

Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

ModelIT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Model

- new\_rooms\_01
- new\_rooms\_02
- new\_rooms\_03
- roof
- roof
- roof

Focus on room\_03

Click on 'connect' spaces

Thermal

Lighting

Solar

Value

Cost

Evacuation

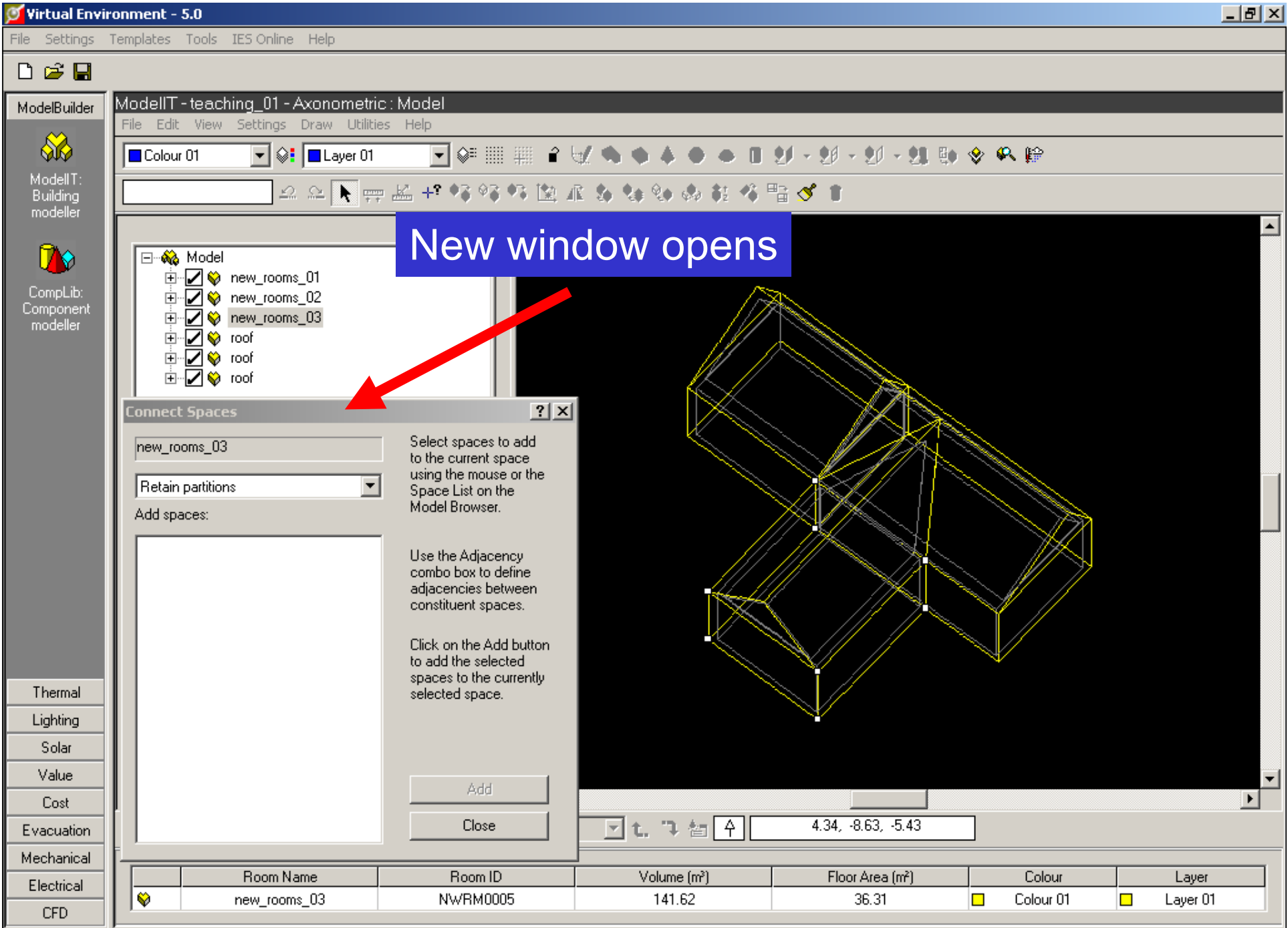
Mechanical

Electrical

CFD

Axonometric Model 3.83, -1.98, -2.30

|   | Room Name    | Room ID  | Volume (m³) | Floor Area (m²) | Colour      | Layer      |
|---|--------------|----------|-------------|-----------------|-------------|------------|
| 📍 | new_rooms_03 | NWRM0005 | 141.62      | 36.31           | 🟡 Colour 01 | 🟡 Layer 01 |



Virtual Environment - 5.0

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ModellT - teaching\_01 - Axonometric : Model

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Colour 01 Layer 01

Model

- new\_rooms\_01
- new\_rooms\_02
- new\_rooms\_03
- roof
- roof
- roof

**Change to 'remove partitions'**

new\_rooms\_03

Remove partitions

Select spaces to add to the current space using the mouse or the Space List on the Model Browser.

Add spaces:

Use the Adjacency combo box to define adjacencies between constituent spaces.

Click on the Add button to add the selected spaces to the currently selected space.

Add

Close

-6.27, -7.74, -1.10

|  | Room Name    | Room ID  | Volume (m³) | Floor Area (m²) | Colour    | Layer    |
|--|--------------|----------|-------------|-----------------|-----------|----------|
|  | new_rooms_03 | NWRM0005 | 141.62      | 36.31           | Colour 01 | Layer 01 |

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File Settings Templates Tools IES Online Help

ModelBuilder

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ModellT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Model

- new\_rooms\_01
- new\_rooms\_02
- new\_rooms\_03
- roof
- roof
- roof

Connect Spaces

new\_rooms\_03

Remove partitions

Add spaces:

roof

Select spaces to add to the current space using the mouse or the Space List on the Model Browser.

Use the Adjacency combo box to define adjacencies between constituent spaces.

Click on the Add button to add the selected spaces to the currently selected space.

Add

Close

Put focus on roof space above room\_03

Click on 'Add'

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

-12.35, -2.93, 3.28

|   | Room Name | Room ID  | Volume (m³) | Floor Area (m²) | Colour      | Layer      |
|---|-----------|----------|-------------|-----------------|-------------|------------|
| 📍 | roof      | ROOF0002 | 37.12       | 41.40           | 🟡 Colour 01 | 🟡 Layer 01 |

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ModelBuilder

ModellT: Building modeller

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ModellT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Model

- new\_rooms\_01
- new\_rooms\_02
- new\_rooms\_03
- roof
- roof

Connect Spaces

new\_rooms\_03

Remove partitions

Add spaces:

Select spaces to add to the current space using the mouse or the Space List on the Model Browser.

Use the Adjacency combo box to define adjacencies between constituent spaces.

Click on the Add button to add the selected spaces to the currently selected space.

