

SUGARS LETTER

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Paper to be Presented

The next meeting of the Sugar Industry Technologists will be held at the Hyatt Regency Hotel, Honolulu, Hawaii from May 8 to 11, 1994. Sugars International will present a paper on the use of *SUGARS*[™] for simulating cane sugar refineries. This paper will show how *SUGARS* is used to assist with the economic evaluation of different raw cane sugars processed by a refinery. Also, examples will be shown of *SUGARS* simulating a refinery and how changes in the process and performance of some of its equipment affects the efficiency of the refinery.

Demonstrations of *SUGARS* at the SIT

Demonstrations of *SUGARS* will be given at the SIT meeting in the Elua room of the Hyatt Regency Hotel in Honolulu, Hawaii from May 9th (12:00 noon) thru May 10th (6:00 pm). Companies wishing to see a demonstration can schedule a convenient time before the meeting.

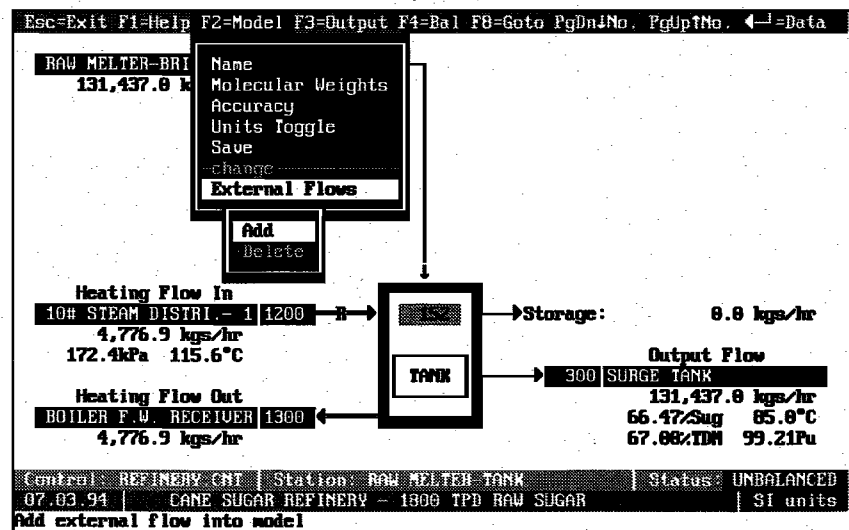
Version 2.71 released

Version 2.71 of *SUGARS* was released at the end of December in 1993. Several new features were added with version 2.71 that improve the operation of *SUGARS* and enhance its use. For example, building, or changing, a model is simplified. Now, only one data file (*flows* file) is used to construct, or change, a model. *SUGARS* will create, or change, the other data files using information given in the *flows* file. External flows can be added/deleted

from within *SUGARS* while displaying the station (see figure below). Also, using a tank station is much easier in version 2.71 because *SUGARS* will automatically handle the necessary storage flow entries in the data files and flow to, or from, storage can be selected on the input screen for entering tank performance parameters.

Heat transfer coefficient calculations

Calculation of heat transfer coefficients for evaporator bodies and heat exchangers now can be done from within *SUGARS* after a

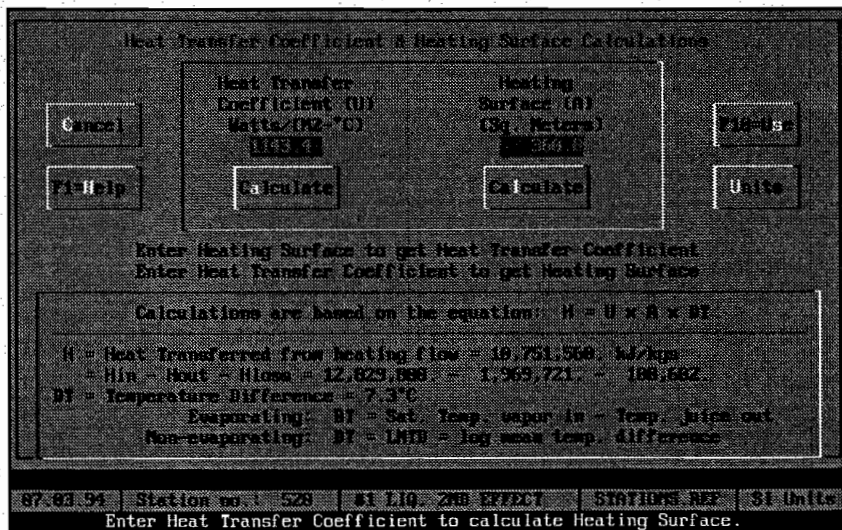


External flows can be added, or deleted, from within *SUGARS* for stations that can accept an additional external flow, or can have one removed.

balance is achieved using temperature values for the output flows from these stations (see figure on right). Before version 2.71, enthalpy values for flows into and out of heaters and evaporators were taken from *SUGARS* after balancing the model and used to hand calculate: the heat transfer coefficient for a known heating surface, or the heating surface for a known heat transfer coefficient. Now, with version 2.71, the values can be calculated easily from within *SUGARS* and then used for future balance calculations in place of the temperature values that were first enter to achieve a balance for a known heater, or evaporator station in the factory.

Other new features

Other new features added with version 2.71 include: (1) effectiveness for the dryer station to allow for heating of a material flow stream using condensate; (2) heat loss per weight unit for the cooler station to make it easier to allow for heat of fusion, or other losses that are on a weight unit basis; (3) selection of an input flow into the receiver station as the *required* flow when the output flow from the receiver is *required*; and, (4) extended memory caching for improved performance when moving to different sections of the program.



Calculate heating surface from heat transfer coefficient, or calculate heat transfer coefficient from heating surface after balancing the model.

New Company Name

On January 1, 1994, the name of the company for *SUGARS* was changed to Sugars International from Equipment Sales Company. The change was made to more closely identify the company with the *SUGARS* Computer Program. Development of *SUGARS* for personal computers was started in January of 1985, and the first copies were sold to Spreckels Sugar Company and American Crystal Sugar Company in 1986. *SUGARS* program development, marketing and support is the major focus of the company that is now in its tenth year of operation. The address, telephone and telefax numbers remain the same as they were before the company name was changed.

New Users

Several new companies have ordered *SUGARS* during the last few months. These companies are located in the United States, Ireland, and Australia. *SUGARS* is now used for modeling beet and cane sugar factories and refineries in thirteen countries. Current users of *SUGARS* that would like assistance with a model, or to discuss features of the program, are welcome to visit the Elua room at the Hyatt Regency Hotel during the SIT meeting in Honolulu, Hawaii.



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