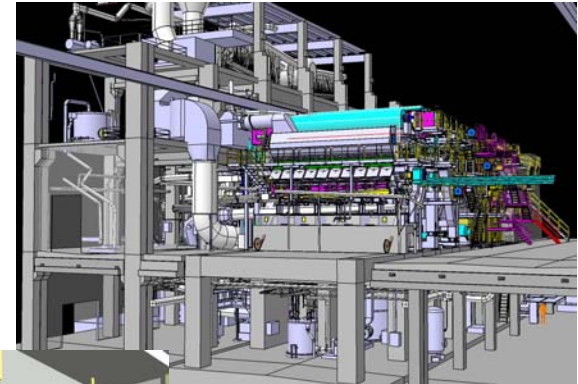




Selected References, Paper Machines

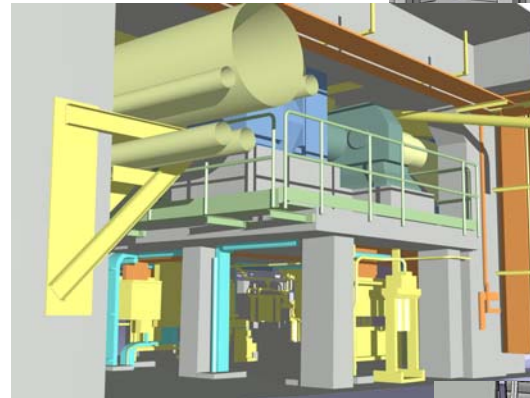
1

- Paper machine, wire and press sections
- At Germany
- All floors, whole area
- Scanning four days



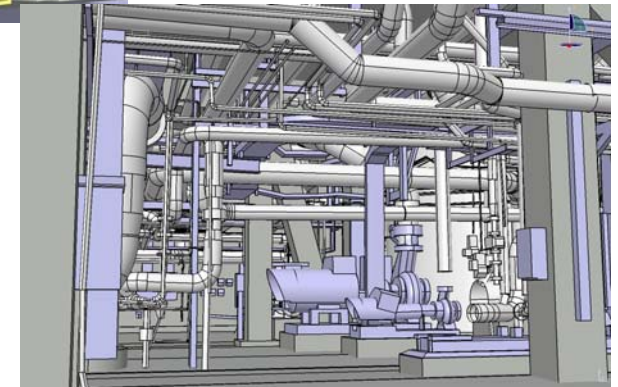
2

- Paper machine, press section,
- At France
- All floors, whole area
- Scanning two days



3

- Paper Machine, wire section
- At Finland
- All floors
- Scanning two days

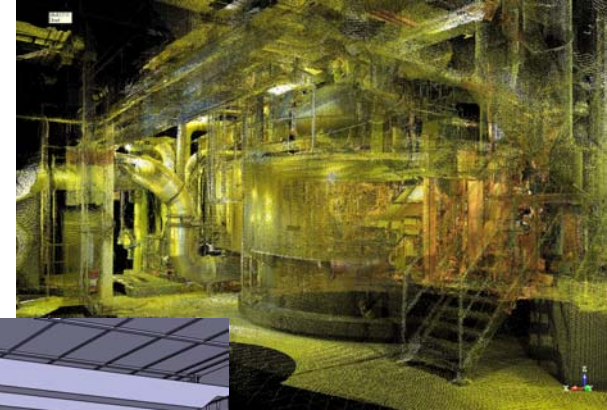




Selected References, Paper Machines

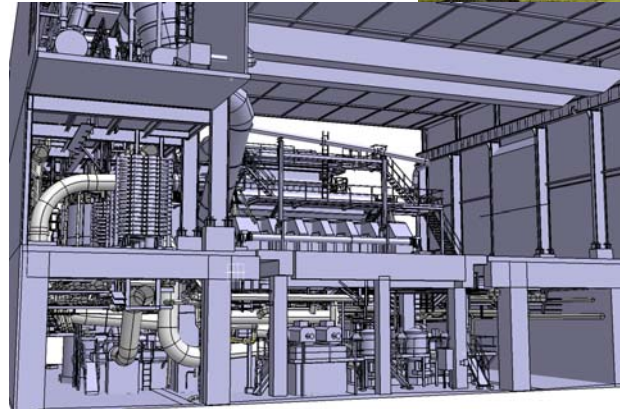
4

- Paper machine, wire section
- At Norway
- The basement and machine level
- Scanning two days



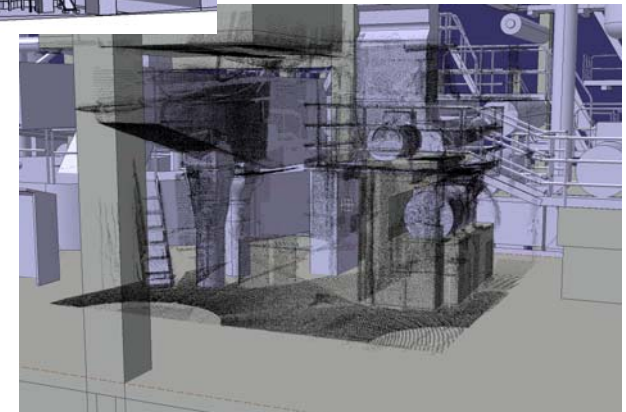
5

- Paper machine, wire section,
- At France
- All floors, whole area
- Scanning three days



