

GEORGIA INSTITUTE OF TECHNOLOGY  
OFFICE OF CONTRACT ADMINISTRATION  
SPONSORED PROJECT INITIATION

110 act  
Coca-Cola  
CML

Date: 10/5/78

Project Title: Computer Consulting Services

Project No: A-2168

Project Director: Dr. D. E. Wrege

Sponsor: The Coca-Cola Company; Atlanta, Ga. 30301

Agreement Period: From 5/78 Until 6/78

Type Agreement: P. O. No. A4184-R-230 (Fixed-Price)

Amount: \$4,524.51

Reports Required: Summary Report submitted 6/19/78

Sponsor Contact Person (s):

Technical Matters

Contractual Matters  
(thru OCA)

Mr. Stewart W. Caldwell  
Corporate Engineering Dept.  
The Coca-Cola Company  
P. O. Drawer 1734  
Atlanta, Ga. 30301  
Phone: 404-897-2121

Defense Priority Rating: N/A

Assigned to: Radar Instrumentation Laboratory (School/Laboratory)

COPIES TO:

- Project Director
- Division Chief (EES)
- School/Laboratory Director
- Dean/Director-EES
- Accounting Office
- Procurement Office
- Security Coordinator (OCA) ✓
- Reports Coordinator (OCA)

- Library, Technical Reports Section
- EES Information Office
- EES Reports & Procedures
- Project File (OCA)
- Project Code (GTRI)
- Other \_\_\_\_\_

GEORGIA INSTITUTE OF TECHNOLOGY  
OFFICE OF CONTRACT ADMINISTRATION  
SPONSORED PROJECT TERMINATION

B  
no action  
10/5/78

Date: 10/5/78

Project Title: Computer Consulting Services

Project No: A-2168

Project Director: Dr. D. E. Wrege

Sponsor: The Coca-Cola Company; Atlanta, Ga. 30301

Effective Termination Date: Summary Report 6/19/78

Clearance of Accounting Charges: N/A; fixed-price purchase order.

Grant/Contract Closeout Actions Remaining:

(Fixed-Price) ASAP

- Final Invoice ~~and Closing Documents~~
- Final Fiscal Report
- Final Report of Inventions
- Govt. Property Inventory & Related Certificate
- Classified Material Certificate
- Other \_\_\_\_\_

Assigned to: Radar Instrumentation Laboratory (School/Laboratory)

COPIES TO:

- |                              |                                    |
|------------------------------|------------------------------------|
| Project Director             | Library, Technical Reports Section |
| Division Chief (EES)         | Office of Computing Services       |
| School/Laboratory Director   | Director, Physical Plant           |
| Dean/Director-EES            | EES Information Office             |
| Accounting Office            | Project File (OCA)                 |
| Procurement Office           | Project Code (GTRI)                |
| Security Coordinator (OCA) ✓ | Other _____                        |
| Reports Coordinator (OCA)    |                                    |



# ENGINEERING EXPERIMENT STATION

GEORGIA INSTITUTE OF TECHNOLOGY • ATLANTA, GEORGIA 30332

19 June 1978

Mr. Stewart W. Caldwell  
Corporate Engineering Department  
The Coca-Cola Company  
Atlanta, Georgia 30301

Dear Mr. Caldwell:

Attached is a summary statement of consulting services provided by EES regarding the design structure of the real-time process control system for the Atlanta Syrup Plant Production and Quality Control Project. Some effort was also expended leading to the selection of the IBM Series /1 computer architecture for this facility.

A summary of effort expended and resultant expenses are also provided.

It has been a pleasure working for you and the Coca-Cola Company. We are looking forward to a continued relationship as we have had in the past.

-----  
/ Douglas E. Wrege, Head  
Software Research Branch  
Computer Science and Technology

DEW/am

Attachments

EES Expenses - Consulting Services

May 1978

Douglas E. Wrege	10% time	204.50
John E. Doss	70% time	1,079.17
Randall H. Carrier	70% time	974.17

June 1978

John E. Doss	10% time	154.17
Randall H. Carrier	10% time	139.17

TOTAL DIRECT SALARIES AND WAGES:	\$2,551.18
OVERHEAD:	1,734.80
RETIREMENT:	238.53

GRAND TOTAL \$4,524.51

## SUMMARY

Coca-Cola is presently undertaking a major revision of their production and quality control system. The analysis of syrup products with associated reports and to produce tank tickets for production. The additional requirements for the new production and quality control system are to standardize to one machine vendor and computer language and to develop a system in which the two major functions, tank ticket production and sample and analysis, would be running concurrently.

