

# Optimisation Software



**InterAcct**  
SOFTWARE PTY LTD

Optimisation software can be used by Timber **Joinery** or Steel **Fabrication** style businesses to automatically calculate the optional sheet or length of product to be used to cut out a shape or length.

- ✓ Two **optimisation** percentages based on cutting by length or width
- ✓ **Unit cost** and total cost can also be used to optimise production method
- ✓ Suggested production quantity is calculated based on **least wastage**
- ✓ Links to Stock Item, Supplier, and **Materials Estimating**

The screenshot displays the InterAcct software interface. The title bar reads "InterAcct Demo - [ESTIMATE HEADINGS - display, Repairs to Building & Roof, CONSTRUCT, 25 Sydney Road, OPTION01]". The menu bar includes File, Record, Edit, View, Go, Advanced, Menu, Graph, Design, and Help. The toolbar contains various icons for navigation and actions.

The main window is divided into several sections:

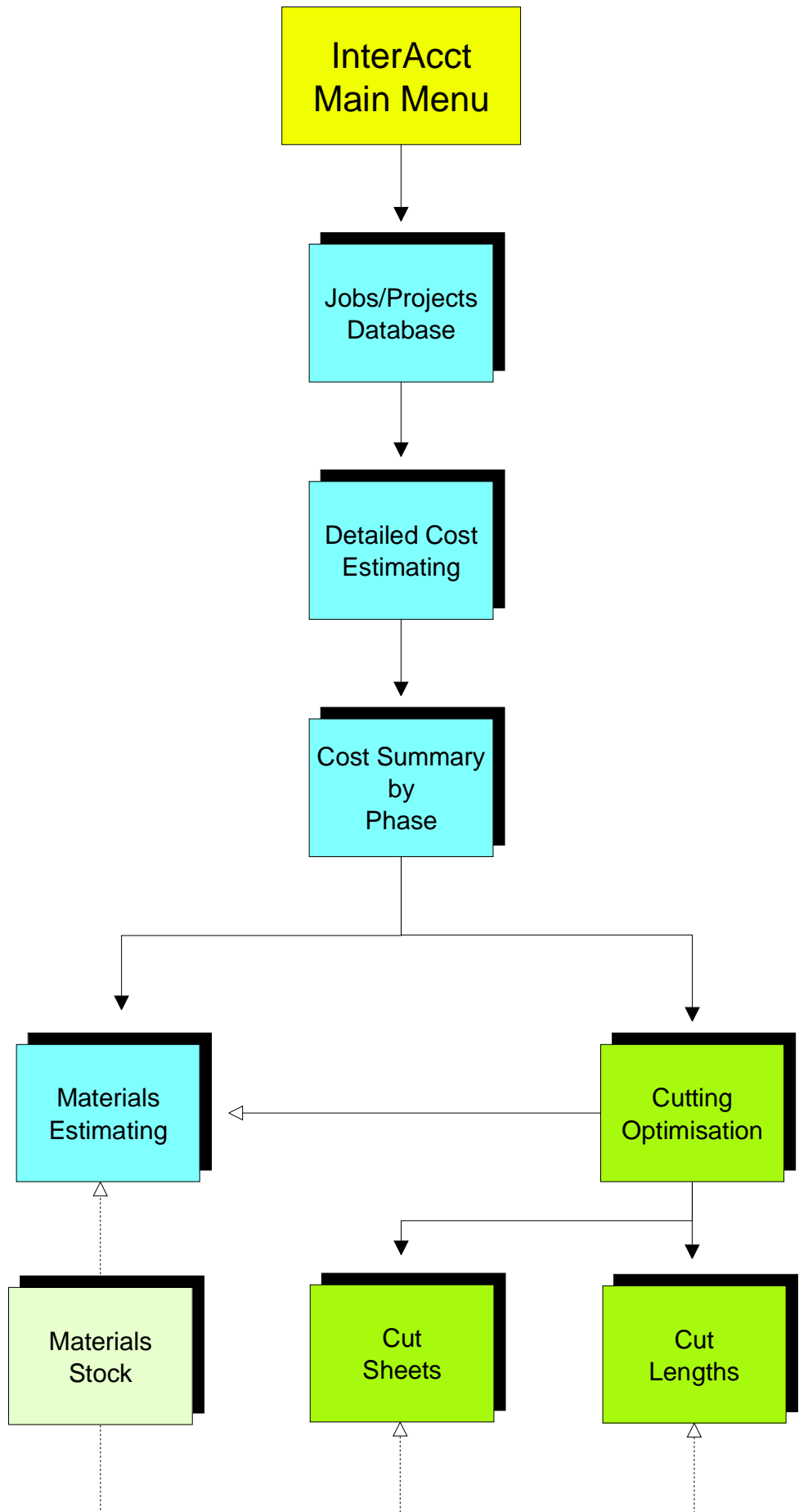
- Phase Information:** Phase: 05.BUILD, Prospect Id: ACMEBHMA, \*Description: Building Work, Business Name: Acme BHP Company of NSW.
- Cost Summary Tables:**

