

[ElementId {'guid': '442DFFCA-525C-4F26-9828-79F68605219B'}, ElementId {'guid': '5421DD8F-B1AE-42AA-81AC-D229D6343855'}, ElementId {'guid': 'EC401F2B-BEE2-40F5-A9D9-38D7899E7237'}]

[Conflict] 6 elements have 'FU - 002' as element ID:

[ElementId {'guid': '0B81B346-03AA-4BAE-B7CC-C4EC1C41A07B'}, ElementId {'guid': '4ADB9397-8F46-4477-B39B-63049B48E90C'}, ElementId {'guid': '4B446F90-D5CC-4928-BA29-87B9B90C9605'}, ElementId {'guid': '6ED53418-4ED9-406D-AEDB-05F74EB00400'}, ElementId {'guid': '7A168CF1-C1C8-47D5-9BE2-11CD6A4B6B82'}, ElementId {'guid': 'C97AE692-D99B-449C-AE5A-30F91E47C223'}]

[Conflict] 4 elements have 'WD - 004' as element ID:

[ElementId {'guid': '17F46B70-DADE-4441-8AD1-173A04671C01'}, ElementId {'guid': '8880C88E-7652-45DA-BD37-2604ED36729E'}, ElementId {'guid': 'D67FFF1D-DB78-4884-A520-755D8C89F118'}, ElementId {'guid': 'EAA67613-636E-4C66-B0DC-231A6DFD45F7'}]

Details

Requirements

To execute the script successfully without any customization, the following requirements must be met:

- ARCHICAD 24.2310 or above
- ARCHICAD-Python Connection (Archicad package) version 24.2310 or above

This script doesn't require anything from the currently opened ARCHICAD project. Element ID is a built-in property, which means all elements in all projects have this information.

Customization

Feel free to open the script in any text editor and customize it. Each example script has a well-separated section, named "CONFIGURATION". Change the values in that section to customize them.

```
############################### CONFIGURATION ###############################
elements = acc.GetAllElements()
messageWhenNoConflictFound = "There is no elementID conflict."
conflictMessageParts = ["[Conflict]", "elements have", "as element ID:\n"]

def GetConflictMessage(elementIDPropertyValue, elementIds):
    return f"{conflictMessageParts[0]} {len(elementIds)} {conflictMessageParts[1]} '{elementI
DPropertyValue}' {conflictMessageParts[2]}{sorted(elementIds, key=lambda id: id.guid)}"
############################################################################
```

By default, this script detects conflicts among all elements in the project. Change GetAllElements to GetElementsByType in order to check elements only with specific type:

```
elements = acc.GetElementsByType("Zone")
```

Or you can query elements by classification using the GetElementsByClassification command:

```
classificationItem = acu.FindClassificationItemInSystem(
    'ARCHICAD Classification', 'Parking Space')
elements = acc.GetElementsByClassification(
    classificationItem.classificationItemId)
```

This table explains the meaning of each variable and value in the configuration section to help customization.

Name of the variable	Description	Default value
elements	The conflict detection will check these elements.	All elements in the project.
messageWhenNoConflictFound	This message will be shown when there is no conflict between element IDs.	"There is no elementID conflict."
conflictMessageParts	When the script finds a conflict, the output message will be composed from these parts.	"[Conflict]" "elements have" "as element ID:\n"
GetConflictMessage	This function generates the message from the values and the conflictMessageParts variable.	[Conflict] 3 elements have 'DOO - 001' as element ID: [UUID('442dffca-525c-4f26-9828-79f68605219b'), UUID('5421dd8f-b1ae-42aa-81ac-d229d6343855'), UUID('ec401f2b-bee2-40f5-a9d9-38d7899e7237')]

Possible Errors

This script does not have any requirements, so if it was not customized, then it must be executed successfully.

If the script fails to execute and returns an error, double check the customizations you have made.