Category: BIM Initiative of the Year

OViewer - multi-project and multi-format openBIM viewer (IFC, FBX, OBJ, LAS, JSON, …)

(Arch. Daniele Ravagni – Studio di Architettura)

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BIM Craftsman

Research and Development to operationalise theories

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OViewer is the answer to the concrete needs of an **Architectural Firm** heavily involved in the digitisation of the AECO sector and can be used in a bottom-up approach for the benefit of all players in the sector, regardless of the size of the project, the firm or the company.

3 on 3 ***2023***

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COMUNE di SIENA

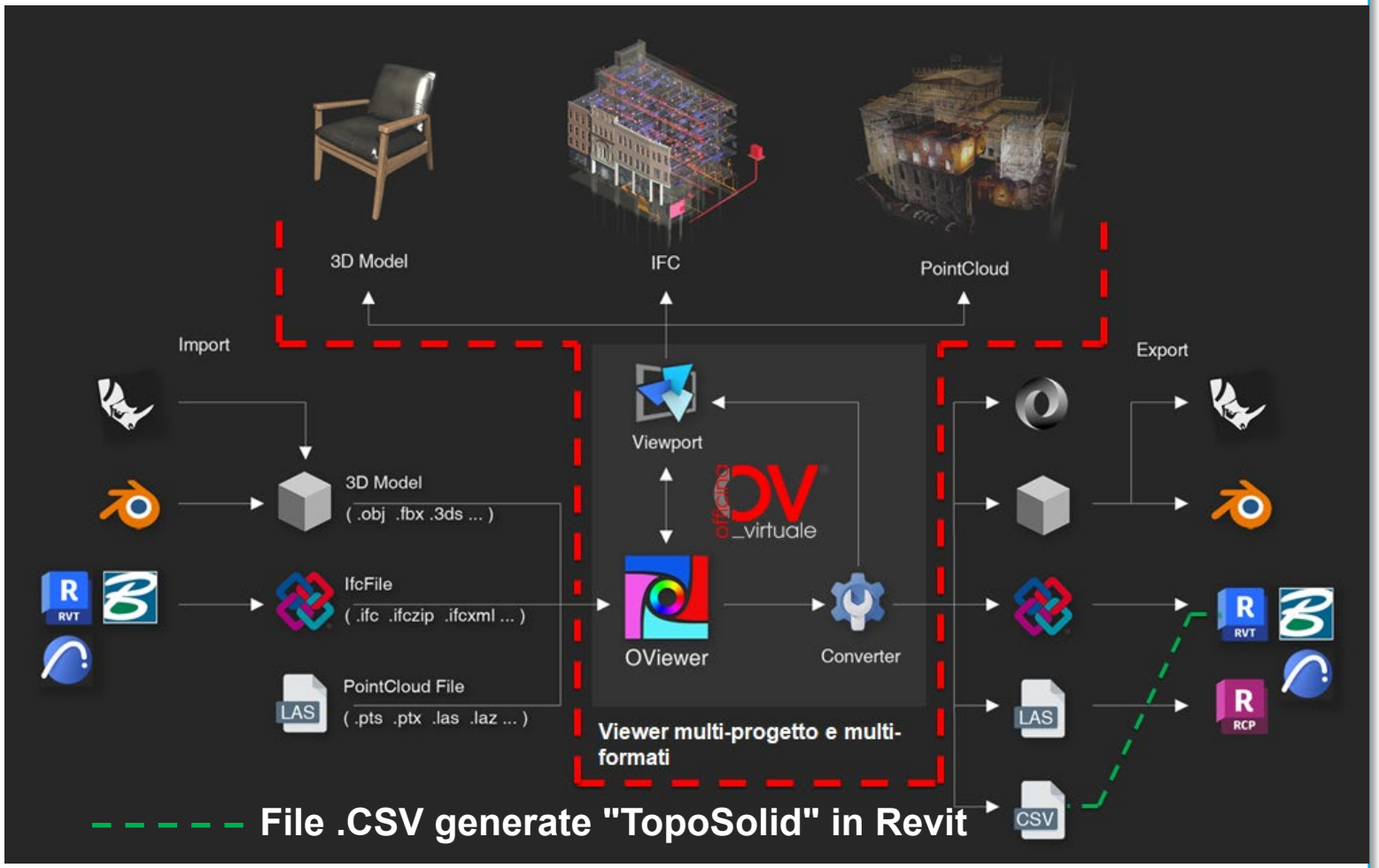
Urban Planning and UNESCO Site Office

PATRONAGE of the OViewer presentation at the BIM&DIGITAL Award 2023

What is OViewer?