Lab Hrs #	3.000	Lab Sell \$	285.00
Lab Cost \$	146.16	Subbies \$	84.24
Subbies \$	70.20	Materials \$	264.00
Materials \$	159.00	Sundries \$	24.00
Machines \$	20.00	Machines \$	56.25
Overhead \$	37.50	Overhead \$	20.46
Tot Cost \$	453.32	Tot Sell \$	733.95
G/Profit \$	280.63	GST \$	73.40
Margin %	38.24	Inv For \$	807.35
- Per Size #:** LM, 0.00
- Cost Per \$:** 0.00
- Menu:**
  1. Direct Labour
  2. Materials - Products
  3. Subbies - Job Costs
  4. Sundry Costs
  5. Machine Costs
  6. Quick Estimate Input
  7. Attach Kits
  8. Estimate Notes
  9. Quote Lines
  10. Print : Phase Estimate
  11. Copy Phase to Phase
- Quote \$:** 0.00
- Option Markup:**  N
- Markup %:** 0.0000
- Status:** EST-NEW
- Comments:**
- Phase Markup ?**  N
- Copy Cost Items ?**  N

On the right side, there is a vertical toolbar with icons for Labour, Materials, Trades, Sundries, and Equipment. A red arrow points from the 'Optimise' button (represented by a gear icon) to the '2. Materials - Products' menu item.

At the bottom, there is a help section with tabs for Form help, Field help, Areas, Client, Kits, Alerts, Tables, Charge-Rates, and Ref No's. The text below the tabs reads: "This screen is used to hold a summary of the cost items (for one Phase of work estimated via the lower Cost Item files - see next menu. This screen is used to hold a summary of the cost items (for one Phase of work) estimated via the lower Cost Item files - see next menu. This screen is used to hold a summary of the cost items (for one Phase of work) estimated via the lower Cost Item files - see next menu."

This shows Job Cost Estimating – Summary screen by “Phase” within a job. As you can see, there is now a ‘button’ to link into the Optimisation system.



# Optimise – Sheets or Lengths

The screenshot shows the 'InterAcct Demo' software interface. The main window is titled 'InterAcct Demo - [CUT ITEM ESTIMATE - display , Repairs to Building & Roof, CONSTRUCT, 25 Sydney Road, OPTION01, OPTION01, Building Wor...'. The interface includes a menu bar (File, Record, Edit, View, Go, Advanced, Menu, Graph, Design, Help) and a toolbar with various icons. The main area contains several input fields and buttons:

- Length/Sheet ?** (A): A dropdown menu currently set to 'SHEET'. A search icon and the text 'Square - cut from a Sheet' are visible.
- Description**: 'Kitchen Cupboard Door'.
- Job No**: '100003'.
- Phase**: '05.BUILD'.
- Length mm #**: '920' (B).
- Width mm #**: '450' (B).
- Thickness/Profile**: '12 mm'.
- Quantity Required #**: '44' (C).
- Notes/Materials**: 'Melomine Material'.
- Products** (D): A button with a plus sign icon.
- Menu** (E): A dropdown menu currently showing '1. Sheets to Cut - Optimise'.

