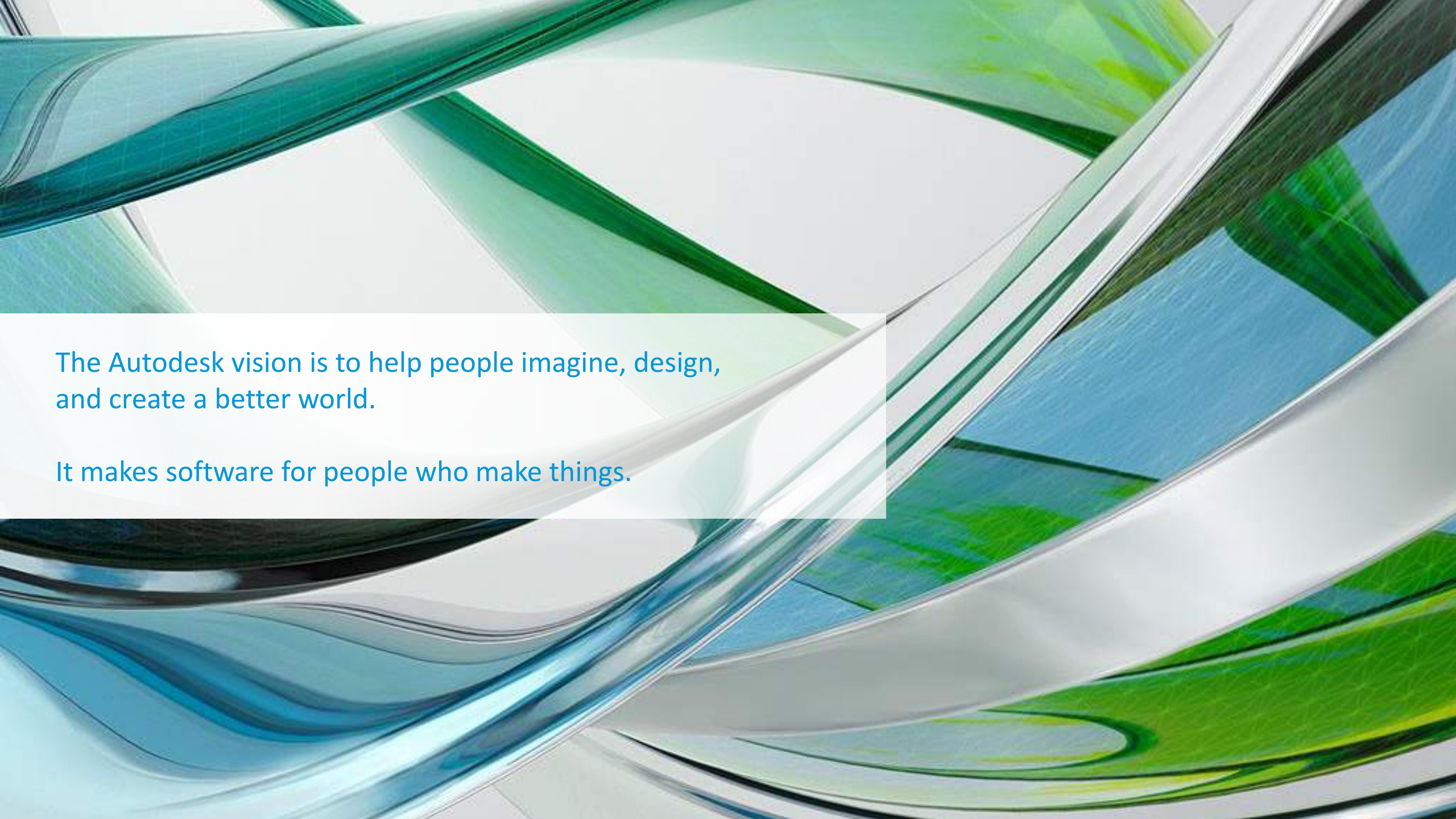




INAA @Autodesk

ELMER BOL

NOV 16TH 2018

The background of the slide is an abstract composition of flowing, organic shapes in various shades of green and blue. These shapes overlap and curve, creating a sense of movement and depth. A semi-transparent white rectangular box is positioned on the left side of the image, containing two lines of text.

The Autodesk vision is to help people imagine, design,
and create a better world.

It makes software for people who make things.



Industries:

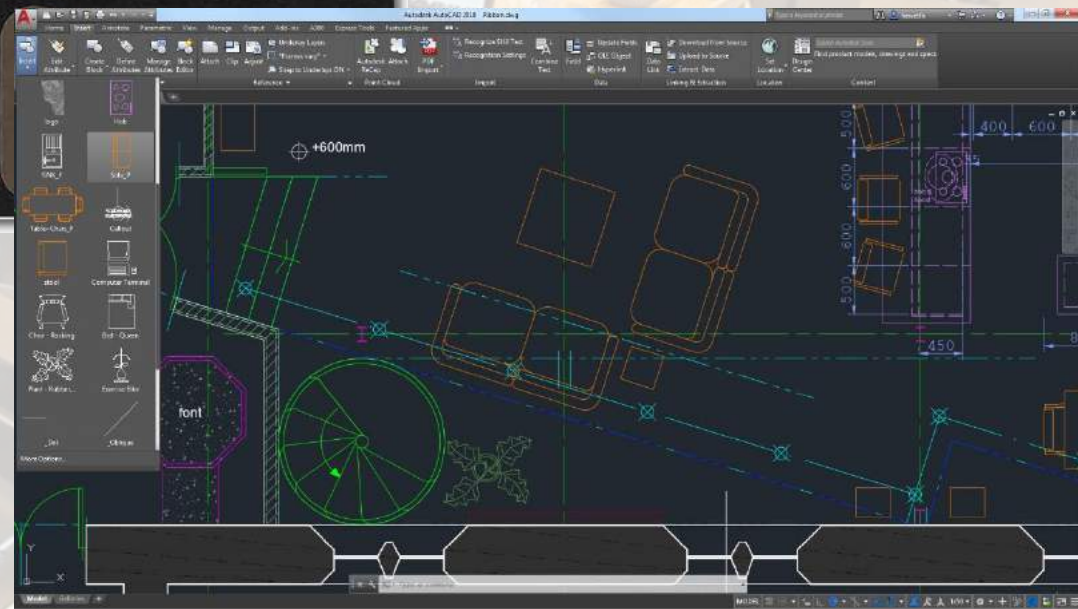
Architecture Engineering & Construction
Manufacturing
Media & Entertainment

Design Technologies:

Digital Prototyping
Building Information Modeling (BIM)
Digital Entertainment Creation (DEC)
Design visualization

Key Figures

- ▶ Founded in 1982
- ▶ 9000 employees
- ▶ 2\$+ billion revenue
- ▶ 95+ offices across the world



AUTODESK®



A startup story

FROM AN ATTIC IN HOLLAND TO SILICON VALLEY

ALICE LABS

Where it all started...

