

## Why Cintoo Cloud?

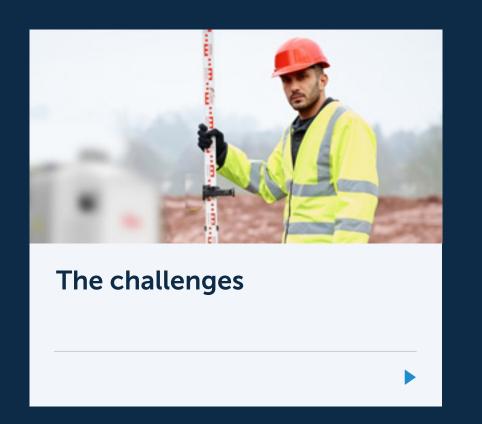
Start here >

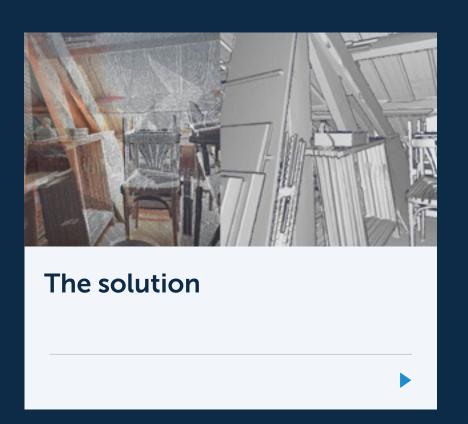


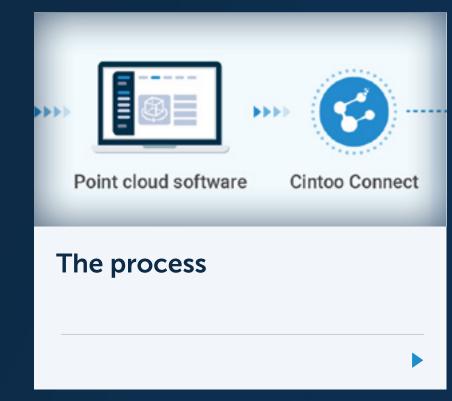
# Contents

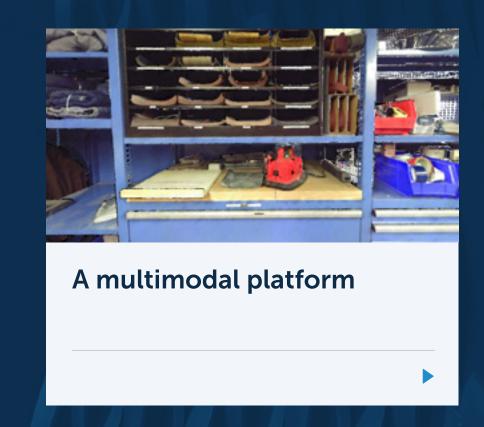
## What's in this book:





















# Laser scanning: A growing market

The use of laser scanning continues to grow among BIM and construction, becoming a valuable part of project workflows for design and quality assurance. Industry 4.0 markets are also booming, with Reality Capture providing accurate as-built information for digital twins to enable asset management workflows.

Valued at \$3.72 billion in 2020, the global 3D scanning market size is projected to reach \$16.66 billion by 2030, registering a CAGR of 16.3% from 2021 to 2030.\*



2030

\$16.66 billion

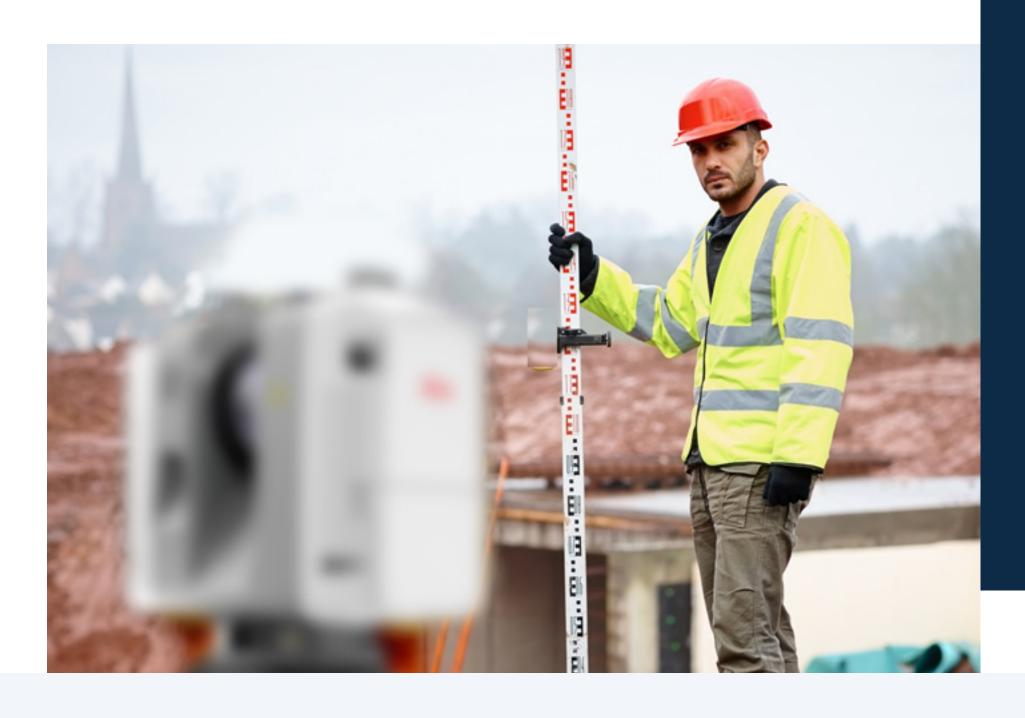
So, what are the challenges?

