

Preface

CAD/CAM technology has emerged as one of the major driving forces in our modern manufacturing industry. Due to increased computer power and the advancement of CAD/CAM software, manual CNC programming has been replaced by CAD/CAM programming in recent years.

This text was created to introduce new users to the SURFCAM Velocity Series. The content of the various projects emphasizes graphics and toolpath associativity, as well as ease of use. While any design and machining project may have many solutions or processes for completion, an effort has been made to provide the best solution.

The chapters of the book are designed to be covered sequentially and, when studied in order, provide a building block approach to learning SURFCAM Velocity. The approach taken in this book allows accessibility to persons of all levels, however, computer familiarity is assumed. All projects were developed from an industry perspective to emulate on-the-job situations. Using this text in a classroom environment will enhance the educational experience with its realistic practice projects.

This book is suited for a two-semester course. It is appropriate for industrial technology, engineering technology, and engineering courses at many levels; universities and colleges, junior colleges, trade schools, high schools, as well as for courses offered by industry. The first semester covers 2D toolpath programming and simple 3D surfacing and toolpath programming. The second semester presents solid models, advanced surfacing and 3D toolpath programming.

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