



Infor SyteLine Printing Industry Pack User Guide

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About the Printing Industry Pack

The Printing Industry Pack allows you to estimate the price of a print job based on a variety of factors, such as the weight of the paper, the length, the width, the number of sections, the number of holes, die cutting and packaging requirements, and the number of colors. All of these factors can be taken into account when you use the Printing Estimating Workbench and its associated forms to build a routing and bill of material for an estimate print job.

New printing estimates can be created, existing quotes can be copied, or templates can be used to produce a Print Quote Price for your customer. When the customer approves the quoted price, you can create an estimate print job with operations and materials based on the factors provided in the Printing Estimating Workbench. Industry standard calculations are used to determine paper consumption, material usage, and operation setup and run times. You can tailor the estimate job as needed for each customer. When the estimate job is ready, you copy it to a (regular) job where it is scheduled for production.

In order to view and use the forms in the Printing Industry Pack, you must be a licensed SyteLinePP user.

The Printing Industry Pack includes these features:

- You can create templates that can be reused with some variations for many different print quotes.
- The pack includes many standard printing industry formulas, but you can also use the Formula Workbench to create and save custom formulas.
- You can use the Printing Workbench to select a template, specify your cost/price requirements, and use industry standards and formulas to calculate an estimated Print Quote Price. Or you can copy the structure and information of a similar existing quote into the Workbench to create your new quote.
- After you create an estimate job for the quoted job, you can display the cost roll-up using the system's standard calculations. You can then compare this price to the original Print Quote Price estimate.
- You can analyze material usage and estimate the quantity of materials used for printing, such as ink and oil, based on the Print Quote Price calculations.
- You can quickly calculate the paper consumed by operations on a printing estimate job. Paper is not part of the bill of materials on a printing estimate job, so paper usage is calculated separately.
- You can determine operation setup time and run time for your machinery, based on the Print Quote requirements. These values are used on the Estimate Job Operations form.

Estimating a Printing Job

To create a printing estimate:

- 1 Open the Printing Estimate Workbench directly, or linked from the Printing Estimates Quick Entry form. To open from the Printing Estimates Quick Entry form, select a line and click Printing Estimate.
- 2 On the Printing Estimate Workbench, the Header fields populate from the estimate line.
- 3 Optionally, specify values for the fields in the Process group box. You can use quote templates or estimate jobs from previous estimate lines to build an outline, or skip the Process group box to build manually.
- 4 Select or specify field values for the Sections and Operations group boxes.
- 5 Save the form to update the Print Quote Price and Cost Roll fields.

Industry Standard Price Formulas

Binding Formulas

Pricing

Operation Price = (Binding Base Factor) * (Sheet Count of Operation) * (Qty Released) * (Binding Variable Factor)

Formula Component	Location
Qty Released	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Binding Base Factor	Operation Type Code
Binding Variable Factor	Operation Type Code

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Sheeting Formulas

Pricing

Operation Price = (Base Factor + Variable factor * Up) * # of Print Sheet

Where # of Print Sheet = MAX(Min Sheet Count of Job , Sheet Count of Operation)

Formula component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Up	Estimate Job Operation
Variable Factor	Operation Type Code
Base Factor	Operation Type Code

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Die Cutting Formulas

Pricing

Operation Price = (Print Sheet Base Factor * Print Sheet Paper Form Unit Price * **Up**) * # of Print Sheet + (Base Factor + Unit Price * **Up**)

Where # of Print Sheet = MAX(Min Sheet Count of Job, sheet Count of Operation)

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Up	Estimate Job Operation
Print Sheet Base Factor	Operation Type Code
Print Sheet Paper Form Unit Price	Operation Type Code
Base Factor	Operation Type Code
Unit Price	Operation Type Code

Material

Material Price = Base Factor + Hole Punching Unit Cost * # of Holes + Unit Price per Area * **Up**