\* https://www.alliedmarketresearch.com/3D-scanning-market



### The challenges

Despite this rapidly growing market and the clear advantages of laser scanning – labor and time saved and the creation of accurate models – there are still several challenges with actually using the laser scan data produced:



- Large data file sizes make it difficult to easily share data with internal and external team members and clients
- 3D point clouds are challenging to view, interpret and navigate
- 3D point clouds supported in desktopcentric workflows lead to siloed information
- Maintaining security of the large data files is difficult, if not impossible, when shared via physical drives or internal/ external share drives
- Providing access to just the applicable areas of the scans that are relevant to internal and external team members is difficult

- Confirming and documenting that your customers and/or clients as well as team members have reviewed and/ or approved of project design and work order details is a challenge
- The availability of automatic measurements and noted differences of BIM to "as built" scans is nonexistent with manual work being costly and time consuming
- Cloud platforms for hosting laser scans are tailored to a specific brand or type of scanner, making it difficult to merge various sources of scan data (static, mobile, drone) in a single project
- Software platforms tend not to be intuitive or suited to both technical and non-technical users

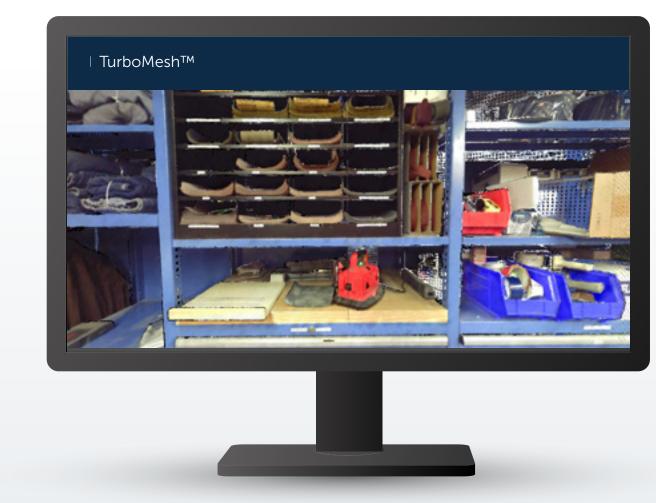
How do we overcome these challenges?



### The solution







## Transforming point clouds to 3D meshes

Transforming your point clouds into Cintoo's 3D meshes before the upload will compress your data with no compromise on the scanner accuracy or resolution.

#### Cintoo Cloud

With Cintoo Cloud, upload your scans from any scanning device together your BIM or CAD model to enable various BIM and digital twin workflows from anywhere at any time, in a simple web browser.

#### TurboMesh<sup>™</sup> engine

The TurboMesh<sup>TM</sup> mesh streaming engine displays your scans with the same resolution as the source scanner, allowing you to easily interpret your scan data with an optimal navigation experience.



