The WinSim Window

In This Issue

We've Moved!

WinSim Inc. has moved to a new location, effective February 1, 1999. The new address and phone number are:

**13333 Southwest Freeway, Suite 130
Sugar Land
Texas 77478 USA**

**Phone & Fax:
281-565-6700**

Please note that our mailing address has not changed! It is:

**PO Box 1885
Houston, Texas 77251
USA**

Version 8.1 of DESIGN II for Windows™ released November 12, 1998

Design II for Windows version 8.1 offers many new enhancements and features for gas processing and heat exchange applications. The focus of this release has been heat exchangers. Version 8.1 now offers a new plate-finned heat exchanger (PFX) unit module that provides a rigorous rating of these type of exchangers. The PFX rating calculations specifically applies to the plate-fin exchanger type used extensively in gas processing as described in section 9 of the GPSA Handbook. The PFX thermodynamic calculations however, can be used for any type of multiple pass heat exchanger. Users can specify up to 9 hot and 9 cold streams. In addition to the new PFX module we have also added new dialog boxes that support the rating commands for shell and tube heat exchangers.

Also new to 8.1 is the option for unstructured packing in the amine columns. The user may select from either ceramic, metal or plastic packing materials. Improvements have also been made in the convergence routines for the amine columns allowing for more rapid solutions. Our 8.11 release also added a new temperature of condenser and reflux ratio combined specification for the mixed amine regenerator column. Early feedback from our users on the new amine column and PFX improvements has been very good.

There have been many other improvements in the program to make DESIGN II for Windows even more user friendly and capable of more applications. For a complete listing of all of the changes please consult the online release notes.

Celebrating 30 Years of Excellence

DESIGN II and DESIGN II for Windows are celebrating 30 years of serving the process industries in 1999. We would like to thank all who have helped to support these programs in the past and look forward to continuing to provide the best in class software solutions for the process industries.

Please contact WinSim for add-on specials commemorating this eventful year.

Technical Tips

One of the often-needed features that is hidden under distillation columns with condenser, reboiler, and side heaters or coolers is the Internal Streams Command. Internal streams are very useful when it is required to view the results of a stream that are internal to the Distillation Column after a column has been converged. The details of streams going in and out of column components such as condenser, reboiler, side heater or cooler is easily obtained by using these commands. Information on temperature, pressure, and flow of each component is accessed and is displayed in the stream summary and detailed stream summary sections. Note that the same stream numbers present on the flowsheet may not be used for the internal streams except for those specified as products or side draws. Specific internal stream commands are listed below and they can be activated in the Keyword Input of the Distillation Columns.

Condenser Internal Streams

CON STR = x, -y

Enter this command for columns with condensers (PAR, STR, TOT, STRTOT, PRESAT) where x is a stream number assigned to the tray 1 vapor and y is a stream number assigned to the product to the reflux accumulator.

CON SEP STR = x, -y

Enter this command for columns with condensers (PAR, STR, TOT, STR TOT) where 'x' is a stream number assigned for the vapor leaving tray 1 at the condenser outlet conditions and stream number 'y' is assigned to the stream refluxed back to the main column. This excludes any liquid distillate and decanted water.

Reboiler Internal Streams
REB STR = x, -y, -z

Enter this command for columns with kettle reboiler (PAR, TOT, and ABS REB) where x is a stream number assigned to the bottom tray liquid, y is a stream number assigned to the vapor return, and z is the stream number assigned to the bottoms product.

REB STR = x, -y

Enter this command for columns with thermosiphon reboiler (THE command is present), where x is a stream number assigned to the reboiler feed and y is a stream number assigned to the reboiler return.

Side Heater Internal Streams
HEA STR i = x, -y

Enter this command for columns with side heaters. 'i' represents the tray location above the tray where the heat is added to/removed from the column; 'x' represents the composition of the liquid stream leaving the tray above the tray specified in the LOC HEA command; 'y' represents the stream entering the tray where the heating/cooling is applied. For example LOC HEA=3, HEA=10E6, HEA STR 2=5,-6.

Side Cooler Internal Streams
INT STR i = x, -y

Enter this command for any columns with intercoolers where 'i' is the tray number, x is a stream number assigned to the intercooler feed, and y is a stream number assigned to the intercooler return.