Formula Component	Location
Up	Estimate Job Operation
# of Holes	Estimate Job Operation
Base Factor	Operation Type Code
Hole Punching Unit Cost	Operation Type Code
Unit Price	Operation Type Code

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Embossing Formulas

Pricing

Operation Price = Die Cutting Cost * Labor Factor

Formula Component	Location
Die Cutting Cost	Operation Type Code
Labor Factor	Operation Type Code

Material

Material Price = Embossing Base Factor + Up Base Factor * **Up** + (**Height** + Embossing Extended Length Variable Factor) * (Width + Embossing Extended Width Variable Factor) / Area Constant * Embossing Plate Unit Price

Formula Component	Location
Height (aka Length)	Estimate Job Operation
Width	Estimate Job Operation
Up	Estimate Job Operation
Embossing Base Factor	Operation Type Code
Up Base Factor	Operation Type Code
Extended Length Variable Factor	Operation Type Code
Extended Width Variable Factor	Operation Type Code
Embossing Plate Unit Price	Operation Type Code
Area Constant	Operation Type

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Coating Formulas

Pricing

Operation Price = Length * Width * Unit Price per Area * # of Print Sheet / Print Sheet Constant 01

Where # of Print Sheet = MAX(Min Sheet Count of Job , Sheet Count of operation)

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Length	Estimate Job Operation
Width	Estimate Job Operation
Unit Price per Area	Operation Type Code
Print Sheet Constant 01	Operation Type

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Gluing Formulas

Pricing

Operation Price = Gluing Length * Unit Price per Area

Formula Component	Location
Gluing Length	Estimate Job Operation
Unit Price Per Area	Operation Type Code

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Ink Jet Formulas

Pricing

Operation Price = # of Print Sheet / Print Sheet Constant 01 * # of Original Colors * (Print Base Factor / (# of Print Sheet / Print Sheet Constant 02) + Printing Unit Price) * Print Variable Factor

Where:

- # of Print Sheet = MAX (Min Sheet Count of Job , Sheet Count of Operation)
- Print Sheet Area = (Length * Width) / Area Constant

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Length	Estimate Job Operation
Width	Estimate Job Operation
Unit Price per Area	Operation Type Code
Area Constant	Operation Type

Material

Material Price = Word Count * Unit Price per Area * Qty Released

Formula Component	Location
Qty Released	Estimate Job
Word Count	Estimate Job Operation
Unit Price per Area	Operation Type Code

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Laminating Formulas

Pricing

Operation Price = Length * Width * Unit Price per Area * # of Print Sheet / Print Sheet Constant 01

Where # of Print Sheet = MAX(Min Sheet Count of Job , Sheet Count of Operation)

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Length	Estimate Job Operation
Width	Estimate Job Operation
Unit Price per Area	Operation Type Code
Print Sheet Constant 01	Operation Type

Packing Formulas

Pricing

Operation Price = [(Area * Paper Weight * # of Print Sheets / **Out**) + (Carton Paper Area * Carton Paper Weight * Carton Paper Shrink Factor * # of Print Sheets)] * Base Factor / Price Constant

Where:

- # of Print Sheet = MAX(Min Sheet Count of Job , Sheet Count of Operation)
- Area = (Length * Width) / Area Constant
- Carton Paper Area = Carton Paper Length * Carton Paper Width

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Length	Estimate Job Operation
Width	Estimate Job Operation
Out	Estimate Job Operation

Paper Weight	Operation Type Code, lookup into Printing Paper Code
Carton Paper Length	Estimate Job Operation
Carton Paper Width	Estimate Job Operation
Carton Paper Weight	Operation Type Code, lookup into Printing Paper Code
Carton Paper Shrink Factor	Operation Type Code
Base Factor	Operation Type Code
Price Constant	Operation Type
Area Constant	Operation Type

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Printing Formulas

Pricing

Operation Price = # of Print Sheet / Print Sheet Constant 01 * # of Original Colors * (Print Base Factor / (# of Print Sheet / Print Sheet Constant 02) + Printing Unit Price) * Print Variable Factor

