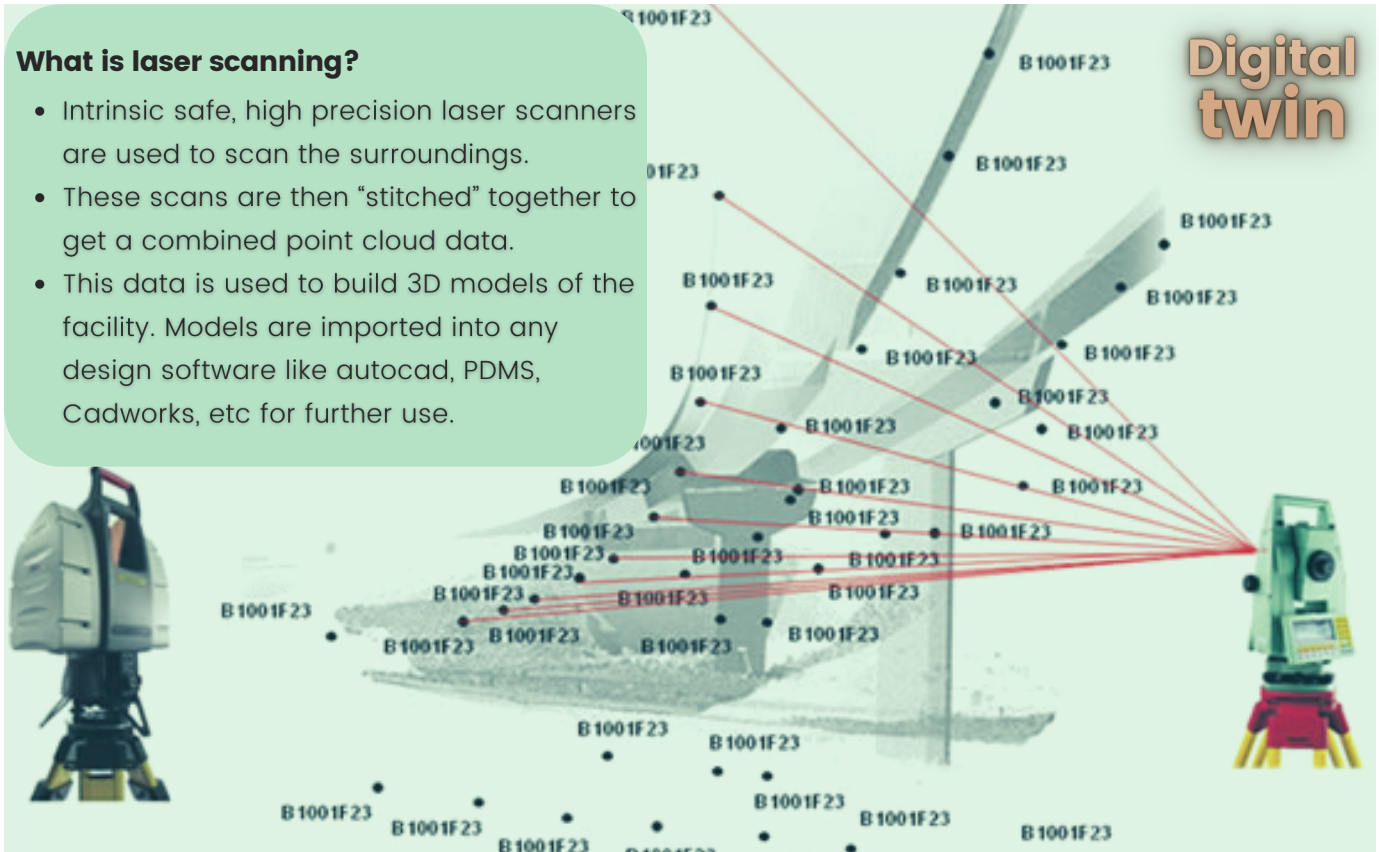


LASER SCANNING & 3D MODELING

Process plants, skids

What is laser scanning?