- ▶ **2000**: Elmer and Ronald meet
- ▶ **2007**: first talks on developing software
- ▶ **2008**: first code written.
Working with Dutch Police
- ▶ **2009**: Alice Labs founded with launch of first product (full time programmer, Elmer & Ronald next to day job)



Alice Labs: a Reality Capture company

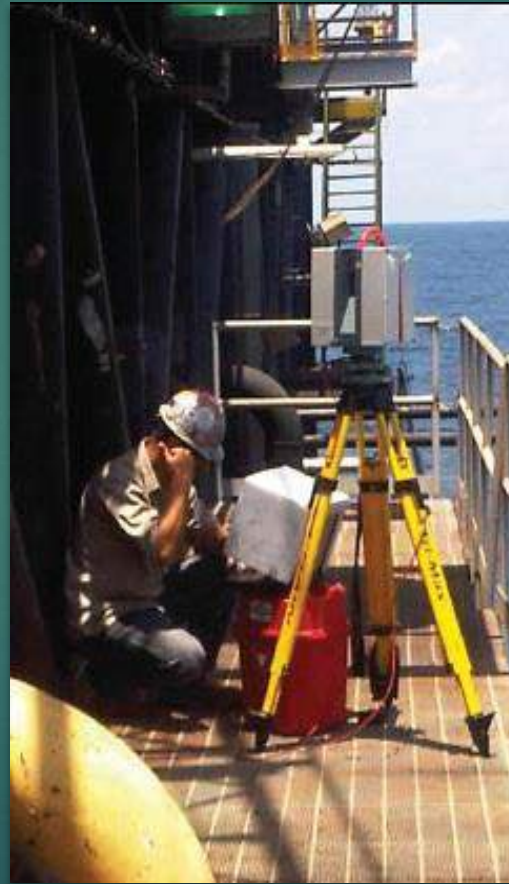
The opportunity:

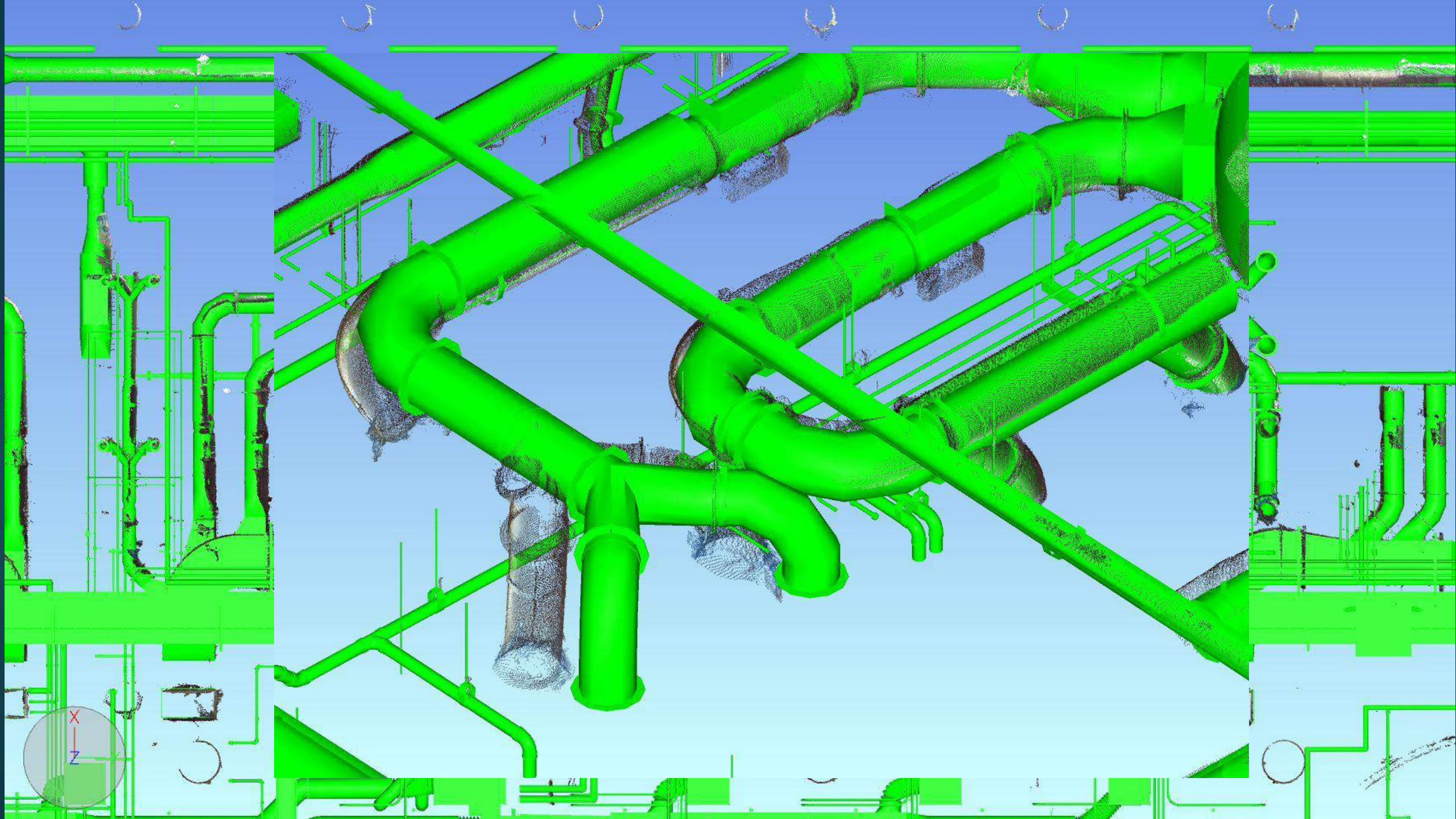
- ▶ Software to visualize and work with point clouds was difficult to use and expensive
- ▶ It was very hard to work with point clouds because you cannot understand what you are looking at