Add

Close

8.30, 7.14, 0.08

After adding room\_02 and roof above, click 'Close'

Note 'blue' rectangle at join

|  | Room Name | Room ID  | Volume (m³) | Floor Area (m²) | Colour    | Layer    |
|--|-----------|----------|-------------|-----------------|-----------|----------|
|  | roof      | ROOF0002 | 37.12       | 41.40           | Colour 01 | Layer 01 |

Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

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Electrical

CFD

ModellT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Model

- new\_rooms\_01
- new\_rooms\_03
- roof

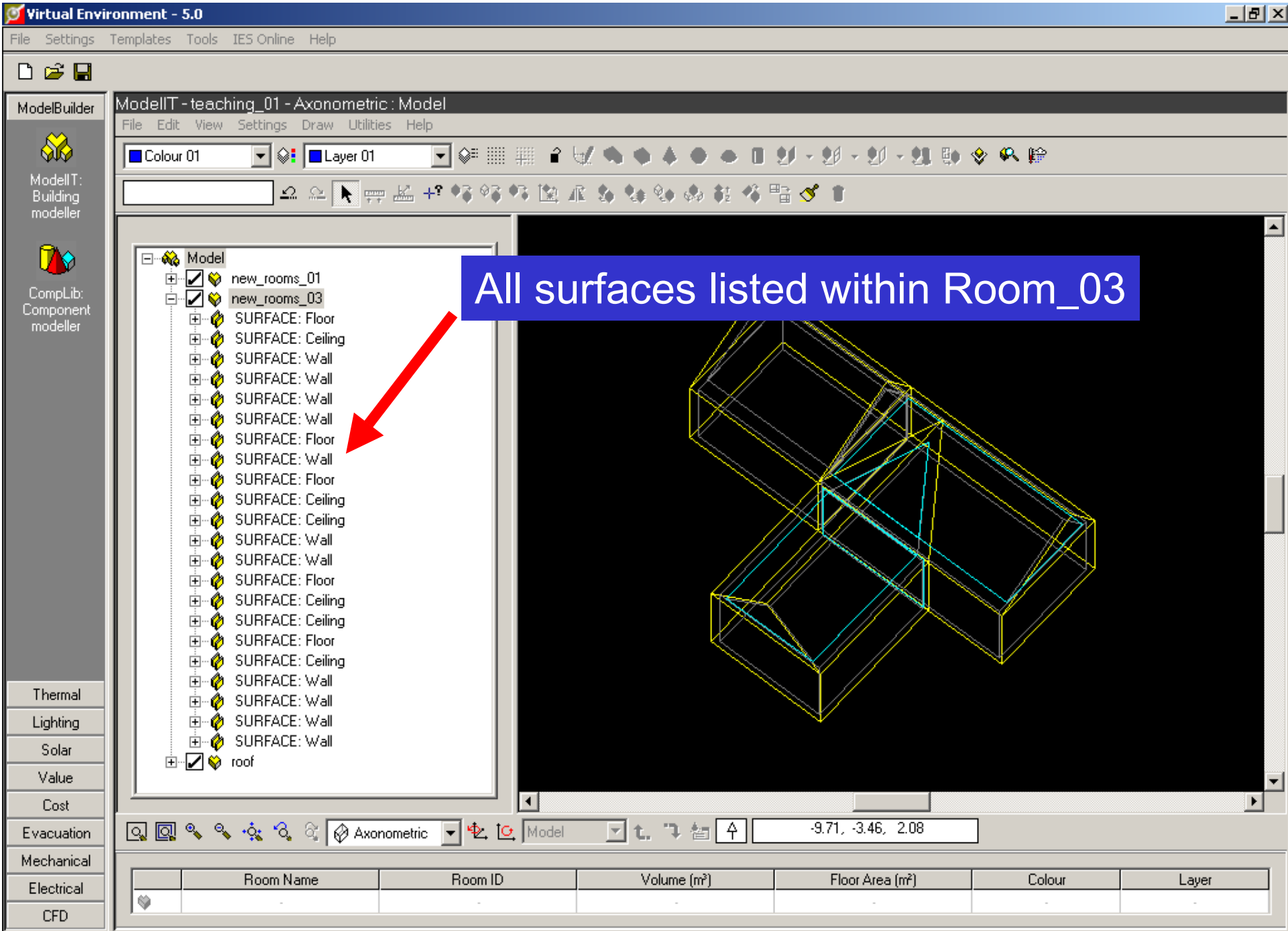
Four spaces are now connected

Axonometric

Model

-9.02, -8.04, -0.21

|  | Room Name    | Room ID  | Volume (m³) | Floor Area (m²) | Colour    | Layer    |
|--|--------------|----------|-------------|-----------------|-----------|----------|
|  | new_rooms_02 | NWRM0004 | 210.12      | 53.88           | Colour 01 | Layer 01 |



Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

ModellT - teaching\_01 - Axonometric : Space : Surface mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Model

