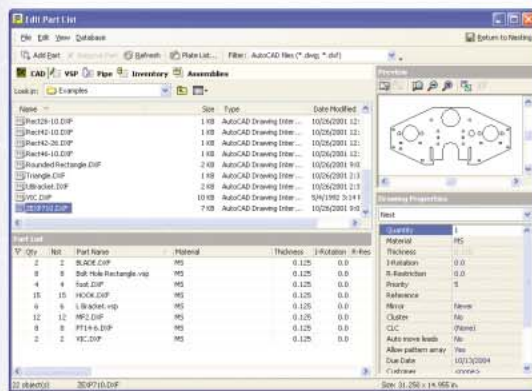
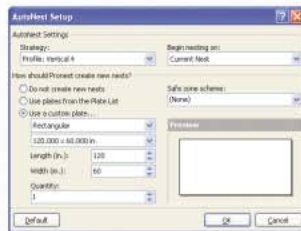
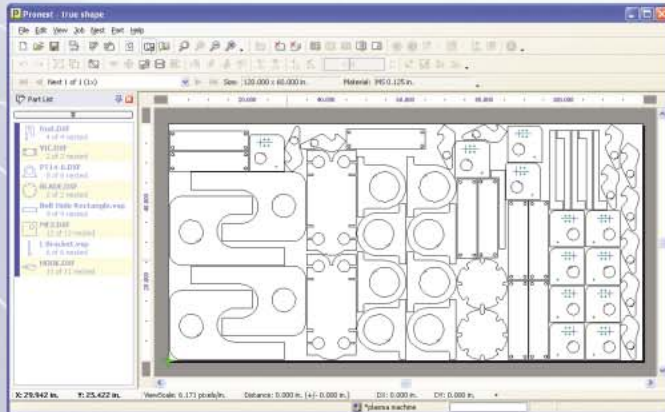


PRONEST[®] 7

NESTING SYSTEMS



The **ProNest[®]** system has been specifically designed to meet the most demanding requirements of 2-axis profile cutting applications including Laser, Plasma, Oxy-fuel, Waterjet, Routers and Combination Plasma-Punch/Laser-Punch. **ProNest[®]** fully automates the import of part geometry from popular CAD systems as well as from existing CNC files. The combination of best-of-class material utilization, powerful, easy to use editing and productivity tools, and uniquely flexible control over cutting techniques, cutting parameters and CNC output make **ProNest[®]** the ideal solution for any manufacturer or fabricator.

PRODUCTIVITY AND EFFICIENCY

The advanced nesting algorithms used by **ProNest[®]** result in exceptional material utilization without sacrificing nesting speed or flexibility. **ProNest[®]**'s unique Optimization feature allows you to automatically evaluate different nesting strategies, plate sizes and inventory objectives to determine the low-cost solution based on your real-world criteria.

ProNest[®] reflects MTC's commitment to systems that are not only powerful, but are also easy to learn and use. As a result, you can learn to use **ProNest[®]** in 25% of the time it takes to learn our competitors' software. This also helps to minimize your dependency on specially trained personnel. The carefully designed user interface means fewer keystrokes, fewer screens to navigate and more productivity in less time.

ProNest[®]'s advanced, knowledge-based techniques automatically convert your CAD based geometry into efficient nest-ready part programs that reflect your preferences for lead in/out style and placement. Add the ability to automatically import part properties including material, thickness and quantity directly from your CAD files and you have a nearly effortless CAD import process. Naturally, **ProNest[®]** provides a full complement of advanced tools for application specific editing like corner loops and tabs.

Productivity tools like *Common-Line Cutting*, *Chain Cutting*, *Bridge Cutting*, *Skeleton Cut-Up*, and *Collision Avoidance* provide additional opportunities to reduce production time and cost.

REPORTING, COSTING AND PRODUCTION ANALYSIS

The standard **ProNest[®]** shop and management reports, complemented by the integrated custom report designer, ensure that practically any report can be produced quickly and easily. Advanced reporting features like nest or part images, barcodes and bit-mapped images can be easily incorporated into any custom report.

ADVANCED PROCESS CONTROL

ProNest[®]'s flexible definition of advanced cutting techniques and material and quality-based cutting parameters allows for the automatic optimization of production speed and part quality required by today's demanding laser, plasma and waterjet applications.



