

AVEVA IntelliLaser

Digitally navigate the physical asset

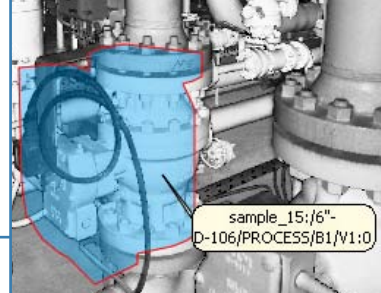
In recent years, the use of 3D laser scanning to capture as-built data has become mainstream. The cost of the hardware has fallen, its size and weight have diminished and scan quality has improved.

Modern scanners are portable and capable of capturing over a million points of data per second. All these innovations have made 3D laser scanning an economically viable technology choice.

Photo-realistic laser scans are thus an established way of providing hi-fidelity web views of the process plant, including poorly lit areas, enabling users to easily visualise and navigate the plant. However, until now, the challenge has been in understanding both the physical position of the scan on site, and how items within the scan relate to existing plant information. AVEVA IntelliLaser addresses this challenge. It is an AVEVA NET extension that makes all data and documents relating to all scanned items instantly accessible, through a simple browser.

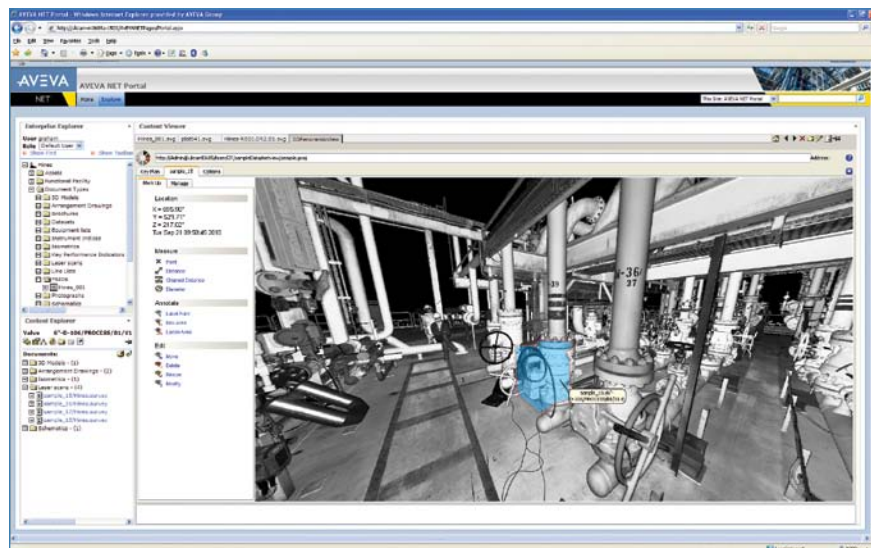
The result is a comprehensive asset management tool that links the physical asset and all its associated information, automatically and rapidly.

IntelliLaser combines with other AVEVA laser data solutions (Laser Model Interface, Laser Modeller), information management solutions, and Integrated Engineering and Design solutions, to create a powerful, digital as-built plant, where brownfield information is truly evergreen.



Business Benefits

- Minimise the safety risks, costs and productivity losses associated with sending personnel to physically investigate the plant. Clicking on a tagged item in a P&ID instantly highlights that same item within a laser scan
- Improve site training, and support compliance, through better, more realistic understanding of the operational environment, and its associated documents
- Maximise efficiency - the creation of intelligent laser scans is automatic and rapid
- Keep administrative costs down - easily maintain scan libraries; quickly and easily add or replace scans
- Add new value to existing laser scans



This is a photo-realistic laser-scan, showing how AVEVA IntelliLaser digitally hotspots a valve in the scan, within the AVEVA NET environment



Overview

AVEVA has worked with technology partner Z+F UK to deliver the unique capabilities in IntelliLaser. The solution automatically associates the 3D coordinates contained in the laser scans, with the existing 3D design model, creating hotspots on the scans. Through seamless integration with AVEVA NET, these are linked to the tag data that is associated with all available engineering data within the plant, such as P&IDs, maintenance data, datasheets and procedures. Through a browser, the user can, for example:

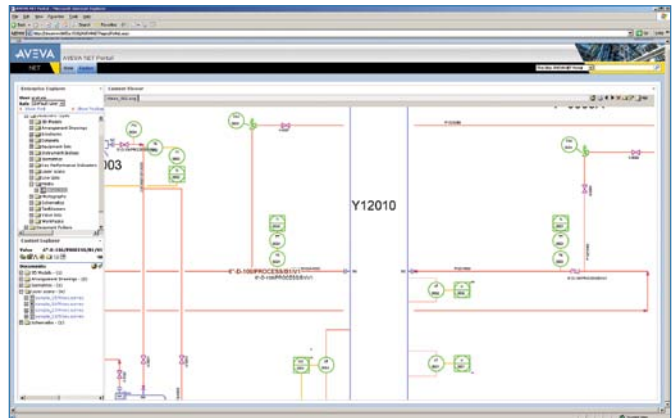
- Identify pipe service from the P&ID
- Navigate to a specific part of the pipe on the laser scan, e.g. a valve
- Identify the other items around it
- Obtain measurement and other physical information
- Add mark-ups to share with other colleagues
- Click on the valve to instantly see a list of other documents and data in which the valve is referenced

Unlimited numbers of scans can be hotspotted in this way. Because the solution is built on AVEVA NET, it works with data of any format.

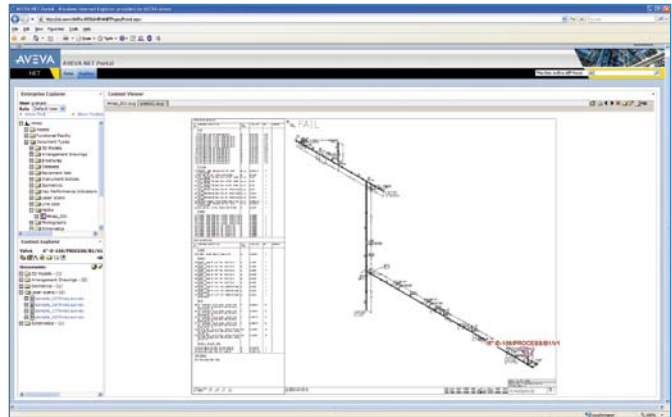
Alternative AVEVA solutions are also available for plants that do not have access to an existing 3D design model.

Key Features

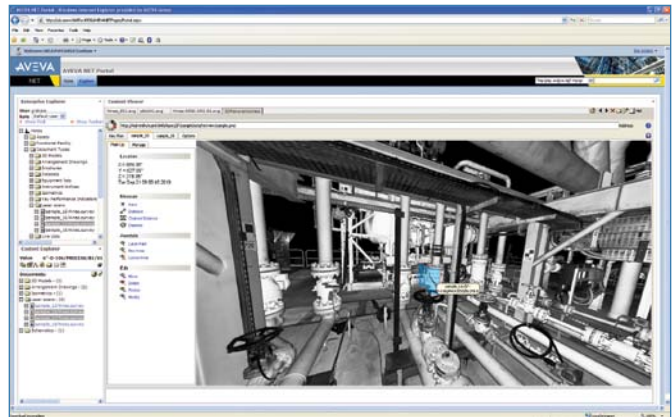
- Fully automated, rapid hotspotting process
- Integration between AVEVA NET and Z&F UK's LFM NetView technology enables measurement, annotation of laser scans, visualisation of the asset and interaction with the laser scan data
- Web based solution – easily accessible for all users; delivers all associated information
- Easy to operate and maintain - adding, hotspotting and maintaining data takes only minutes



The hotspotting is reciprocal between the laser data and all other data and documents in AVEVA NET, including 2D diagrams. Clicking on the hotspotted valve on this P&ID...



Or on this isometric...



...not only takes the user to the same valve, but also makes all data and documents relating to that valve instantly accessible, through the associated engineering tag (see user interface on left of image)

Information in this datasheet relates to the combination of IntelliLaser with AVEVA NET Portal 4.5, unless otherwise stated.

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