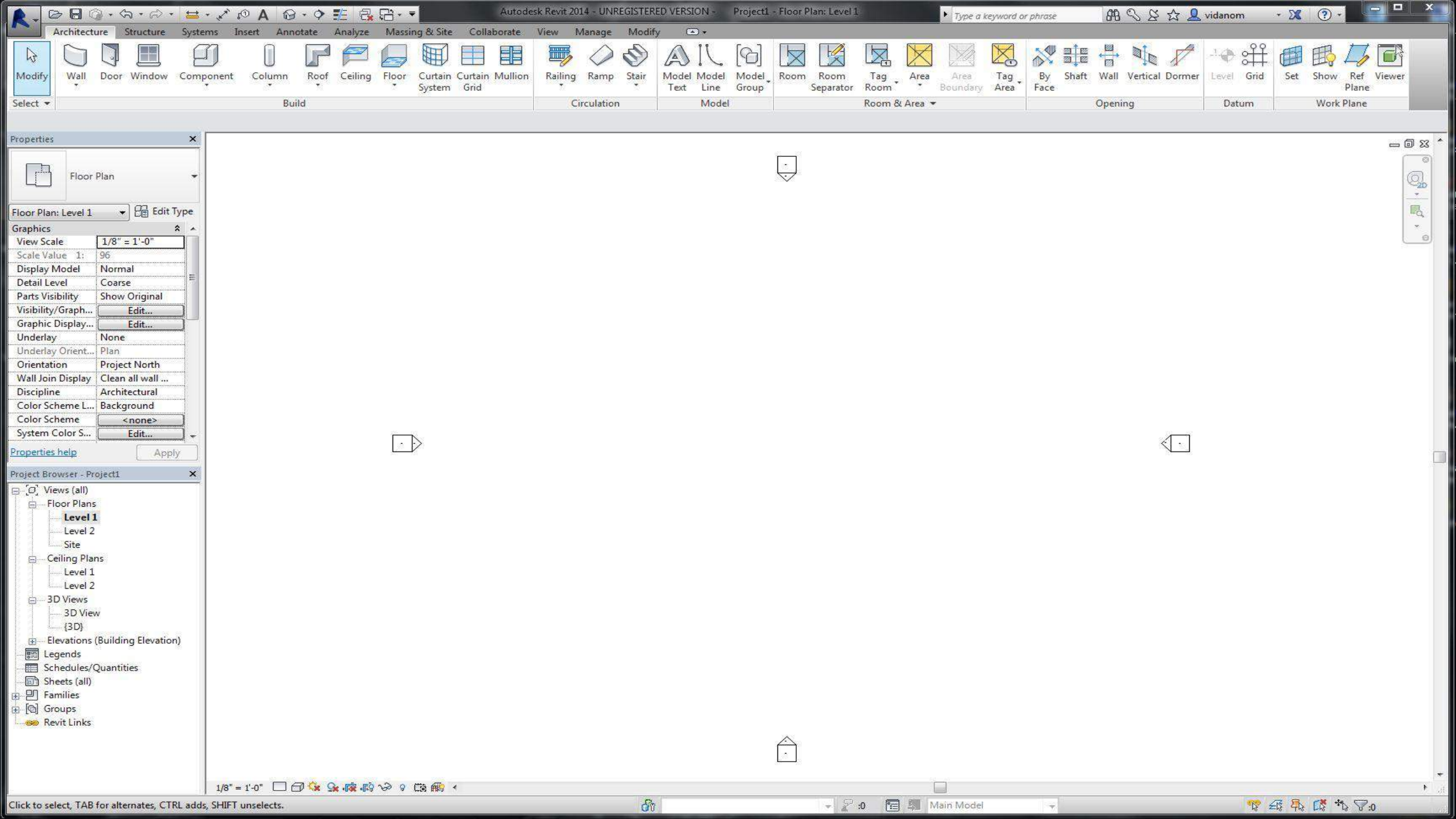


Laser scanning was not new...

- ▶ Invented in 1999/2000
- ▶ For petrochemical industry
- ▶ Routing new pipes through existing oil rigs







FileEditViewInsertFormatToolsDrawDimensionModifyParametricWindowHelpExpressRaster

