IES- Beacon Plugin for Autodesk Revit

Project Description from Jane

"Graphical tools built on the geometric model can:

1. Help the developer select the right type of beacons for each place,

2. Experiment with the placements and orientations of the selected beacons,

3. Visualize and assess the coverage provided by them,

4. Generate the coordinates and technical specifications of the beacons."

UI Expectations

Window 1: User chooses from six different types of beacon

	Low Ceiling (1.8m ~ 2.1m)	Standard Ceiling (2.1m~2.7m)	High Ceiling (>2.7m)
Small Coverage	1	2	3
Large Coverage	4	5	6

• As the user chooses and experiments with beacons, the program should indicate whether the beacons is strong enough to reach the floor with regards to desired ceiling height.

• GUI should display the number of beacons placed and what types. (Maybe include coordinates of beacons placed.)

• (Additional feature: Allow quick repetitions of beacons placed over large areas)

• Continue button if developer is satisfied with beacon placement

Window 2: Finalized list of coordinates and specifications

• User has the option to print out the list of all beacons placed along with the following attributes (User can rearrange as desired):

1. Types of beacons

2. Coordinates of each beacon (x, y, elevation)

3. Strength of beacon

4. (Percentage coverage)

IES – Autodesk Revit 軟體插件

老師的工程介紹

1. 使開發商選取適合的 Beacon，

2. 以 Beacon 的位置與方向做調整，

3. 評估與視覺化 Beacon 的覆蓋範圍，

4. 使 Beacon 的位置與操作規範表列與列印

UI 符合要求

視窗1: 使用者可從六種 Beacon 選出理想的規模

	Low Ceiling (1.8m ~ 2.1m)	Standard Ceiling (2.1m~2.7m)	High Ceiling (>2.7m)
Small Coverage	1	2	3
Large Coverage	4	5	6

- GUI 會顯示使用者選的 Beacon 符合空間的條件，若 Beacon 的信號強度不夠，GUI應要標不及格的 Beacon

- GUI 會顯示所有放下的 Beacon 與它的種類 （可能也顯示 Beacon 的坐標）

- （附加的功能：使用者可以在大空間快速的放多數的 Beacon

- 最後若使用者對 Beacon 的擺法滿意，按 Continue

視窗2: Beacon 名單 – 座標與操作規範

- 使用者可印出所有 Beacon 的名單

- 名單上會顯示：

    1. Beacon 的種類

    2. Beacon 的位置與坐標

    3. Beacon 的信號強度

    4. （覆蓋比例與百分率）