

4 SMART STEPS

TO BUYING NESTING SOFTWARE



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Setting aside the technology available for the moment, making a smart nesting software purchase begins with money. Clearly understanding purchasing goals, budget options, cost justification, and research tools will make identifying the right nesting software a more productive experience.

In this document we will make clear a few terms, look at budgeting examples, describe a key tax code, and demystify costing formulas.

Let's get started.

1. UNDERSTANDING BUDGETS

Every person, every business has a budget. It's the framework of income and expenses in which purchasing decisions are made. In business there are capital budgets and expense budgets. When evaluating a nesting software purchase, which budget is right? The answer is "either budget" depending on your situation.

- **Capital Budget** – A capital budget reflects funds designated for major, long term investment. Considered as capital investments, equipment, buildings, and research & development, the purchase of these big ticket items is often planned long in advance of their purchase. These items are usually amortized (written off or depreciated) over a number of years, usually the life of the item. If a nesting software license is purchased outright, it may be treated as a capital investment.
 - Presently, there can be significant tax advantages to treating nesting software as a capital budget item under Section 179 of the US tax code.

► Further discussion:
"Section 179"
on page 7

► **What to look for in a Nesting Software Lease**

1. No additional collateral required.

The software should act as its own security for the lease.

2. Software Maintenance included. Your leased product is maintained and upgraded,

keeping your operation current with the changes in technology.

3. No personal signatures required as guarantee for the lease.

4. Minimal down payment.

- **Expense Budget** – An expense budget is directly tied to cash flow. Items in an expense budget are purchased and paid for in the near term such as 30-90 days. Utilities or purchases on credit cards would be typical examples. If the nesting software is leased, the monthly payments could be treated as expenses, just like the utility bills. This conserves the capital budget for other investments.

Nesting software can be leased over a period of years – typically five. This significantly reduces the initial cash outlay in much the same way a car lease is structured with a small down payment. However, unlike an automotive lease, at the end of the five years you retain ownership. Alternatively, you can buyout the lease any time prior to its completion. The goal is finding a lease payment that is less than the anticipated monthly material savings. See sidebar for four qualities to look for in nesting software lease.

2. IDENTIFYING COSTS

If we're agreed on our goal of cost reduction when purchasing nesting, then our next questions are: what costs, and how are they measured?

This varies by manufacturer, but most often it is the raw materials (steel, composites), followed closely by programming time and the less tangible opportunity costs of lost production due to machine down time, missed deadlines, reduced throughput, or machine wear. Often, the cost of nesting software can be justified on the material savings alone. So we'll look at material savings and, parenthetically, programming time here.

- **Raw Material Expense** – What are the total raw material costs expensed annually? Specifically, how many pounds or sheets of material and at what cost are purchased annually? The equation would be units of measure times cost per unit. It's important to look at an annual figure to diminish

fluctuations in cost per unit over time, seasonal demand, or changes in production reflected in changes in purchase quantities.

- **Raw Material Scrap** – How many pounds or sheets of material and at what cost are discarded annually? This may need to be broken down by material to determine the price per pound, particularly if there are semi-precious metals or other particularly costly materials. Often this is expressed as a percentage of the material purchased, such as 5% scrap rate or 7% of material expense is waste.
- **Programming Costs/Nest** – How many hours does a programmer spend creating a nest? And at what pay rate? If programming time can be cut by 30-90% through nesting automation, the time spent is a savings. This is a softer cost than material expense because programming time when saved by nesting software automation often is reallocated to a more productive task and does not mean a budgetary savings. Nonetheless, it is helpful to know the savings involved as a secondary or sometimes primary justification.

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3. MEASURING COSTS

- **Capital Budget** – Here the key cost reduction measurements are ROI (return on investment) and payback period. ROI is the amount of cost reduction created by the investment relative to the cost of the investment. The payback period is the period of time it takes for nesting software investment to “pay” for itself.
 - Example: A \$15,000 purchase (capital expense) creates a 15% savings on \$100,000 of material or \$15,000 (return on investment). If it took one year to accumulate the material savings, the payback period would be one year.
- **Expense Budget** – Alternatively, if interested in reducing monthly expenses the important numbers to watch are your monthly raw material cash outlay and corresponding percentage of scrap contrasted with your monthly leasing

software expense.

- Example: Acme Company spends \$500 per month leasing nesting software. Acme has a monthly material expense of \$50,000 in material; however 25% of the cost is scrap amounting to \$12,500 per month in wasted expense. Acme was able to reduce the scrap rate by 10% or \$1,250 with nesting software. Deducting their lease payment of \$500/month, they have a net cost reduction of \$750/month.

4. CONDUCT DUE DILIGENCE RESEARCH

Before making a nesting software purchase, it is important to do the appropriate research on the product(s) under consideration. There are a number of tools at your disposal. We'll discuss a few possibilities here and most importantly how to get the most from your discovery efforts.

► Most importantly, conducting due diligence research demonstrates how to get the most from your discovery efforts.

- **Demonstrations** – Ask for a demonstration of the product. Bring anyone who may be involved in the purchase decision – or even the end use – of the product. Different stakeholders have unique perspectives on the product. Also, come to the demonstration with a list of your questions and challenges you're presently having.
- **Benchmarks** – A benchmark is a test of the software using your materials, part geometries, order due dates, and any other manufacturing requirements you want to include. Set a finite time frame for the benchmark to be conducted – a few days – is typically enough time to create the nests. Be certain to use real manufacturing data to compare the results with. It is important to see the benchmark results against the work you did last week or month to get an “apples to apples” comparison. Also, make sure you collect enough sample parts and orders to get a real world assessment of your benchmark results. In order to calculate a reasonable ROI or expense reduction, you'll want to extrapolate with

reasonable confidence the results from your benchmark.

- **Talk with Existing Customers** – All software nesting companies have existing customers. Ask to visit or call one of their customers, who are using similar processes, i.e. punch or laser. You should have an opportunity to talk with the customer freely and without the software representative present.
- **Cost Justification Analysis** – Do the calculations as described above. If needed, use high, medium, and low estimates for cost figures where data is uncertain. This will give you a best case to worst case range on which to base your decision. Look at the variables that are determining the nesting efficiency results and the cost reduction projections. There may be ways with a different approach to achieve greater reductions. Talk to the nesting software company about alternative processes or suggestions on modifying a production process that may result in better cost savings.

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WHAT IS SECTION 179?

Section 179 of the IRS Tax Code allows a small business to deduct, for the current tax year, the full purchase price of financed or leased equipment that qualifies for the deduction. The equipment purchased or leased must be within the specified dollar limits of Section 179, and the equipment must be placed into service in the same tax year that the deduction is being taken (for tax year 2009, this means the equipment must be put into service between 01/01/2009 and 12/31/2009).

► Always consult your tax professional before making any decisions regarding the tax implications of a capital purchase.

What impact did the Economic Stimulus Act of 2008 have on the Section 179 Deduction?

The Economic Stimulus Act of 2008 generously increased the limits of the Section 179 Deduction. The previous limits were \$125,000 for the deduction and the total amount of equipment purchased or leased for the year had to be less than \$500,000. The Economic Stimulus Act of 2008 increased the deduction limit to \$250,000, and now the total equipment purchased or leased needs to be less than \$800,000. It also added a one-time “bonus depreciation” on equipment that exceeded the \$250,000 deduction limit.

For more details visit: www.Section179.org.

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