Click to play video



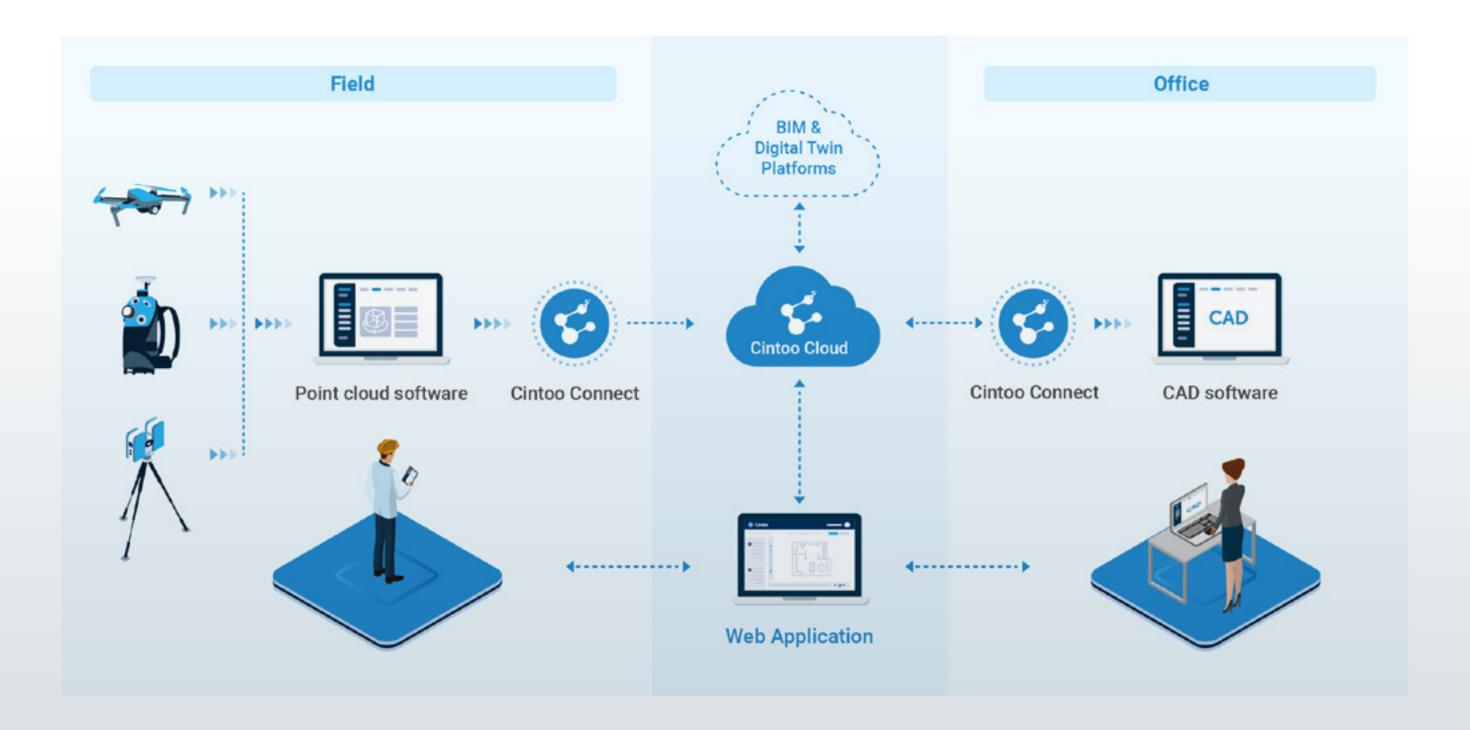
### The process

#### Cintoo Cloud

Cintoo Cloud is a cloud-based Reality Data management and collaboration platform accessible by anyone equipped with a WebGL browser. Cintoo Cloud is available on Microsoft Azure or Amazon Web Services.

#### **Cintoo Connect**

Cintoo Connect is a Windows client used for point cloud to mesh translation with fast upload into Cintoo Cloud. Cintoo Connect also downloads Reality Data from Cintoo Cloud and inversely translates it into point cloud data for consumption on your desktop by most CAD modeling software.



#### How it works

Mesh-based scan data becomes 10 to 20 times smaller in size and has the same resolution and accuracy as the source point clouds.

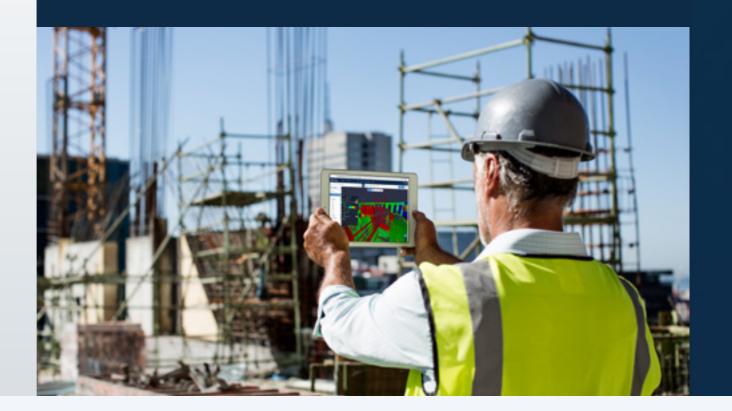
#### The result



Faster upload times



Reduction in storage space needed to host your data





### A multimodal platform

Cintoo Cloud can import static scans and various mobile scans. Drone data from photogrammetry will soon be supported as well. Uploading unstructured data from mobile devices or drones, Cintoo Cloud will restructure this unstructured data so that you can experience it as though it has come from a static scanner, including 360° panoramas.





