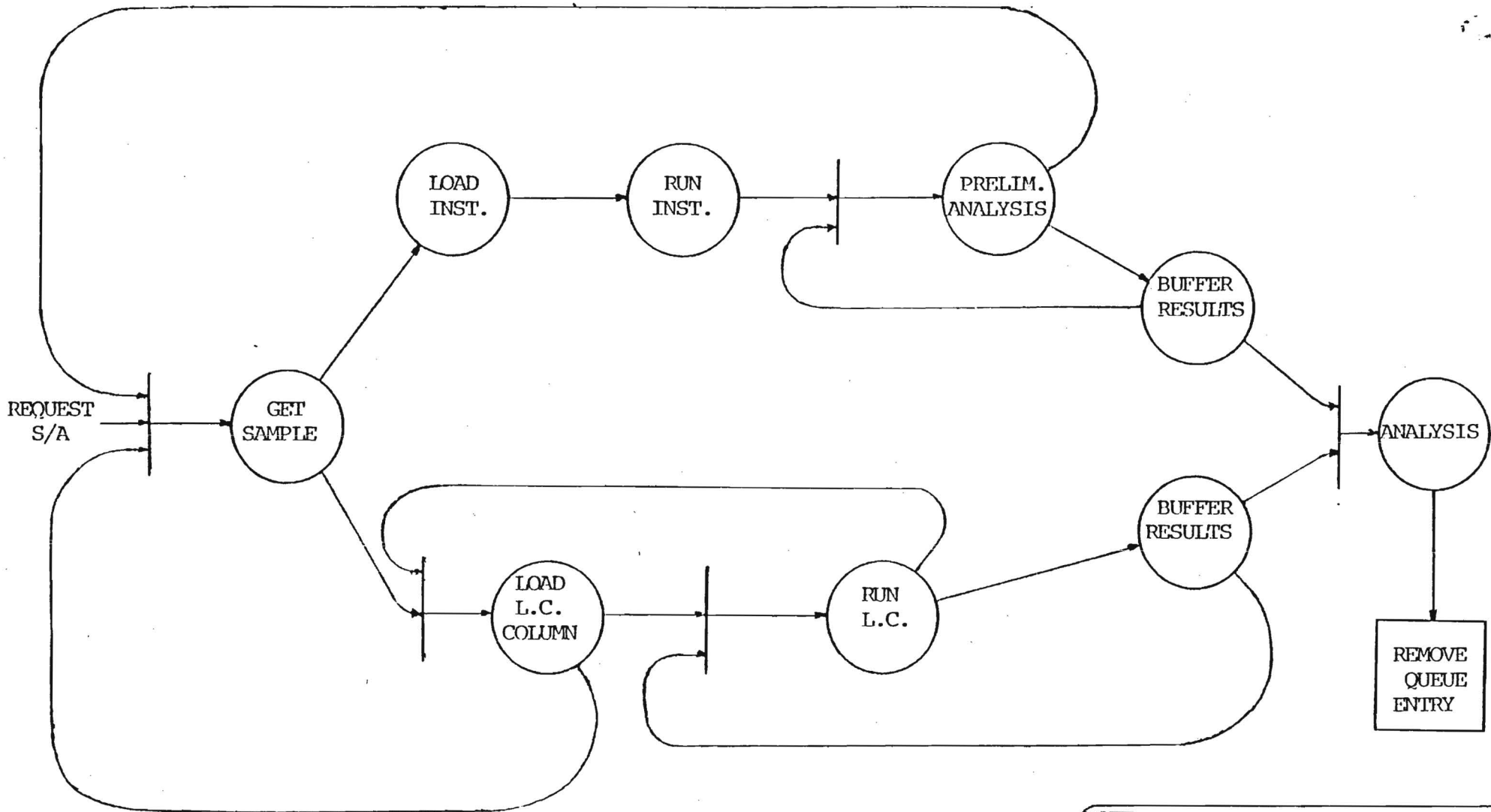
Thus far, Georgia Tech's involvement has been consultation in machine feasibility and high-level design of the primary tasks of the Production and Quality Control System. Time was spent on machine and operating system familiarization which included the IBM Series/1 machine feature, the EDX operating systems and the EDX Interactive Assembly language. Previous Production and Quality Control System documentation was reviewed. This included the review and study of file layouts, file descriptions, task descriptions and program listings.

After the review was completed, a preliminary analysis, design, and description of file layouts was developed, and file relationships were defined. These files included:

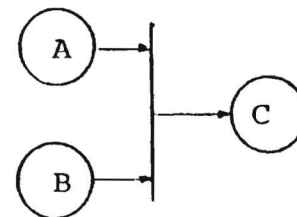
- TANK TICKET QUEUE (input to Tank Ticket Task)
- FORMULA file
- INGREDIENT file
- Allied Products Weekly Report of the Chemist Report File
- Coke Weekly Report of the Chemist Report File
- AMOUNT file
- LIMITS file
- SAMPLE ANALYSIS QUEUE (input to the Sample and Analysis Task).

Preliminary high-level analysis, design and description of tasks required were started and developed. These tasks include the Dispatcher (analogous to the Null Task), Tank Ticket Task, Sample and Analysis Task, Point Allied Products and Coke WRC reports, and Edit Tasks. The primary functions which were performed were core residency requirements of the tasks, relationships of the tasks, and narrative description of the purpose and function of tasks.

Particular attention was given to addition of the Liquid Chromatograph Analysis Task to the Sample and Analysis function. A Petri Net was developed that showed the relationship of the Liquid Chromatograph to the other sampling requirements. The Petri Net showed that the Liquid Chromatograph analysis could be performed on one sample while the other analysis could be performed on another completely different sample.



NOTE:



Implies A & B must both be finished before C can begin.

COCA COLA COMPANY  
 PRODUCTION AND QUALITY CONTROL SYSTEMS

