



# PEL

The essential process engineering software, created by process engineers for process engineers



# **PEL**

PEL is a simple, reliable and effective software suite for process engineers, saving them time by providing accurate and trusted data for their day to day job.

The PEL suite includes purpose built programs to generate datasheets, perform engineering calculations and manage documentation, investigate physical properties and create fault tree diagrams. Designed by engineers for engineers, the tools are intuitive and easy to use. They can be used to work out every day calculations, for troubleshooting issues such as bottlenecks, or when making plant modifications. This low cost solution will enable engineers to design processes more quickly and reliably with up-to-date and permanently available design data.

# Range of licensing agreements

PEL is available through a number of licensing options. The structure is very flexible and can be tailored to suit your needs. We can provide any combination from single user standalone licences for one component, through to unlimited global licences for the complete suite.

## Free upgrades

Our development team is continually working to improve and update the software. All licence holders receive program updates at no extra charge.

#### PEL support

We pride ourselves on the quality of the support service we offer. The licence agreement provides unlimited hotline support via email and phone. The software is easy to navigate and you can be operational within an hour. The range of training documentation includes '60 second' guides, reference documents and full user manuals to ensure that you can fully utilise the software. We also provide training sessions at our offices or on-site.

#### 30 day free, no obligation trial

See the benefits of PEL for yourself. We offer a 30 day free, no obligation trial. Simply download your evaluation copy at <a href="https://www.pelsoftware.com">www.pelsoftware.com</a>

#### The programs

#### PEL PhysPack

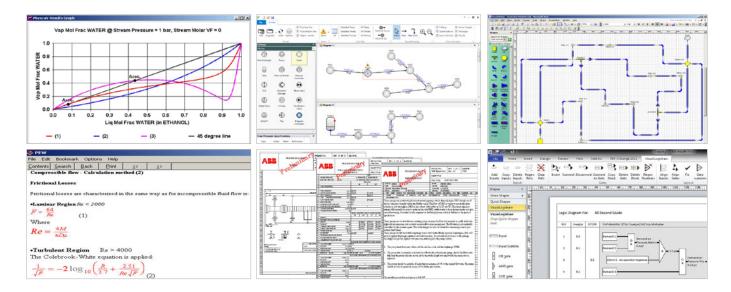
Obtaining physical properties is essential in completing engineering calculations. PEL PhysPack is a simple and easy to use program to generate thermodynamic and transport properties. The PEL PhysPack databases contains over 1500 components and can generate properties for pure components, aqueous solutions and user defined fluid mixtures. It also allows users to define crude oils and petroleum fractions. PEL PhysPack can be used as a standalone program or can be used through the other PEL suite programs when requiring physical property information.

#### Fluid Flow Suite:

These packages allow engineers to model and analyse incompressible, compressible and two-phase flow in pipe systems.

- PEL Flonet incompressible network flow
  PEL Flonet calculates single phase liquid or vapour flow rates and pressure drops in piping systems
- PEL Adrian compressible network flow PEL Adrian calculates flows and pressures for high velocity, compressible gases in a network and is relevant for the modelling of relief streams
- PEL Piper two-phase fluid flow
  PEL Piper calculates the pressure, flowrate and phase of a liquid, two-phase mixture, or gas

through an unbranched closed conduit system



- PhysPack
- Flonet
- Adrian

Bottom row:

- PEW
- ProvueDB
- Logidraw

#### PEL CAPRE

This is a process engineering add-in for Microsoft Excel which provides validated proforma calculations for pressure relief, heat transfer, mixing and equipment sizing. PEL CAPRE also provides engineering functions to allow users to easily create their own calculations. PEL CAPRE marries the simplicity of Excel with the rigour of defined functions reducing errors and speeding up calculations. The functions are written so that different units of measurement can be used within any calculation step.

#### **PEL PEW**

PEL PEW is a collection of validated chemical engineering calculation methods relating to fluid flow, heat transfer, mixing and equipment sizing.

## PEL ProvueDB

PEL ProvueDB is a database management system that makes datasheet production fast, simple and productive. With access to over one hundred pre-designed datasheets, or allowing users to use their own, the program ensures that process engineering data is accessible and controlled at all times. The system manages revision control and enforces checking and approving to ensure that everyone is working from the same, up to date revision. The online version,

www.ProvueDB.net means that all this data can be accessed over the internet, wherever users are in the world, via a normal web browser.

#### **PEL Logidraw**

The PEL Logidraw software allows users to create fault tree diagrams in order to carry out quantitative analyses more quickly and efficiently. It improves flexibility of models created, saves time by eliminating tedious manual drawing and redrawing of fault trees, as well as maximising the involvement of others to help develop a correct hazard analysis.

#### PEL tools

All PEL programs are enhanced with PEL tools:

- In-line units conversion
- Pipe inner diameter calculator
- Roughness calculator
- Kvalue calculator
- Physical property calculator

In any program users can call upon these handy tools, without interrupting the calculations they are currently working on.

#### **Benefits**

- Users can have complete confidence in the results
- Reduces risk of human errors in calculations essential when working with safety critical equipment
- Allows engineers to be more efficient and productive
- Provides a documented record of calculations
- Improves quality assurance and standardises procedures by everyone using the same set of data and calculations
- Free upgrades make sure you always have the most up to date solutions available





# **PEL Support Services**

ABB Limited Daresbury Park Daresbury Warrington Cheshire WA4 4BT United Kingdom Phone: +44 (0)1925 741126

E-Mail: pel.support@gb.abb.com

pelsoftware.com