It is **unique**...

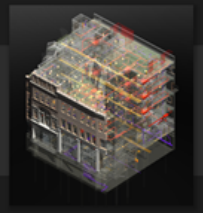
3D visualisation software for openBIM .IFC federated projects, for .LAS Point Clouds and for various generic 3D model standards (OBJ, FBX, STL, ...) and all this ALSO **SIMULTANEOUSLY !!!**



Why OViewer?

On-site ***Application*** **/** **Made to** **Communicate** **better** **/**
High Graphic and Visual **Quality** **/** **Fast and Easy to Use**

IFC
Startup & Functions & Styles



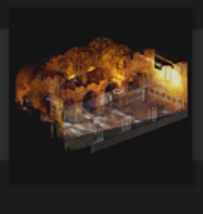
OViewer
Architetto Daniele Ravagni
Technical Support: Cao Yifu

Nome	Data	Dimensione
Revit2024 Samplefile - Snowdon Towers Sample Architectural	18/05/2023 17:35	84 007 KB
Revit2024 Samplefile - Snowdon Towers Sample Electrical	18/05/2023 17:36	15 581 KB
Revit2024 Samplefile - Snowdon Towers Sample Facades	18/05/2023 17:35	11 456 KB
Revit2024 Samplefile - Snowdon Towers Sample HVAC	18/05/2023 17:35	18 937 KB
Revit2024 Samplefile - Snowdon Towers Sample Plumbing	18/05/2023 17:35	51 331 KB
Revit2024 Samplefile - Snowdon Towers Sample Site	18/05/2023 17:35	3 259 KB
Revit2024 Samplefile - Snowdon Towers Sample Structural	18/05/2023 17:35	4 317 KB

Totale file federato: **188 888 Kb**

Files di Esempio di Revit

PointCloud
Startup & Functions & Styles



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LAS_CLASSIFY.las	28/04/2023 20:00	Stato layer...	3,833,049 KB

Totale file: **3 833 049 Kb**

LiDAR Mura Medicee di Siena

Palazzo Pubblico di Siena

nuvola di punti Palazzo Comunale Rev.2.las	04/05/2023 00:50	Stato layer...	13,496,457 KB

Totale file: **13 496 457 Kb**

GenericModel

OViewer
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Siena_Walls	b1_b2_fixed.fbx	24/03/2023 14:59	3D Object 415,881 KB
0_SOFT	b3_b4_fixed.fbx	24/03/2023 15:00	3D Object 189,638 KB
_Versioni OLD ViewerBIM	b5_b6_fixed.fbx	25/03/2023 08:03	3D Object 452,020 KB
FBX test	b7_b8_b9_fixed.fbx	24/03/2023 15:01	3D Object 347,145 KB

Totale gruppo file: **1 404 684 Kb**

Siena Mura Medicee Ambiente circostante (mesh)

Halfway... between Revit and Photoshop! ***(registered trademarks)***

Oviewer is for:

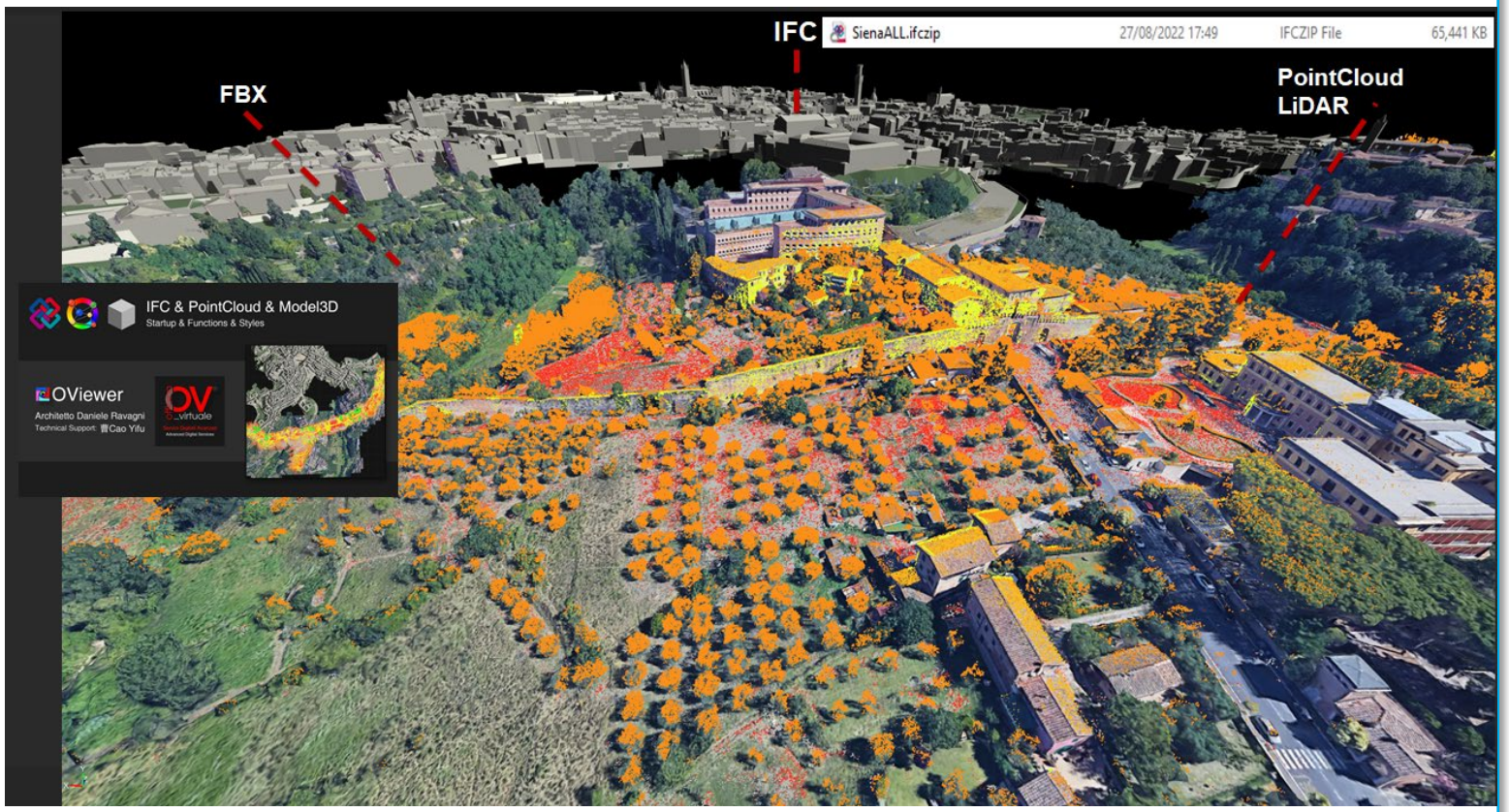
To better study and analyse multiple projects in .IFC format, also combined with Point Clouds and other 3D models, both in the pre-design phase for quick conceptual hints or "virtual mock-ups" study, and in the midst of design for exchanges with colleagues and client, and in the post-design phase to communicate to potential clients and various stakeholders;

Create meshes from LiDAR point cloud classifications, to analyse them with various parameters (e.g. Intensity) of different colours and export them in .CSV format, to obtain terrain models in BIM software (e.g. TopoSolid in Revit 2024);

Communicate with clients through visualisations and animations of IFC models and contextualised Point Clouds in an appealing way, easier to understand even for non-technical people, for greater involvement in the Project;

What can be done with OViewer?

Federate project models and as-built models in .IFC format, insert generic models (.OBJ, .FBX, etc.), merge and integrate them with Point Clouds (.LAS) from object and/ or context survey.