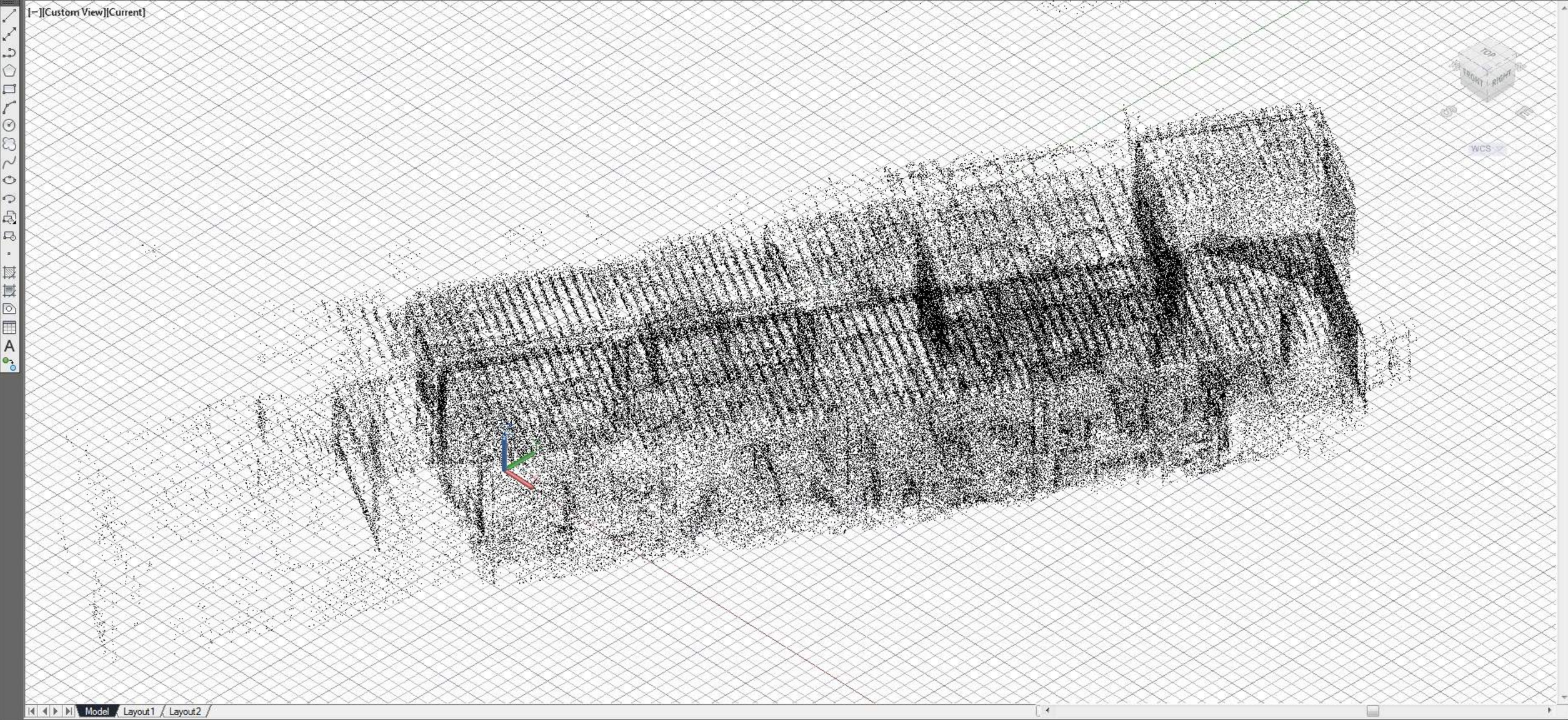
Drawing3*



AutoCAD Classic



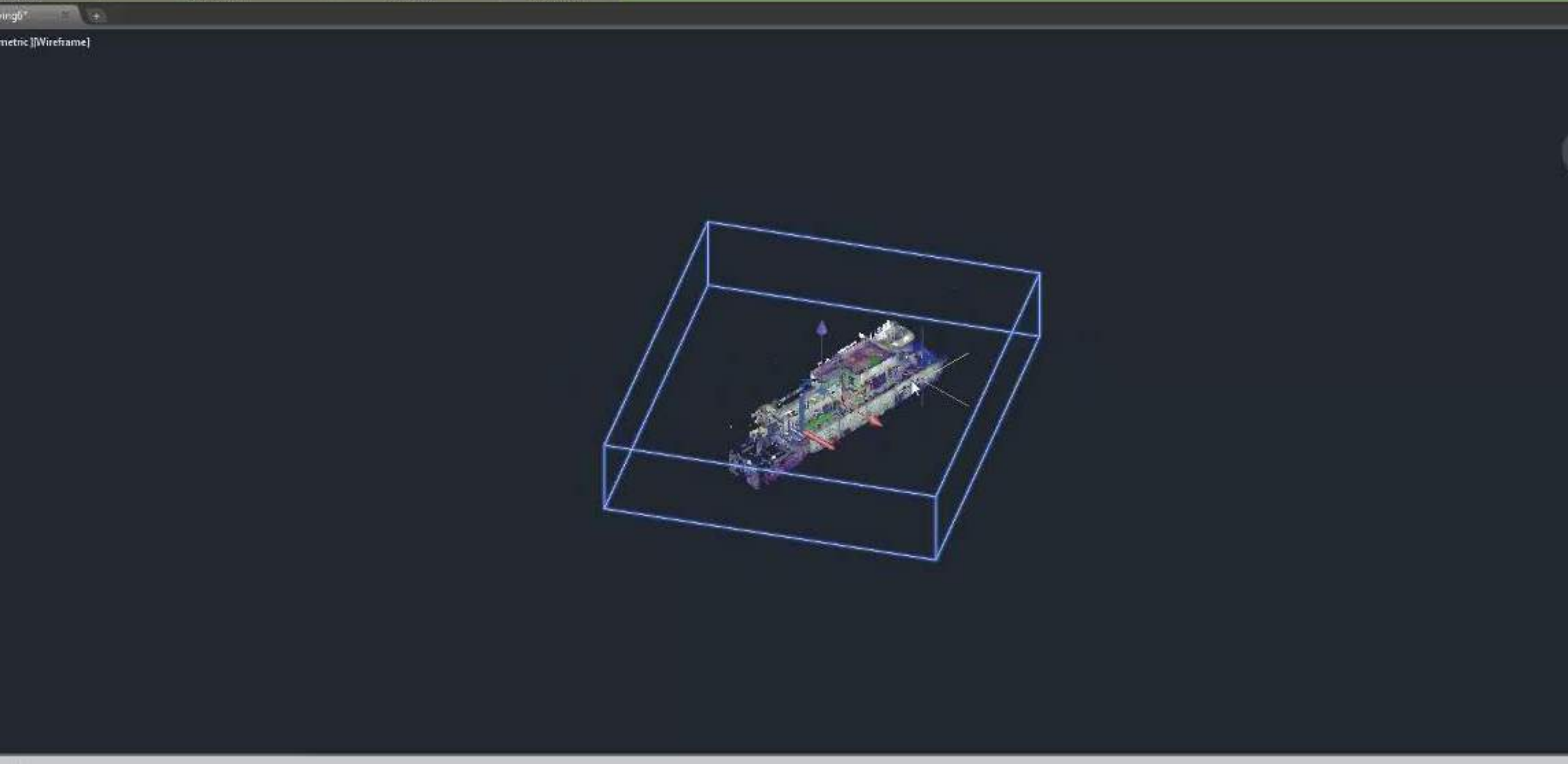
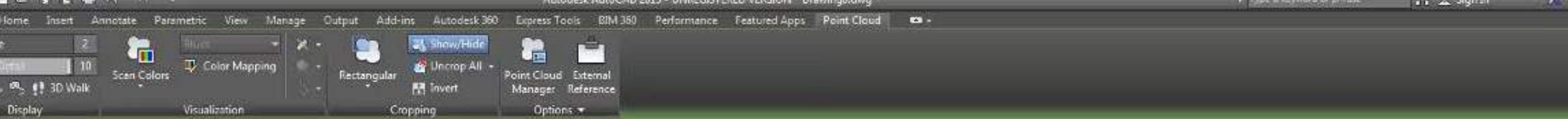
ByLayerByLayerByLayerByColor



ModelLayout1Layout2

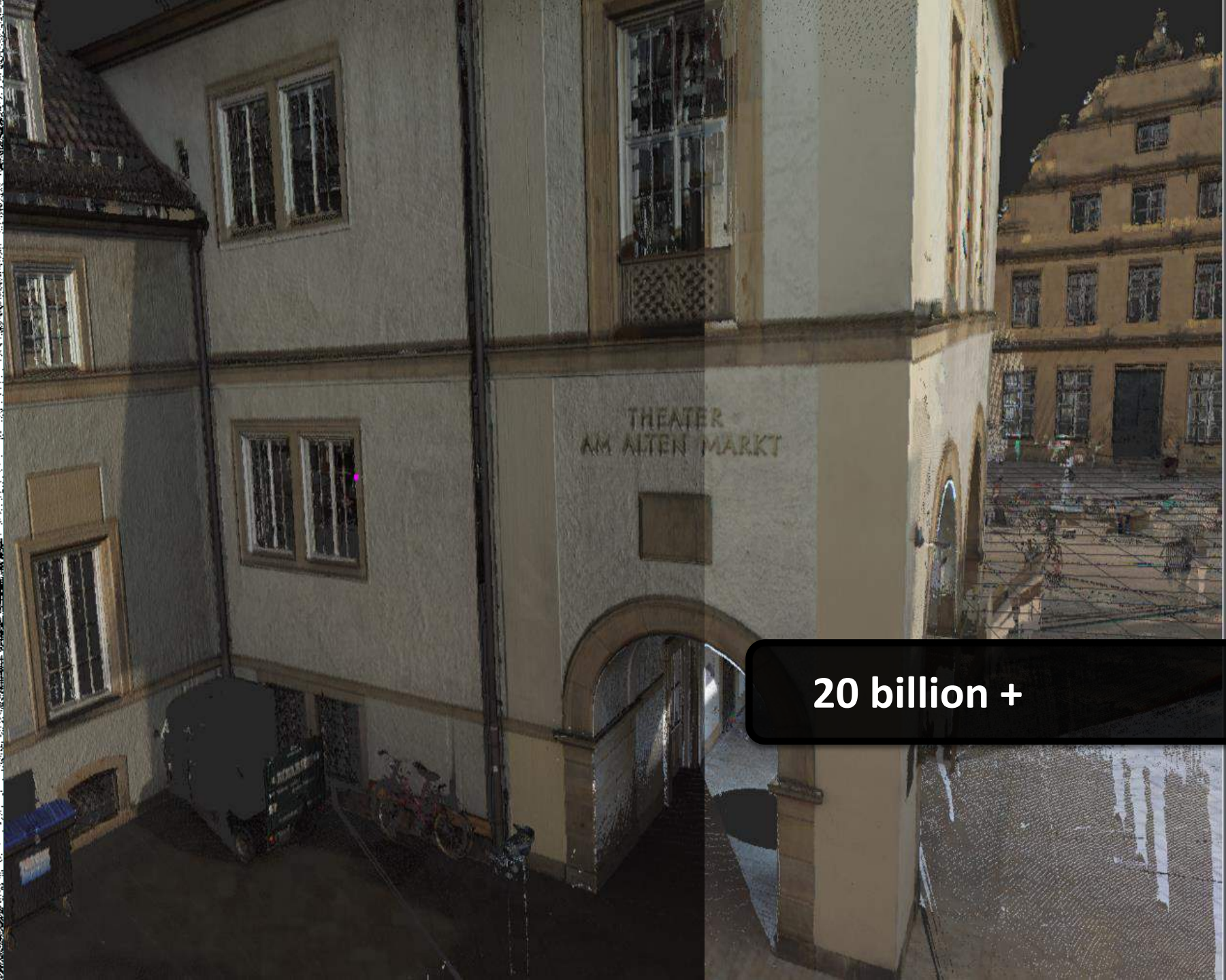
Command:
Command:

Press ESC or ENTER to exit, or right-click to display shortcut menu.