6

- Paper Machine, wire and press sections
- At China
- Scanning five days
- All floors, whole area

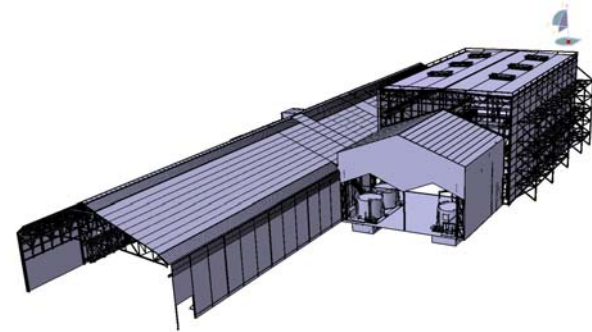




Selected References, Other Areas

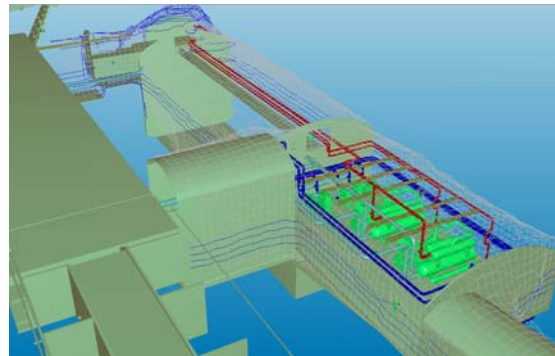
7

- Steel Plant
- At Neatherlans
- Scanning three days



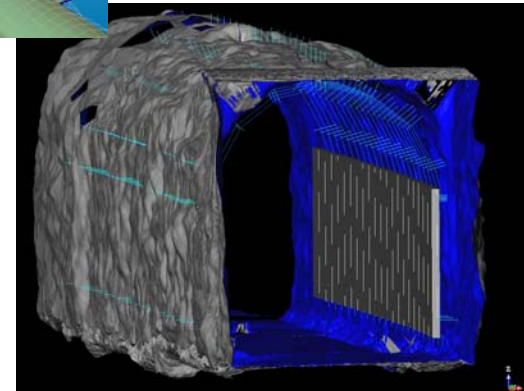
8

- Tunnels for water treatment
- At Finland
- Scanning one day



9

- Railway tunnel network
- At Finland
- Several days





Available scanners at plant scale



Surphaser (3D Guru)

- plant scale scanner
- fast scanner
- accuracy about 3mm
- max. distance 20m



New: Callidus CPW8000

- plant scale and single components
- accuracy about 2mm
- max. distance 80m
- very fast
- digital camera included
- the best available at the market!



Trimble GS200

- plant scale scanner
- accuracy about 5mm
- max. distance 100m
- digital camera included



- Leica HDS2500
- Plant scale scanner
- Accuracy about 6mm
- max. distance 100m



Callidus CP3200

- plant scale scanner
- accuracy about 6mm
- max. distance 30m
- digital camera included

...other scanners for single components

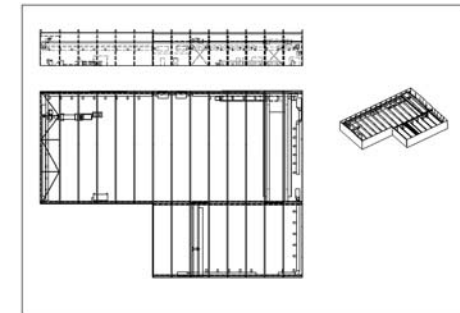
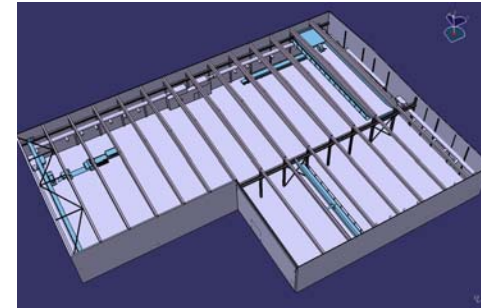


Possible ways of working

- The whole area scanned and everything modelled
 - Time consuming
 - The best result

- Great area scanned, but only important areas modelled
 - Not so time consuming, but huge amount of information available
 - Cost efficient
 - 2D-drawings can be created only from the modelled areas

- The area scanned and utilized as a point cloud
 - No modelling costs
 - Data available almost immediately
 - In cases where some drawings available, but more information needed
 - Even at small rebuild projects





Extra data



Panoramic images

- Scanners with integrated cameras
- Scanned area will be photographed automatically
- Panoramic image automatically created (360°) at every scanning station
- Free viewer for panoramic images
- Clear images can be used at engineering