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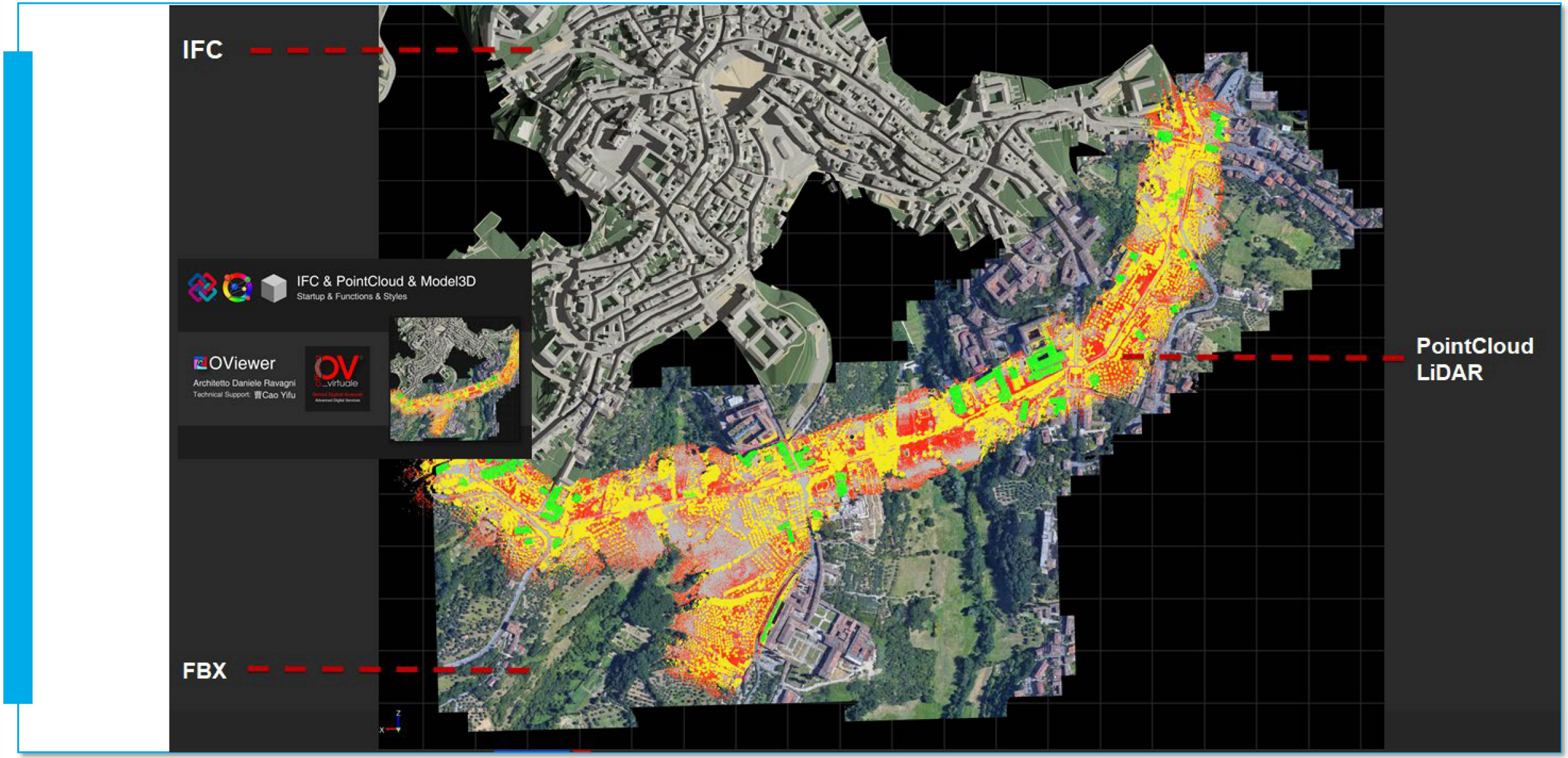

