SPECIAL FEATURES OF CADSIM PLUS

New! Drawing Interface

- Visual Object Inspectors.
- Visual Equation Editors.
- The power of CAD with easy drawing tools.

Special Components

- Track components which do not participate in normal mass, energy, and momentum balances - such as dollars, [H$^+$], COD, viscosity, strength and brightness.

Runtime Interactivity

- Run the drawing with full animation capabilities.
- Graphical PID controllers are automatically created for all controllers.
- Watch variable activity with trend charts, gauges and numeric displays.
- Change any parameter on the fly and watch the results.

Connectivity

- Run your process simulation from current values downloaded from the plant DCS, using a formatted flat file or live links.

Expandability

OSSA guarantees that you will be able to find a solution to your unique model requirements.

- *Add-on libraries.* Check out the optional add-on libraries, such as the Power and Fibre libraries.
- *Calculation building blocks.* Use basic logic, signal and math building blocks to enhance existing units without programming. Use the neural net package to predict multi-variable relationships.
- *Programming options.* We can provide source code for all Cadsim Plus modules so you can write your own modules to augment Cadsim Plus, or have us write one for you.

Design Capabilities

- Produce complete P&ID and P&C drawings that are also process simulations - complete with live logic.
- Benefit from stringent heat and material balances to insure the accuracy of your simulation.
- Powerful stream based specifications and equations.
- Export to AutoCAD®.
- Annotate AutoCAD® drawings with simulation results.

Program Performance

- SmartCalc™ gives Cadsim Plus unparalleled performance on standard PC's running all 32 bit versions of Windows®.

Compatibility

- Cadsim Plus allows you to do both steady state and dynamic simulation with the same drawing.
- Runs on current Windows platforms.

Program Versions

- Cadsim Plus is available in full and runtime versions.

SERVICES

Aurel Systems has been providing quality products and services for more than 25 years. Some of these services include:

- Immediate response to support questions
- Training
- Application/model development
- Custom module development
- Conversion of drawings from AutoCAD to Cadsim drawing format
- Conversion of other simulation platforms to Cadsim Plus

" . . . Cadsim Plus is an excellent mass balance simulation program that is very easy to learn and use."

Thomas Baerenwald,
Process Engineer
Marathon Engineers/
Architects/Planners, LLC.

Prove it for yourself
Download our free demo.

For more information, contact:

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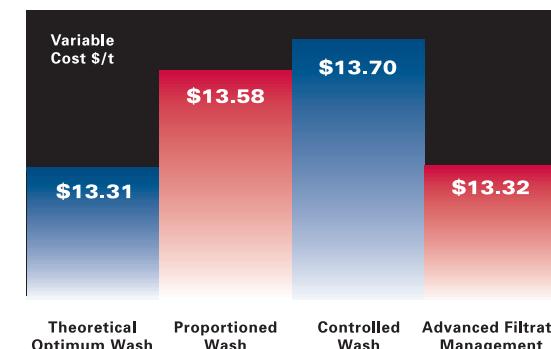
Web: www.aurelsystems.com

CADSIM PLUS

Your practical solution

to process improvement

and operation

Increase your plant efficiency NOW!

Cadsim® Plus enables you to:

Visualize plant processes

Track process changes over time

Predict operating efficiencies

Anticipate problems

AUREL

Empower your key personnel.

SOLVE PROBLEMS IN YOUR PLANT LIKE NEVER BEFORE...

Knowledge is power. Cadsim Plus gives you the power to understand and improve your process.

Cadsim Plus excels at helping you visualize what's happening. It's a single tool that can both balance flowsheets and portray dynamic conditions. It can give you a crystal clear view of process bottlenecks, potential quality control problems, process waste management, or process inefficiencies.

Using process simulation software has never been easy due to difficult user interfaces, slow calculation speeds, and limited software flexibility. Enter Cadsim Plus. Now there is an easy and practical way to manage and improve your process. Imagine being able to easily predict what will happen to paper quality in the hours following a change in wood fiber species, or being able to tell the next shift about the predicted effluent loading on the waste treatment plant. It's all possible with Cadsim Plus.
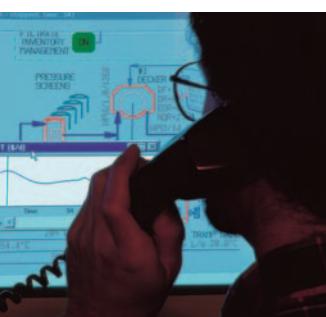
Reduce operating costs with Cadsim Plus.

A NEW STANDARD

You can use Cadsim Plus to create a dynamic model of your plant, so you can see at a glance how any change will affect the rest of the process. Cadsim Plus incorporates three new technologies to make the modeling process faster and easier than ever before.

1. Living Drawings™

Cadsim Plus brings your plant flowsheets to life. You will see your own plant equipment in action. Tank levels change and equipment is animated.

Everything you see is familiar because it can be identical to your plant drawings. A single click of the mouse is all you need to display the process information that is linked to each drawing object.

2. Fast Calculation
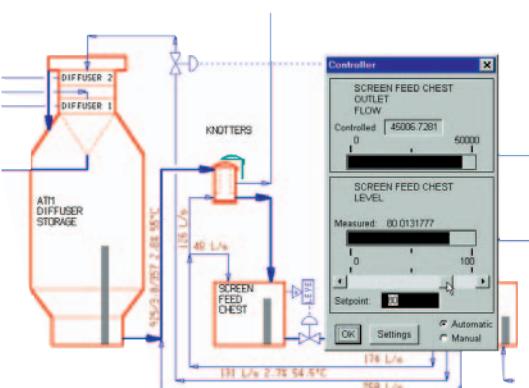
Cadsim Plus uses SmartCalc™, a new technology designed to accelerate both simulation calculation and results display. SmartCalc manages flowsheet calculations to speed up runtime performance. The result - calculation times that can be an order of magnitude faster than any other simulator.

3. Open Architecture

Cadsim Plus can never become obsolete because the Open Simulation Systems Architecture™ (OSSA™) means that it can be expanded to cover any plant or process, no matter how specialized - now or in the future. Standardized libraries of process modules and physical properties data are linked to Cadsim Plus at runtime. There is a wide variety of options that you can use to extend Cadsim Plus.

FAST TO SET UP

Cadsim Plus allows you to quickly develop a process model by working with a flowsheet drawing. The Cadsim Plus expert systems help you to define process chemistry and specify process flows. Cadsim Plus automates many set up tasks, so you can focus on improving your process. Start from a saved set of conditions, or simply load current data from your plant DCS system.

Run and interact with the simulation, while seeing process results displayed – all on your flowsheet drawing.

EASY TO MAINTAIN

You can incorporate process changes easily. Ongoing maintenance costs of using the program are minimal. The graphical nature of the program lets you add or remove process detail easily, and pick up where you - or someone else - left off. If you can use a flowsheet, you can use Cadsim Plus.

INTERACTIVE AND ANIMATED

To interact with the simulated process, simply click on any graphical object to gain access to runtime functions such as controller settings and set points.

To monitor the effects of the change, you will see:
- Tank levels change, valves open and close, and equipment operate.
- Inefficient or dangerous operating conditions flagged with color or with alarms.
- Electronic strip charts and gauges track process variables.

You can make changes to operating parameters on the fly. Cadsim Plus will continue simulating using your new conditions - automatically.

See the effect of a process change on the bottom line.

SEE WHERE YOUR DOLLARS ARE GOING

In addition to keeping track of conventional variables such as flow rate, energy, and concentrations, Cadsim Plus can also track special variables such as dollars or quality parameters. With the addition of dollars you can have a better understanding of profitability, and how you can improve it.

PROFIT FROM CADSIM PLUS PROCESS IMPROVEMENT

There are many ways that Cadsim Plus can help your operation save money. Here are just a few...

Reduce chemical consumption
Assign a dollar value to chemicals and then track them through your process.

Reduce power consumption
Find ways to reduce energy consumption or use cooling more effectively.

Reduce downtime
Schedule maintenance procedures and manage inventories to minimize the effects on mill operation.

Improve product quality
Track quality variables and watch the impact of a furnish or process change on product quality.
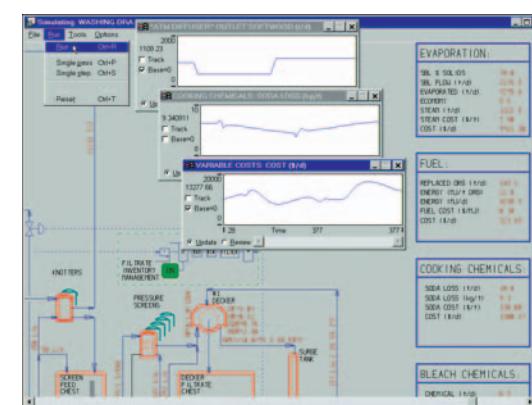
Avoid environmental overload
Plan to stay within environmental targets, load current data and predict future operation.

Plan and design changes
Try it before you build it. Build with the certainty that it will work.

PROCESS MODULES

Available Cadsim Plus libraries include 73 equipment units, 8 kinds of controllers, 3 kinds of integration, 32 signal and math units, and 21 logic building blocks. More are being added all the time!