



NC gear speeds up testing of engineers' designs

System proves 10 times faster

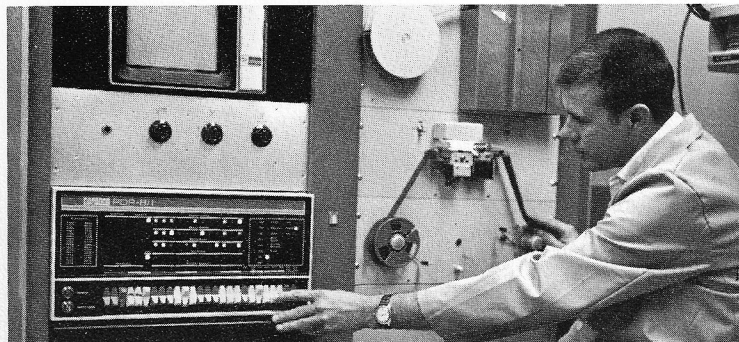
Use of numeric-control equipment in the Model Shop enables engineers to have their designs "tested and proved" nearly 10 times faster than is possible without the equipment.

Two years ago this month the Model Shop installed its PDP8-I computer and machine-control equipment, including a tape-controlled turret punch press.

The system, described by Model Shop Manager Slim Sorenson as an extension of a model maker's toolbox, has cut the turnaround time on a sheet metal part by at least 10 times.

"There used to be a delay of two or three days from the time a design was ready until we could make the part," he said. "With the computerized equipment we can make the part three times — each part modified — in one day and still have time to spare."

What this really means is that



John prepares computer by inserting proper software.

an engineer can design a part and have it to test within a day. If he doesn't like it and wants to change it, he can. And he doesn't have to wait a very long time.

Under the old system, a template had to be made from the engineer's design. That took maybe 10 or 12 hours. The Model Shop spent 4000 hours a year in template layout — a function that has been completely eliminated.

Now, the model maker codes the designed part onto a teletype, which cuts a paper tape.

The tape is put on the computer, which cuts a machine tape; the designed part can be seen visually on the computer's graphic display and any obvious errors are quickly visible.

The machine tape is fed through the computerized punch press, which makes the part.

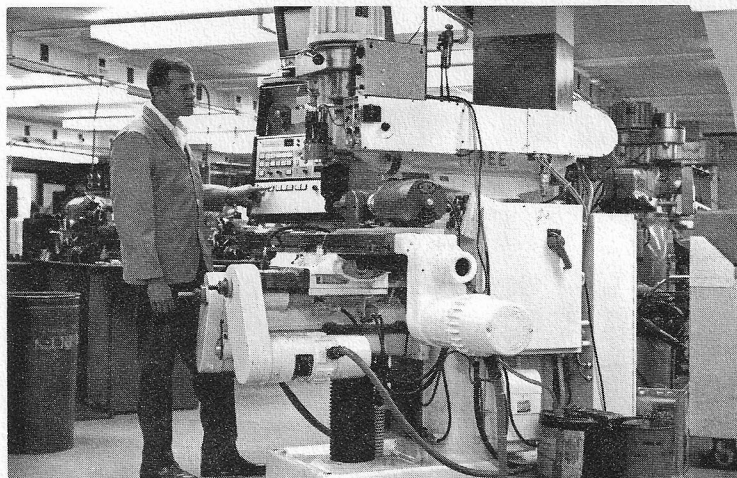
What Slim likes most about the system is that it is fairly simple to use and the model shop personnel can program their own parts.

"You don't have to be a programmer to use it," he explains.

Even though design activity in Engineering has increased, the Model Shop has been able to support this activity with faster turnaround time and 15 per cent less personnel, he said.



Model maker John Laskey generates information tape.



Tek 1704 verifies tape prior to cutting material.