

CONTENT OUTLINE

Entrance: Technology and Social Change

THEME: Past technological innovations have fundamentally altered how we go about daily life; the printing press, steam engine, and electric motor have made changes like those that may stem from microelectronics.

DISPLAYS include a model steam engine, other artifacts, and graphics showing personal adjustments to technological change.

Theater: A slide show further illustrates the theme that technology interacts with society, introducing microelectronics.

Pavilion: Manufacture

THEME: Lithographic techniques used in manufacture make microprocessors compact, inexpensive, and powerful.

DISPLAYS include successive generations of a comptometer illustrating the rate of development of the technology; an x-y plotter drafting one of the masks for a layer of a microprocessor; and, overhead, enlargements of the five layers.

Pavilion: Function/Software

THEME: Microprocessors manipulate symbols in limited ways, but at a lightning speed, according to instructions we supply (the program). A program stored inside an all-purpose microprocessor turns it into a text editor, a speaking toy, or a communications device that can react conditionally to the outside world.

DISPLAYS include a traffic light changer in which the "program" mechanism is visible; and an illustration of the many programming steps required to perform a familiar task.

Exhibits: Applications and Public Response

THEME: Microprocessors are currently in use in home, office, factory, and school; in each case, the technology introduces new options for daily living and for the experience of oneself.

DISPLAYS include a working example or representation of microprocessor-based equipment in a context that illustrates public response (through photographs, conversation, graphic imagery) in the following areas:

- automated office
- information resources
- industrial robots
- industrial process control
- smart tools and appliances
- medical technology
- entertainments (emphasis on children)
- home computer

CONTENT OUTLINE cont.

Exhibits are free-standing and occupy two-thirds of the exhibition space, between and surrounding the pavilions.

Pavilion: Toward the Future--Getting Smarter

THEME: Scientists and technicians attempt to make "smarter" programs that emulate a particular human skill, and in so doing they explore the relationships between information processing and human thought.

DISPLAYS include illustrations of expert programs, robot vision, and the sometimes contradictory opinions on where such "machine intelligence" will lead.

Polls: At four locations, visitors can take a computerized poll of 20-25 questions that provide facts and probe attitudes about one of the following areas: robots, home computers, office automation, artificial intelligence.