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NASA TECH BRIEF

A Method of Numerically Controlled Machine Part Programming

This computer program was designed for automatically programmed tools (APT). The system is divided into a preprocessor and postprocessor. The preprocessor computes the desired tool path and the postprocessor computes the actual commands which will cause the machine tool to follow a specific path.

The postprocessor program is written in FORTRAN V with bit manipulation being accomplished by existing assembly language routines. The postprocessor is designed as modular as possible so that future point-to-point numerically controlled machine tools can be operated by adding additional machine tool sections. There are two kinds of output generated by the postprocessor: punched paper tape and a printed listing (used by the programmer to verify data on the punched tape).

A punched mylar tape, made from the paper tape, is used to control the machine tool in the work area.

Notes:

1. This computer program was designed for use on a Cincinnati ATC-430 numerically controlled machine tool.
2. Inquiries should be made to:
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   Reference: B70-10599

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