Where # of Print Sheet = MAX(Min Sheet Count of Job , Sheet Count of Operation)

Formula Component	Location
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation	Estimate Job Operation
Printing Unit Price	Estimate Job Operation
# of Original Colors	Estimate Job Operation
Print Base Factor	Operation Type Code
Print Variable Factor	Operation Type Code
Print Sheet Constant 01	Operation Type
Print Sheet Constant 02	Operation Type

Material

Material Price = Amount of Paper * Unit Price per Area

Where:

- Amount of Paper = (# of Print Sheet + Extended Sheet) * Length * Width * Area Constant * Unit Weight
- # of Print Sheet = Printing Sheets of Operation * Qty Released / (Up * Out)
- Extended Sheet = Print Extended Usage + Plate Adjustment + Other Operation Extended Usage + Binding Extended Usage
- Print Extended Usage = ((# of Print Sheet – Min Sheet Count of Job) * Print Usage Variable Factor + Print Usage Base Factor) * (# of Original Colors + # of Special Colors) * Print Difficulty Factor
- Plate Adjustment = (Sample Base Factor + (# of Original Colors + # of Special Colors * 2) * Plate Adjustment Base Factor) * Plate Adjustment Variable Factor * Plate Adjustment Difficulty Factor
- Other Operation Extended Usage = # of Other Operation * (Other Operation Base Factor + (# of Print Sheet – Min Sheet Count of Job) * Other Operation Extended Variable Factor * Other Operation Extended Usage Difficulty Factor

- **Binding Extended Usage = # of Print Sheet * Binding Extended Usage Variable Factor * Binding Extended Usage Difficulty Factor**

Formula Component	Location
Qty Released	Estimate Job
Min Sheet Count of Job	Estimate Job
Sheet Count of Operation (aka Pages)	Estimate Job Operation
Up	Estimate Job Operation
Out	Estimate Job Operation
# of Original Colors	Estimate Job Operation
# of Special Colors	Estimate Job Operation
Length	Estimate Job Operation
Width	Estimate Job Operation
Unit Weight	Operation Type Code lookup to Printing Paper Code
# of Other Operations	Estimate Job Operation
Print Usage Variable Factor	Operation Type Code
Print Usage Base Factor	Operation Type Code
Print Difficulty Factor	Operation Type Code
Sample Base Factor	Operation Type Code
Plate Adjustment Base Factor	Operation Type Code
Plate Adjustment Variable Factor	Operation Type Code
Plate Adjustment Difficulty Factor	Operation Type Code
Other Operation Base Factor	Operation Type Code
Other Operation Variable Factor	Operation Type Code
Other Operation Difficulty Factor	Operation Type Code
Binding Extended Usage Variable Factor	Operation Type Code
Binding Extended Usage Difficulty Factor	Operation Type Code
Unit Price per Area	Operation Type Code
Area Constant	Operation Type

Paper Consumption

Print Operation Extended Consumption = [Sample Consumption Base Factor + ({ Paper Adjustment Base Factor * [# of Original Colors + (2 * # of Special Colors)] } * Number of Manual Handling Steps) + [Print Consumption Base Factor + (Sheet Count of Operation – Paper Consumption Min Constant) * Print Consumption Variable Factor] * (# of Original Colors + # of Special Colors) * Number of Sides to Print] * Operation Difficulty Factor

Formula Component	Location
Sample Consumption Base Factor	Estimate Job Operation
Paper Adjustment Base Factor	Estimate Job Operation
# of Original Colors	Estimate Job Operation
# of Special Colors	Estimate Job Operation
Number of Manual Handling Steps	Estimate Job Operation
Print Consumption Base Factor	Estimate Job Operation
Sheet Count of Operation	Estimate Job Operation
Print Consumption Variable Factor	Estimate Job Operation
Number of Sides to Print	Estimate Job Operation
Operation Difficulty Factor	Estimate Job Operation
Paper Consumption Min Constant	Operation Type

