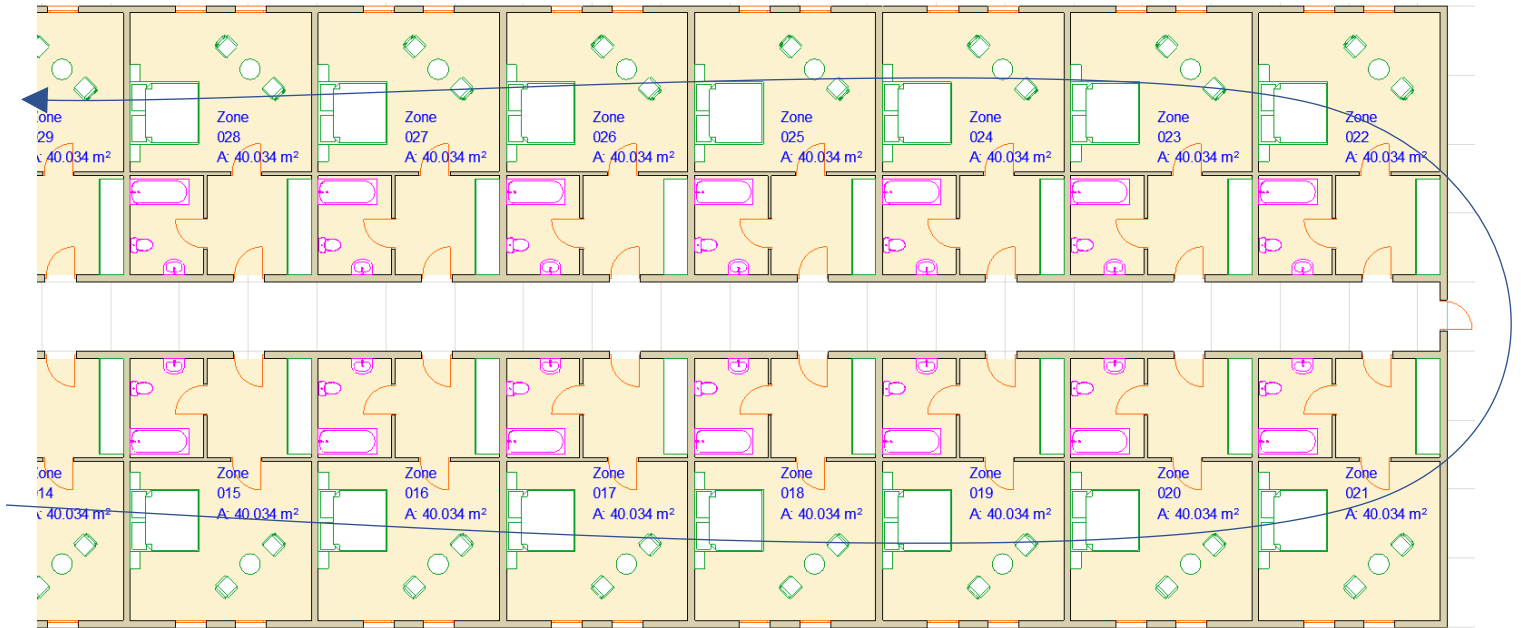


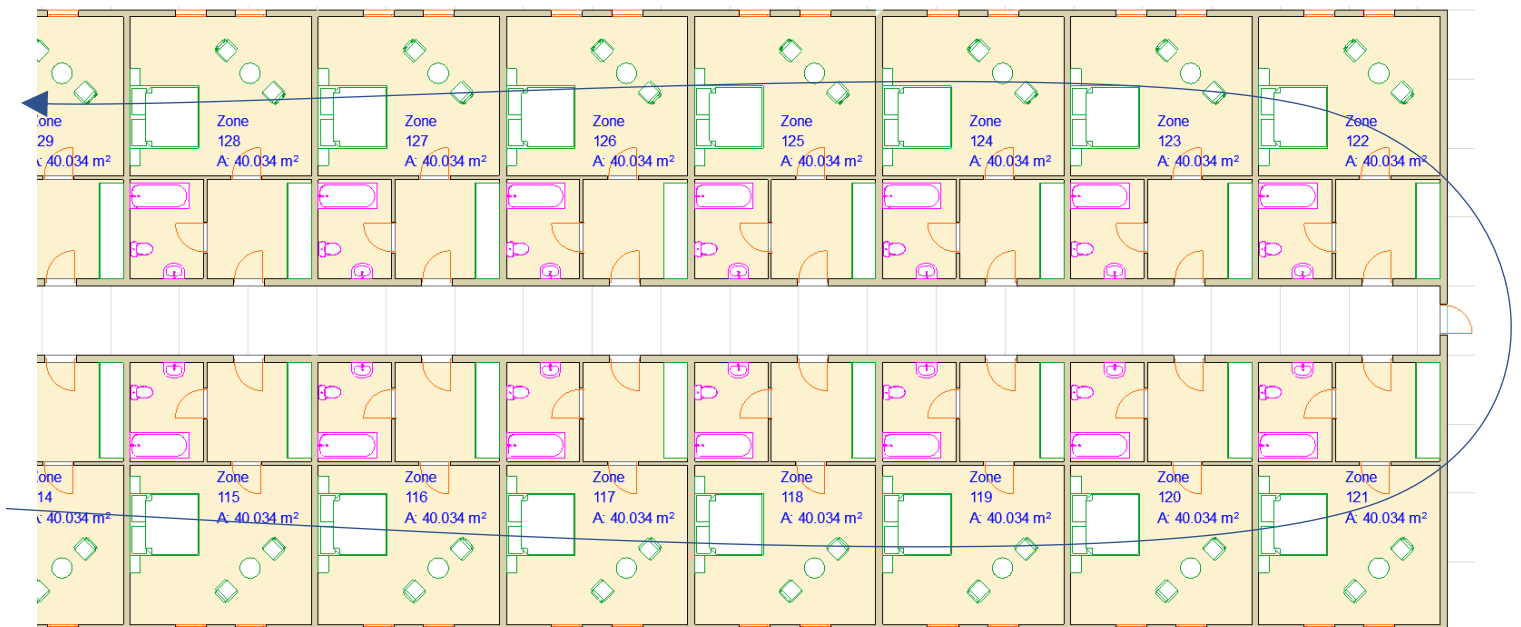
Step by Step Guide for Zone Numbering

Short Description

Generates unique ordered zone numbers. Sets the “zone number” built-in property value for all zones in the project. The script implements a zigzag ordering - see images below:



The ground floor of the example project after the script was executed



The first floor of the example project after the script was executed

Files to Download

Python Script

https://graphisoft-my.sharepoint.com/:u:/g/personal/tlorantfy_graphisoft_com/EcTOQEjMxWNNu6Ds4yUE1vwBCKGwWEHyA8sIIIRUKcOYeOw?e=3TFvN3

Example ARCHICAD Project

https://graphisoft-my.sharepoint.com/:u:/g/personal/tlorantfy_graphisoft_com/EcCbInDWIUBFs3pt_3thuoMB09Pyxu5P3OEYZ6XC2sL3yg?e=sY3IMW

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 number of zones will be automatically set on each floor.

The stamps of the zones in the example project display the zone number value on the floor plan view.

Demo Video

https://tprivatenew.s3.amazonaws.com/pulse/tlorantfy-graphisoft/attachments/13792684/zone_numbering_demo.mp4

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. Zone number is a built-in property, which means all zones 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 for customization.

```
##### CONFIGURATION #####
propertyId = acu.GetBuiltInPropertyId('Zone_ZoneNumber')
propertyValueStringPrefix = ''
elements = acc.GetElementsByType('Zone')

ROW_GROUPING_LIMIT = 0.25
STORY_GROUPING_LIMIT = 1

def GeneratePropertyValueString(storyIndex: int, elemIndex: int) -> str:
    return f"{propertyValueStringPrefix}{storyIndex:1d}{elemIndex:02d}"
#####
```

By default, this script sets the “zone number” property value for zones. To set any other zone property, change Zone_ZoneNumber to another property, or change GetElementsByType to GetAllElements in order to set all elements, not just zones:

```
elements = acc.GetAllElements()
```

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

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

The Parking Space Numbering example script (parking_spaces.py) is a customized version of this script. The parking_spaces.py and zone_numbering.py scripts differ in the configuration section only.

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

Name of the variable	Description	Default value
propertyId	The identifier of the property to be modified.	By default, the script modifies the zone number property of the zones. Its identifier is Zone_ZoneNumber.
propertyValueStringPrefix	The prefix that will be appended to the beginning of the modified zone numbers.	Empty
elements	The elements to be modified.	All zones in the project.
ROW_GROUPING_LIMIT	The maximum difference between the Y coordinates of the zones in the same row. The implemented zigzag logic needs to detect rows.	0.25 meter
STORY_GROUPING_LIMIT	The maximum difference between the Z coordinates of the zones in the same story. The story index will be added into the modified value.	1 meter
GeneratePropertyValueString	This function generates the string property value from the story index and element index parameters.	101

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.