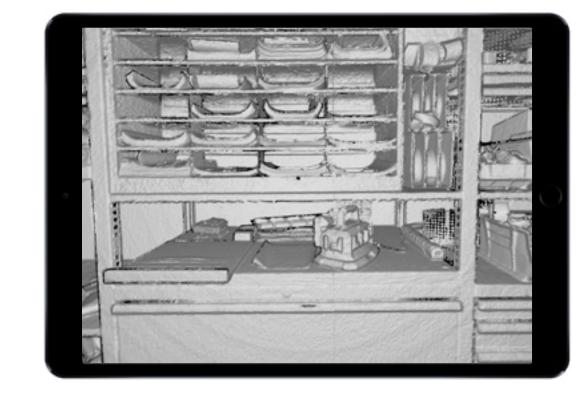








TurboMesh™ RGB mode



TurboMesh™ Surface mode

#### Compatibility:

#### Mobile devices supported

Navvis VLX & M6, Leica BLK2GO, GeoSlam, Viametris, Gexcel and Emesent Hovermap.

#### Displayed with various shaders

RGB, Intensity, X-Ray, Height, Surface, either in 3D or 6-axis orthographic view. 2D panoramas can also be streamed.

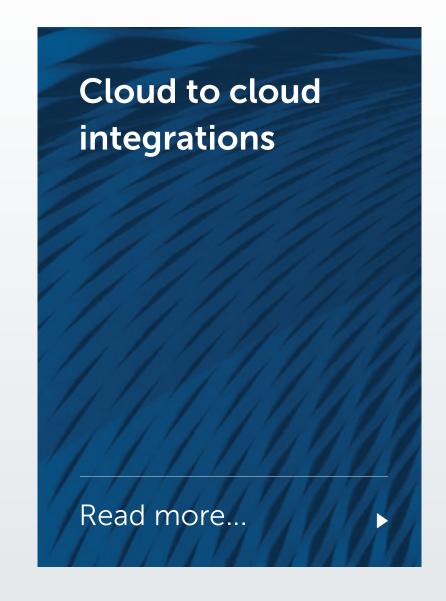
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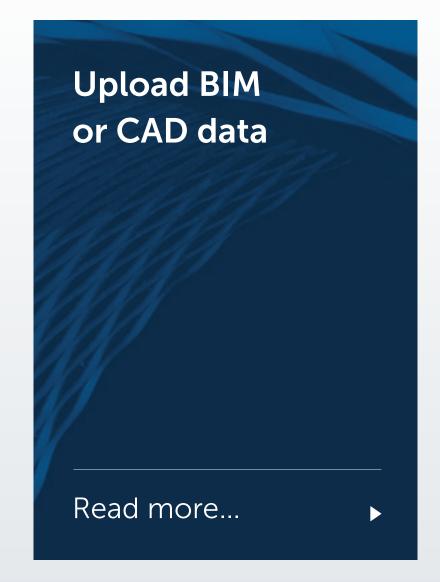
Cintoo Cloud can distribute and export scan data in either point cloud format (E57, RCP, RCS) or in mesh format (FBX, OBJ, STL) for your scan-to-BIM workflows in your favorite modeling app.

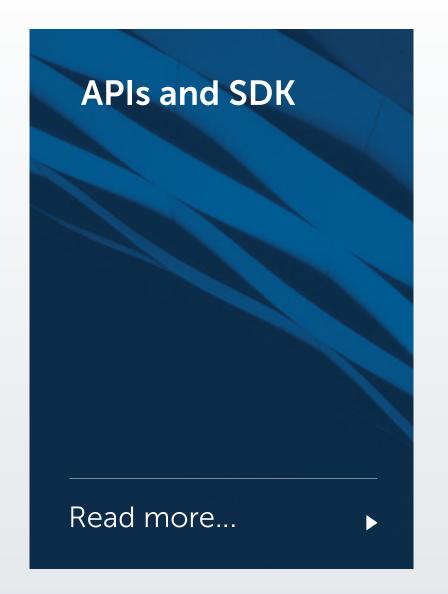
Discover more about this unique source of trustful data in the cloud