Note: The flowsheet shown depicts an external heat exchanger. In actual simulation the Internal Heater/Cooler can be chosen from within the Distillation Module dialog. All the discussed commands can be located under Distillation Column's Keyword Input section.
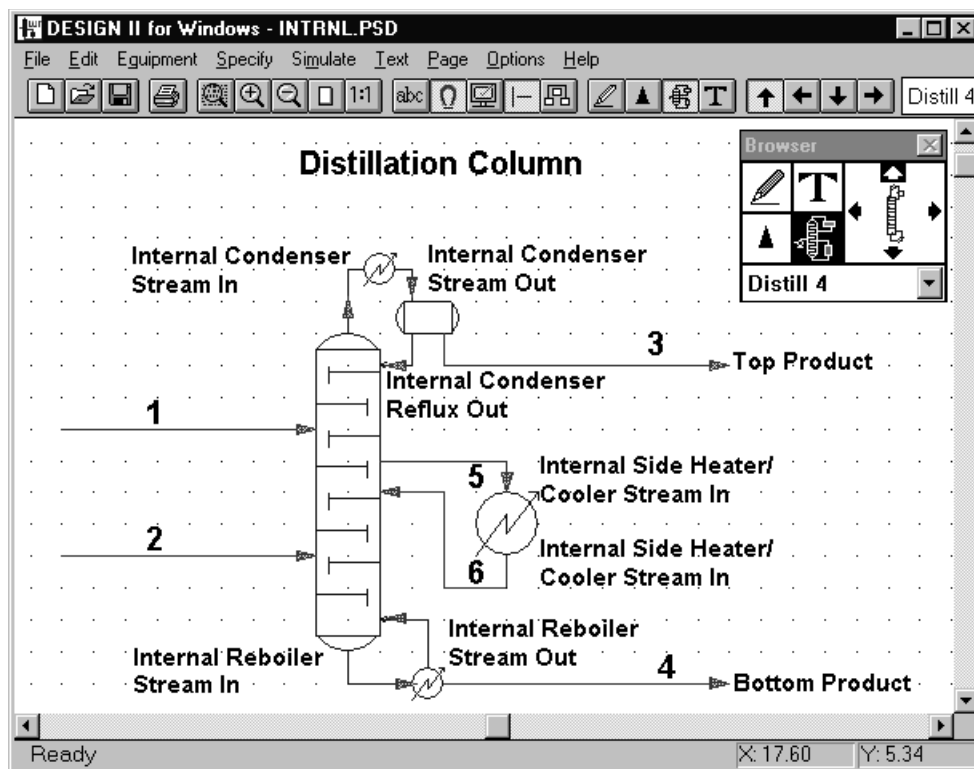
BP/Amoco Merger

Congratulations to British Petroleum and Amoco on their successful merger. Please note that the Amoco corporate license agreement has been extended to all BP Amoco employees and 50% owned subsidiaries. Please contact WinSim for more details on obtaining a copy of Version 8.1 of DESIGN II for Windows.

ADNOC Signs Multiple Network Licensing Agreements

We are pleased to announce that ADNOC, ADCO, ADGAS and GASCO have signed licensing agreements for the use of DESIGN II for Windows. This agreement covers all licensing and support fees and runs through the year 2003.

Latest Updates

WinSim would like to keep you updated on all new releases and information about our software. If you would like to receive our newsletter by email, please send a message to **rrm@winsim.com** with the word "Subscribe" in the Subject area, and you will be added to our mailing list.

Pentium II/Windows 98

We have found a bug in the Windows 98 floating point math interrupt handler when you have a Pentium II CPU. This bug can cause Windows 98 to crash when calculating a flowsheet in DESIGN II for Windows. Please call us for an update CD to DESIGN II 8.16 if you are on maintenance. Otherwise, please rollback to Windows 95 or install Windows NT if you want to run DESIGN II for Windows on a Pentium II CPU.

KN Energy Selects DESIGN II for Windows as Corporate Standard

Denver, CO - KN Energy, the United States' seventh-largest gas processing company, has selected DESIGN II for Windows as its corporate standard for process simulation. Based on rigorous testing and comparison against other simulation programs, KN Energy felt DESIGN II for Windows best met its current needs and was the best value when all things were considered.

"KN Energy had used other simulation programs in the past but with questionable payback on its investment." comments Dennis Casto, upstream engineering manager for KN Energy. "Programs in the past have been either difficult to use, very expensive, or both. With DESIGN II for Windows we are now able to put a rigorous, easy-to-use simulation tool at the hands of more of our engineers at less cost. Additionally, the automatic data transfer to Microsoft Excel makes the exchange of data through our LAN/WAN extremely efficient."