PRONEST[®] 7

NESTING SYSTEMS

PRONEST[®] Features

STANDARD FEATURES

Automatic CAD (including DWG, DXF, IGES, DSTV) and CNC Import
Assign B.O.M. Properties (Quantity, Material, Thickness) from CAD drawing
Material-Based Automatic Lead In/Out Style and Size Definition
Variable (Parametric) Shape Part Creation
Advanced "Drag and Drop" Nesting
Part Interference Detection and "Bumping"
"Tool Tips", "Fly by Help", and Right-Click Pop-Up Context Menus
Independent Part, Plate and Pierce Separation Control
Interactive and Automatic Plate Cropping
Basic Multi-Torch Support
Safe Zones for Material Clamping Applications
Automatic and Interactive Process Sequencing
Auto-Shift Lead In/Out Locations
Edit Lead In/Out Position/Style/Size, Corner Loops, Tabs
Edit Entity Quality, Delete Entities and Profiles, Close Open Profiles
Animated Cutting Sequence Simulation Standard and Customizable Shop Reports
Spreadsheet-Based, Process Parameters with Quality Support
Material-Based Cutting Techniques (Corner, Lead In/Out Ramp Up/Down etc.)
User Configurable CNC Post-Processor
Basic Serial RS-232 DNC Download Capability

OPTIONAL FEATURES

Automatic Nesting

- Block (blank area)
- Optimized Rectangular
- True-Shape Nesting with "Part-in-Part" and Void Filling
- Pattern Array
- Plate and Nesting Strategy Selection Optimization
- Variable Multi-Torch Support

Productivity Tools

- Common-Line Cutting
- Chain Cutting
- Custom Remnants
- Bridge Cutting
- Collision Avoidance (Head-Down) Tool Pathing (Automatic and Interactive)
- Skeleton Cut-Up
- Part Cut-Up
- Part Entity Smoothing and Reduction

Database and System Integration

- Part and Plate Inventory (Including Remnant Tracking)
- MRP and Manufacturing System Interface

Parametric Libraries and Specialized Post-Processors

- PIPE - Cylindrical Pipe Fittings and Transitions
- HVAC Fitting Package
- Advanced Laser, Waterjet or Router Support
- Plasma-Punch and Laser-Punch Support

CAD Interfaces

- Artistic Bitmap to Vector Package
- SolidWorks Interface

Example Configurations

The modular nature of the **ProNest[®]** system allows you to select the exact mix of features to meet the specific needs of your company. Here are just a few examples of how **ProNest[®]** can be configured to provide comprehensive support for advanced applications.

APPLICATION: High-Volume Manufacturing, Laser

PRONEST[®] RECOMMENDED OPTIONS: **True-Shape Nesting, Pattern Array, Common-Line Cutting, Bridge Cutting, Collision Avoidance, Skeleton Cut-Up**

Material and quality-based process parameter support plus the advanced cutting techniques standard to **ProNest[®]** provide the basis for consistently delivering the part quality demanded by today's laser applications. The powerful combination of **True-Shape Nesting** and **Pattern Array** deliver unmatched utilization to keep material costs to a minimum. **Common-Line Cutting, Bridge Cutting, Collision Avoidance, and Skeleton Cut-Up** save both production time and reduce your consumable costs.

APPLICATION: Steel Service Center, Advanced Plasma

PRONEST[®] RECOMMENDED OPTIONS: **True-Shape Nesting, Pattern Array, Chain Cutting, Bridge Cutting, Part and Plate Inventory**

ProNest[®]'s advanced nesting algorithms are a match for the most demanding, high-volume production runs while the **Chain** and **Bridge Cutting** help reduce pierces and torch on time. Automatic application of advanced cutting techniques enables production of consistently high quality parts. The **Part and Plate Inventory** option allows fully integrated tracking of new and remnant plates.

APPLICATION: Job Shop Water-Jet

PRONEST[®] RECOMMENDED OPTIONS: **Pattern Array, Common-Line Cutting, Collision Avoidance, Part Entity Smoothing and Reduction**

The advanced interactive nesting of **ProNest[®]**, combined with **Pattern Array** technology, meets the production requirements of both small, dynamic jobs as well as high volume runs. The precise control of cutting technique and process parameters provided by **ProNest[®]** is critical to the production of high quality water-jet parts. **Common-Line Cutting** yields significant reduction in total cutting time and potential head crashes are eliminated with **ProNest[®]**'s **Collision Avoidance** feature. The **Part Entity Smoothing and Reduction** option can further improve the quality of complex part geometries while reducing the size of the CNC program.