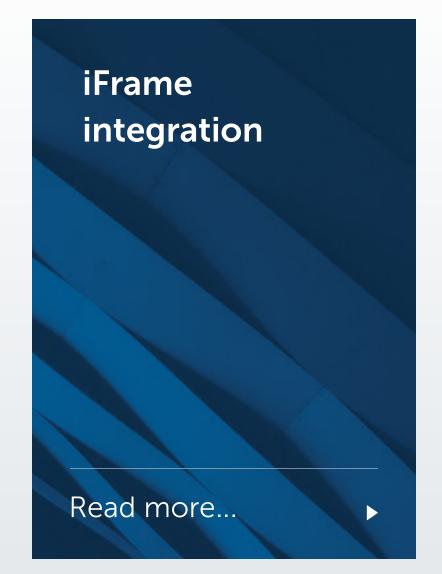
Request demo ▶











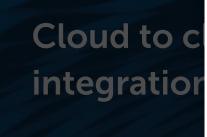
Connect Cintoo
Cloud to GIS
and digital twin
portals

Read more...



Cintoo interoperability





Read more.

### Cloud to cloud integrations

Connect Cintoo Cloud to Autodesk BIM 360 and Autodesk Construction Cloud to pull Revit, Navisworks or AutoCAD files together with disciplines and metadata.

Push or sync issues detected between scans and BIM to BIM Track, BIM 360, ACC or Procore

(Some of these features available July/August 2022)













Cintoo interoperability



## Cloud to c integratio

### Upload BIM or **CAD** data

Upload various BIM and CAD files directly from your disk to Cintoo Cloud.

(Some of these features available in Q3 & Q4 2022)

IFC

Step

JT

Revit

DWG

Catia

Iges

Rhino

Microstation

• Pro E

Solidworks

OBJ

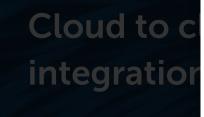
FBX

Inventor

Cintoo GIS tal twin

Cintoo interoperability





#### APIs and SDK

Stream Cintoo's high resolution 3D meshes in Unity or Unreal to create rich interactive Metaverse experiences mixing the as-built with 3D animations.

Connect Cintoo Cloud to your platform via a complete set of APIs.

(Full set of Cintoo Cloud APIs available late 2022)