DESIGN II for Windows New Users - North America

Altura	Texas
Ariel Compressors	Ohio
Ascent Engineering	Texas
Brookhaven National Labs	New York
Cabot Oil & Gas	Pennsylvania
California EPA	California
Cascade Separations	Texas
Diversified Projects Inc.	Texas
Dresser Rand	New York
Energy Acquisitions	Colorado
Envirogenics Technology	Alberta
Formosa Plastics	Texas
Global Thermoelectric	Alberta
Harif Atobajeun	Texas
KN Energy	Colorado
Lawrence Livermore	California
Nicol & Associates	Texas
PCS Nitrogen	Georgia
Phoenix Engineering	Texas
Polaroid	Mass.
Primary Corp	Virginia
ProShot Technical	Alberta
Quadren Cryogenics	California
Qestek Engineering	Colorado
Saulsbury Industries	Texas
Science International	Louisiana
Soleen Energy	Alberta
Spectrum Engineering	S. Carolina
Statoil	Virginia
Testengeer	Texas
TransTexas Gas	Texas

DESIGN II for Windows New Users - International

ADCO	UAE
ADGAS	UAE
ADNOC	UAE
Air Liquide France	France
BiTech Petroleum	UK
CDI Projects	Ukraine
ChemB Consulting	Australia
Chemecalc	Australia
Chemoprag	Czechoslavakia
Chinese Academy	China
EIL	India
ENOIA	Greece
Feng Chia University	Taiwan
GASCO	UAE
Hitachi Techno	Japan
Hogeschool Enschede	The Netherlands
HME	Israel
HPCL, Vigh	India
IIT, Mumbai	India
Inspectra	Peru
IOCL, Barauni Ref	India
J. Eilon Process	Israel
JR Associates	The Netherlands
King Fahd University	Saudi Arabia
Kuwait University	Kuwait
LMF	Austria
Nanjing University	China
NIOTC	India
Oakwell Compressor	The Netherlands
Odegaard & Danneskiold	Denmark
Perenco	France
Perm State University	Russia
PPC	Venezuela
Queens University	Northern Ireland
Sembawang Marine	Singapore
Seshadri Ravi	Singapore
Showa Denko	Japan
Singapore Polytechnic	Singapore
Sonatrach	Algeria
Technip France	France
UFPC	Brazil
University of Limerick	Ireland
University of Maribor	Slovenia
YAWA	Taiwan

Visit our Website at www.winsim.com for the latest news and software releases!

WinSim Inc.
P.O. Box 1885
Houston, TX 77251
USA

A Better Way to do Simulation...

DESIGN II for Windows

A Better way to do your Job.

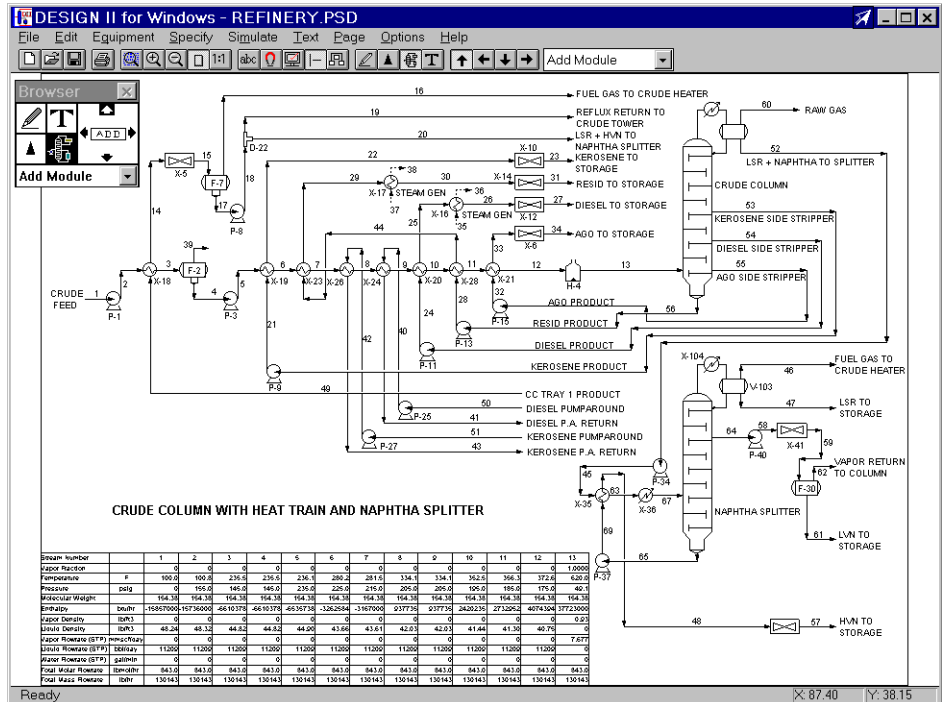# Upcoming Shows & Meetings

Laurence Reid Gas
    Conditioning Conference
February 21-24, 1999
University of Oklahoma Campus
Norman, Oklahoma

78th Annual GPA Convention
March 1-3, 1999
Opryland Hotel
Nashville, Tennessee

2nd Annual Chemical Engineering
    Expo (Tentative)
June 9-10, 1999
George R. Brown Convention
    Center
Houston, Texas