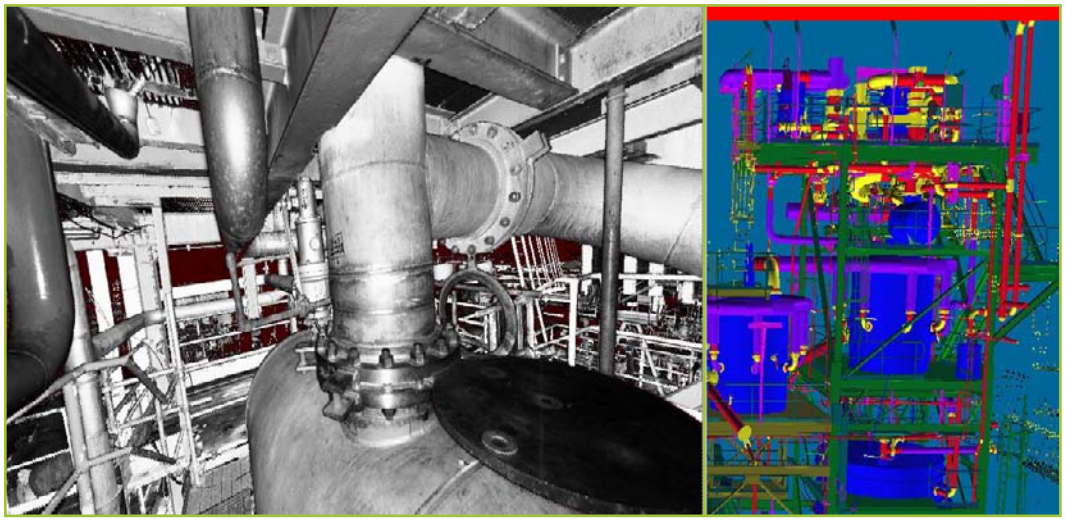
CASE STUDY

Laser scanning for infrastructure

Laser scanning is the ideal way to survey and model complex infrastructure.



Point cloud in Model view with overall model in 3D window

HIGHLIGHTS

The Z+F Short Range High Accuracy Laser Scanner features ultra high-speed data acquisition of more than 1 million points per second. This portable all-in-one scanner is ideal for forensic or investigative applications, plant and industrial surveying, architectural and tunnelling/ underground applications.

The Z+F 5010 Laser Scanner is designed for high accuracy surveying applications such as processing plants and engineering infrastructure. With a Class 1 laser, touch screen and 187 m range, the Z+F 5010 phased based technology delivers outstanding performance and quality.

Maptek is a reseller of this scanner in Australia, and the Z+F 5010 has been used successfully on several projects. One project involved scanning a processing plant so that sections of a refinery could be redesigned.

Several levels of the plant were scanned. The aim was to scan the piping, steel work and other infrastructure and create 3D models.

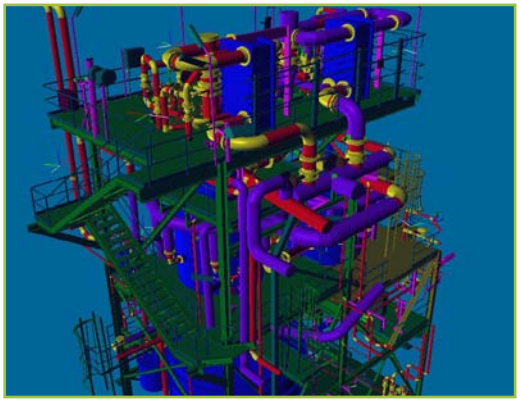
The CAD drafting engineers can then use these models to efficiently plan the removal of areas in preparation for new infrastructure.

The Z+F system excels in providing high quality point cloud data. When modelled, this data delivers outstanding accuracy for the CAD drafting stage.

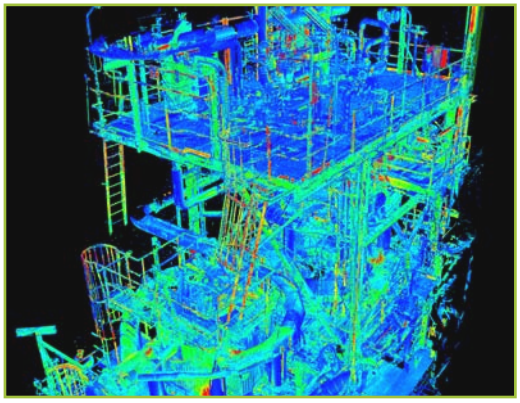
After capturing a total of 20 scans over 4 hours, the entire area was surveyed to a resolution of just a few millimetres. From here the scans were registered and prepared for modelling in LFM Modeller.

Once every pipe, flange, stair rail and structure is modelled, the draftsperson can then easily and accurately work in 3D to plan the best way to decommission the structures.

For more information about laser scanning for infrastructure applications, email isite.sales@maptek.com.au



View showing top of model



3D point cloud in I-Site Studio