Operation Times and Pieces Per Labor Hour

Print Operation Setup Time = [(# of Original Colors * Setup Hrs per Original Colors) + (# of Special Colors * Setup Hrs per Special Color)]

Formula Component	Location
# of Original Colors	Estimate Job Operation
Setup Hrs per Original Color	Operation Type Code Time
# of Special Colors	Estimate Job Operation
Setup Hrs per Special Color	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Stamping Formulas

Pricing

Operation Price = Die Cutting Cost * Labor Factor

Formula Component	Location
Die Cutting Cost	Operation Type Code
Labor Factor	Operation Type Code

Material

Material Price = Stamping Material Cost + Hot Stamping Foil Cost

Where:

- Stamping Material Cost = Stamping Base Factor + Up Base Factor * **Up** + (Length + Extended Length Variable Factor) * (Width + Extended Width Variable Factor) / Area Constant * Stamping Material Unit Price
- Hot Stamping Foil Cost = (Length + Extended Length Variable Factor) * (Width + Extended Width Variable Factor) / Area Constant * Hot Stamping Foil Unit Price

Formula Component	Location
Length	Estimate Job Operation
Width	Estimate Job Operation
Up	Estimate Job Operation
Stamping Plate Base Factor	Operation Type Code
Up Base Factor	Operation Type Code
Extended Length Variable Factor	Operation Type Code
Extended Width Variable Factor	Operation Type Code
Stamping Material Unit Price	Operation Type Code
Hot Stamping Foil Unit Price	Operation Type Code
Area Constant	Operation Type

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
Fixed Setup Hrs	Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Window Patching Formulas

Pricing

Operation Price = Window Patching Base Factor * Qty Released

Formula Component	Location
Qty Released	Estimate Job
Window Patching Base Factor	Operation Type Code

Material

Material Price = (Length + Window Patching Extended Height Variable Factor) * (Width + Window Patching Extended Width Variable Factor) / Area Constant * Unit Price per Area * Qty Released

Formula Component	Location
Qty Released	Estimate Job
Length	Estimate Job Operation
Width	Estimate Job Operation
Window Patching Extended Length Variable Factor	Operation Type Code
Window Patching Extended Width Variable Factor	Operation Type Code
Unit Price per Area	Operation Type Code
Area Constant	Operation Type

Operation Times and Pieces Per Labor Hour

Non-Print Operation Time = Fixed Setup Hr

Formula Component	Location
Fixed Setup Hours	Operation Type Code Time

Pieces per Labor Hour = Pieces per Labor Hour for Operation Type Code

Formula Component	Location
-------------------	----------

Fixed Setup Hrs

Operation Type Code Time

Pieces per Machine Hour = Pieces per Machine Hour for Operation Type Code

Formula Component	Location
Pieces per Machine Hour	Operation Type Code Time

Setting Up Operation Types and Codes

Operation types are associated with a specific work center to describe shop floor tasks used with the printing industry. Types include printing, binding, coating, laminating, window patching, sheeting, packing, gluing, die cutting, stamping, embossing, and ink jet. These types are system-defined.

To set up types on the **Operation Types** form:

- 1 Specify a description for each type.
- 2 Specify values for formula constants.

Each operation type has a code that describes specific examples of types, and defines factors and formulas used to calculate print quote price.

To set up codes on the **Operation Type Codes** form:

- 1 Specify a code for each type.
- 2 Specify values for the code's factors.

Setting up Quote Templates

To set up quote template data:

- 1 On the **Quote Templates** form, specify an identifier and description for the quote template.
- 2 On the **Quote Template Sections** form, add sections for the quote template, and specify a description and quantity.
- 3 On the **Quote Template Operations** form, specify the operation type and code for each section.

NOTE: Quote templates are not required, but allow for the definition of data for common printing industry jobs, which is used on the **Printing Estimate Workbench** form.

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