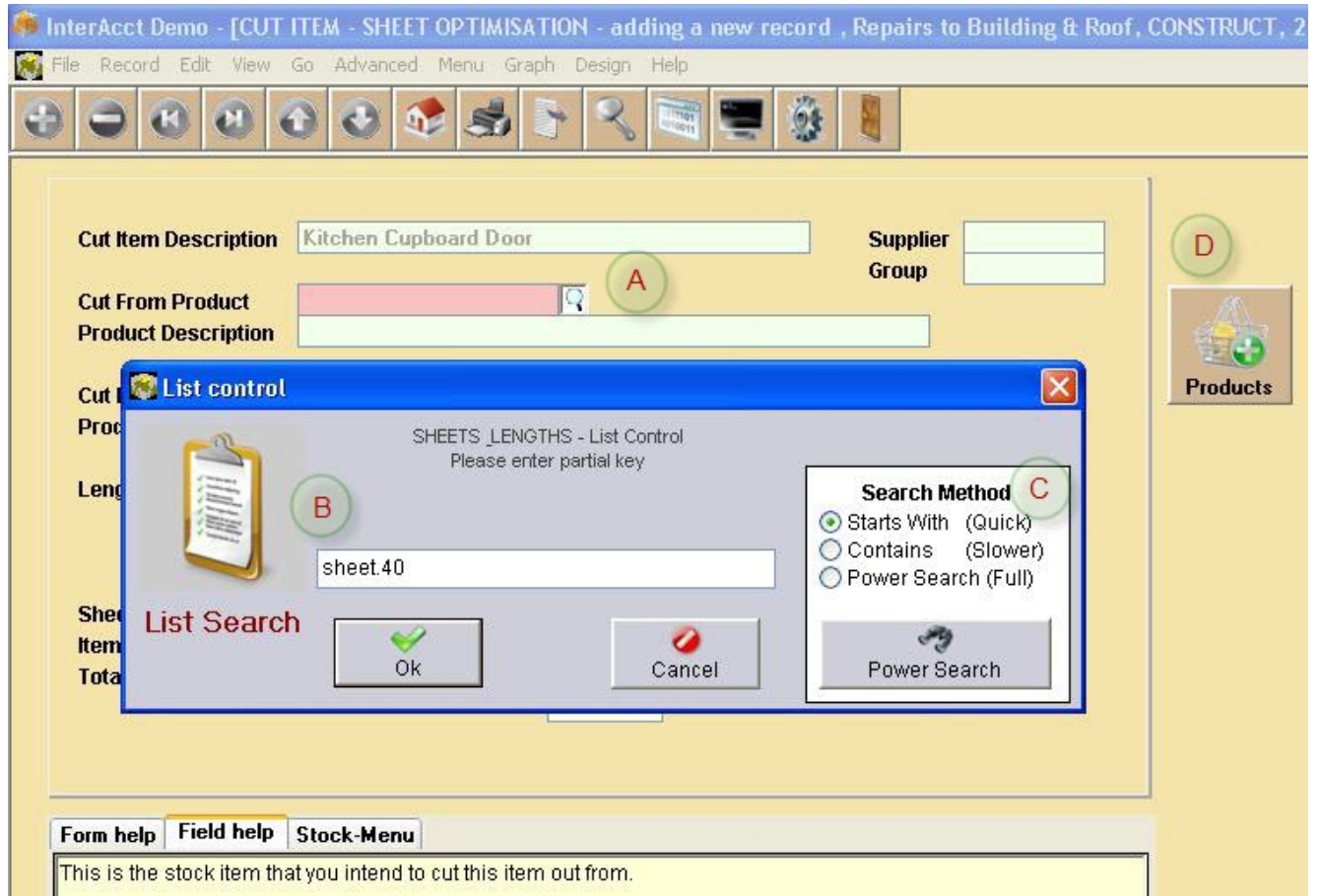
Below the main window is a smaller window titled 'CUT ITEM - SHEET OPTIMISATION list , Repairs to Building & Roof, CONSTRUCT, 25 Sydney Road, OPTION01, OPTION01, Buildi...'. It contains a table with the following data:

	Product Description	Product Lth #	Prod Wth #	Optimisation % . p	Item Cost \$	Sheets Reqd #	Sugg Qty #	Total \$
1	Timber Sheet, 4000 X 2500 X 12mm	4000	2500	82.80 %	4.4318	3	60	288.07
2	Timber Sheet, 5000 X 2500 X 12mm	5000	2500	82.80 %	3.4091	2	50	255.68
3	Timber Sheet, 5500 X 3000 X 12mm	5500	3000	90.33 %	3.6136	2	72	287.28
4	Timber Sheet, 6000 X 2500 X 12mm	6000	2500	82.80 %	3.8636	2	60	328.41
				85.10 %				

This is the first of two screens used to calculate the Cut Optimisation. It also shows the second screen where the calculations are performed.

