PROCAM

2D/3D CAD & Surface Modeling
2.5 Axis Mill
Surface Machining

The Perfect Tool

Simplifies the Process, Empowers the Operator, Increases Productivity

A Tradition of CAM Solutions

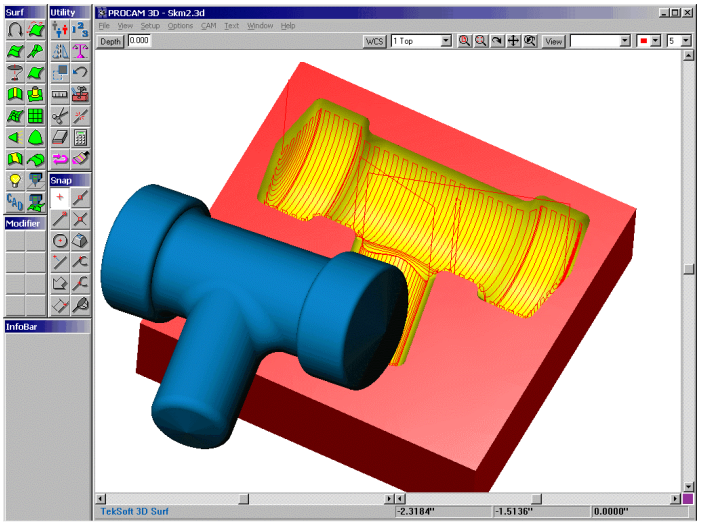
As the premier developer of powerful, easy to use CAD/CAM software solutions, TekSoft has provided more than 20,000 quality systems to manufacturing facilities worldwide, since 1981.

Integrated CAM Solution

ProCAM runs the entire CNC manufacturing process from a PC and offers an integrated solution for applications requiring 2D/3D wireframe creation or complex surface modeling and machining. ProCAM is available in a variety of configurations, so you can purchase exactly what you need now and add to your system as your business grows. The current release, ProCAM 2000, is loaded with timesaving features and productivity tools to help you reduce time to market and increase profitability.

ProCAM Overview

- Fully integrated database for CAD and CAM files.
- Powerful features that allow programmers to create and manipulate standard geometric entities and advanced geometry.
- Intuitive Windows graphical interface with menus, toolbars, dialog boxes, online help and tooltips.
- Support for standard file formats including IGES, DXF, DWG, Parasolid, STL, and CADL.
- Direct printing and plotting using Windows-supported graphics cards and printers.



Complete Part Design

ProCAM includes 2D/3D wireframe and complex surface modeling capabilities.

CAD Design

- User-defined coordinates allow the user to move the zero point to the dimension datum of each construction view and work in a horizontal/vertical (X,Y) frame of reference.
- Enhanced accurate picking feature.
- All CAD and CAM entities can be translated, scaled, mirrored and rotated. CAD entities can be trimmed, segmented, filleted, chamfered and extended.
- Dimensioning supports aligned and uni-directional linear dimensions, as well as ordinate, baseline, datum, diametric, and radial dimensions.
- Support for English and metric units, fractions and other dimensioning styles.

Surface Modeling

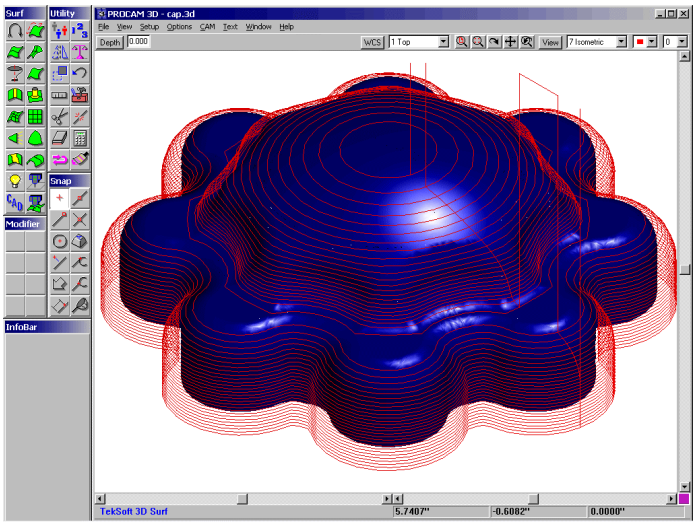
- Supports multiple surface creation methods: swept, ruled, plane, offset, surface of revolution, four-curve (Coon's patch), three-curve, constant and variable radius fillet, complex surface and two-surface blend.
- Provides tools for easy manipulation of surfaces, either as a single surface or a combination (Composite surfaces).
- Projects 2D or 3D entities onto any surface for engraving and free form cutting.
- Supports the calculation of an infinite number of surface intersections.
- Separates the core and cavity on parts designed with thickness included.
- Interfaces with Open GL graphics cards for interactively generating high speed, high quality surface shading. Allows dynamic pan, zoom and rotate of shaded models.

Multi-axis Machining

ProCAM 2.5 Axis Milling and Surface Machining are integrated into one easy-to-use product. Parts that require 2.5 axis milling and surface machining can be modeled in one part file. Import or create 2D models or 3D wireframe models, then generate tool paths - all within ProCAM.

Functions available in both modules include:

- Combination drilling cycles for a series of single point operations at the same location.
- Edit tool paths.
- Copy operation parameter information from one operation to another.
- Save operations in a file that can be opened and used with any part files.
- Capture a Z absolute coordinate for Z minimum, Z rapid plane Z face and depth values in an operation.
- Define G code program zero points using the Machine Coordinate System.
- Supports 4 and 5 axis preposition machining.
- Free Form Cutting.
- Tool Library to create a database representing all the tools in your current inventory. Define tools only once, not at every turret change.



2.5 Axis Milling

- Significant support for 2.5 axis parts machined on tombstones and rotary/tilt tables.
- Automatic roughing, finishing and drilling cycles. For pocketing and profiling routines, ProCAM's gouge avoidance checking and correction assures part integrity when roughing and finishing, regardless of part complexity.
- Allows tool paths to be updated automatically as machining information changes (associative tool paths).
- Unlimited, user-definable islands. Part features such as ribs and bosses can be represented as islands for cleanup/finish passes.
- Automatic recognition of pocket and island perimeters for non-contoured Z walls.
- Option to change construction planes and views to correspond to horizontal milling machines.
- Integrated Feeds/Speeds Library has modifiable database containing over 1.7 million feed/speed combinations representing over 1100 materials. Calculates feeds and speeds automatically.

Surface Machining

- Uses algorithms for the latest tool path and gouge protection methods of cutting surfaces.
- Allows surfaces to be machined to exact user-defined tolerances.
- Generates tool paths for fast, error-free surface cutting over single or composite surfaces using ball, flat end mill and hog nose tools.
- Z level roughing allows interactive Z level editing to add and delete Z levels and/or change the depth of each pass.
- Slice cutting provides continuous machining across multiple surfaces for finishing and semi-finishing.
- Numerous finish strategies include planer, flowline, radial, spiral and single, double, or pocket/lace offset.
- Allows 4 and 5 axis machining tool paths to be wrapped around a cylinder.
- Reduces production time by allowing the scallop height or step-over to be user-defined, which reduces hand polishing operations.
- Includes a pencil milling cycle with four cutting patterns for removing leftover material. Tool paths can be generated selectively in steep or shallow (flat) areas depending on the slope angle.

System Requirements

Windows 95, 98 or NT
CPU: Pentium®
RAM: 32MB minimum
(128MB recommended for Surface Machining)

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