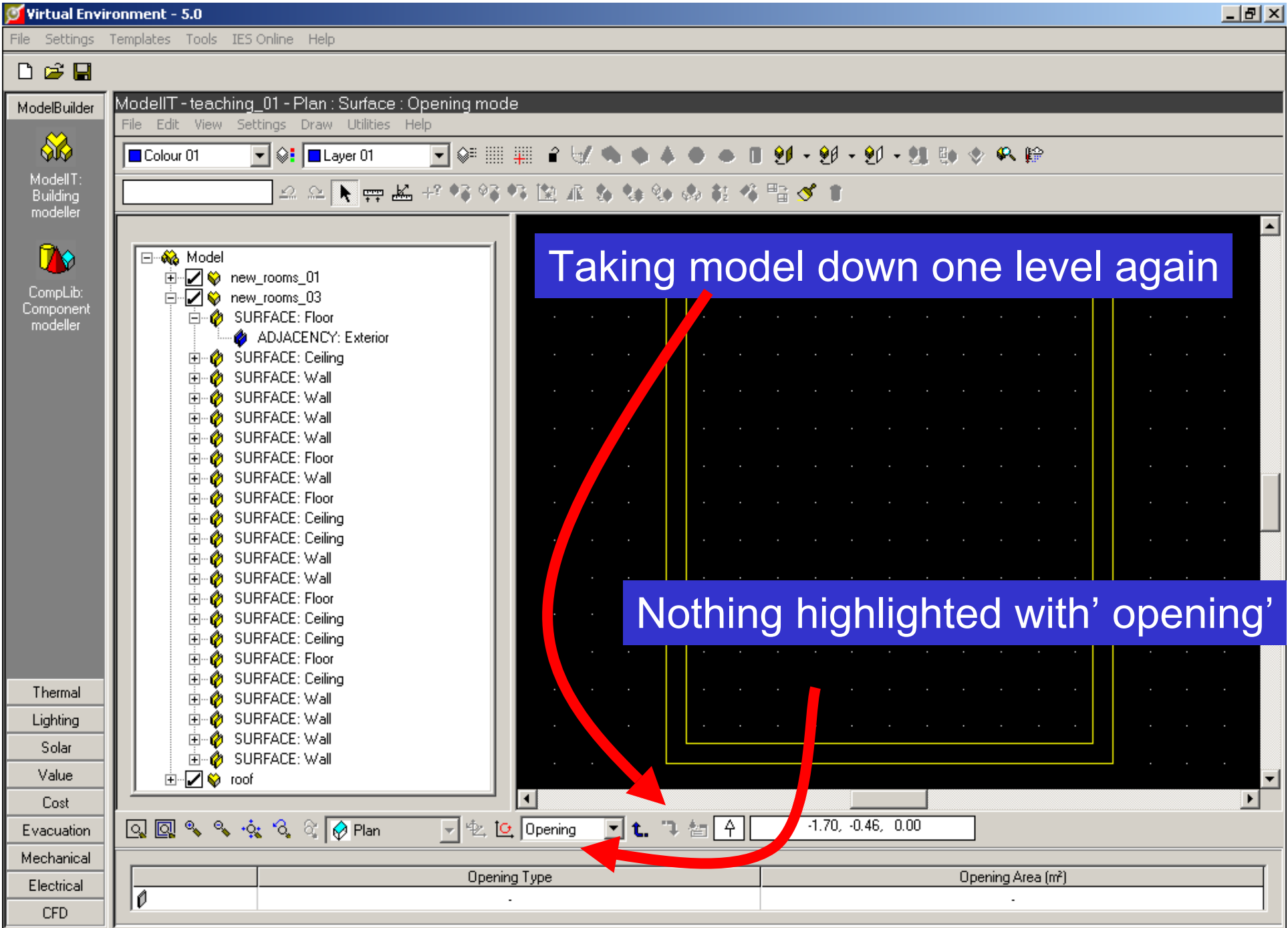
- new\_rooms\_01
- new\_rooms\_03
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Floor
  - SURFACE: Wall
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Ceiling
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Ceiling
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Wall
- roof

