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Ryal Poppa, left, chairman of the Perdec Computer Corporation, and J. David Callan, general manager, with the Altair Personal Computer system that company makes. The scene is at the computer show in Dallas.

Computer Show: Preview Of More Ingenious Models

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DALLAS, June 15 — Computers, from giant down to microscopic size, are competing fiercely for attention, markets and the services of talented people here at this year's National Computer Conference, described as the largest and most lavish exhibition of computer hardware to date.

During formal sessions and in corridor talk, specialists attending the conference in the Dallas Convention Center seemed to agree that the different sizes of computers are not tending to kill each other off but rather are reinforcing a trend toward distributing computer power throughout the society.

As Mark Shepherd Jr., chairman of the board of Texas Instruments Inc. put it, "Every year will see more

powerful computing and information processing functions moving into the domain of personal possession and individual work stations."

The next step beyond the pocket calculators now used by millions, Mr. Shepherd said, is the so-called "personal computer," which now usually stands alone but soon will use communications circuits frequently to tap the huge "data bases" of information stored in giant computers.

Giant computers, typically selling for millions of dollars each, and mini-computers, frequently priced between \$25,000 and \$100,000, dominated the main exhibit hall. But personal computers, often called home or hobby

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Computer Show Confirms Trend In Widening Use of Technology

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computers and selling for a few hundred to a few thousand dollars, proliferated in a special basement exhibit. They were shown by the Imsai Manufacturing Corporation of San Leandro, Calif., and by MITS Inc. an organization just purchased by the Pertec Computer Corporation of Los Angeles.

In an interview, Ryal Poppa, president of Pertec, said that some 10,000 of his Altair line computers have been sold through a network of 26 special stores across the nation, including those here, in Houston and in Lubbock, Tex.

J. David Callan, head of Pertec's microsystems division, which includes the Altair line and Icom, of Canoga Park, Calif., maker of computer peripheral equipment for such small computers, said that Altair sales totaled about \$6 million last year.

Mr. Poppa said a recent industry survey has forecast about \$100 million in total sales this year for the dozens of personal computer companies, most of them very small.

World sales of large computers, a market dominated by the International Business Machines Corporation, exceeded \$20 billion last year. Sales of minicomputers approached \$2 billion last year.

A recent survey by the San Francisco brokerage firm, Robertson, Colman, Siebel & Weisl, reported that minicomputer shipments by a group of 11 companies ran 44 percent ahead of last year in the first quarter of 1977.

The booming sales of computers—and a wide range of equipment for putting information into them, storing that information and retrieving it—contributed to an ebullient atmosphere at the conference exhibits, which appeared constantly jammed by registered visitors totaling more than 29,000 by today.

The rapidly expanding Harris Corpo-

ration staged the largest single exhibit, taking up 4,000 square feet of the more than 100,000 rented by several hundred exhibitors.

Perhaps the most elaborate exhibit was an arena of black glass tubes put up by the Control Data Corporation, which specializes in very large computers.

While a beige-suited pitchman on a high dais extolled the virtues of "smaller, faster, more affordable" computer components, slides and even short movie sequences were projected on the tubes according to a computer program, to the accompaniment of electronic music.

Centerpiece of the Control Data exhibit was a system called the Omega 480, which was billed as an alternative to large computers marketed by I.B.M.

Not far away, the I.B.M. exhibit featured the Series 1 and System 34 mini-computers, introduced recently by I.B.M.'s general systems division in Atlanta. Both introductions are expected to intensify competition in the mini-computer field.

The Data General Corporation of Westboro, Mass., advertised several of its new computers in a domed planetarium in which the star-projector was controlled with the help of Data General equipment.

A smaller exhibit attracting attention showed methods of reading spoken data directly into a computer, either by a cable from the operator's headset or from a new radio unit with a calculator-like display board that confirmed the numbers being entered.

Developed by Threshold Technology Inc. of Delran, N.J., the equipment is being used for voice data-entry by quality-control inspectors on automobile assembly lines, voice-commanded routing of parcels in a large warehouse, and voice-recording of transactions at a Chicago commodity exchange.