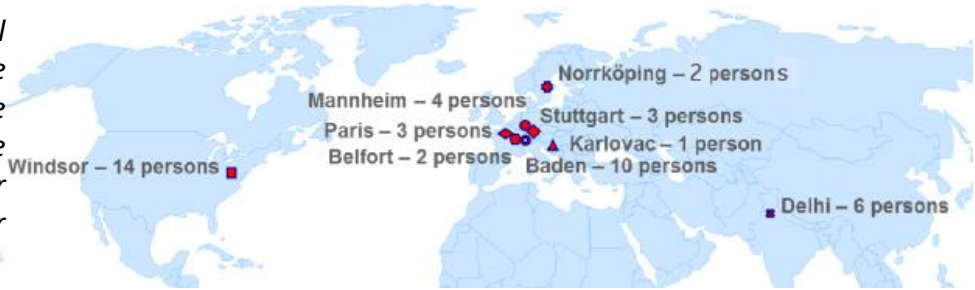
Success Story:

Apros

Experiences and key benefits at GE Power

GE Power uses Apros® Thermal since 1997. Presently the product is in use in nine office locations by 40 experts. The main application areas cover steam plants, gas power systems and power services.



Steam Plants

The primary uses for Apros steam plant applications are:

- Dynamic operation and control analysis
- Development of model predictive controls
- Steam turbine start-up optimization
- Training simulator model development
- Studying different modes of operation
- Grid compliance analysis

So far GE Power has studied steam plants of the following power plant concepts

- Circulating Fluidized Bed
- Combined cycle
- Pulverized coal
- Nuclear
- Solar Thermal

Power Services

GE Power uses Apros to analyse the performance of existing power plants, in order to improve plant efficiency, flexibility and environmental sustainability. The analysis also give input to lifetime assessment.

Apros is used e.g. for optimizing start-ups, for studying low load operations and load cycling, for troubleshooting and for control development. Furthermore district heating systems can be analysed, including thermal storage.

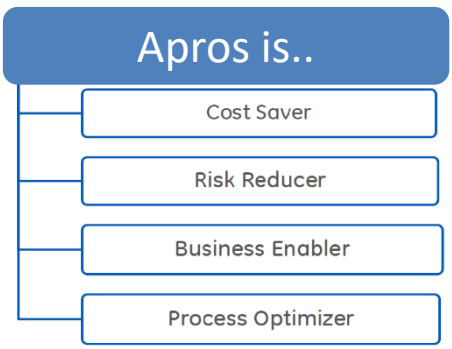
Gas Power Systems

In the development of combined cycle power plants, Apros is an invaluable platform in the development of reference plants. Apros analyses serve in integrated process and control development, in defining the start-up curves, in heat recovery steam generator lifetime assessment and in gaining knowledge on plant transient behaviour.

Boosting productivity in control engineering

In order to cut the time and reduce human errors, GE Power has together with VTT built the FupRos translator software which transfers process function plan drawings and database contents between the Automation engineering system and Apros. FupRos has reduced the typical time required to create a simulation model of the automation from 375 hours down to 30 hours.

"In this fast changing environment for Power Plants, we need a tool like Apros, which is capable of adapting to new tasks while providing sound physical results."
Jakob Wieck, GE Power (Switzerland).



Contact

For more information, contact:

Jakob Wieck
Plant Dynamics Engineer
Gas Integrated Systems Technology
GE Power (Switzerland)
Jakob.Wieck@ge.com
Tel. +41 58 505 37 28