surfcam

: workflow

Accelerated generation of CNC code

Surfcam Workflow, the market leading software application, is designed to lower manufacturing costs, improve part quality and shorten lead times. Workflow understands the component topology and the required manufacturing environment, thereby accelerating toolpath generation.

Interactive, Intuitive and Informative

Built-in machining strategies automatically create cutter paths

User defined toolpath creation

Ribbon bar interface

Product launcher

User navigation and user guidance

Workflow will lower your programming time, and because it is simple to operate, the learning curve for new users is significantly reduced.

Loading and positioning the component
Unlike many CAM systems where the user must manually set the machining environment and use traditional commands to create a datum. Workflow automatically detects the machining environment and creates a interactively movable origin based on your preferences

Matching the part with the machine
Based on the component's geometry, the user is presented with a list of suitable machine tools for the job, ensuring effective machining.

Adding stock to the model
A customizable material database helps fit the stock to the component. This makes application of many different stock types, either standard or custom, easy to accomplish.

Importing fixtures
User defined fixtures, including vices, chucks and clamps that can automatically adjust to stock size, can be applied using the fixture manager.

Managing manufacturing strategies
Surfcam engineers have identified efficient methods to machine parts using logical cutter paths on a feature-by-feature basis.

These processes function as "Toolpath Accelerators", but allow users, if required, to include their own input and quickly produce the exact toolpath needed. Additionally, by using Surfcam's "Strategy Manager", the user can align Surfcam's manufacturing strategies to company manufacturing processes, so that manual programming is limited and each part is machined using the company's best practices.

Workflow - A 5 Stage Process
Stage 1 - File: By adopting the common Microsoft Office 2010 theme, users are able to efficiently manage files and folders.

Stage 2 - Set-Up: Dynamically allows for datum position. Interactively select stock and fixtures while the machine manager displays kinematics and checks for travel limits.

Stage 3 - Features: Using Surfcam's powerful automatic feature recognition, all types of manufacturing features can be identified.

Stage 4 - Machining: The "Planning Board" applies a suggested order of manufacture, which can be edited easily by drag and drop techniques.

Stage 5- NC Code: The toolpath is simulated in the machine simulator, which checks for collisions, tool parameters and travel limits. If necessary, the tool list can be reviewed and edited before NC code is generated, allowing flexibility in programming.

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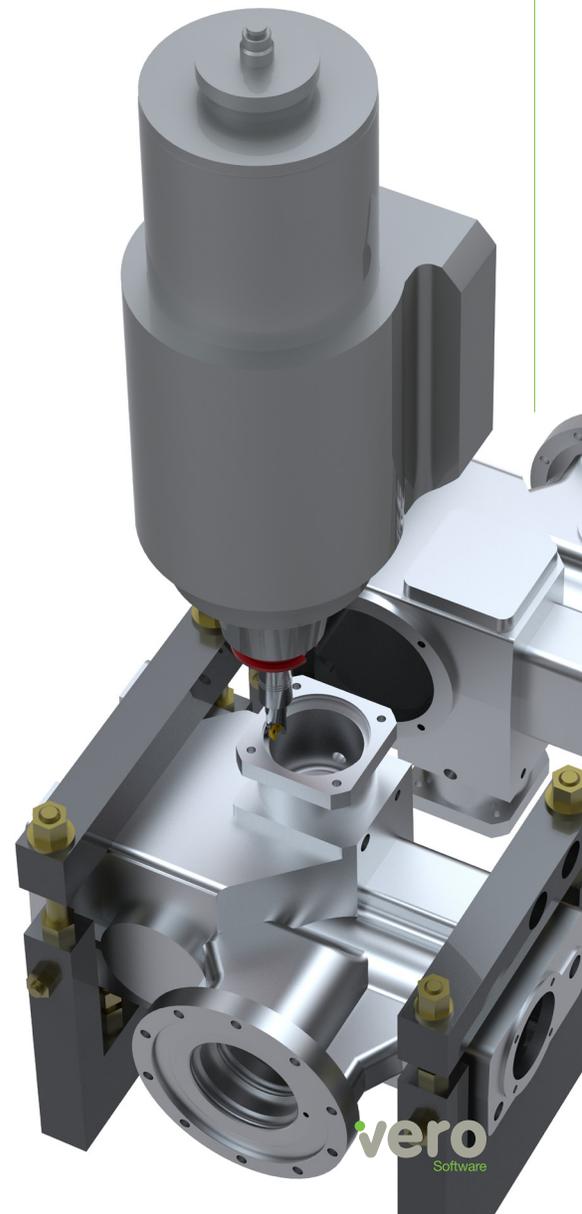
surfcam

: strategy manager

Knowledge Based Machining

Surfcam Strategy Manager encompasses the best from the principles of rules, knowledge and feature based machining and utilizes these to produce a fast, reliable and highly automated solution for solids machining.

Extends the feature based approach of Surfcam

Produces machining strategies tailored to your own best practices

Reads native files from major CAD software without translation

Best-in-class feature recognition

Automate any Surfcam machining application and reduce your programming time to seconds with Surfcam Strategy Manager.

At the core of Surfcam Strategy Manager is an easy to use, graphical flow charting tool for building flexible strategies for machining solid models. Surfcam Strategy Manager does not impose rules or working methods, instead it allows you to utilize the knowledge and experience of your top programmers. The process is entirely graphical and no knowledge of high level programming languages is required.

Reduce Programming Time:
Surfcam Strategy Manager captures your manufacturing knowledge in a simple flow chart format to define rules governing how a part will be machined. With a few simple steps you can reduce programming time, and create consistent, repeatable G Code.

Accurate Part Models:
Reads native files from major CAD software without translation

• No translation means 100% data integrity every time

• Best-in-class feature recognition

• Part-to-toolpath associativity, eliminating rework after design changes

Benefits include:
• Reduce time to market and lower costs

• Capture design and manufacturing intent

• Apply your proven manufacturing process

• Reduce programming time

• Eliminate programming errors

• Increase repeatability and traceability

• Easy to implement

• Edit free G Code straight to your machine

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