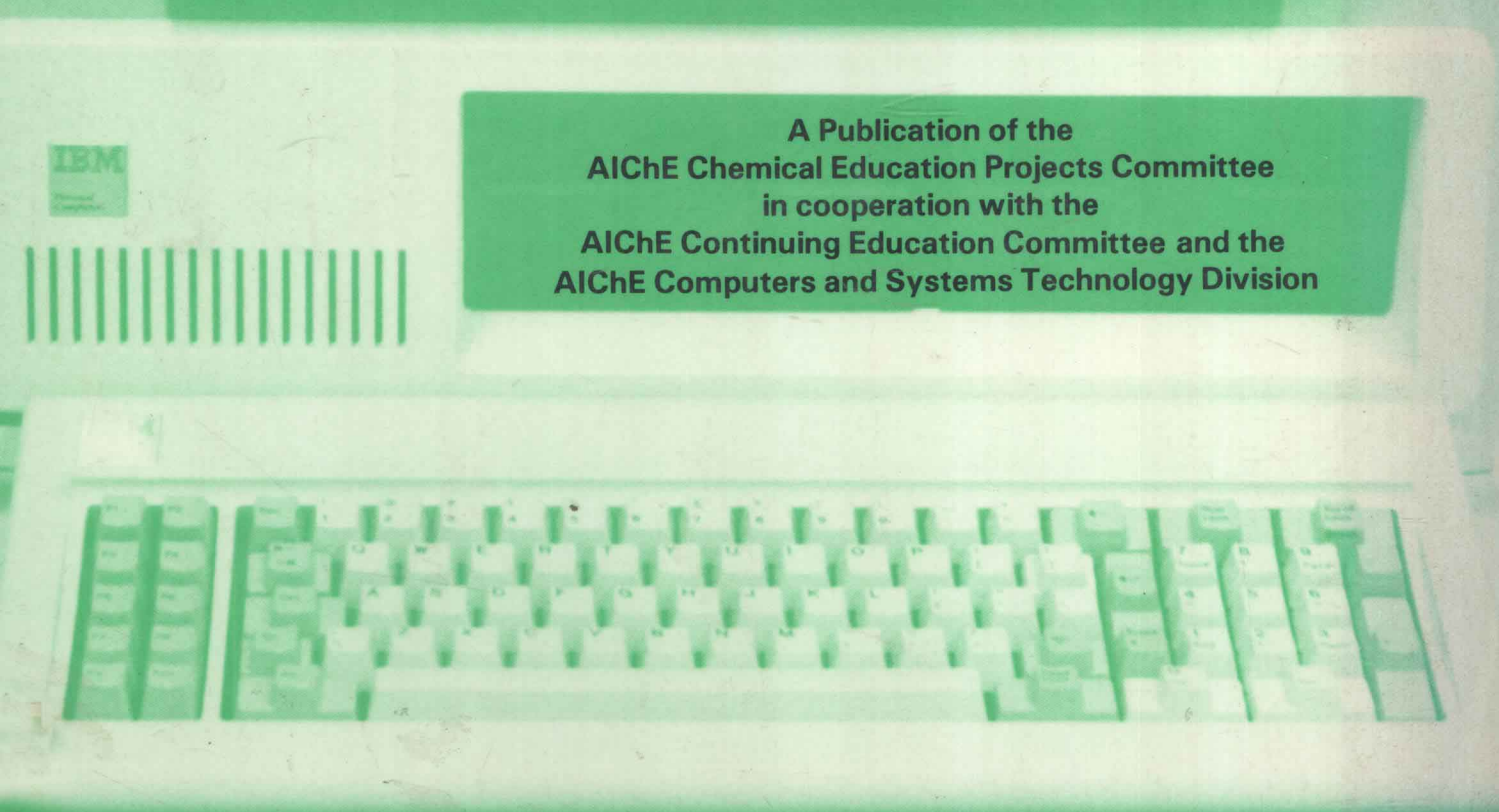


A vintage IBM monitor with a light-colored frame and a dark screen. The screen displays the title text. The IBM logo is visible on the right side of the monitor's bezel.

AIChE Applications Software Survey for Personal Computers 1984

A vintage IBM keyboard with a light-colored frame and a dark keyboard. The keyboard is positioned below the monitor. The IBM logo is visible on the left side of the keyboard's frame.

**A Publication of the
AIChE Chemical Education Projects Committee
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AIChE
Applications
Software Survey for
Personal Computers
1984



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INTRODUCTION

Just as electronic calculators rendered the slide rule obsolete a decade ago, the personal computer is becoming an essential tool for both practicing engineers and engineering students. While companies are vigorously marketing their hardware, software relevant to chemical engineering is not readily available. The consensus is that many programs and software packages exist, but there is no mechanism for communicating news of their availability to others.

To fill this void, the AIChE Educational Services Department is publishing this directory of currently available software that is operational on machines such as the TRS-80, the Apple II, IBM PC, and DEC's Professional Computer. Programs for programmable calculators are not included. While chemical engineering is the primary subject area of interest, any software of general interest to chemical engineers will be included.

This annual survey was developed by the AIChE Chemical Engineering Education Projects Committee in cooperation with the AIChE Continuing Education Committee and the AIChE Computers and Systems Technology Division.

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ABSORPTION

C84-802-004

1. Program Name: ABSORBER 1
2. Description: ABSORBER 1 solves a wide variety of multi-component stripping and absorption problems using rigorous energy and material balances. Liquid and vapor sidestreams and heat transfer to and from each can be specified. Up to 100 stages and 20 components can be handled.
ABSORBER 1 uses polynomial K values and enthalpy data.
3. Author: J. D. Seader
COADE
8550 Katy Freeway, Suite 122
Houston, TX 77024
(713) 973-9060
4. History: Developed 1983
5. Operational Environment:
 - a. Software:
Program Language: BASIC & FORTRAN
Operating System: IBM PC DOS
Special Software:
 - b. Hardware:
CPU: IBM-PC (Rainbow-future)
Memory:
Disk: 5 1/4" Floppy Disk, 2 at 320K
Terminals:
Special:
6. Documentation:
 - a. Module Descriptions:
 - b. Source Listing: No
 - c. Flowchart or algorithm: Yes
 - d. Input data formats: Yes
 - e. File layouts:
 - f. Example problem: Yes
 - g. Other Documentation:
7. Distribution:
 - a. Media: 5 1/4" Floppy dual density 2-sided
 - b. Cost: \$195
 - c. Conditions: Yes

AIR CONDITIONING

I84-004-001

1. Program Name: CULCD, Air Conditioning Cooling Load
2. Description: Calculate air conditioning cooling load for several times during design day. Building and environmental factors are input, followed by design data for each room. Input saved on files.
3. Author: Benjamin Block
208 Pine St.
Deerfield, IL 60015
(312) 685-2100
4. History: Recently revised
5. Operational Environment:
 - a. Software:

Program Language:	FORTTRAN (Microsoft)
Operating System:	CP/M
Special Software:	
 - b. Hardware:

CPU:	Xerox-will run on any FORTTRAN
Memory:	64K
Disk:	8" floppies
Terminals:	
Special:	
6. Documentation:
 - a. Module Descriptions: Yes
 - b. Source Listing: Yes
 - c. Flowchart or algorithm:
 - d. Input data formats: Yes
 - e. File layouts:
 - f. Example problem: Yes
 - g. Other Documentation:
7. Distribution:
 - a. Media: Printed description and program
 - b. Cost: \$400
 - c. Conditions: Signed agreement