Course goals

- Understanding what is BIM
- Learning how to access and navigate models on your iPad
- Learning how access the data
I. WHAT IS BIM
What is BIM?

BUILDING 3D MODEL + INFORMATION + MODELLING

BUILDING INFORMATION MODELING
What is BIM?

BUILDING 3D MODEL + INFORMATION + MODELLING

BUILDING INFORMATION MODELING
WMU BIM: EXISTING BUILDING AND NEW BUILDING

082 Dalton

Existing Building Model

What is in it? Mechanical equipment (8 categories)
What information you can find? 20 types of information

149 Zhang Legacy Building

New Building Model

What is in it? All the MEP and Technological systems
What information you can find? Various information
**EXISTING BUILDING:** Mechanical equipment

**WHAT EQUIPMENT CAN YOU SEARCH IN THE MODEL?**

8 different Categories of Mechanical equipment

<table>
<thead>
<tr>
<th>Type</th>
<th>Sub-type (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Handling Unit</td>
<td>Air handler, Roof top unit</td>
</tr>
<tr>
<td>Air Compressor</td>
<td>House Air, Control Air</td>
</tr>
<tr>
<td>Chiller</td>
<td>Electric – Centrifugal, Steam Absorption, Electric - Screw-type, Recipricating, Electric – Rotary,</td>
</tr>
<tr>
<td>Condensate Equipment</td>
<td>Condensate Pump</td>
</tr>
<tr>
<td>Cooling Tower</td>
<td>Air Cooled, Gear Box, Free Cooler, Evaporative</td>
</tr>
<tr>
<td>Fan</td>
<td>Exhaust Fan, Return Fan, Supply Fan, Strobic Exhaust Fan, Relief Air Fan, Smoke Purge</td>
</tr>
<tr>
<td>Refrigeration Equipment</td>
<td>Condensing Units, Furnace, AC</td>
</tr>
</tbody>
</table>

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### #20 Types of information

- WMU_SUBTYPE DESC
- WMU_TYPE DESC
- DESCRIPTION
- WMU_TAG #
- WMU_LOCATION
- WMU_MANUFACTURER
- WMU_MODEL #
- WMU_SERIAL #
- WMU_FILTER TYPE
- WMU_FILTER SIZE
- WMU_FILTER QUANTITY
- WMU_MOTOR ID
- WMU_MOTOR MODEL #
- WMU_MOTOR SERIAL #
- WMU_MOTOR HP
- WMU_MOTOR FRAME
- WMU_BEARING/COUPLING SIZE
- WMU_BELT NAME
- WMU_BELT SIZE
- WMU_BELT QUANTITY

### Additional Documents

- SEQUENCE OF OPERATION
- SUBMITTAL
- PUMP CURVE
- O&M
- FAN CURVE

### Web Links

- Web links
2. HOW TO ACCESS THE BUILDING
HOW TO ACCESS THE BUILDING: webTech

Step 1: Open “webTech” App on your iPad

Step 2: Open floorplans

Step 3: Select building and click search

Step 4: Click on “as NWD” in the Glue tab.

..and click open in BIM 360
HOW TO ACCESS THE BUILDING: BIM360 Glue

Exit to models
Exit to browse the models

Navigation Pane
Main buttons to browse the model

Home
3D view of the exteriors

Help button

Building #145
College of Health & Human Services
HOW TO ACCESS THE BUILDING: BIM360 Glue
HOW TO ACCESS THE BUILDING: Views

Room number on the floor
HOW TO ACCESS THE BUILDING: Views
HOW TO ACCESS THE BUILDING: Views
HOW TO ACCESS THE BUILDING: Views
HOW TO ACCESS THE BUILDING: Views

Hit again to hide the right panel
3. HOW TO NAVIGATE THE 3D MODEL
BIM360 GLUE: Navigation pane

Open mechanical view for room # 2014

Keep pressed and move up

Walk
Walks straight frontward or backward

Keep pressed and move right

Turning around
Turns your head around in your actual position
Look Around

Moves your head around in your actual position

Keep pressed and move your IPAD
BIM360 GLUE: Navigation pane

Just press once, then use joystick.

GRAVITY button
You won't walk through walls and stuff, and you can actually walk up the stairs!
BIM360 GLUE: Navigation using the touchscreen

Open mechanical view for room # 0001-5

1 FINGER

Rotate

Tip:
if you select an object, a piece of equipment for instance, the rotation will be around the object axis

2 FINGERS

Zoom out

Zoom in

Move
4. HOW TO ACCESS INFORMATION AND DOCUMENT THAT YOU NEED
HOW TO ACCESS INFORMATION AND DOCUMENTS

THE INFORMATION IN THE MODELS

WHERE DO YOU FIND THEM?

#20 Types of information

- WMU_SUBTYPE_DESC
- WMU_TYPE_DESC
- DESCRIPTION
- WMU_TAG #
- WMU_LOCATION
- WMU_MANUFACTURER
- WMU_MODEL #
- WMU_SERIAL #
- WMU_FILTER_TYPE
- WMU_FILTER_SIZE
- WMU_FILTER_QUANTITY
- WMU_MOTOR_ID
- WMU_MOTOR_MODEL #
- WMU_MOTOR_SERIAL #
- WMU_MOTOR_HP
- WMU_MOTOR_FRAME
- WMU_BEARING/COUPLING_SIZE
- WMU_BELT_NAME
- WMU_BELT_SIZE
- WMU_BELT_QUANTITY

Additional Documents

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Web Links
HOW TO ACCESS INFORMATION: Properties

Open mechanical view for room # 0001-5 and touch the mechanical equipment.

- Hide
- Properties
- Isolate
HOW TO ACCESS INFORMATION: Properties
HOW TO ACCESS DOCUMENTS: Web links through file finder
HOW TO ACCESS DOCUMENTS: Web links through file finder
3D EQUIPMENT: Multi-components

- Air handler
- Supply Fan
3D EQUIPMENT: Multi-components
Click on the properties to go one step up to find the element tab.
Summary

☑ What is BIM
☑ How to access models on your IPad
☑ Finding mechanical equipment information
☑ Retrieve pdf’s and documentation