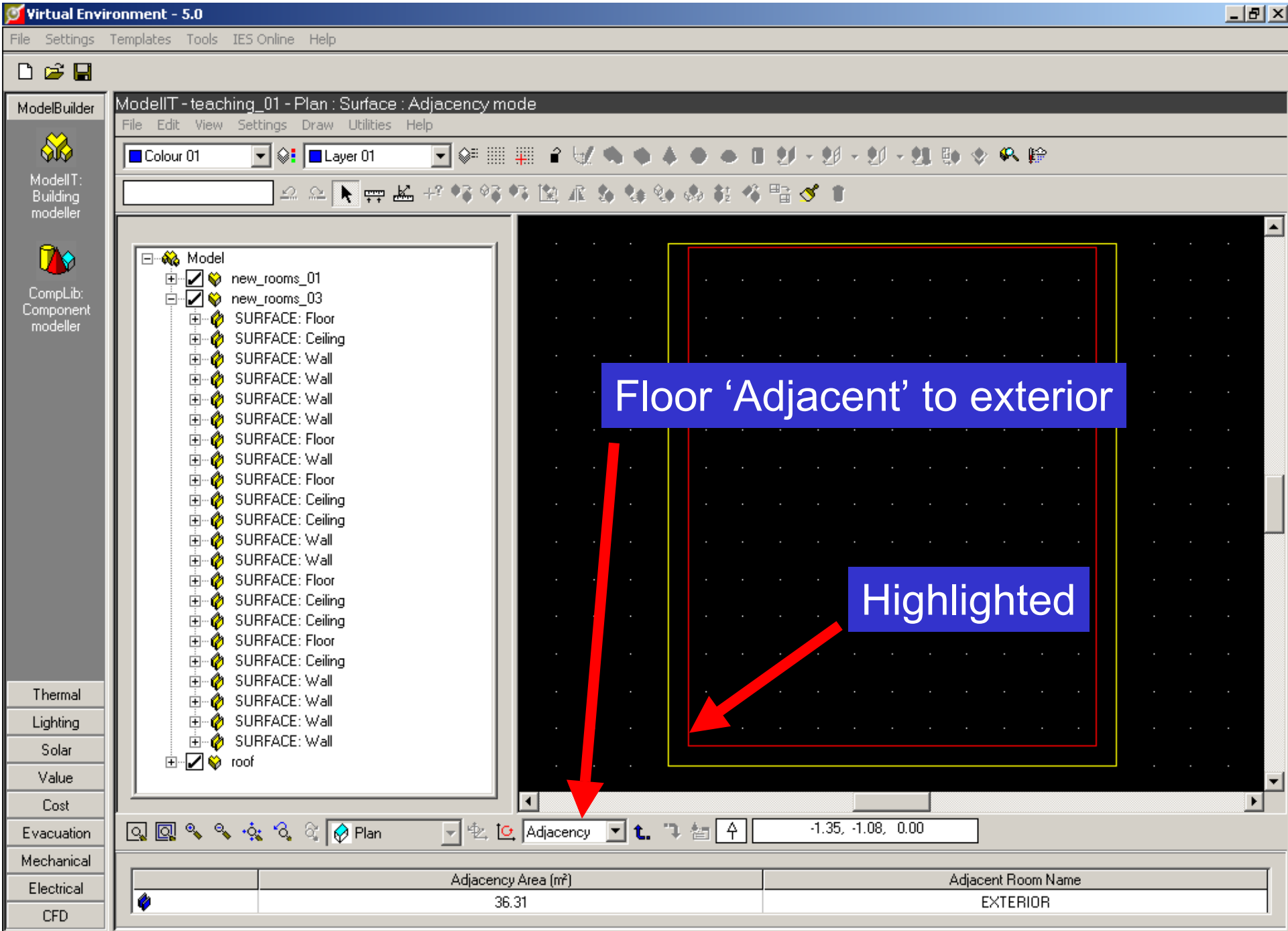
Taking the model 'down' one level

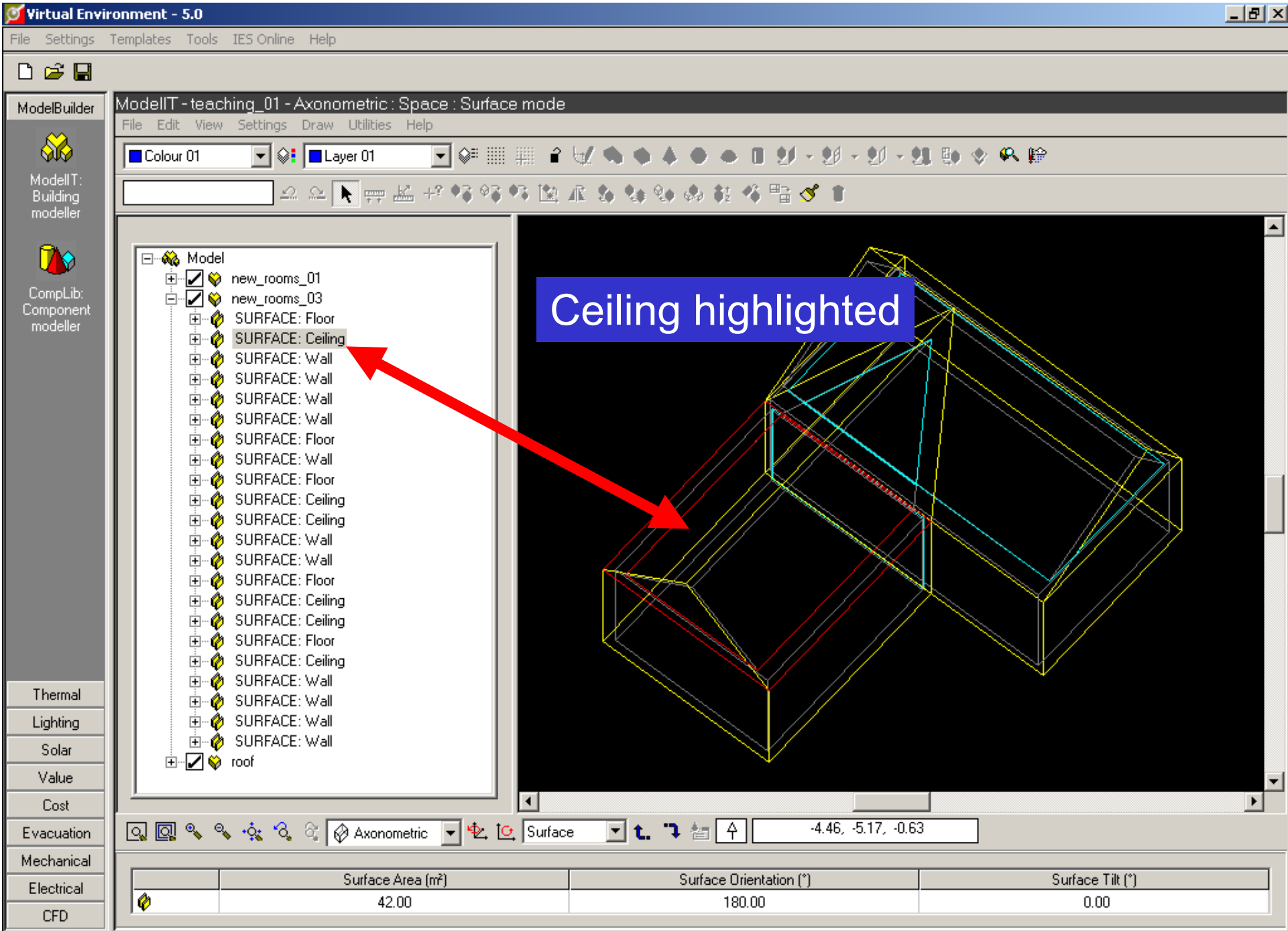
Focussing on floor

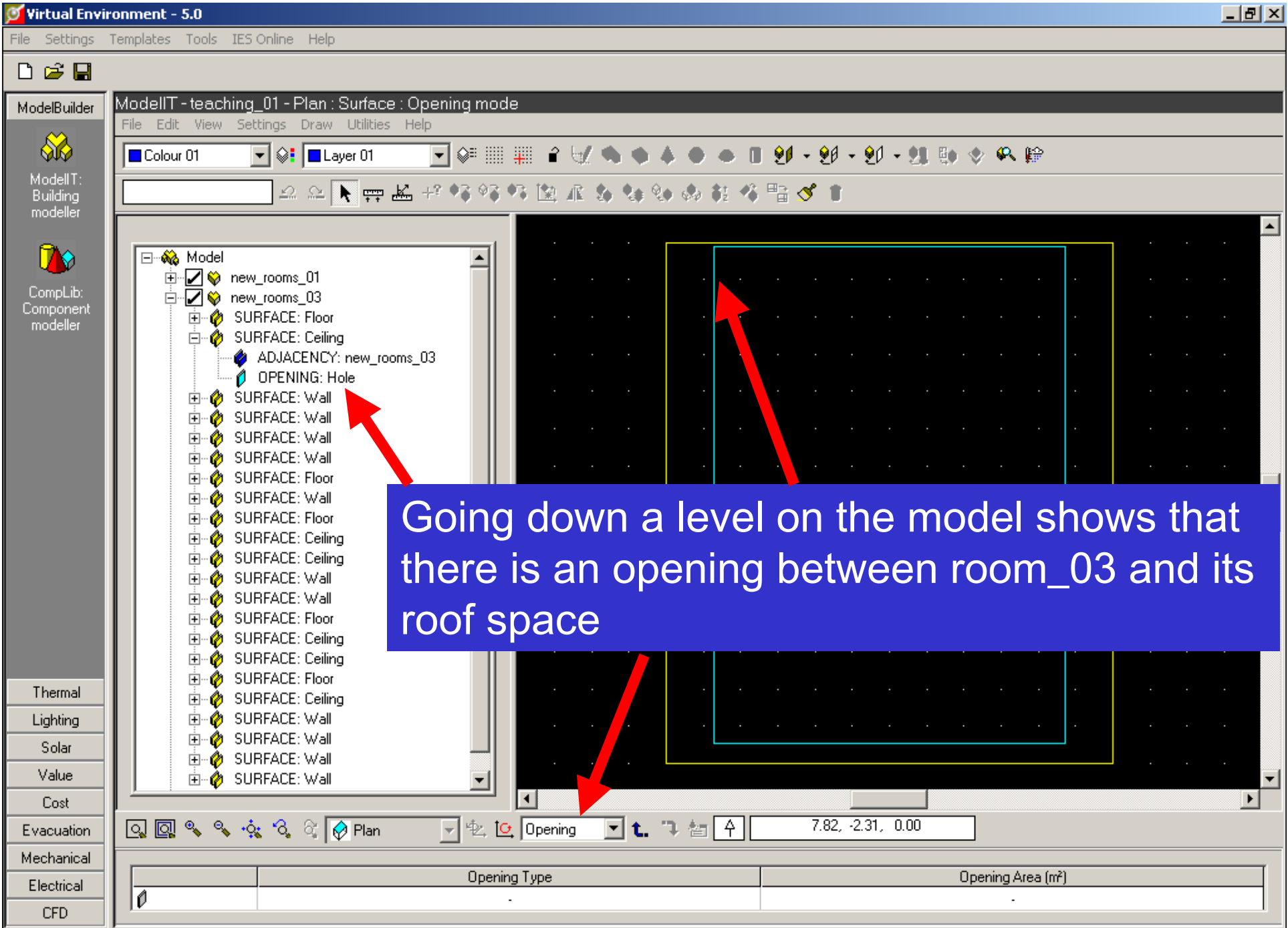
Axonometric Surface -7.46, 0.19, 2.86

|  | Surface Area (m <sup>2</sup> ) | Surface Orientation (°) | Surface Tilt (°) |
|--|--------------------------------|-------------------------|------------------|
|  | 42.00                          | 0.00                    | 180.00           |











