



TRACE  
Technologies

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Trace Technologies Ltd  
Optic Technium  
Ffordd William Morgan  
St Asaph Business Park  
St Asaph  
Denbighshire LL17 0JD  
United Kingdom

Tel: +44 (0)1745 535 169

Fax: +44 (0)1745 535 030

Email: [info@tracetechnologies.co.uk](mailto:info@tracetechnologies.co.uk)

Web: [www.tracetechnologies.co.uk](http://www.tracetechnologies.co.uk)

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Design at the speed of light

“ PISD allows fibre optic cable harnesses to be designed with considerably less time and expense ”

## our company

Trace Technologies, founded in 2002, is the company behind PISD, the groundbreaking design automation tool that empowers aerospace system engineers to confidently design fibre optic cable harnesses – and to do so right first time, every time.

Replacing traditional copper cabling with optic fibre increases the variety and availability of in-flight services. In addition, optic fibre reduces aircraft weight thereby improving fuel economy and increasing the aircraft's range.

While commercial and military aerospace manufacturers are keen to embrace the benefits of fibre optic cabling, the harsh working environment demands a high standard of system design. Designers need reliable tools to enable them to create harnesses that work first time, every time.

Trace Technologies provides the solution with PISD – the first dedicated practical engineering tool that means aerospace system engineers can easily design, install, test and build reliable fibre optic cable harnesses for next generation systems on today's aircraft.

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## our product

Trace Technologies' unique software application, Photonic Interconnect System Design tool (PISD), is the first dedicated practical engineering tool to aid with the design and validation of fibre optic cable harnesses.

PISD provides the environment for engineers to confidently produce right first time, every time fibre optic cable harnesses. Its range of functions support system design, digital mock-up, harness design, documentation and harness validation.

### PISD benefits system engineers by:

- ▶ Ensuring that the fibre optic cable harness design is right first time, every time
- ▶ Automatically determining if the harness design meets the system's power budget
- ▶ Automatically determining if the harness design meets the system's bandwidth requirements
- ▶ Accurately modelling attenuation and dispersion of fibre optic signals using advanced ray-tracing techniques
- ▶ Providing complete documentation

### PISD benefits programmes and projects by:

- ▶ Supporting the drive to reduce the weight of aircraft to reduce fuel costs
- ▶ Providing right first time, every time and replicable fibre optic cable harness designs
- ▶ Offering substantial savings in time and effort



## inspire confidence

PISD makes it easier, quicker and cheaper than ever before for system engineers to accurately design, install, test and build fibre optic cable harnesses for next generation systems on today's aircraft.

PISD inspires confidence in the ability to produce robust fully functioning harnesses, enabling engineers to explore and develop new fibre optic-based solutions.

PISD replaces existing complex manual design processes, offering up to 60 per cent reduction in costs and time to market.

“PISD enables organisations to cost effectively deliver next generation systems on today's aircraft”

Design at the speed of light

## our credentials

PISD has been developed and commercialised from well established processes and technology delivered by aerospace research projects such as LOADNet and the Fibre Optic Harness Study Group.

The LOADNet project included support from universities in France, Germany, Spain and the UK, as well as aerospace companies including Airbus, BAE Systems, EADS and Smiths Industries.

Now with the commercial backing and support of our experts, PISD makes it easier, quicker and cheaper than ever before for engineers to accurately design, install, test and build fibre optic cable harnesses for next generation aircraft.

“PISD automates the design of fibre optic harnesses that are right first time, every time”