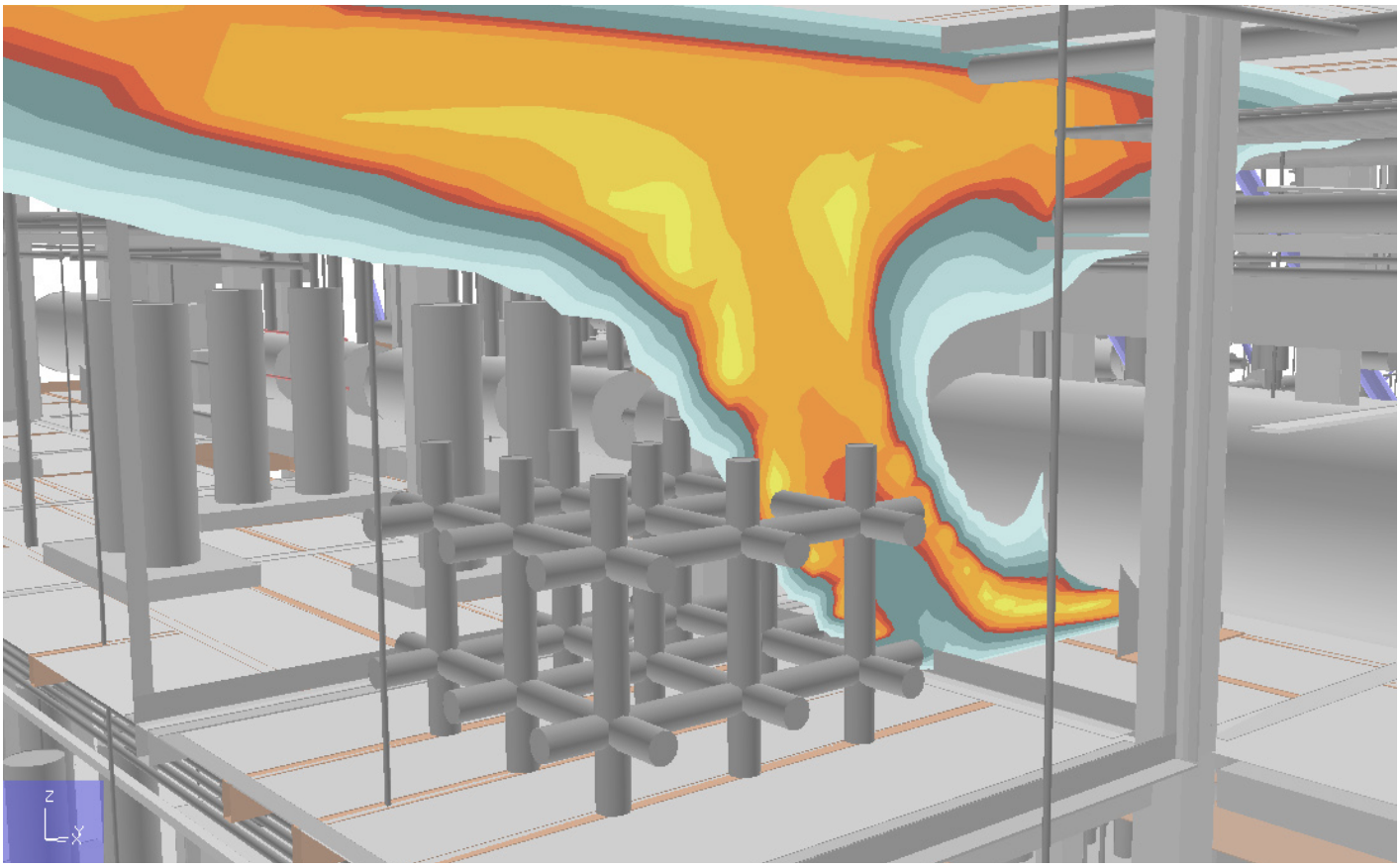
PHAST™

CFD add-ons powered by KFX™ software

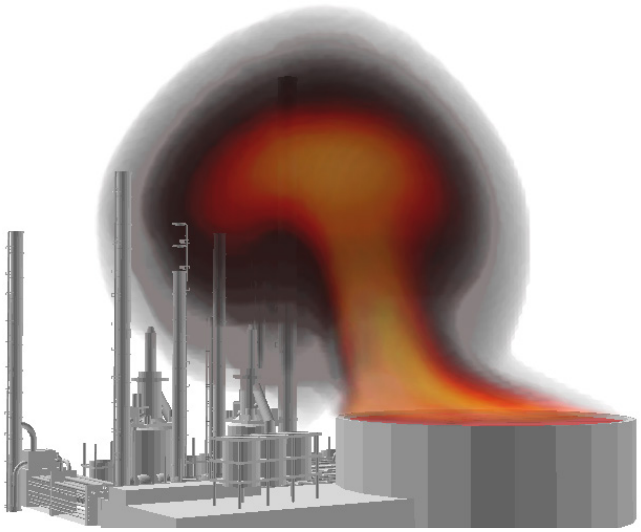
Computational fluid dynamics for modelling of complex geometries in Phast



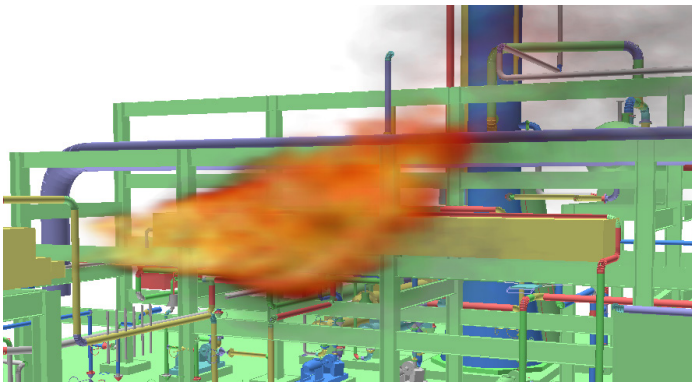
Releases of flammable material can ignite to form pool fires and jet fires. As well as being an immediate threat to people nearby, there is the potential for asset damage and escalation, especially if the flames impinge on equipment and structures.

Particularly for design related decisions, it can be important to model scenarios in detail, considering the impact of physical objects that exist in the vicinity of the fire. For this, computational fluid dynamics (CFD) is required.

Historically, CFD tools were out of reach for most safety professionals due to the associated cost and complexity. This has changed, as CFD add-ons, powered by KAMELEON FIREEX KFX® - KFX software, are now available in the familiar Phast interface. Safety professionals now have access to the right solutions in a user-friendly way.



Flame shape of a tank roof pool fire



Flame shape of a jet fire from a flare tip

KEY CAPABILITIES

- Powered by the 40+ year history of research and development in our CFD code in KFX software
- Determine the impact of three-dimensional surroundings such as firewalls and other obstructions
- Model any wind speed and direction
- Flames shapes, and temperature and radiation isosurfaces and isocontours presented in a rich, three-dimensional viewer
- Influence your design or propose mitigation measures using the radiation and temperature results at any point in 3D space
- Supports a range of CAD filetypes, including DGN, RVM, OBJ, MCR, CGE, CGEO, and STL
- Create your own custom 3D models using cuboids and cylinders

THREE PHAST CFD ADD-ONS

Phast CFD – pool fires

- Detailed modelling of standalone pool fire scenarios
- Immediate ignition of a pool fixed in size
- Circular and rectangular pool shapes

Phast CFD – jet fires

- Detailed modelling of standalone jet fire scenarios
- Define the jet source terms or have them calculated from pressure, temperature and hole size

Phast CFD - dispersion add-on

- Detailed modelling of the behaviour of unignited flammable releases in vapour, two-phase or liquid phases
- Present dispersion results in terms of predefined and user-defined concentration and temperature levels in the form of isocontours and isosurfaces
- Visualise dispersion of liquid and two-phase release in the form of spray droplets and pool depth

Short and long term lease options available.

Please visit store.veracity.com/phast-cfd or **scan the code** for more details: