

**IBM**

DACS Centers

DATA ACQUISITION  
AND CONTROL SYSTEMS

Providing assistance for  
your data acquisition  
and control system  
applications

Data acquisition and control systems call for a special brand of expertise.

You have to be knowledgeable in the application and its associated instrumentation. You have to know computers and programming systems as well.

To provide that foundation, IBM has established Data Acquisition and Control System (DACS) Centers in key locations across the country.

The centers teach and demonstrate the specific skills DACS users need to make their systems most productive. Under conditions similar to those in the application environment itself, users learn to prepare for the system before installation.

They learn to program—to test—to debug.

They can simulate their own firm's programs from beginning to end. And they may have the assistance of DACS Center staff members experienced in various application areas.

Manned by specialists in control, system design and programming, each center has its own IBM 1800 Data Acquisition and Control System with process signal simulation and instrumentation equipment. In addition, the centers also provide assistance for those using the IBM System/360 Model 44 in data acquisition applications.



## Education

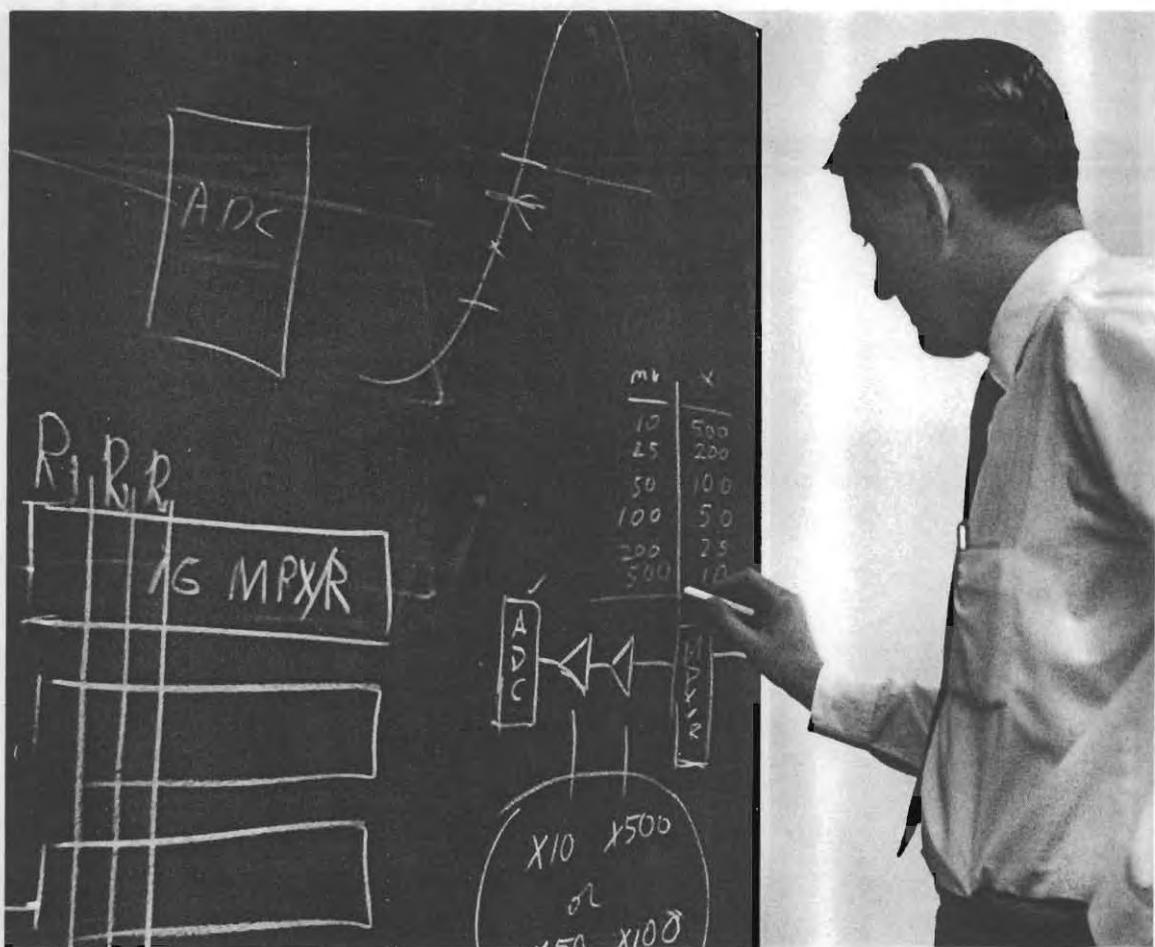


Personalized instruction provides in-depth knowledge of data acquisition and control systems and methods. Specialized course material covers:

- IBM 1800 Data Acquisition and Control System.
- IBM 1800 Multiprogramming Executive Operating System (MPX).
- IBM 1800 Time-Sharing Executive System (TSX).

Students gain in-depth knowledge of the over-all system, so they can effectively apply their knowledge to the efficient operation of their own companies' DACS systems.

## System Design



The complexities of system design call for application insight and extensive knowledge of the operating capabilities of the 1800. These abilities are supplied by the systems engineers assigned to each DACS Center. With their help, a system can be developed to meet your individual application.

DACS specialists help you define the over-all objectives of your proposed system. They draw on their own knowledge and experience and that of the center's technical spe-

cialists to achieve those objectives through consideration of technical feasibility, programming approaches, interface requirements, instrumentation needs, environmental requirements, and computing and data storage requirements.

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D0FA	C0FA	70F7	F398	D022	1886	1807	1883	C01E	6918	E10A	E01C	1140	1001	0000	0000	0000
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4400	F4C6	E810	D700	FF83	C00E	D0FB	73FF	70F5	4098	40BE	2000	FF83	F38F	0000	0000	0000
70FD	4C80	F429	0008	7000	E810	40F9	F838	FOE9	E828	60D9	D818	D0A9	A868	0000	0000	0000
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3747	8FCF	9757	9FD8	8777	BF8F	F636	7E3E	E626	6E2E	D616	5E1E	A666	AE88	0000	0000	0000
3646	8ECE	9656	9EDE	8676	BEFE	F535	7D30	E525	6D2D	D515	5D1D	A565	ADED	0000	0000	0000
3545	8DCD	9555	900D	B575	BDFD	F4C4	7C3C	E424	6C2C	D414	5C1C	A464	ACEC	0000	0000	0000
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0097	0810	0020	03CF	02EE	0003	03CF	02A3	0003	0386	02A3	0003	03B6	02BC	1203	0000	0000
028C	0003	0352	02A3	0003	0339	02A3	0003	0339	02EE	0003	0352	02EE	0003	0000	0000	0000
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How should a flexible Operating System be organized for *your* application?

How can it best take advantage of the capability of the 1800 System?

Specialized consultation is available in each DACS center for IBM's proven 1800 Operating Systems:

- MPX—Multiprogramming Executive Operating System
- TSX—Time-Sharing Executive System

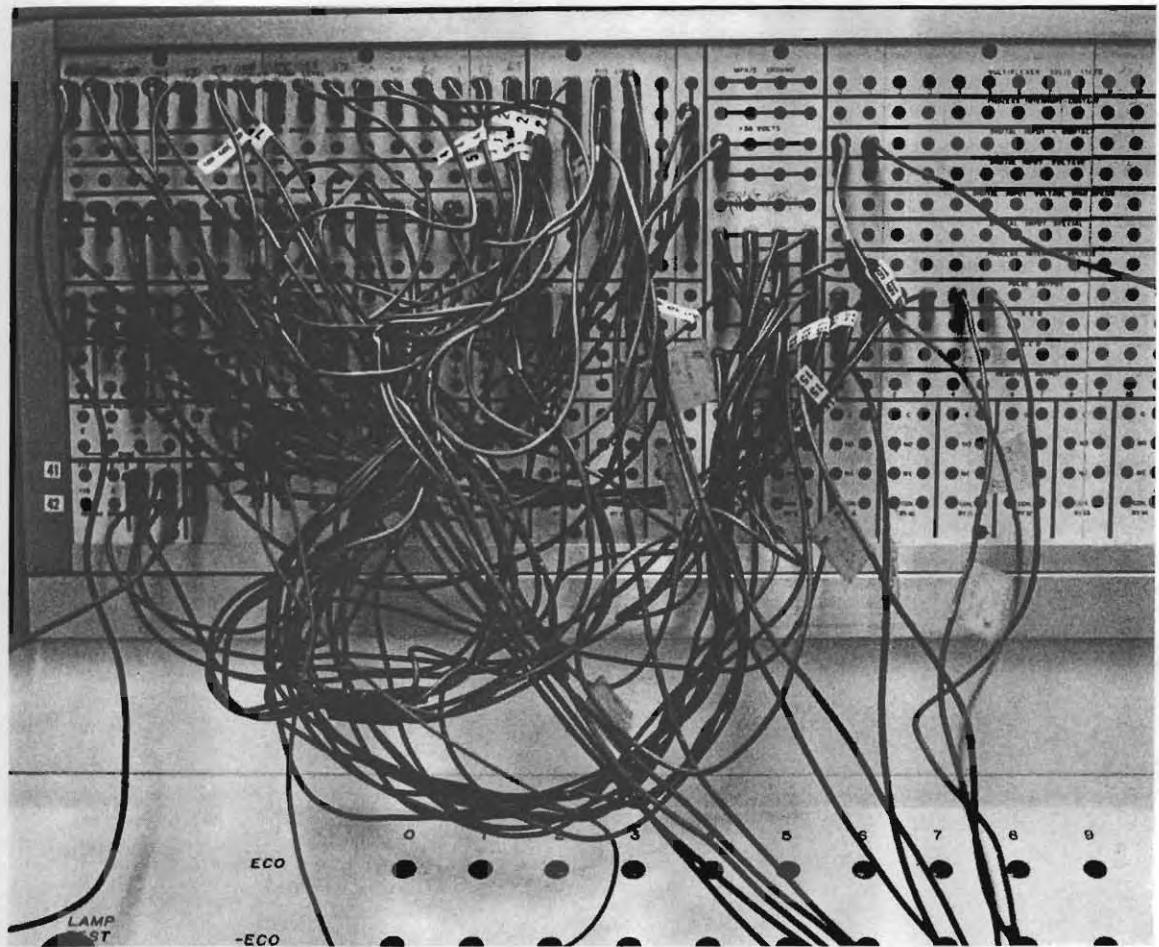
## System Testing



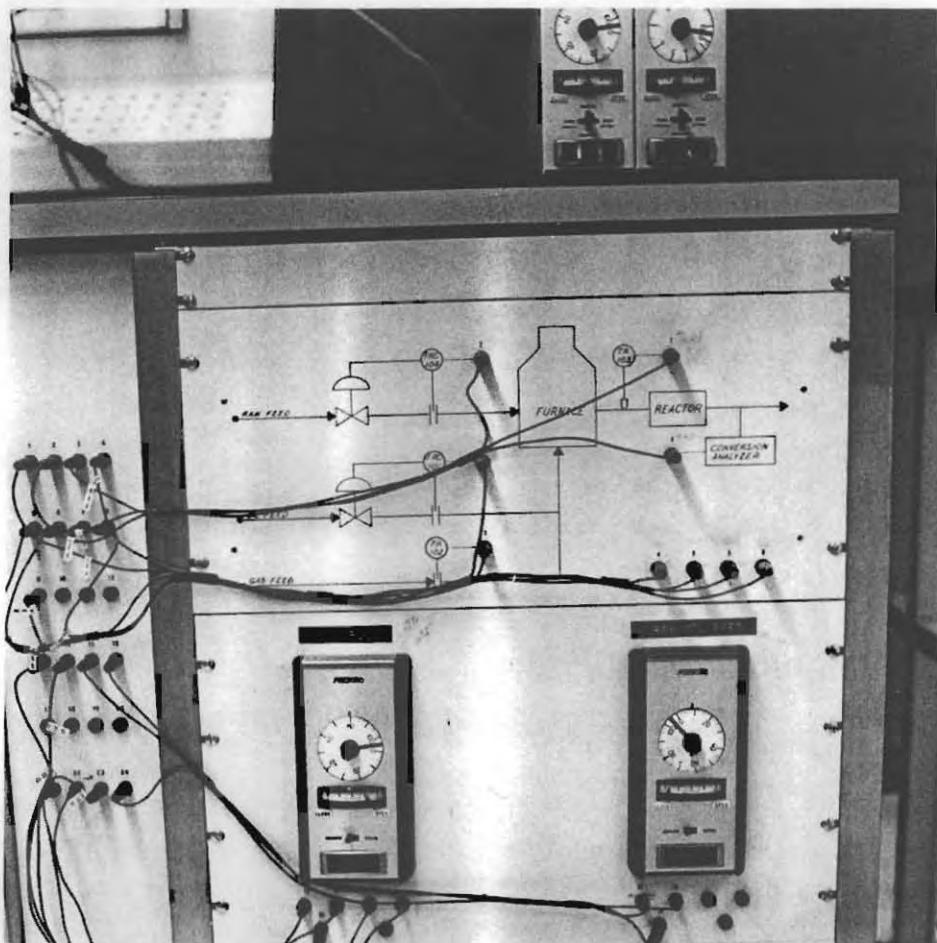
Recognizing that most 1800 applications are completely different from one another, the **DACS Center** makes equipment available so that you can test your own application.

