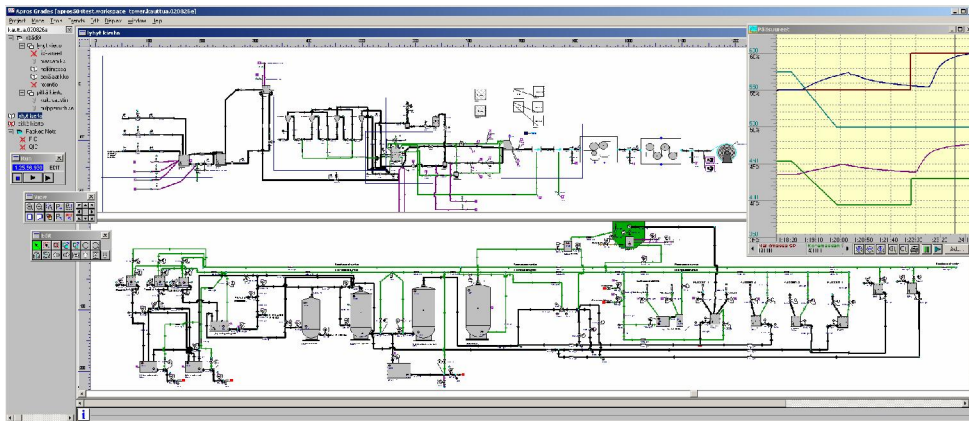


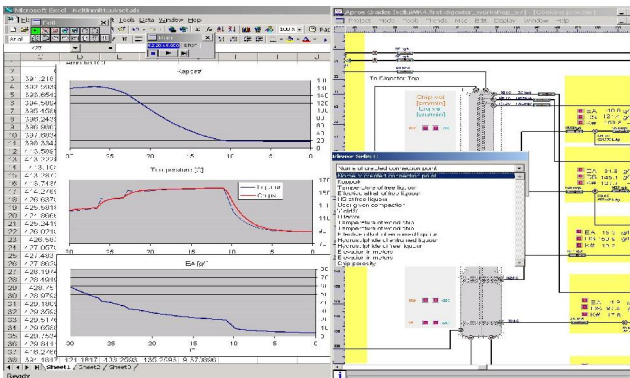
Pulp and Paper Process Models

APROS Paper provides advanced tools for model building and dynamic simulation of papermaking processes, as well as major parts of the pulping processes. The efficient tools for detailed simulation model configuration and high-accuracy solution methods, combined with new tools for pulp and paper quality modelling, and tracking of fiber processing history data, substantially increase the utilization potential of dynamic simulators in the pulp and paper manufacturing processes.



An accurate millwide dynamic simulation model can be used as a mathematical pilot plant for developing, testing, troubleshooting and training.

Detailed real-time dynamic simulator is an ideal tool for examining the co-operation of process and its automation during normal and exceptional operating conditions, and disturbances due to equipment or automation malfunctions, operator actions, or raw material quality variations.

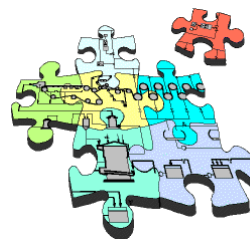


Dynamic continuous digester model is an excellent tool for advanced control development.

A systematic use of multi-functional dynamic simulators over the entire process life-cycle can bring substantial benefits both to the pulp and paper companies, to the equipment and automation manufacturers, and engineering companies. As an example, the risks related to process and automation renewals can be reduced by using detailed real-time dynamic simulators in design quality assurance and rigorous

automation testing. The same simulator can further be used for high-quality operator training.

Altogether, this sequential utilization of the simulator substantially helps in achieving trouble-free commissioning and start-up savings. Cumulative benefits can be gained after start-up, when the simulator is kept consistent with the real process and its actual automation by continuous system updates. Up-to-date simulator is an ideal tool both for continuous improvement of mill personnel skills and mill operating strategies.



*Promoting
Productive
and Flexible
Pulp and Paper
Technology*

For further information, please contact:

Jouni Savolainen, VTT

P.O.Box 1000

FIN-02044 VTT, Finland

Tel: +358-40-829 8982, Fax: +358 20 722 7052

E-mail: Jouni.Savolainen@vtt.fi

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