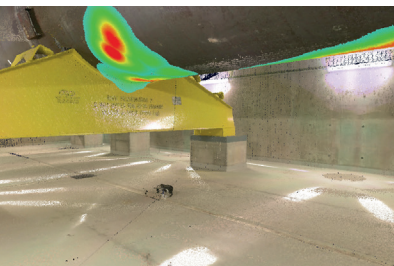
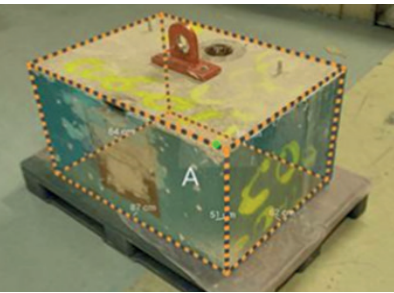
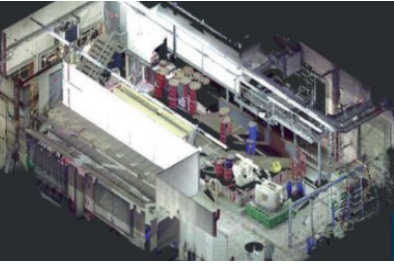


3D Scan

A tool for the design of precise digital twins



Scope

Physical assessment of the environment

- 3D scanning of an environment to be visualized at a given time
- Performance of all the measurements of a complex environment in one take and stored in a single folder
- A complementary tool to perform topographic surveys and cover wider surfaces with greater accuracy using Manuela™

Preparing operations

- Integration of 3D elements (e.g. tools, robots, airlock, etc.) in the environment to validate the layout of the worksite and to visualize any interferences
- Simulating replacement of equipment, checking of connections, etc.

Sharing of information

- Navigate a 3D virtual model as though it were real
- Extraction of drawings to visualize overall dimensions and accesses
- Presentation of the worksite environment to operators, to understand the risks and thus make the intervention more reliable

Advantages

- **SAFETY**
Suitable for interventions in contaminated zones without risk of contamination of equipment thanks to the patented enclosure system produced by Orano DS
- **QUALITY**
Reliability, precision and traceability of information gathered in the field
- **UNIVERSALITY**
Standalone and adaptable to all environments
- **EXPERTISE**
Analysis of data with CAD software
- **ADAPTABILITY**
Scans can be conducted indoors or outdoors

Key data

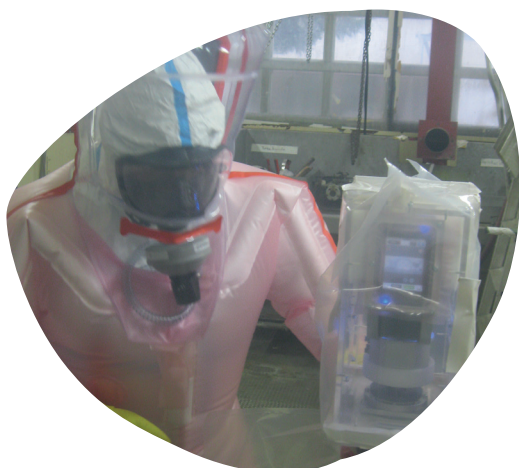
Scan 3D

- **Maximum range:** 130 m
- **Laser wavelength:** 1 550 nm (class 1 according to IEC 60825-1:2014)
- **Resolution:** 12 mm à 10 m
- **Précision of a point in 3D:** 6 mm at 10 m
- **Controls:** Touch screen, triggered remotely via wired connection or Wi-Fi
- **Autonomy:** up to 4 hours
- **Presentation of results in the form of panoramic photos or point clouds which can be converted into CAD models**

Digital twins for safer and more efficient operations

Our services

- Comprehensive service for the constitution of input topographic data (the data quality and resolution are adapted to meet your requirements)
- Inspections conducted on your premises by an experienced team in close collaboration with your own team
- Provision of topographic data which remain your property



Our enclosure solution
is patent-protected

Our references

CEA

- **CEA Marcoule:** UP1 Plant - Room 55 – SPF/AVM – liquid effluent treatment station (STEL) cell 804
- **CEA Fontenay aux Roses:** Building 50, CARMEN shielded hot cell system
- **CEA Cadarache:** INB 54 - Cryotreatment Unit, Advanced Effluent Management and Treatment Facility (Atelier de Gestion Avancée et de Traitement des Effluents – AGATE) INB 171 Room 129 Building 815 – Circuit for the emptying of tanks
- **CEA Saclay:** Interior of the pit containing the MA 501 vessel, Decontamination workshop (Atelier de décontamination – ADEC), Experimental reactor ULYSSE, Liquid Effluent Treatment Station (Station de Traitement des Effluents Liquides – STEL) Evaporator, Interior of the Expert Assessment, Cutting Up and Conditioning (Expertise, Découpe et Conditionnement – EDC) cell

EDF

- **EDF Paluel NPP:** Exterior of Reactor Building Unit 2
- **EDF Chinon NPP:** Machine room, Water chambers of the condenser extraction (CEX) system (inlet and outlet to and from the condensers of the Reactor Coolant System)

Orano

- **Orano Dessel (Belgium):** FBFC plant – Furnace room
- **Orano la Hague:** UP2 400 – High Oxide Activity (Haute Activité Oxyde – HAO) building – 3D scan of 8 cells or rooms including cell 813: Main route for the evacuation of waste resulting from the dismantling of cell 906 (zone 4)
- **Orano Pierrelatte:** Georges Besse 1 plant – Interior of plant 140 (on slab, under slab, Main Handling Corridor 140, end of the header box)



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