

# AVEVA Laser Model Interface

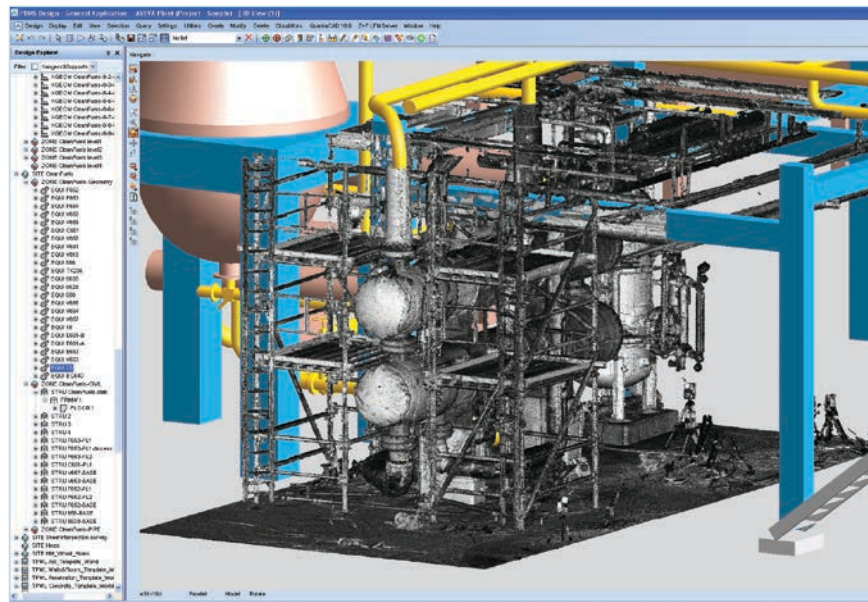
## Bringing the real world into AVEVA PDMS and AVEVA Outfitting

AVEVA Laser Model Interface™ combines the power of AVEVA PDMS™ and AVEVA Outfitting™ design environments with advanced third-party laser modelling systems.

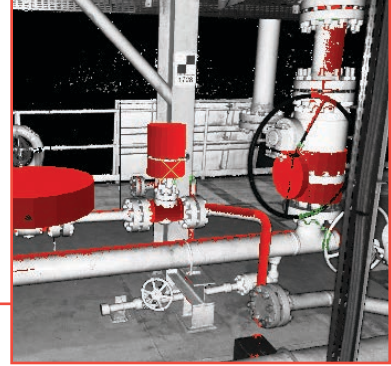
Computing technology has transformed the design and engineering of new plant and equipment. But retrofits and upgrades of existing plant, or upgrades and conversion of vessels such as FPSO projects have, until recently, relied on error-prone manual surveys; not always easy and, in many locations, hazardous to perform.

All this has changed with the integration of sophisticated laser modelling technology with plant engineering. Designed into the very heart of AVEVA's PDMS and Outfitting applications, Laser Model Interface fuses state-of-the-art, datacentric 3D design with high-definition scanning of the real world, to bring massive benefits to plant engineering and operation.

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



AVEVA PDMS/Outfitting displaying both the 3D model and a laser survey



## Business Benefits

Laser Model Interface will transform the way you re-engineer brownfield plant, marine conversion or offshore facilities.

### ■ Reduce risk

Hazardous locations can be surveyed safely and quickly. Site risks are minimised.

### ■ Less commercial risk

The most demanding brownfield projects and marine conversions can be tackled with maximum confidence in the as-built model.

### ■ Quicker projects

Site survey times can typically be halved. Integration with PDMS eliminates intermediate remodelling, allowing overall design time to be reduced by up to 10%.

### ■ Higher quality

Accurate, high-definition surveying allows 'right first time' design and less rework.

### ■ Less cost, less downtime

Accurate design means less on-site fabrication, lower installation cost and less down time.

# Key Features

Laser Model Interface's open interface means users can select a laser scanning system best suited to their needs.