ModelBuilder



ModellT:  
Building  
modeller



CompLib:  
Component  
modeller

- Thermal
- Lighting
- Solar
- Value
- Cost
- Evacuation
- Mechanical
- Electrical
- CFD

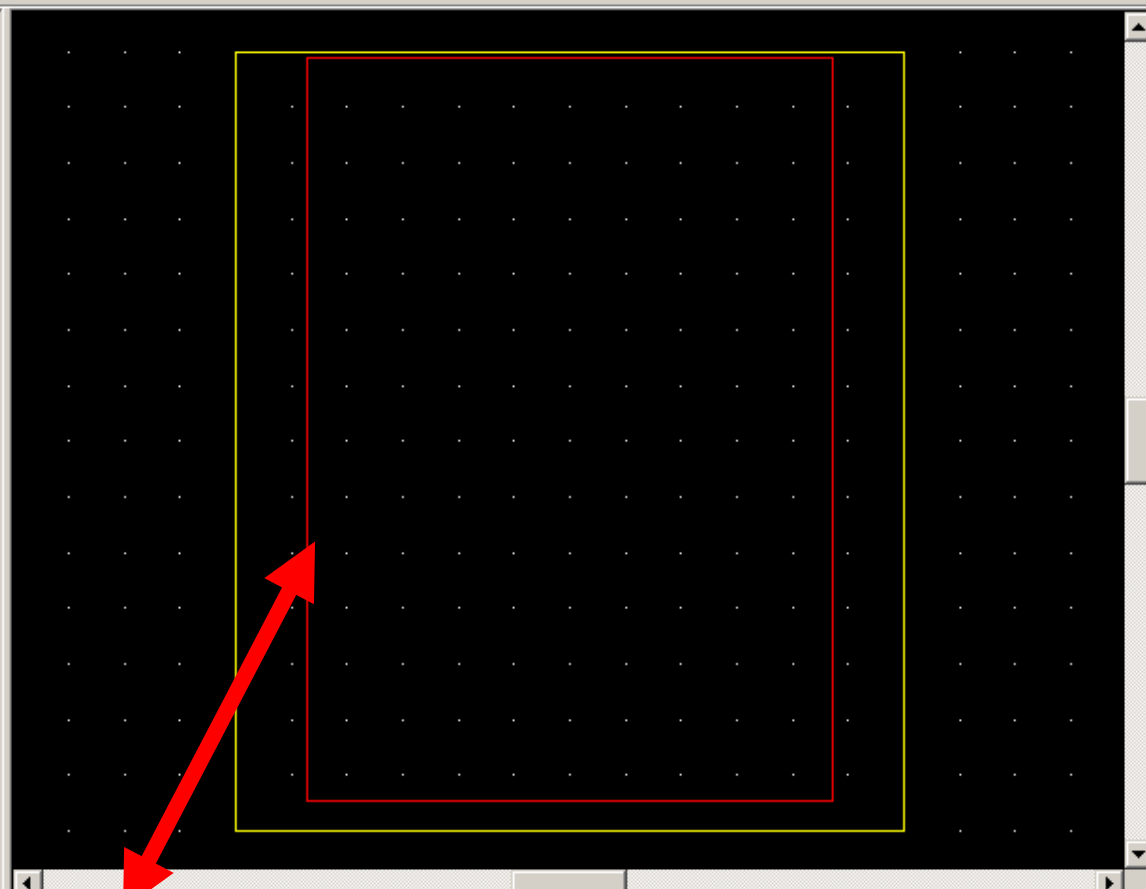
ModellT - teaching\_01 - Plan : Surface : Adjacency mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01 [Grid icons]

[Toolbar icons]

- Model
  - new\_rooms\_01
  - new\_rooms\_03
    - SURFACE: Floor
    - SURFACE: Ceiling
      - ADJACENCY: new\_rooms\_03
      - OPENING: Hole
    - SURFACE: Wall
    - SURFACE: Wall
    - SURFACE: Wall
    - SURFACE: Floor
    - SURFACE: Wall
    - SURFACE: Floor
    - SURFACE: Ceiling
    - SURFACE: Ceiling
    - SURFACE: Wall
    - SURFACE: Wall
    - SURFACE: Floor
    - SURFACE: Ceiling
    - SURFACE: Ceiling
    - SURFACE: Floor
    - SURFACE: Ceiling
    - SURFACE: Wall
    - SURFACE: Wall
    - SURFACE: Wall
    - SURFACE: Wall



[View icons] Plan Adjacency 5.34, -7.32, 0.00

|  | Adjacency Area (m²) | Adjacent Room Name |
|--|---------------------|--------------------|
|  | 0.00                | new_rooms_03       |

Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

ModellT - teaching\_01 - Axonometric : Space : Surface mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

- new\_rooms\_01
- new\_rooms\_03
  - SURFACE: Floor
  - SURFACE: Ceiling
  - ADJACENCY: new\_rooms\_03
  - OPENING: Hole
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Floor
  - SURFACE: Wall
  - SURFACE: Floor
  - ADJACENCY: new\_rooms\_03
  - OPENING: Hole
  - SURFACE: Ceiling
  - SURFACE: Ceiling
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Ceiling
  - SURFACE: Floor
  - SURFACE: Ceiling
  - SURFACE: Wall
  - SURFACE: Wall
  - SURFACE: Wall

Axonometric Surface -8.25, 1.07, 3.53

|  | Surface Area (m <sup>2</sup> ) | Surface Orientation (°) | Surface Tilt (°) |
|--|--------------------------------|-------------------------|------------------|
|  | 42.00                          | 0.00                    | 180.00           |

Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

ModellT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

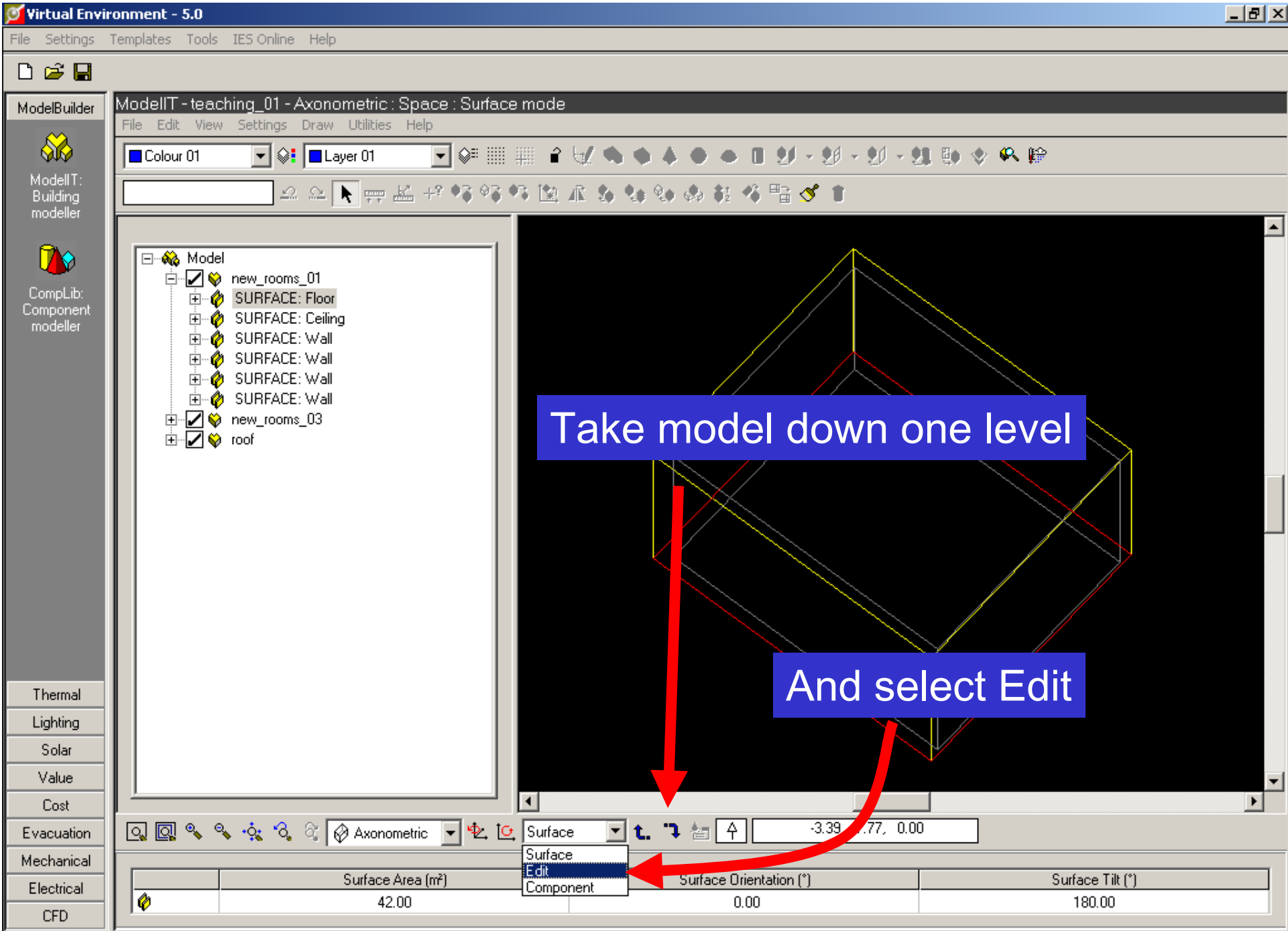
Model

- new\_rooms\_01
- new\_rooms\_03
- roof

Focussing on room\_01

Axonometric Model -11.91, -0.92, 4.01

|   | Room Name    | Room ID  | Volume (m³) | Floor Area (m²) | Colour      | Layer      |
|---|--------------|----------|-------------|-----------------|-------------|------------|
| 📁 | new_rooms_01 | NWRM0003 | 141.62      | 36.31           | 🟡 Colour 01 | 🟡 Layer 01 |



Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelIT - teaching\_01 - Axonometric : Space : Edit mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

Edit Space

Divide Space Separate Composite Space Edit Vertices

Cutting plane coordinates:

|              | X        | Y        | Z        |
|--------------|----------|----------|----------|
| Coordinate 1 | -3.50000 | -1.00000 | -1.00000 |
| Coordinate 2 | -3.50000 | -1.00000 | 5.00000  |
| Coordinate 3 | -3.50000 | 7.00000  | 5.00000  |

Generate Plane

Enter three coordinates to define the cutting plane and click on the Generate Plane button to create the cutting plane. Click on the Divide Space button to create the composite space.

Divide with partitions

Divide Space

Click on tab 'Divide Space'

Axonometric Edit -4.30, -2.58, 0.45

|  | Surface Area (m²) | Surface Orientation (°) | Surface Tilt (°) |
|--|-------------------|-------------------------|------------------|
|  |                   |                         |                  |

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Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

ModellT - teaching\_01 - Axonometric : Space : Edit mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

**Choose 3 co-ordinates that define a plane**

Edit Space

Divide Space Separate Composite Space Edit Vertices

Cutting plane coordinates:

|              | X        | Y        | Z       |
|--------------|----------|----------|---------|
| Coordinate 1 | -4.50000 | -1.00000 | 0.00000 |
| Coordinate 2 | -4.50000 | -1.00000 | 5.00000 |
| Coordinate 3 | -4.50000 | 7.00000  | 5.00000 |

Generate Plane

Enter three coordinates to define the cutting plane and click on the Generate Plane button to create the cutting plane. Click on the Divide Space button to create the composite space.