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IFC & PointCloud & Model3D

Startup & Functions & Styles

VIDEO

YouTube link:
set highest
resolution

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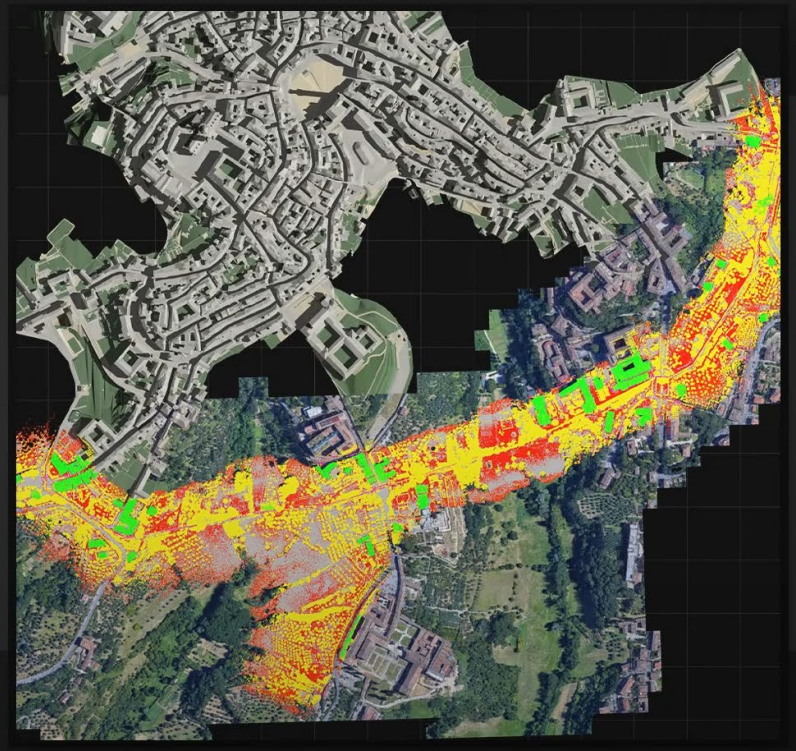
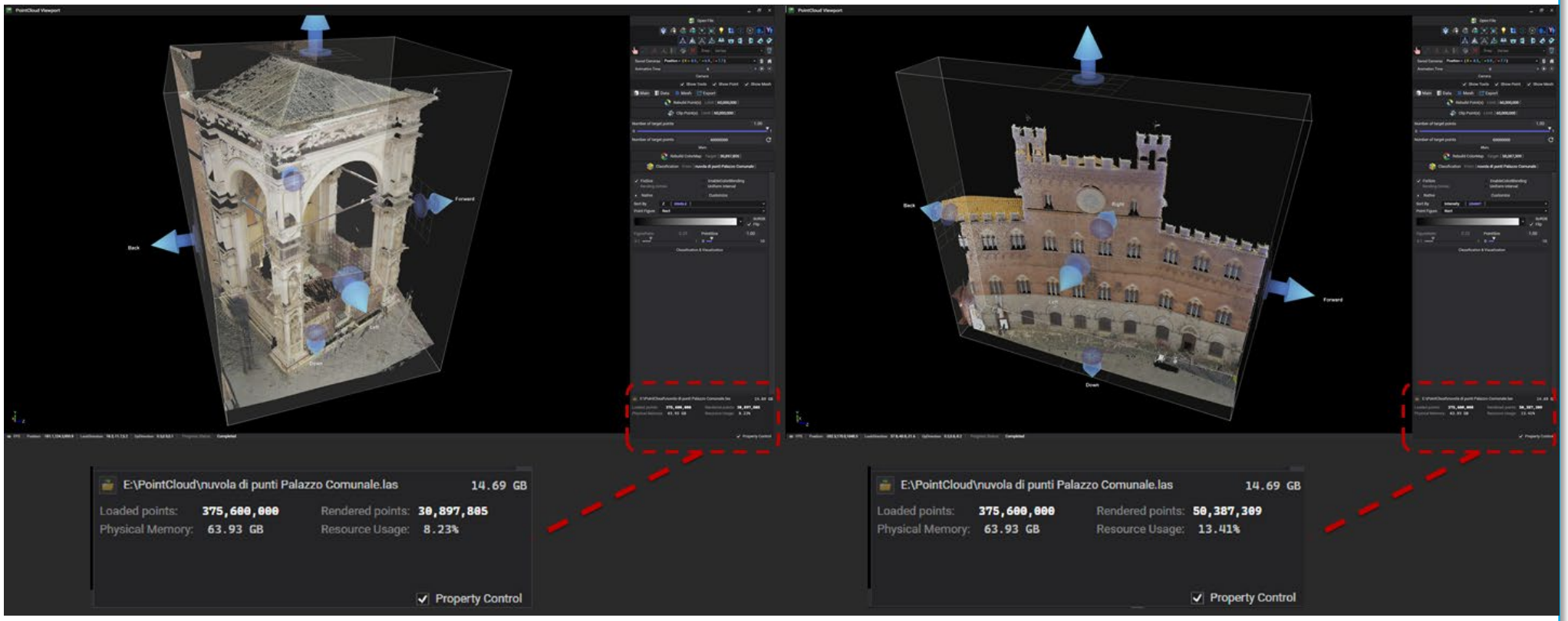


What can be done with OViewer?