- Intrinsic safe, high precision laser scanners are used to scan the surroundings.
- These scans are then “stitched” together to get a combined point cloud data.
- This data is used to build 3D models of the facility. Models are imported into any design software like autocad, PDMS, Cadworks, etc for further use.

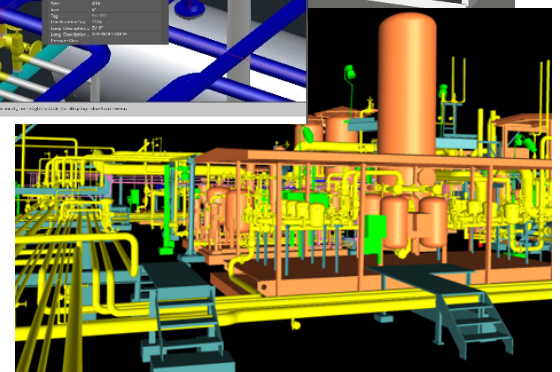
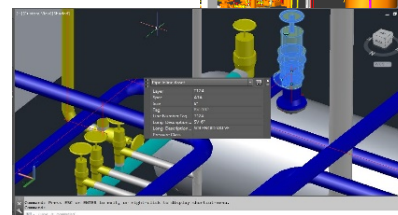
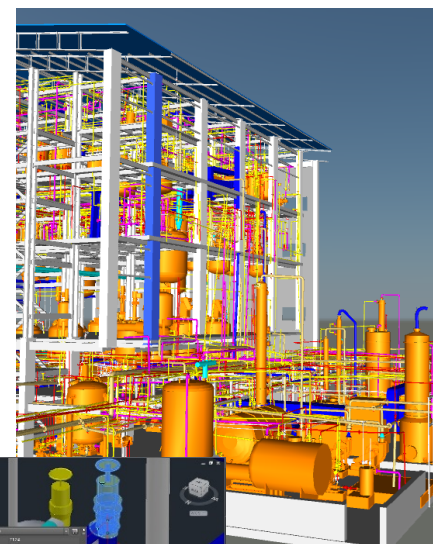


High precision, as built 3D model of your plant/asset

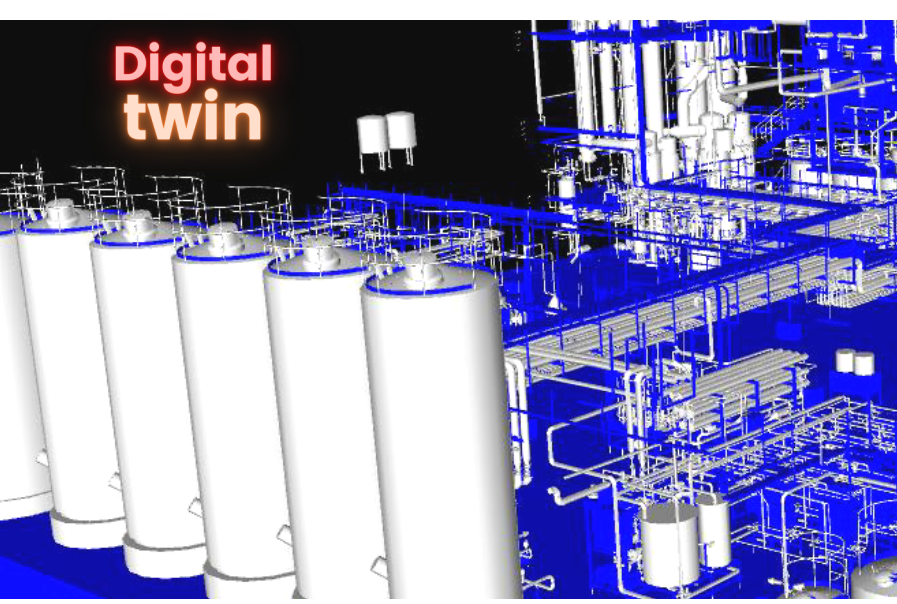
High dimensional accuracy, 3D, portable engineering models.

