Autodesk University Round Table Summary

SESSION TITLE	Saving the World One Building at a Time: BIM for O&M and LEED® EBOM Certification
SESSION ID	FM3102-R
SPEAKER	Andrew Fisher
COMPANY	DPR

MAIN DISCUSSION POINTS

- Who has the right to pursue improvement of existing buildings/ projects? Do we share 'our' BIM with 'them'?
- What potential do we see in Autodesk software for adding value to an O&M conversation with owners?
- What sort of experiences have we in the room had when working on LEED Certification or other green rating systems?
- What other technologies are out there to help us move forward on existing building improvement?

KEY TAKE-AWAYS

- We (AEC professionals) aren't interested in simply giving our Revit (or other) models to someone else for downstream benefit.
  - o From the owner perspective, models that we get at handover are ours and we are going to do what we want with this information.
  - o NOTE: The example given in course slides related back to an audience member, who was approaching Existing Building O&M from a software vendor perspective, not AEC
- Sharing a model is one thing – validating a model is yet another.
- Ultimately owner's need to be more active in these conversations in regards to their buildings.
  - o Even if A/E/C don't want to share (and intellectual property rights may come into play here) there's too much 'this is ours' going on and BIM should be a benefit to owners.
- There's a sustainable education program that can help anyone get started using Autodesk software (See follow-up notes below)
- BIM 360 Field seems like a good mobile solution for the capture of ongoing data/ could be customized for the data capture we care about doing in the LEED EBOM process. What else is out there?
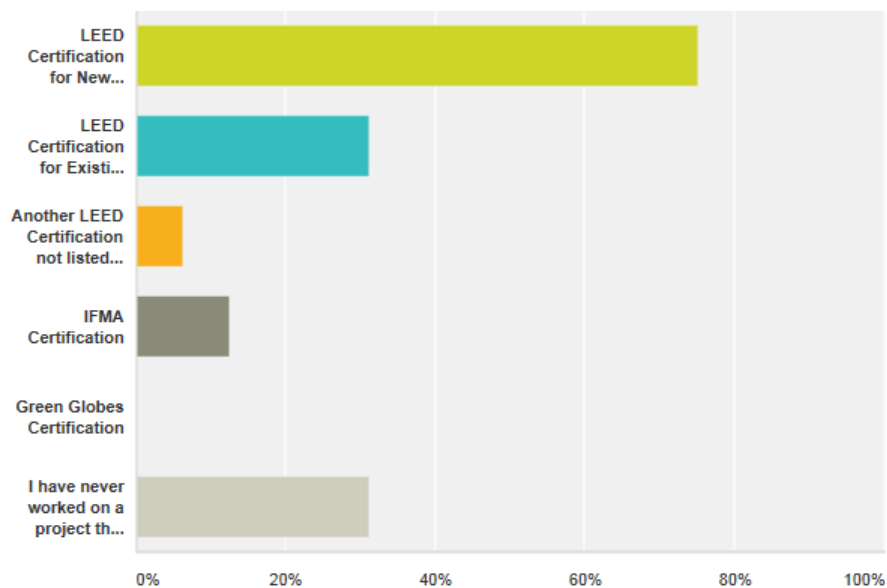
Autodesk University Round Table Summary

- There have been several projects on Kickstarter focused on the measurement of real world conditions with technology as ubiquitous as an iPhone.
- The 'redked' handheld scanner purports to build models as you scan.
- Laser scanning should be more cost-effective than updating existing CAD/BIM at this point…

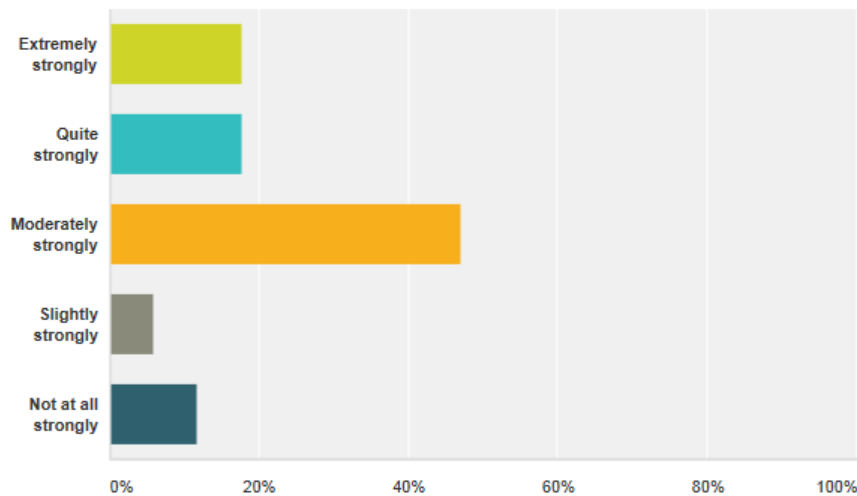

- LEED – some of us like it, some don't… in cases where LEED is not a lead-in to getting work there may be other considerations – California is a good example with 'AB1103' requirements for energy reporting. This is something pretty much all commercial real estate folks are going to need to address (the penalty for not providing the energy reporting is the state holding up sale of or lease of the whole building)
- The GSA said that the Green Globes program is as good as LEED… none of us have any experience with it.
- Verification with point clouds relies on a scan, but certain building types, like healthcare, present their own challenges, particularly in scanning for above-ceiling equipment. Disrupting an plenum-based air return could mean shutting down a whole wing of a hospital …
- We wish there were something that could take a scan into a model, not just a point cloud… supposedly Rand (an Autodesk reseller) has an add-on application that begins to do this.

How strongly do you believe in the positive effect of LEED certified buildings on people, on the planet and on profit?

Answered: 17   Skipped: 0

Extremely strongly
Quite strongly
Moderately strongly
Slightly strongly
Not at all strongly

0%   20%   40%   60%   80%   100%

- Some applied strategies that we've had success with: Phantom load kill switch, LED lighting and controls, mechanically operated windows tied to the overall AC system
- Working in a LEED building has meant different sorts of issues with maintenance staff education
- Do sick days go down? Yes – according to the experiences of two people in the room.
  - NOTE: this specific question was raised due to DPR's experience in achieving LEED EBOM on a multi-tenant space. USGBC was interested in telling the story of reduced sick days, but one of the building tenants would not divulge this information.
- LED lighting is not a simple change-out; implementation means a total re-think of the lighting scheme
- Simply saying 'I want LED' doesn't solve it. Typical efficiency ranges from 100lum/watt (poor) to 150lum/watt for more advanced systems.
- Are we feeling sustainability fatigue?
  - Many states/ AHJs push back – in situations where LEED seems like all talk and no action
  - Interest in sustainability is sustained (no pun intended) with younger generations
  - LEED in particular doesn't seem to have much to do about re-use of existing equipment. Could there be a metric on the value of the existing building equipment vs first cost less efficiency of new systems?
- Utility metering (sub-metering) question – why is this expensive? Lighting and HVAC are on different systems so there's at least a start in divvying up costs.

Autodesk University Round Table Summary

SUGGESTED FOLLOW-UP

- Anyone interested in sustainability education for Revit, Vasari and Green Building Studio can take advantage of Autodesk's online on-demand learning resources at: http://sustainabilityworkshop.autodesk.com/courses

- Some open questions that suggest more research: What are the advantages to different certifications? Is there a regional distinction? Bringing BIM data into FM – is there a best in class solution? A favored software at this point?