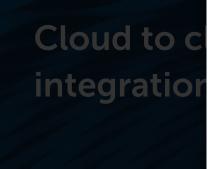






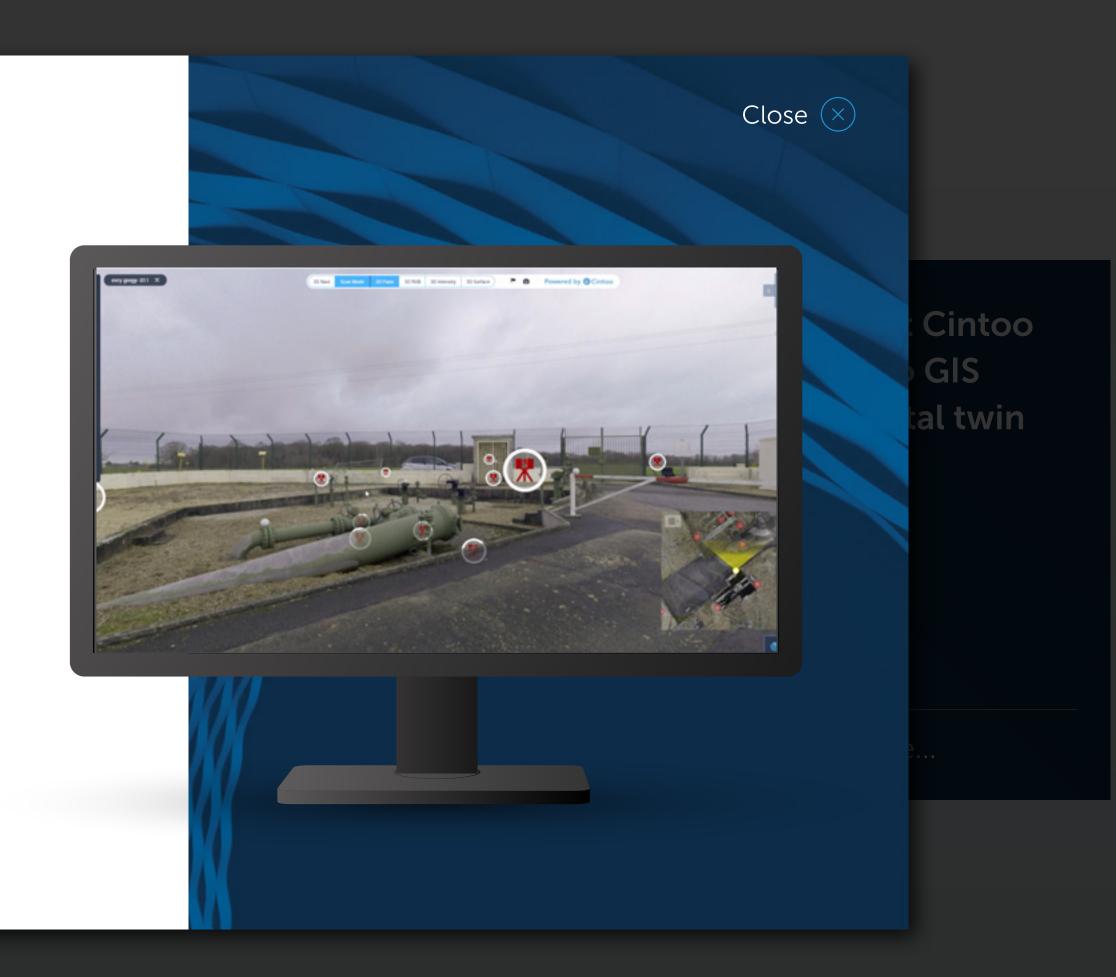


Cintoo interoperability



### iFrame integration

Embed Cintoo Cloud Shared Viewer inside your web portal or digital twin platform.



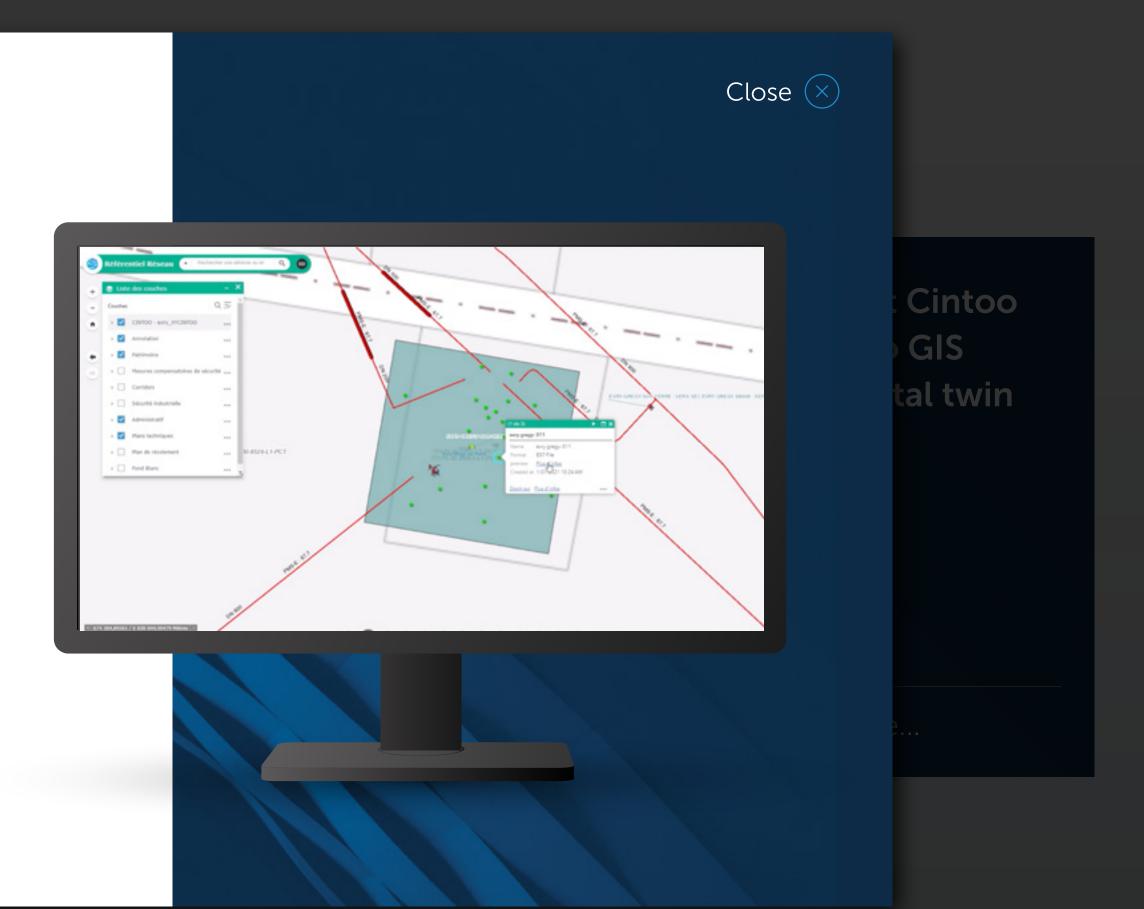


Cintoo interoperability

# Cloud to c integration

### Connect Cintoo Cloud to GIS and digital twin portals

Export scan, asset or shared views as CSV files with hyperlinks for each entity, to populate your portal, and cloud connect it to Cintoo Cloud Shared Views or Project Views.