2 billion

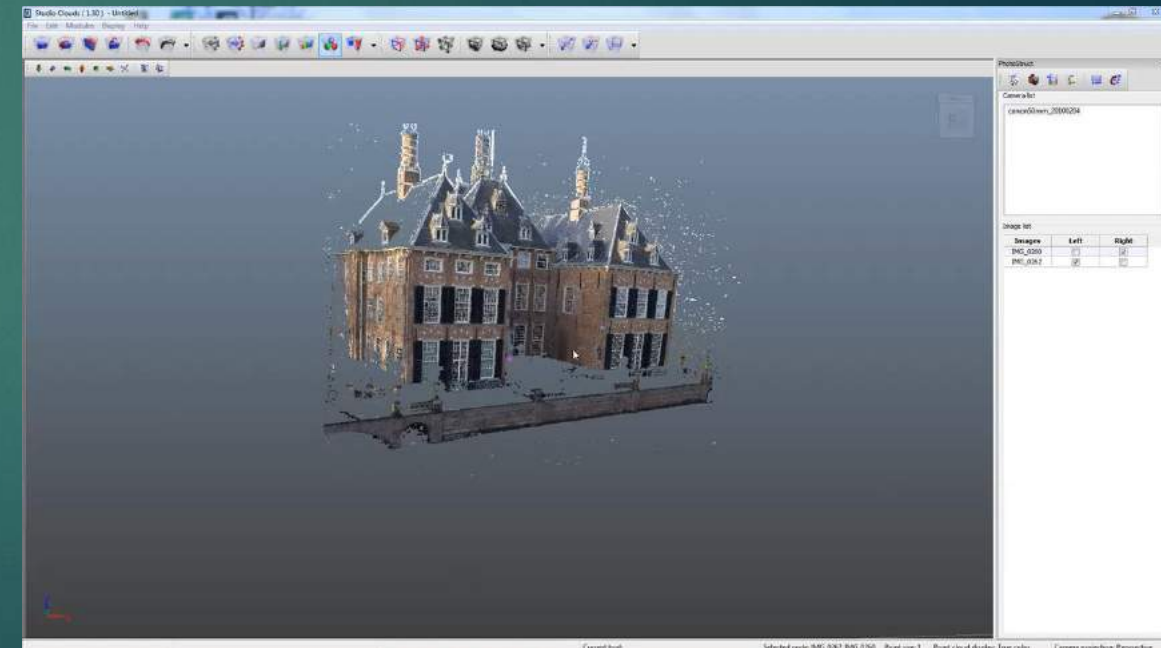


20 billion +

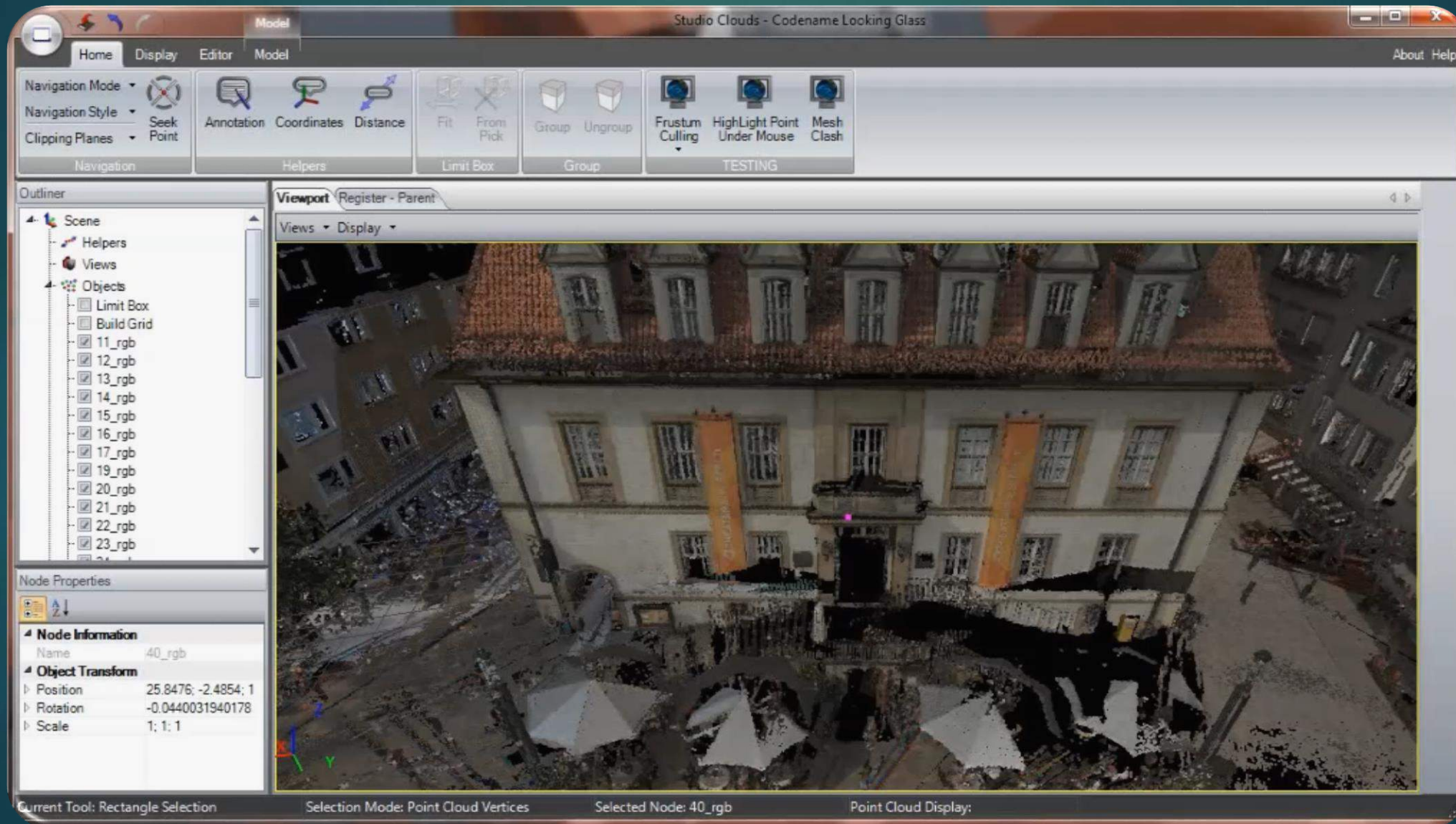
2010 SPAR 3d International conference

- ▶ First to showcase:
 - ▶ solid looking point clouds
 - ▶ A holistic vision around sensor fusion and how capture devices must be combined to get the best results
 - ▶ Photogrammetry

I spent 45 minutes taking cards from people lined up! Incl. Autodesk...



