

Store and Manage Production Information

Nothing's better at describing what we do and how it can help than a one-on-one, web-based demonstration. Invite your associates. Ask lots of questions. Tell us about your operation, and we'll share our experience and show our software tools. Contact us at optinest.com/contact_us.asp

A manufacturer must find a simple way to manage a wide range of variables for each individual part produced. Some of these variables such as raw material, grain constraints, shape classification, part area are inherent in the design of the part. Other variables such as process type, tooling, due date, profitability are a function of your manufacturing equipment.

The Optimization® Advantage

Optimization® is the only nesting system that has an intelligent Knowledge Base that drives its expert systems. The Knowledge Base allows intelligent automation and eliminates the need to use a human brain to do boring repetitive work. With the Knowledge Base, your installation will look and act like it was custom designed to your company's requirements. No other system is as automatic or delivers the intelligent cost effective results of Optimization®.

The Knowledge Base and Part Library are the storehouses in which knowledge is kept.

Advanced nesting technology can greatly simplify human interaction by automatically handling complex decisions. The Knowledge Base and Part Library are the storehouses in which knowledge is kept. With this advanced technology you have control of the decision process with hundreds of "set and forget" parameters that the expert system uses to insure that things are done your way. Together they provide extensive "rule-based expert systems" which enable the software to create the most intelligent and cost optimal nesting pattern possible. Because of the advanced technology it is possible to program and library hundreds of parts with a single button push.

The Part Library stores each part program.

The Part Library provides a storehouse for each ready-to-nest part program and its associated manufacturing information. This includes such characteristics as raw material, grain constraints, common cut definition, part area, spacing requirements and tooling.

- [Millions of Parts](#)
The Part Library has the capacity to store and catalog this information about millions of parts with their manufacturing attributes. This technology provides simplicity, convenience and accuracy through a one button part library process.
- [Processing CAD files takes very little time](#)
When operating in automatic one-button mode (without human interaction), processing CAD files into the part library takes very little time, and is done without human attention.

One Database.

One very important requirement is to have only one database. To get the benefits of Concurrent Engineering, the CAD system is integrated to the single database containing all data to design and manufacture the parts. The expert systems convert the CAD parts into manufacturing data by using its extensive knowledge of your machines and processes.

- [Errors inherent in two databases.](#)
Older generation technology requires an additional step to pass the CAD data from your design system to another CAD system creating a double database where changes have to be made twice. Double database designs are universally seen as bad design and should be avoided because of the errors and high maintenance cost they inherently bring.
- [Updating Part Library when revisions are created.](#)
As new parts or revisions are created, the Part Library will be updated as a natural result of the single database design. By integrating your ordering system to request parts by revision, wrong revisions are eliminated.
- [First Article Inspection Flag](#)
In addition, the library can track a new part or revision and tag it with a First Article Inspection Flag. This will alert the operator that it is a new part or revision and requires inspection.

The Knowledge Base also provides a storehouse for all manufacturing information.

The Knowledge Base also provides a storehouse for all manufacturing information. These “set and forget” parameters are determined by your operation and include such characteristics as machine capabilities, tooling, material type and efficiency, schedule requirements and hundreds of others. The knowledge base is a necessary element to automating your process intelligently.

- **Older technology solution**
Older generation technology, without a knowledge base, requires an operator to make repetitive decisions in the form of multiple time wasting button pushes.
- **One adjustment necessary, if needed.**
The Knowledge Base’s vast storehouse of information allows you to make a single one-time adjustment to fit your specific manufacturing environment and production flow demands. In those rare instances where special exceptions occur, interaction is always available.

The knowledge and experience of a vast number of engineers and programmers

The comprehensive parameters included in Optimization® software have evolved from an extensive pool of manufacturing experience. You are able to tap into the knowledge and experience of a vast number of engineers and programmers with man-centuries of practical hands-on shop floor experience. This fifth generation intelligent system is designed to think and respond as you would. With it you will increase your ability to respond production demands at the lowest possible fabrication cost.

Organize, edit, and retrieve information quickly. Reduce the potential for error and save programming time.

Optimization’s fifth generation software, through its Part Library and Knowledge Base, is designed to help you organize, edit, and retrieve this information quickly reducing the potential for error and saving programming time. You will be able to produce your parts on demand, in exact quantities at the lowest cost possible.

Contact Optimization for more information.

About Optimization®

Optimization® delivers economic performance for fabricators through advanced nesting software. Optimization® develops and supports nesting and CNC part programming software for fabrication processes, which include punch, laser, plasma, Waterjet, router, and CNC knives. We cover the range from single-machine sites to sites with hundreds of machine tools with the highest possible automation.

Our automated approach to manufacturing solutions dates back to our beginning more than three decades ago. It is our belief that routine - and even not so routine - nest technology fabrication can be best achieved through a rules-based system that reduces not only material waste but programming time and error and keeps the manufacturer in control.