Divide with partitions

Divide Space

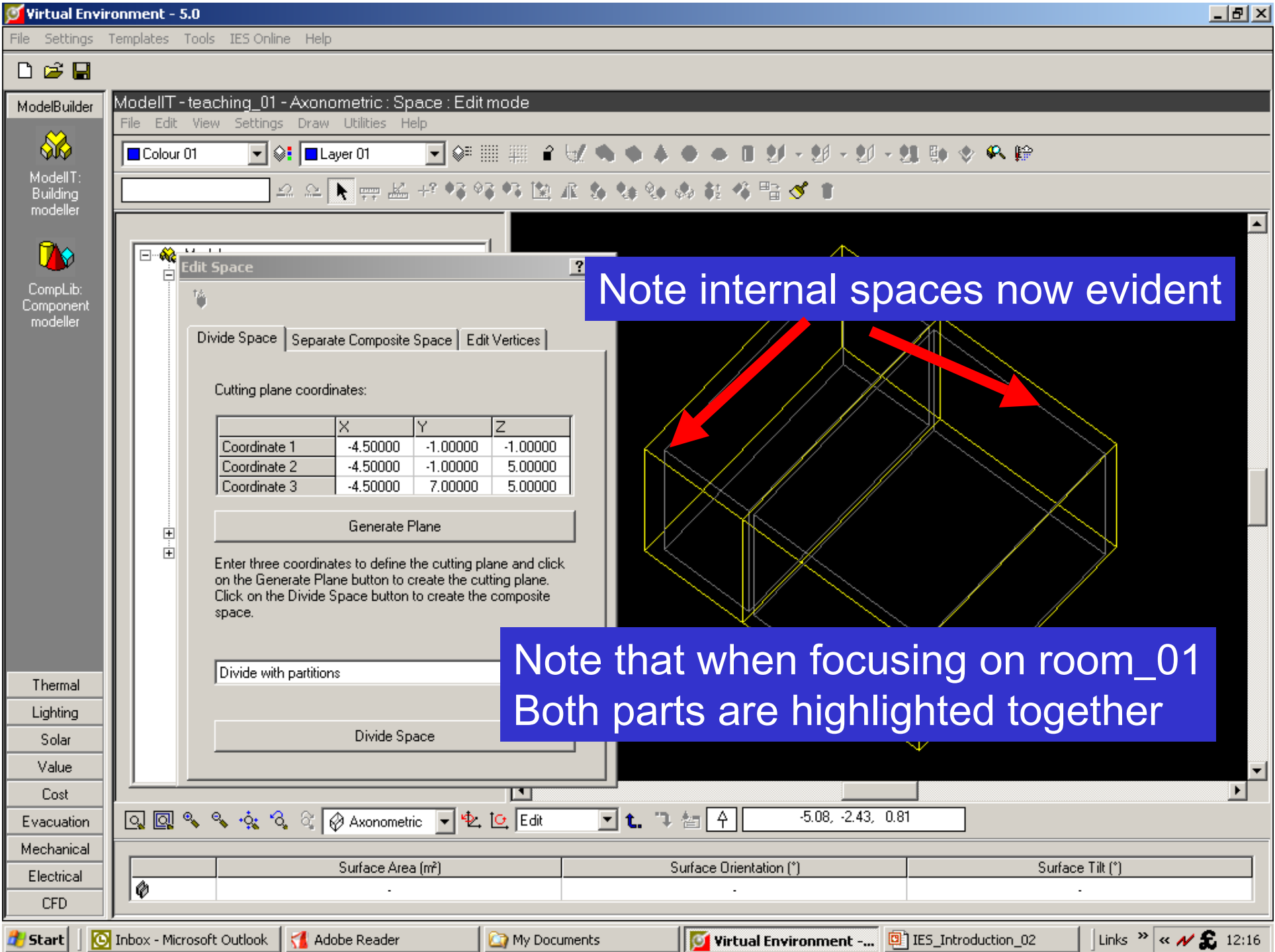
**Click to generate a plane**

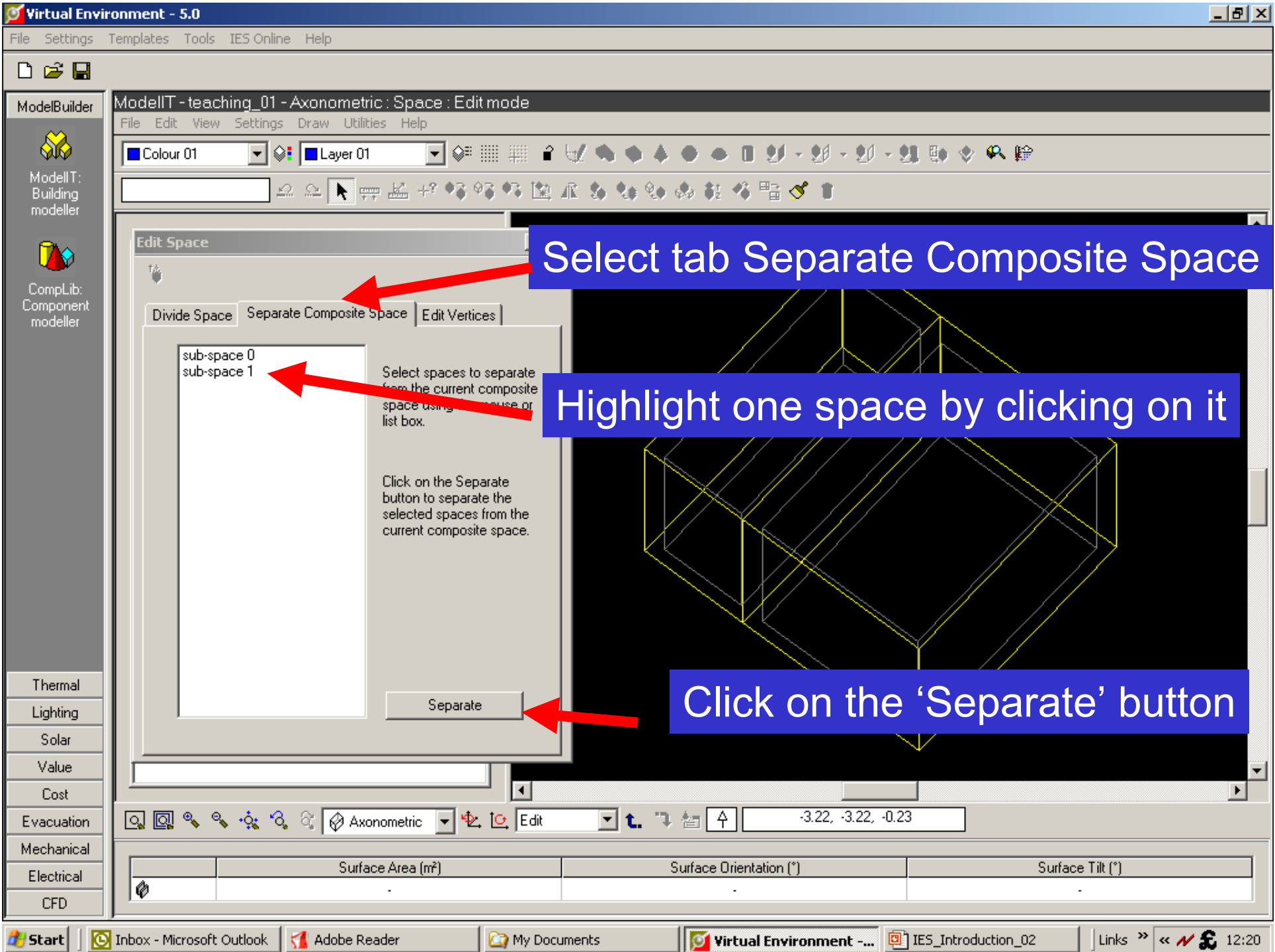
**If as wanted?, click 'Divide Space'**

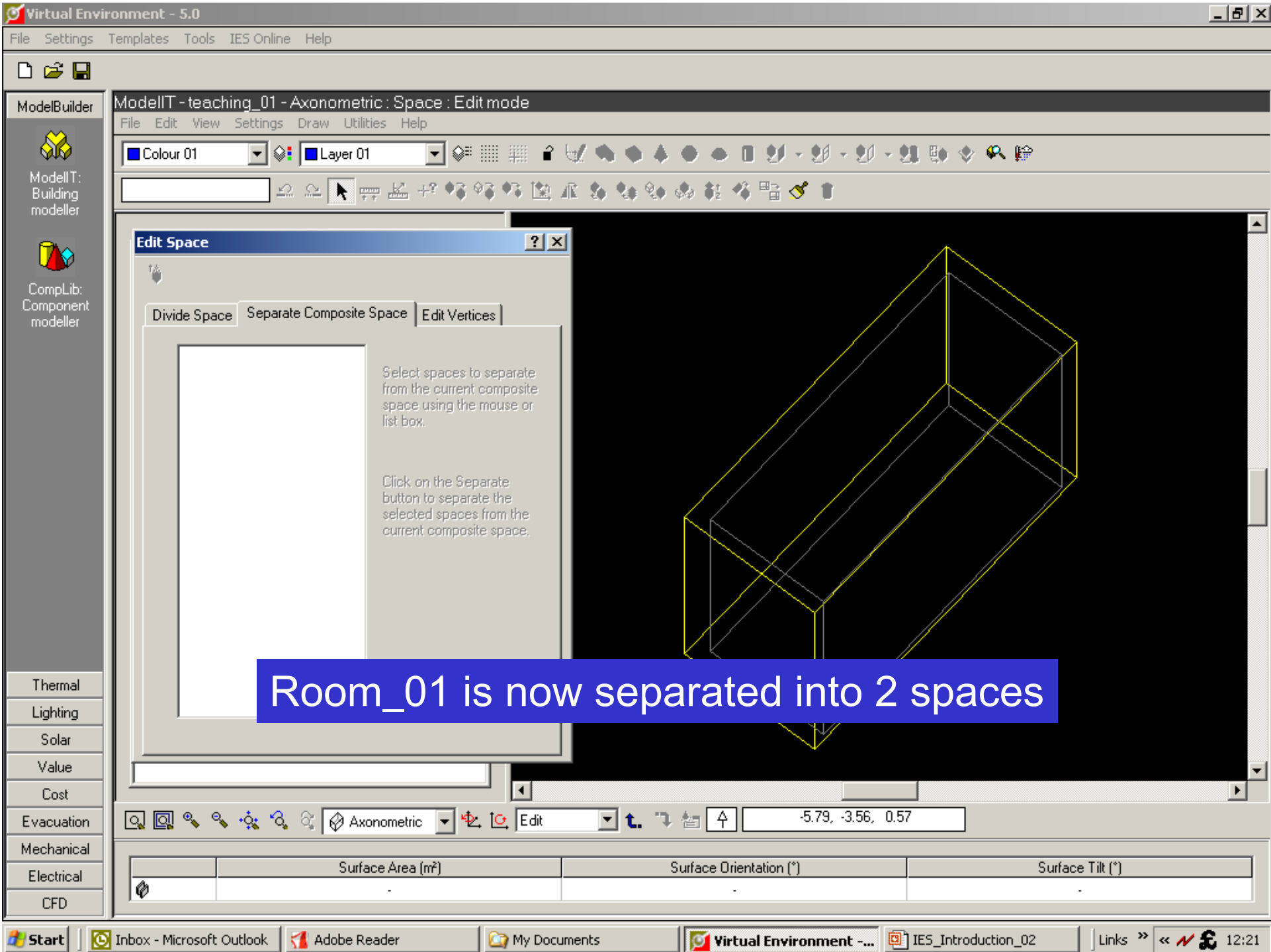
Axonometric Edit -6.27, -1.58, 1.63

|  | Surface Area (m²) | Surface Orientation (°) | Surface Tilt (°) |
|--|-------------------|-------------------------|------------------|
|  |                   |                         |                  |

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Virtual Environment - 5.0

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ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

Lighting

Solar

Value

Cost

Evacuation

Mechanical

Electrical

CFD

ModellT - teaching\_01 - Axonometric : Model

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

Each can be focussed on separately

- roof
  - new\_rooms\_01
    - SURFACE: Wall
      - ADJACENCY: new\_rooms\_01
    - SURFACE: Ceiling
      - ADJACENCY: roof
    - SURFACE: Wall
      - ADJACENCY: Exterior
    - SURFACE: Floor
      - ADJACENCY: Exterior
    - SURFACE: Wall
      - ADJACENCY: Exterior
    - SURFACE: Wall
      - ADJACENCY: new\_rooms\_03
  - new\_rooms\_01
    - SURFACE: Wall
      - ADJACENCY: new\_rooms\_01
    - SURFACE: Ceiling
      - ADJACENCY: roof
    - SURFACE: Wall
      - ADJACENCY: Exterior
    - SURFACE: Floor
      - ADJACENCY: Exterior
    - SURFACE: Wall
      - ADJACENCY: Exterior
    - SURFACE: Wall
      - ADJACENCY: Exterior

Axonometric Model

-4.41, -9.04, -2.36