Developing the next gen technology



September 2011:

Autodesk Inc. acquires
all assets of Alice Labs

The Founders were
moved from The
Netherlands to San
Francisco



Autodesk buys Alice Labs



BY SEAN HIGGINS, SPAR 3D EDITOR ON OCTOBER 17, 2011

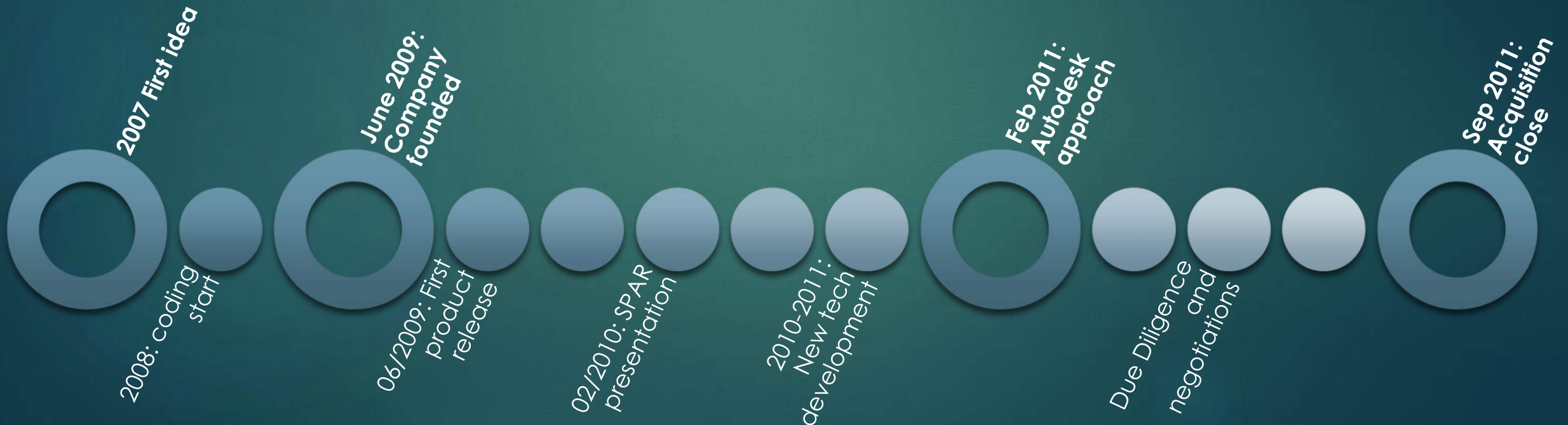
TECHNOLOGY: SOFTWARE

3D software giant augments reality capture capabilities

THE HAGUE – SPAR has confirmed that Autodesk recently acquired technology from Alice Labs, along with hiring some of its employees. The Alice Labs web site has been shuttered, and while current customers will be able to continue using Alice Labs technology, “for people looking for

Some concluding facts

- ▶ We “Bootstrapped”
- ▶ Two launching customers provided initial funding
- ▶ Next to our day job for the first 2 years
- ▶ Acquirers like asset deals
- ▶ buy vs build: why Autodesk acquires



Wrap up: What I learned...

- ▶ NL very suitable for startups
- ▶ Initially worked with a single employee tax firm:
 - ▶ Wrong corporate structure was set up which would have doubled our taxes at acquisition
 - ▶ More experienced firms are worth every penny
- ▶ Finding a California based lawyer took some time. Found through network and skype sessions. Trust is key, as if they do it wrong you can be in trouble

Where was the INAA member in California when we needed them!?

Why did we sell?

- ▶ We wanted to “Change the world”
- ▶ By joining Autodesk we would be able to scale much faster
- ▶ Ow... and the price \$\$\$ was right...



Technology Integration

- ▶ Alice Labs technology embedded in major products in 12 months
- ▶ New reality capture product launched called ReCap



Attach Point Cloud

Name:

Scans to display

Region Name	On
11_rgb	
12_rgb	
13_rgb	
15_rgb	
16_rgb	

☒ Select scans to display

Path type

Insertion point

☐ Specify on-screen

X:

Y:

Z:

Scale

☐ Specify on-screen

Rotation

☐ Specify on-screen

Angle:

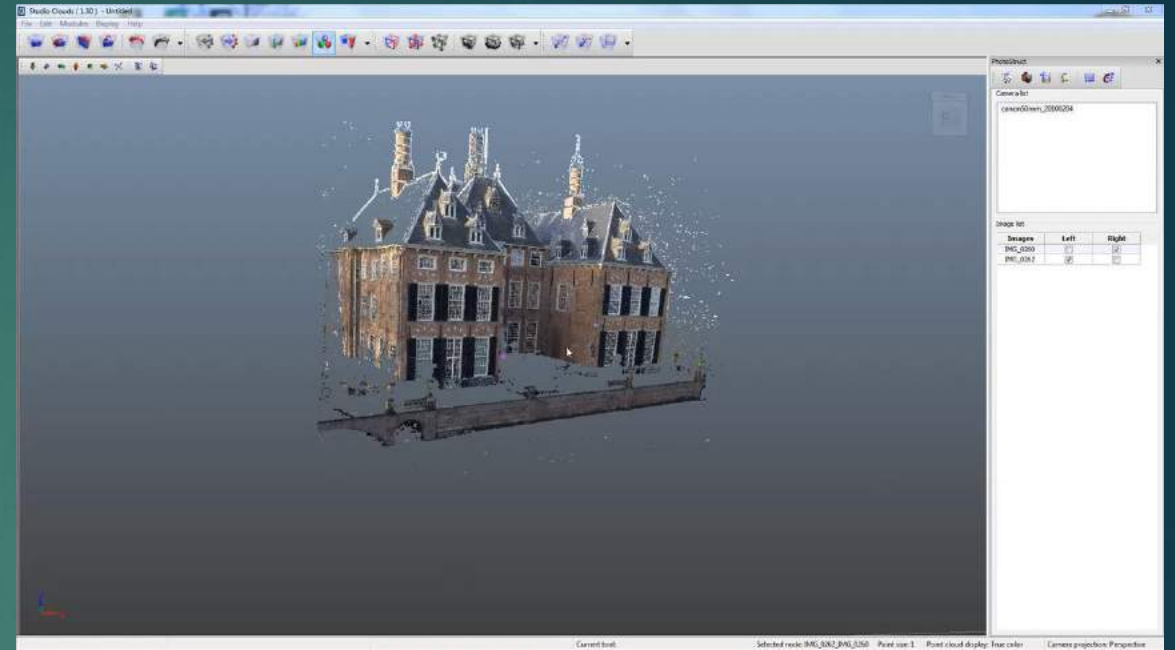
☐ Use geographic location

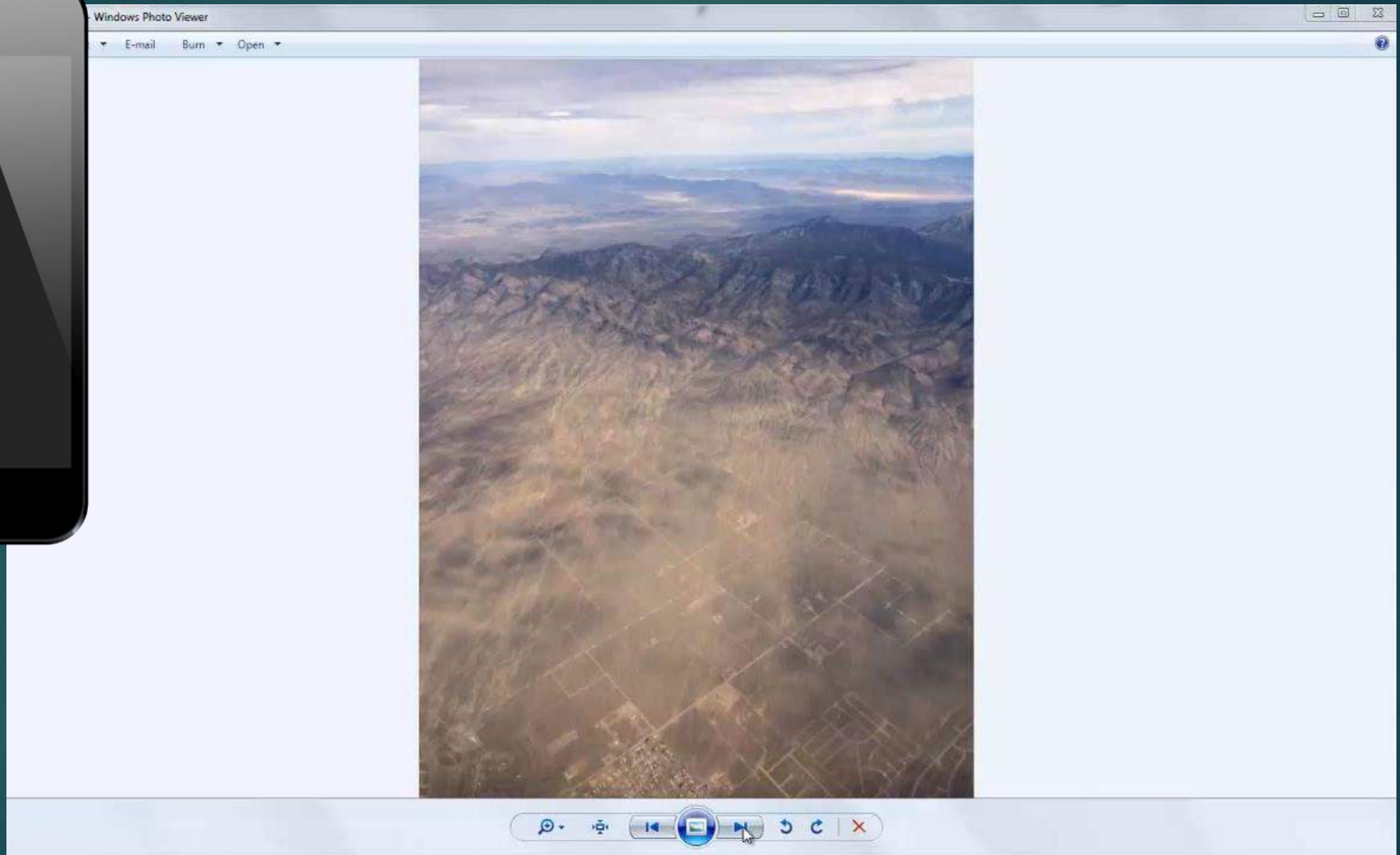
☐ Lock point cloud

☒ Zoom to point cloud

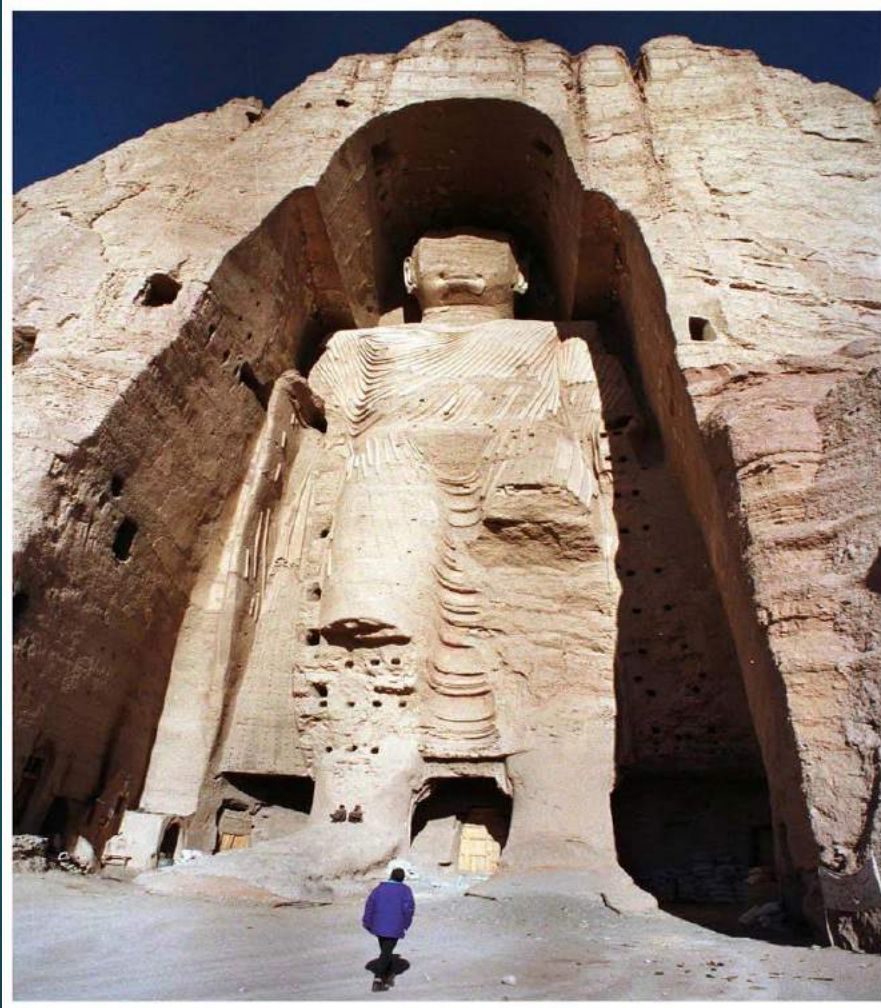
Remember the
Alice Labs
photogrammetry
stuff?