Typical uses are -

- High accuracy documentation of assets.
- Accurate representation of brown field plants
- Overview training, safety trainings
- Link to IT systems like plant historians, asset management systems, maintenance management systems
- Engineering & refurbishment studies



Digital twin



- Re-engineering & refurbishment studies
- Save engineering resources, Save time
- Accurate models
- Accurate documentation
- Process & Asset monitoring
- Training & competency
- Multiple uses.....

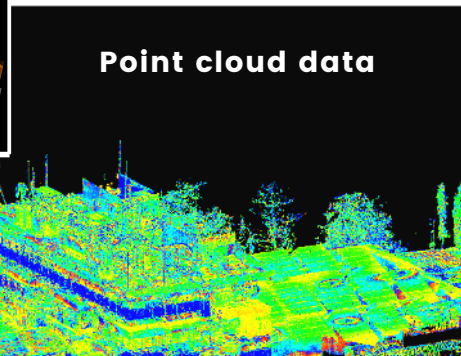
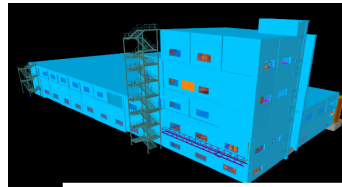
Models

Non - Intelligent (Dumb) models

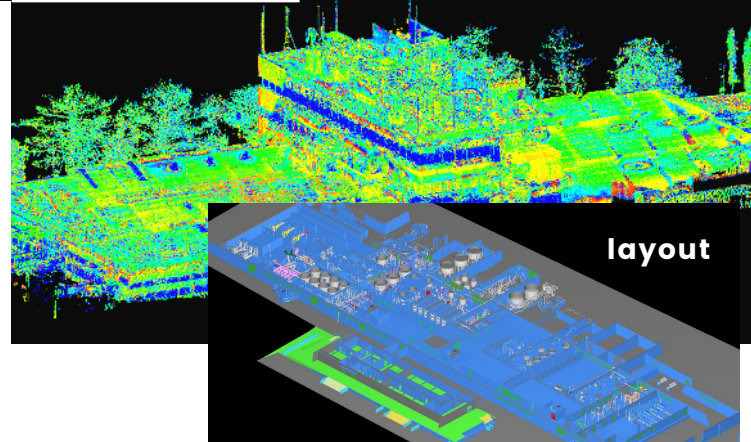
- GA drawings of plant / site, 3D surface models & Dimensional details.
- Used for facility familiarization / overview training, walk through, etc.
- Extensively used in architectural, heritage site
- scanning, plant overview, etc.

Intelligent models

- Complete documentation
- Equipment GA drawings, layouts, elevation drawings, 3D model, piping layout, piping isometric, tie-in, piping specifications, Bill of material, etc.
- Used for discrete and realtime simulation & further linked to IT systems like asset management software.



Point cloud data



layout

Value addition

- As-built models of existing plants, heritage sites, infrastructure projects.
- Digital documentation
- Overview training, field operators training, competency programs.
- An important milestone in asset management programs
- Vendor training before issuing PTW

isometrics

Item No.	Description	Qty	Unit	Material Code	Material Name	Spec	Remarks
101	SOLENOID VALVE	10	EA	101	SOLENOID VALVE	101	
102	SOLENOID VALVE	10	EA	102	SOLENOID VALVE	102	
103	SOLENOID VALVE	10	EA	103	SOLENOID VALVE	103	
104	SOLENOID VALVE	10	EA	104	SOLENOID VALVE	104	
105	SOLENOID VALVE	10	EA	105	SOLENOID VALVE	105	
106	SOLENOID VALVE	10	EA	106	SOLENOID VALVE	106	
107	SOLENOID VALVE	10	EA	107	SOLENOID VALVE	107	
108	SOLENOID VALVE	10	EA	108	SOLENOID VALVE	108	
109	SOLENOID VALVE	10	EA	109	SOLENOID VALVE	109	
110	SOLENOID VALVE	10	EA	110	SOLENOID VALVE	110	

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