## TRACS 3000 TIME AND RESOURCE ACCOUNTING SYSTEM

by:

Arthur Sera Automated Sciences Group, Inc. 700 Roeder Road Silver Spring, Maryland 20910 301/587-8750

## TRACS 3000 TIME AND RESOURCE ACCOUNTING SYSTEM

The TRACS system is composed of 3 data bases and 17 programs. The TRACS system utilizes the system log files, reports command output, and a subque logging file as input to record resource utilization on the HP 3000.

The SCHED data base is used by the job scheduler subsystem to store job submission requests. The job scheduling system is a general purpose system which is capable of submitting jobs: once, daily, weekly, monthly, or yearly. The TRACS system utilizes this capacity to run the nightly posting of the days activities and the month end transfer, posting, and reporting programs. The job scheduling system includes a data entry program to ease use.

The LOGDB data base is used to store the system log file information in a structure which permits the association of resource utilization with the originating groups and accounts. The information retained includes CPU and CONNECT times by logon subque (i.e., BS, CS, DS, ES) distributed between time consumed during prime vs. non-prime times. Also retained are disc, tape, card, terminal, and printer I/O's, again, distinguishing prime and non-prime times, cumulative disc storage, and a variety of memory usage information. Memory usage information ranges from code and data stack words through virtual memory sectors utilized again recorded as prime and non-prime times usage.

This data base additionally maintains daily summary records of total system usage and contains the billing rates to be charged for the above mentioned resources. There are three levels of rate assignments available: (1) system default rates (used in absence of other explicit rates), (2) account default rates (used in absence of explicit group rates), and (3) group rates (defined as rates for particular ACCOUNT.GROUP combinations). The LOGDB data base also records I/O errors, log errors, console messages, and line closes.

The BILLS data base contains customer information. Included in this are customer name and addresses, customer/account associations, and the monthly invoice detail lines. The BILLS data structure allows for simple, straight forward definition of a customer's account structure for billing purposes. This makes possible the assignment of one entire account plus only one group of another account to an individual customer with just two entries.

The invoice posting program runs monthly and posts the detail charges for total CPU, CONNECT, MEMORY, DISC STORAGE, and I/O charges accumulated for each individual customer. Additional detail lines for other categories of charges may be entered with QUERY and will therefore be included in the printed invoice by the invoice printing program.