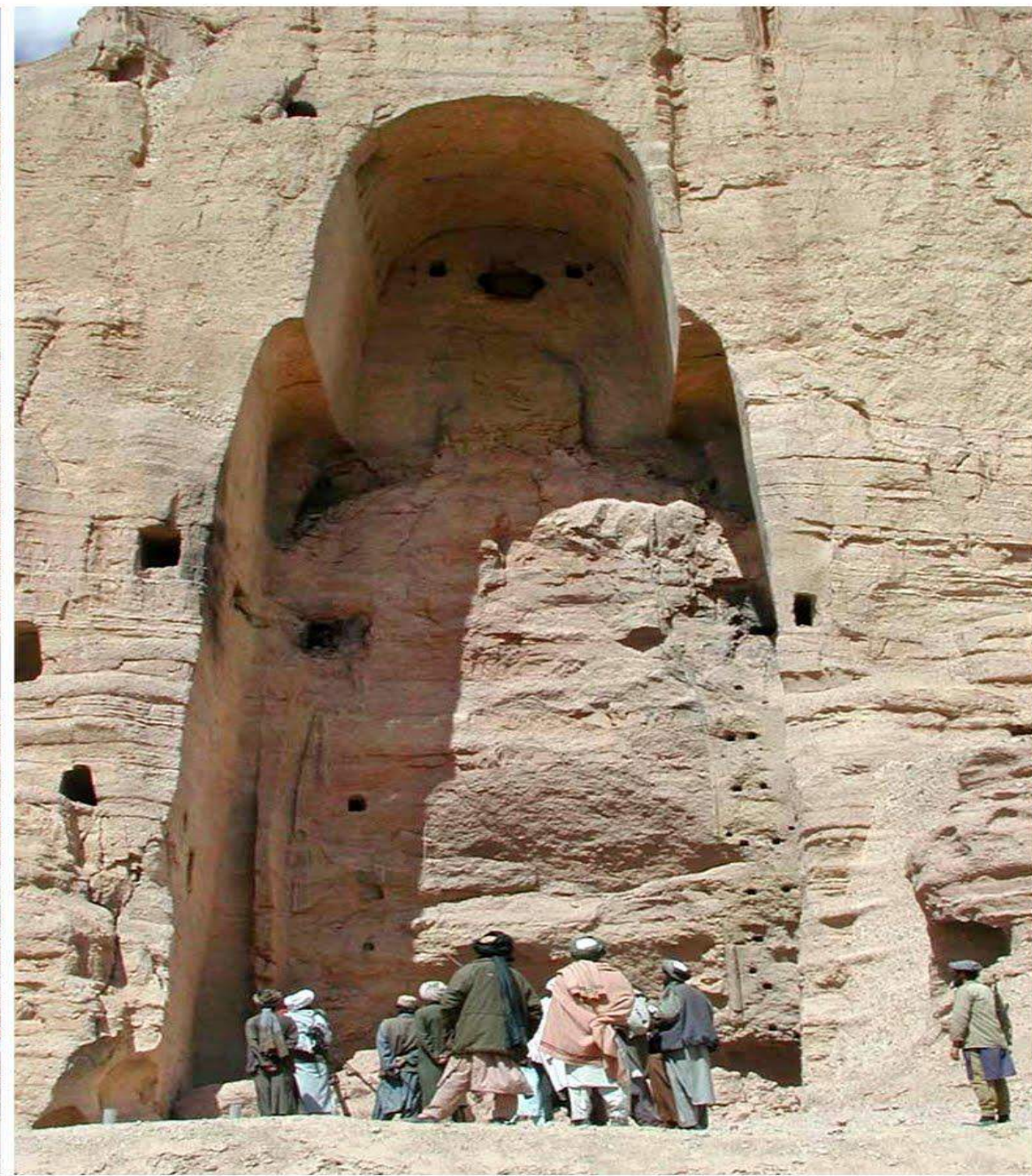
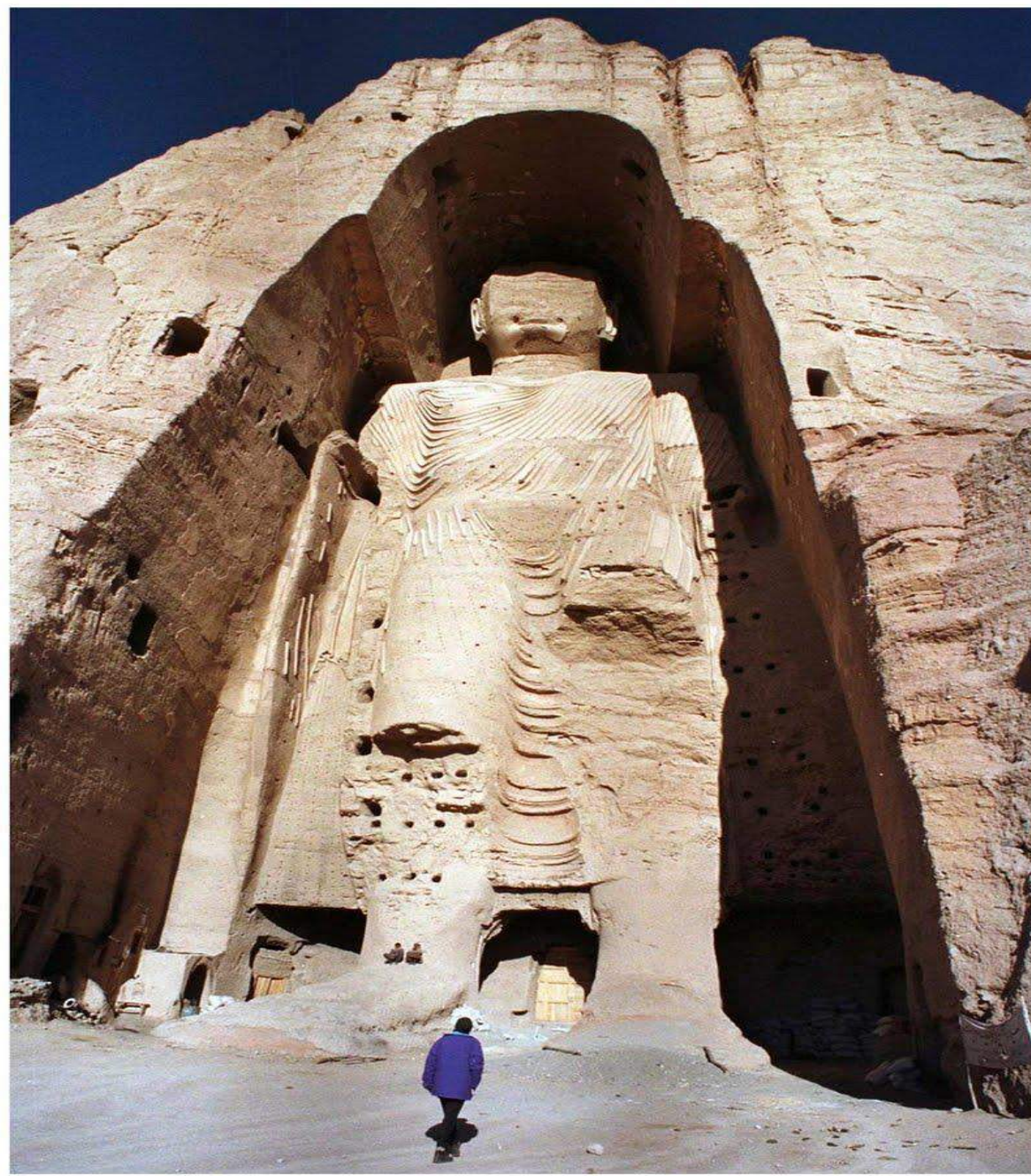
This is where it went:

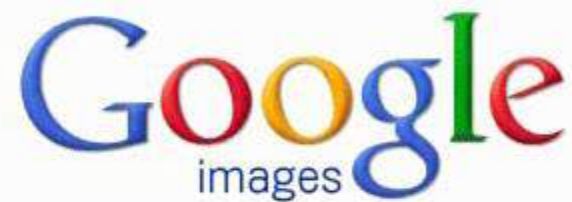




Bamiyan Buddhas





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The acquisition success

- ▶ ReCap is the most used point cloud processing tool (over 160k MAU's)
- ▶ Over 1 million photo to 3d reconstructions
- ▶ Scanner sales have gone up by 300-500% since Autodesk release point cloud capabilities



An aerial, isometric-style photograph of a modern architectural complex. The building features a prominent glass facade and a large, rectangular pool area. The surrounding area includes a parking lot and a road. The image is overlaid with a semi-transparent blue gradient.

Thank you

Elmer Bol

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+31 6 11 482306