Display Point Clouds clearly and meaningfully by choosing to select a certain part of the Point Cloud to be loaded or, once loaded, act on the number and size of points to be displayed.



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PointCloud

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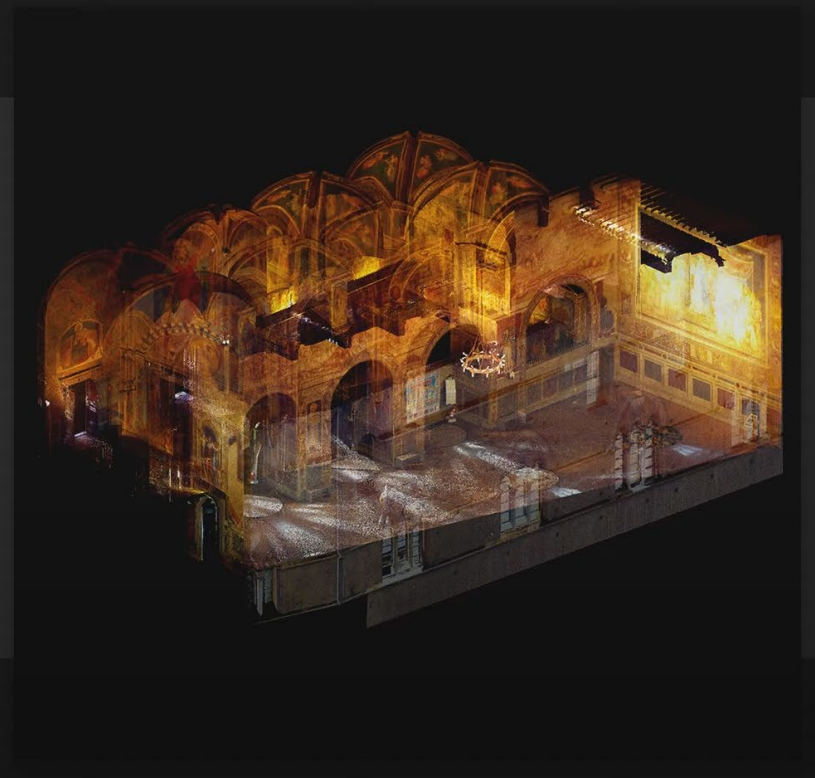
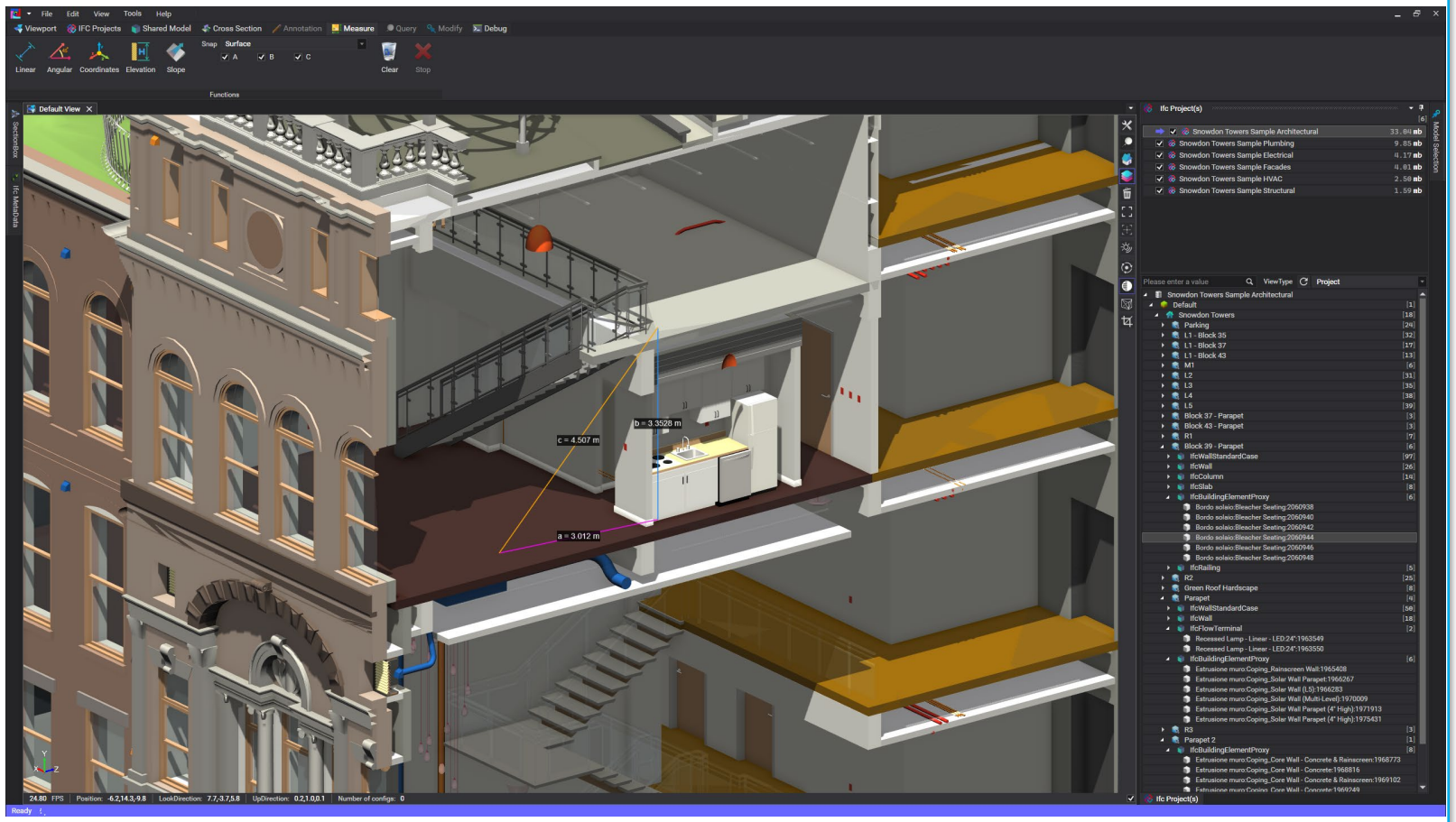


