

# Integration of Burr Information in CAD Models and Generation of Deburring Sequences

**ABSTRACT:** Burr removal and deburring can sometimes account for as much as one-third the cost of producing a part. Much attention is being focussed on integrating the deburring process into the product and manufacturing processes. Consequently there is a need for a system which can represent burr information in the CAD model as part of the product "master" model. In this paper, we have presented a method to obtain burr location and severity information for a physical part and represent that information in the CAD model of the part. The representation in the CAD model is created non-interactively using the application-programming interface of the CAD system. We also demonstrate the capability to create an NC sequence for a deburring operation, interactively and non- interactively. In the interactive mode, we use trajectory milling for the deburring sequence. Having the edges highlighted enables the user to choose the edges for the trajectory with ease. In the semi-automatic mode, as a proof of concept, we use the API of the CAD/CAM system to create a new operation for deburring and a holmaking sequence. We have done some preliminary studies with the water jet and the tabletop NC machine with a power brush tool to test the feasibility of creating NC instructions to perform the deburring operations effectively.