You can configure the **DACS Center 1800** to look just like your own. You have plug-board dollies to interface and check out your special instrumentation. You can simulate real-time events, and make use of the process signal simulator and special instrumentation.

Skilled programmers can provide assistance for you during pre-installation programming testing.



## Demonstrations



To show the power of IBM DACS-oriented programs, demonstrations can be set up for MPX and TSX, as well as application programs such as PROSPERO, a process control language.

To determine system feasibility, you can also arrange for demonstrations of your own special equipment in operation with the 1800.

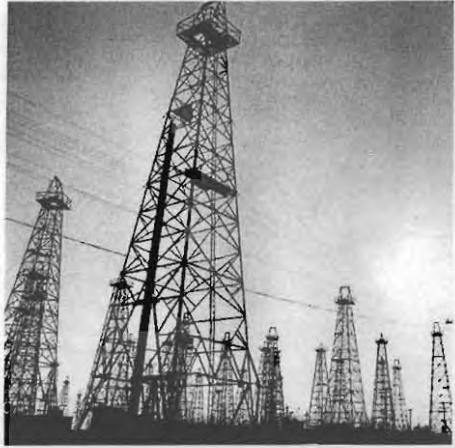
## Applications



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2



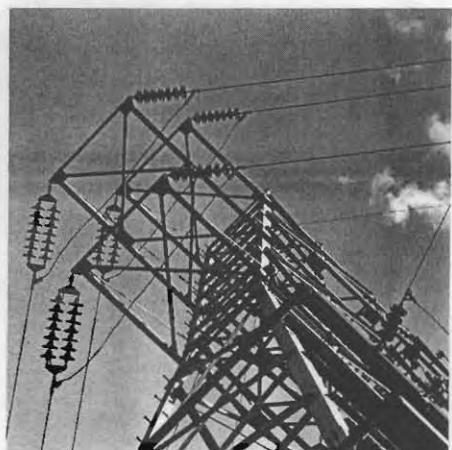
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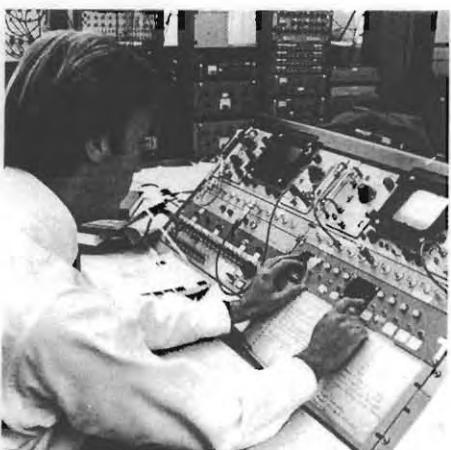
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The **DACS** Center can help define solutions for your application problems. You profit from the professional personnel staffing the center. They have experience in such application areas as process control, plant automation systems, telemetry data analysis, patient monitoring, biomedical data acquisition, dynamometer testing, chromatograph monitoring, water plant control, gas pipeline surveillance, laboratory automation, power generation, traffic control.

- 1 *Process control*
- 2 *Medical data acquisition*
- 3 *Oil field control*
- 4 *Manufacturing test*



1



2



3



4



5

1 Power dispatch and control

2 Nuclear data acquisition

3 Traffic control

4 Automotive manufacturing

5 Lab automation—mass spectrometer

6 Lab automation—tensile test



6

Consult your IBM representative for further information about IBM DACS Centers. He can tell you how to obtain the specialized assistance that they have to offer. Let IBM DACS Centers contribute to the efficient operation of your organization's data acquisition and control systems.