Laser Model Interface currently supports systems from:

- FARO
- Leica Geosystems HDS
- Quantapoint
- Riegl
- Trimble Dimensions
- Z+F

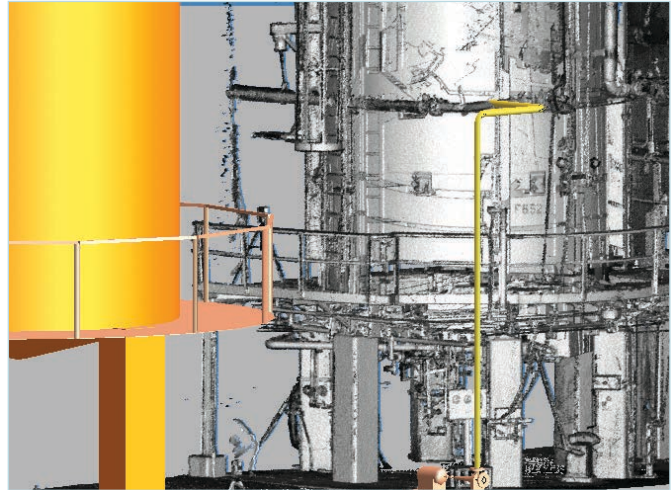
What's more, laser-scan data from different systems can be handled simultaneously. This is ideal for global, multi-site projects, which may use more than one scanning system.

Typically accurate to 3-5mm, laser models of unlimited size can be aligned to the plant model by selecting 'tie-in' points. Distance measurement and interactive clashing can then be performed within the PDMS and Outfitting environment.

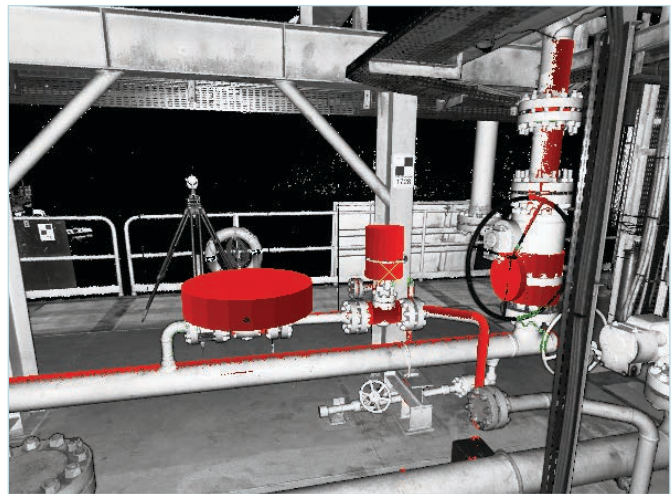
Once captured within PDMS and Outfitting, laser models can be exploited by other AVEVA tools, such as AVEVA Global for collaborative multi-site working, or AVEVA Clash Manager for better design quality.

With Laser Model Interface and PDMS and Outfitting you can:

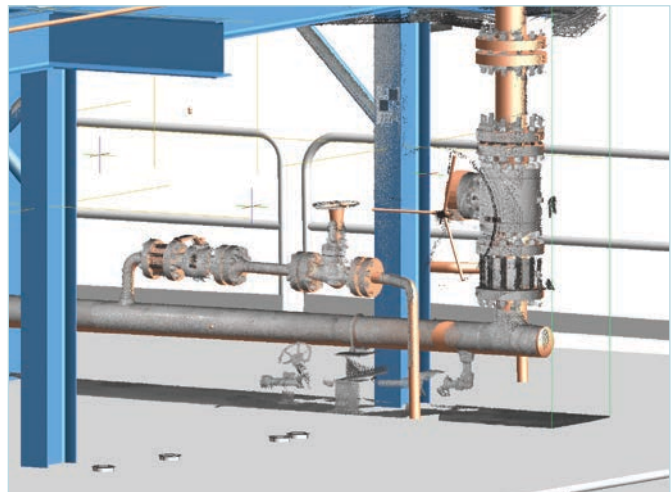
- Accurately measure discrepancies between as-designed and as-built models.
- Capture selected plant elements and reverse-engineer them into fully intelligent models.
- Accurately position and clash check new design against existing plant.
- Design or re-route pipe runs with confidence.
- Reduce the need for costly on-site welding, through more accurate prefabrication.
- Validate installation, commissioning and maintenance procedures.
- Position a model or process module in an accurate model of its planned site; communicate design intent to stakeholders; check site compatibility.
- Verify compatibility of modules prefabricated at different locations, before shipment to site.



New pipe work design integrated with existing plant captured as laser survey



Laser image displaying AVEVA clashing geometry



AVEVA PDMS/Outfitting displaying newly modelled piping along with laser data



AVEVA Laser Model Interface is one of AVEVA's Design products, which create 3D models for detailed design and produce all associated deliverables

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**AVEVA**

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Tel +44 (0)1223 556655 | Fax +44 (0)1223 556666 | [www.aveva.com/contact](http://www.aveva.com/contact)