ABSTRACT

A Methodology For The Generation And Testing Of A Post-Processor For A CNC Lathe Using Commercially Available CAM Software.

Hilary Sham Lakhiram

In Trinidad and Tobago CAD/CAM technology have aroused much interest in the small and medium scale industries. However, many potential users of this technology are wary of incorporating CAD/CAM systems in their manufacturing processes since they are unaware of the potential and capabilities of such systems. Additionally, the high cost of CAD/CAM systems coupled with the unfamiliarity with the CAD/CAM 'jargon' have led to many potential users adopting a 'wait and see' approach to this new technology. This project is intended to alleviate the fears of potential CAD/CAM users by introducing them to the basics of CAD/CAM systems.

The project discusses the basic components of a CAD/CAM system and the steps that should be taken to realise the full potential and maximum gains in
implementing a CAD/CAM system. An example of an in-house application was demonstrated by the creation of a post-processor for a machine tool.

A post-processor is a program which converts English-like statements (Appendix 7) to a part program using the codes for a particular machine-tool. The software used was the NCPG/6000 program, which contains a series of subroutines (written in Fortran 77) which must be modified for every machine tool.