## Cybersecurity



#### Cybersecurity

Cintoo is SOC 2 Type 2 compliant, providing the highest level of security for our high-end customers. Penetration tests are performed every 6 months by external auditors.



#### Secure hosting options

Run Cintoo Cloud on Amazon Web Services and Microsoft Azure. Choose where to host your data by region and country. Assure secure cloud hosting on AWS or Azure or FedRamp secure platforms.

Use the Cintoo Cloud option to host and store your data in AWS or Azure private instances as well.





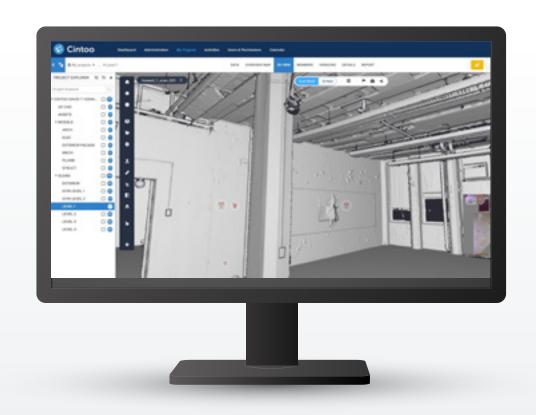
#### Single Sign On (SSO)

Corporate SSO and its associated MFA can be implemented for all corporate customers, making sure that Cintoo Cloud complies with your corporate user authentication policies.



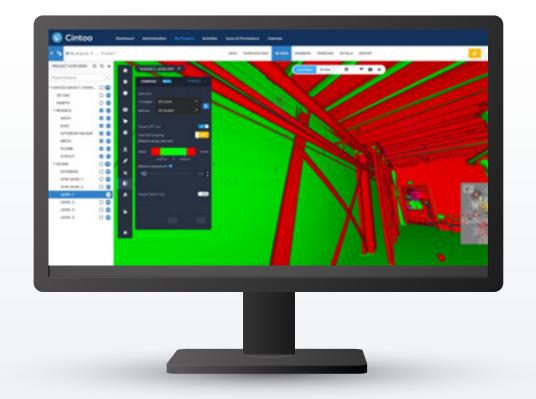


## Cintoo value proposition



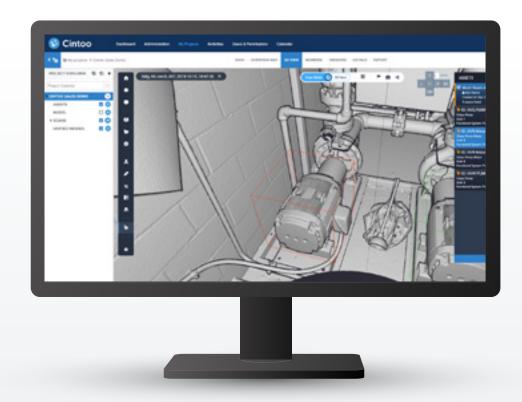
#### Reality Data platform

- Organize and display data in Work Zones
- Manage user access and permissions
- Create 3D crops, 3D measurements,
   3D annotations and 3D issue tags
- Export and distribute your scans in point cloud or mesh format



#### Visual analysis for quality control

- Create heat maps to detect issues or non-compliances
- Manage transparency levels between your scans and models to monitor progress
- Export issues as BCF files or push them to your issue tracking or model coordination platform