What can be done with OViewer?

Create animations, save and export high-quality frames and orthographic views. Query, analyse, annotate, measure and "*visit*" virtual environments in various 3D and Point Cloud formats.



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IFC

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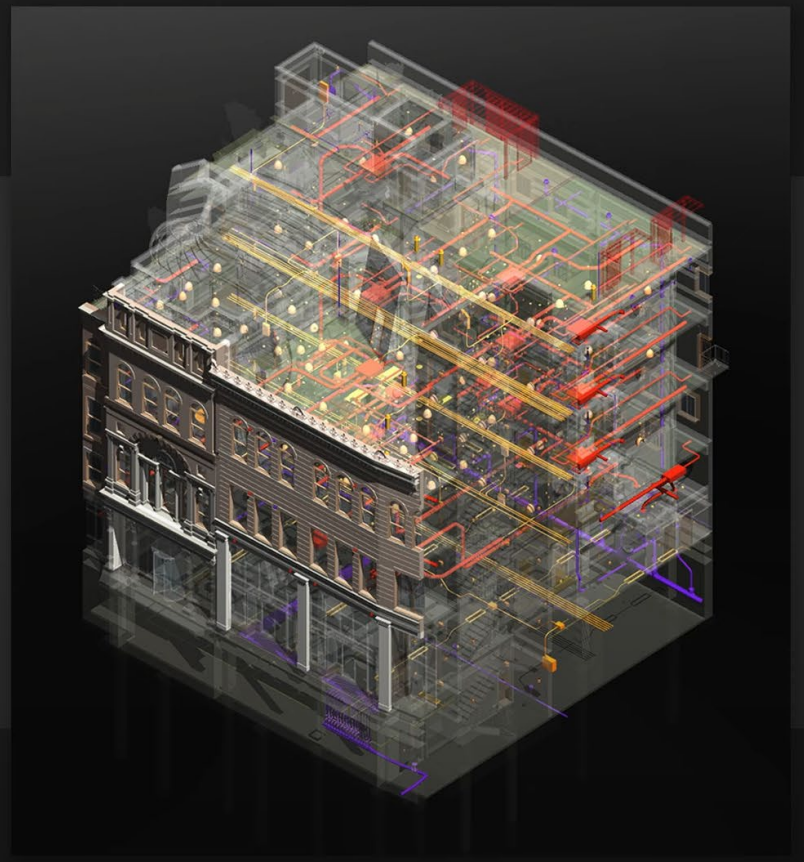
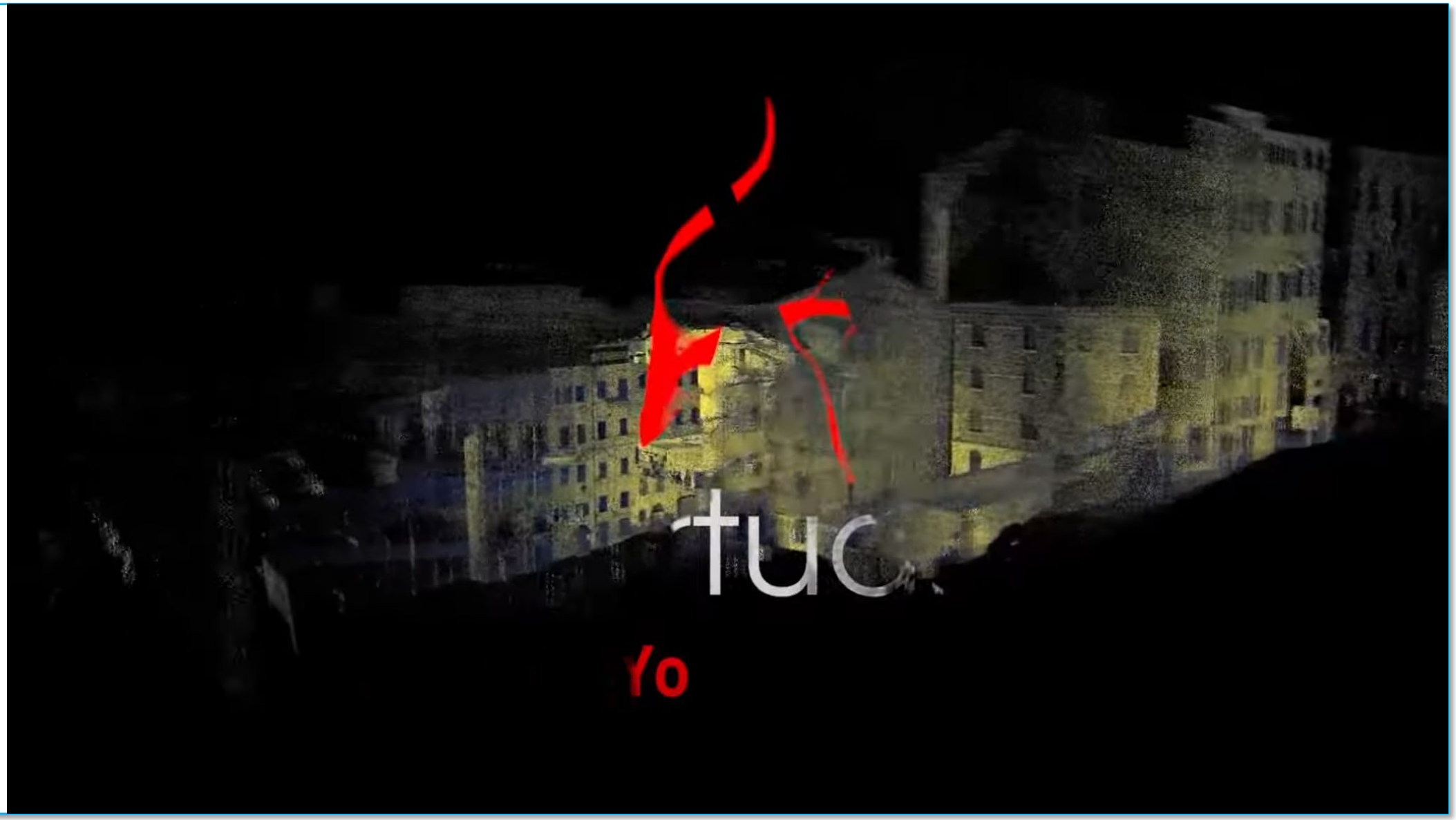


VIDEO

YouTube link:
set highest
resolution



THANK YOU FOR YOUR ATTENTION

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