|   | Room Name    | Room ID  | Volume (m³) | Floor Area (m²) | Colour      | Layer      |
|---|--------------|----------|-------------|-----------------|-------------|------------|
| 📁 | new_rooms_01 | NWRM0006 | 92.90       | 23.82           | 🟡 Colour 01 | 🟡 Layer 01 |

Virtual Environment - 5.0

File Settings Templates Tools IES Online Help

ModelBuilder

ModellT: Building modeller

CompLib: Component modeller

Thermal

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Solar

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ModellT - teaching\_01 - Axonometric : Space : Surface mode

File Edit View Settings Draw Utilities Help

Colour 01 Layer 01

roof

- new\_rooms\_01
  - SURFACE: Wall
    - ADJACENCY: new\_rooms\_01
  - SURFACE: Ceiling
    - ADJACENCY: roof
  - SURFACE: Wall
    - ADJACENCY: Exterior
  - SURFACE: Floor
    - ADJACENCY: Exterior
  - SURFACE: Wall
    - ADJACENCY: Exterior
  - SURFACE: Wall
    - ADJACENCY: new\_rooms\_03
- new\_rooms\_01
  - SURFACE: Wall
    - ADJACENCY: new\_rooms\_01
  - SURFACE: Ceiling
    - ADJACENCY: roof
  - SURFACE: Wall
    - ADJACENCY: Exterior
  - SURFACE: Floor
    - ADJACENCY: Exterior
  - SURFACE: Wall
    - ADJACENCY: Exterior
  - SURFACE: Wall
    - ADJACENCY: Exterior

Go down one level and Focus onto adjoining wall

Axonometric Surface -1.91, -1.93, -0.14

|  | Surface Area (m <sup>2</sup> ) | Surface Orientation (°) | Surface Tilt (°) |
|--|--------------------------------|-------------------------|------------------|
|  | 24.00                          | 270.00                  | 90.00            |