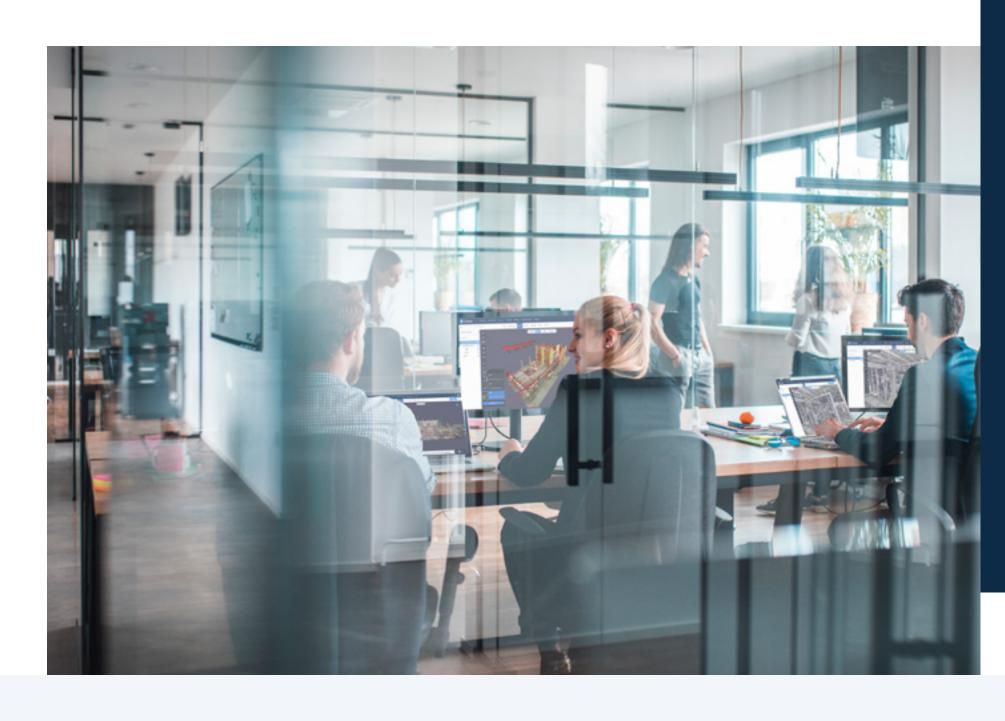
#### AI-enabled asset management

- Import tag lists and manually edit tags from your digital twin model
- Use Cintoo's AI engine to automatically geolocate and classify equipment
- Display your assets and equipment in their existing conditions and compare to your digital twin
- Connect your assets and equipment tags to your documentation and digital twin platforms (full set of asset tools available late 2022)

Images courtesy of SSOE, USA.



## So, why Cintoo Cloud?



- Easily share your scans with as many internal and external team members and clients as you want. Take advantage of unlimited users to connect anywhere at anytime.
- Your scans can easily be viewed, understood, and navigated by experts or non-experts alike, using Cintoo's unique mesh-based viewer powered by TurboMesh™.
- By storing your data in the cloud, you can share it with anyone who needs to see it, putting an end to data siloes.
- Peace of mind that your data is secure and always available in the cloud.
- Work Zones enable you to tailor access to the applicable areas of the scans relevant to internal and external team members.

- Your customers, clients and team members can review and approve project design and work order details.
- Take measurements and note differences between your as-built data and BIM models remotely, without the need to go on site.
- Export and distribute your scans to your modeling teams in point cloud or mesh format, with no compromise to accuracy.
- Display your assets and equipment in their existing conditions and cloudconnect them to your digital twin, or to your documentation or IoT platform.
- Easily create metaverse experiences integrating with 3D simulations and animations of your onsite scans in mesh format at the same resolution of the scanner.

Optimize your project workflows to save time, resource and money - start using Cintoo Cloud today with our free trial.

Try for free



## Start leveraging Cintoo Cloud's value

Request a demo >

With an unlimited number of users, Cintoo Cloud drives stakeholder collaboration and delivers value to the entire project team.

#### Cintoo Cloud is:

- Scanning hardware agnostic and multimodal
- ✓ Used by 400 corporations in 32 countries
- A vital quality assurance tool for ENR top 400 contractors
- A primary solution source for leading architectural firms
- ✓ Integral support for engineering design firms
- The platform of choice for leading automobile and energy companies
- A leading Autodesk partner

Cintoo Cloud is an intrinsic part of how we collaborate with stakeholders and demonstrate value to our clients."

Stantec

- Cintoo Cloud allows for collaboration between us, our clients and subcontractors, increasing visibility and transparency for our as-built data."

  Architecture49 Inc.
- Cintoo Cloud has exceeded what we originally wanted it to do. It has become a vital part of our point cloud management and we get value out of it every day."

Arup

The return on investment was immediate from day one and we now have many concurrent users using Cintoo Cloud daily."
M3 Design Group



### Contact us

#### Cintoo SAS, France

Green Side – Bâtiment 5
400 Avenue Roumanille
06410 Biot-Sophia Antipolis
France

#### Cintoo US Inc, USA

990 Biscayne Blvd.
Office 701
Miami, FL 33132
USA

#### Website

https://cintoo.com

#### Email

sales@cintoo.com

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