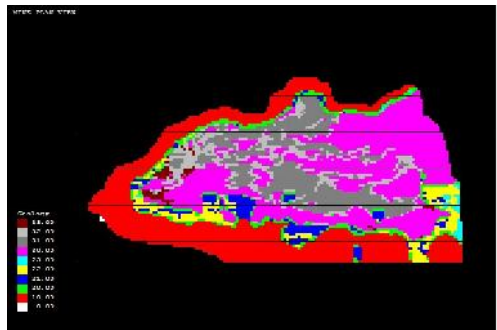


## METSIM FEATURES



Mine block model displaying geology of each block. Metsim can also display ore types, mineral assays, mining sequence, ore values, and numerous other variables.

- Advanced graphical interface for building models and printing flowsheets
- Option to display, on the flowsheet, any process variables, such as: flowrates, temperatures, pH, P80, and assays for rapid evaluation and debugging.
- Over 180 unit operations with detailed algorithms for accurately simulating and designing processes and equipment. More unit operations are being added monthly.
- DDE, Dynamic Data Exchange, interface to Excel, InTouch, Control Systems, and other programs.
- DXF file interface to AutoCad and other graphic programs.
- New interfaces can easily be added as needed.

## METSIM

47 Years

54 Countries

620 Companies

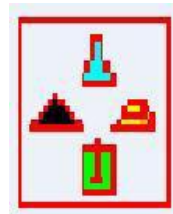
50 Universities

PROWARE  
4611 E. Blue Mountain Dr.  
Tucson, AZ  
USA 85718

U.S.A. 1-520-665-9936

Brasil 55-31-3225-3486

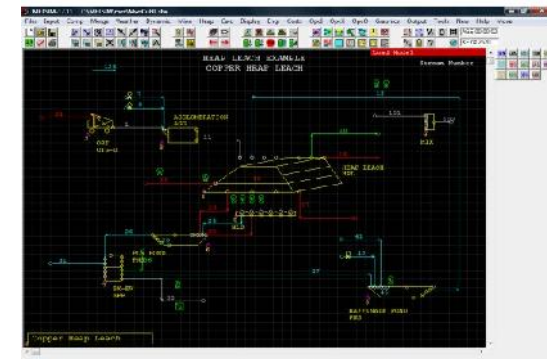
[jtbartlett@metsim.com](mailto:jtbartlett@metsim.com)



**METSIM**

## METSIM

METSIM, the world's premier process modeling software, accurately simulates processes for mining, material handling, comminution, hydrometallurgy, pyrometallurgy, metal refining, inorganic chemicals, and alternative energy and environmentally sensitive processes.



**METSIM's capabilities are expanding daily. Contact a representative today and let us help you improve your process to meet your business needs!**

# METSIM MODULES



Heap contours imported from an AutoCAD file to simulate an existing copper heap leach project.

## BASE MODULE.

This module includes mass balancing, chemical, mineral beneficiation and hydrometallurgical unit operations to simulate flotation, leaching, solid/liquid separation, solvent extraction, electrowinning, material handling, and numerous other equipment items such as tanks, pumps, bins, conveyors, stockpiles, etc.

## COMMINATION MODULE

This module includes unit operations for crushing, screening, grinding, classification, gravity separation, dense media, and coal preparation. This module is used when particle size, liberation and/or washability data are critical to the process.

## HEAT BALANCE MODULE

This module includes models for autoclaves, dryers, kilns, furnaces, boilers, and steam and gas handling equipment. This includes a 7000+ compound database. An interface to FactSage is available to access Fact's extensive databases for slags, mattes, and alloys.

## DYNAMIC SIMULATION MODULE

This module simulates time dependent processes such as heap leaching, solar ponds, tailings ponds, and processes where variations in weather, feed rate, and ore type impact the process.

## ENGINEERING MODULE

This module allows process engineers to easily perform preliminary design calculations, size equipment, generate equipment and instrumentation lists, simulate and test process control strategies, and build operator training interfaces.

## CONTOURING MODULE

This module is used for building complex heap leach, tailings, and mine models from DXF contour files and for displaying data graphically.



Example of a dynamic plot generated to track solution flows, ore tonnage, recovery, etc.

## MINE MODULE

This module imports drill-hole data, mine block models, and the mining schedule to facilitate modeling the process directly from the mine over the life of the project.

## COSTING MODULE

This module generates plant operating costs. It also includes OPCOST, a capital and operating cost program for mining, which generates fuel, materials, supplies and manpower requirements, and equipment purchase and replacement schedules, and from this, mine capital and operating costs.

## FUTURE MODULES

Modules for Iron and Steel, Oil Sands, and Water Treatment are under development.

To learn more about METSIM and to find a complete list of representatives in your area, please visit [www.metsim.com](http://www.metsim.com).

Download our free demo at [www.metsim.com/pub/METSIM201309.zip](http://www.metsim.com/pub/METSIM201309.zip)