- A Select between "Sheet" or "Length"
- B Define the Length and Width of the cut item size (no width required for Lengths)
- C Define how many of the cut out size you require (to produce)
- D Link to the Materials (Stock) Database to set up (or view) Sheets/Lengths options
- E Automatically links to the lower file where you define the product to be used to cut the item from – view optimisation and cost comparison between different cutting options.

# Optimise Sheets - Search



This screen shows the start of adding a Cut Sheet Optimisation – to select the Material Product to be used (to cut out from).

- A Search on the Product Item Code (only Sheet or Length items)
- B Use the Query Search facility – just enter the first few characters to start the search process
- C Optionally use the more advanced search – product code contains a certain value, or “Power” search on any field in the Materials database (such as Description, Thickness, Supplier, those items currently in stock, etc.)
- D Link to add/view Materials (Stock) database

# Cut Sheet Optimisation

InterAcct Demo - [CUT ITEM - SHEET OPTIMISATION - display , Repairs to Building & Roof, CONSTRUCT, 25 Sydney Road, ...

File Record Edit View Go Advanced Menu Graph Design Help

Supplier: HARGENBR  
Group: TIMBER

Cut Length #	920	Cut Width #	450	Thickness #	12 MM
Product Lth #	4000	Prod Wth #	2500	Prod Thk #	12.00
Length Cut #	4	Width Cut #	5	Cut Items #	20
				Qty Reqd #	44
				Sheets Reqd #	3
				Sugg Qty #	60

Optimisation %: 82.80  
Alternate Optimisation %: 66.24

Sheet Cost \$	65.0000
Item Cost \$	4.4318
Total \$	195.00

Menu

- Add next Sheet Size
- View : Product Item
- Estimate Materials
- View : Supplier

Form help | Field help | Stock-Menu

This file is used to calculate the less wastage (optimisation percentage) in using various sheet sizes to cut the required item from.

Please Note :

- Suggested Quantity is based on the least wastage production quantity
- The Cut Items are the number of items that can be cut from one sheet
- Item Cost \$ is based on the cost of the sheets, divided by the Production Quantity Required
- The normal Optimisation Percentage is based on cutting the item length from the Sheet Length
- Alternate optimisation percentage is based on cutting the item's length via the width of the sheet
- The Total Cost \$ is based on writing off any wastage as being unusable.

- A Shows the Product Item code (searched on previously)
- B Compares the required cut length/width with that of the stock item being used to cut from
- C It rounds down the cut quantities to calculate the total number of items that can be cut from the 'Master' product item.
- D Shows how many sheets will be required and the maximum cut quantity suggested
- E Calculates the Optimisation percentage (eg 82.8% = 17.2 % Wastage)
- F Calculates the alternate optimisation based on cutting the item's length by the width
- G Calculates both the Unit Cost and Total Cost – including the cost of wastage
- H Convenient menu links into the Stock Item file, Supplier, or Job Cost Material Estimating

# Length Optimisation

InterAcct Demo - [CUT ITEM - LENGTH OPTIMISATION - display , Repairs to Building & Roof, CONSTRUCT, 25 Sydney Road, OP

File Record Edit View Go Advanced Menu Graph Design Help

Cut Item Description: Pipework for Frame      Supplier: TUBMETPA  
Cut From Product: 38.0.X.3.2.ERW      Product Description: 38.0 X 3.2 Erw Ezyform Commercial Tube Ts21  
Cut Length #: 660      Profile: 35 Mm Round  
Product Lth #: 38000      Prod Thk #: 3.20  
Optimisation %: 99.00  
Length Cost \$: 6.8000      Cut Items #: 57  
Item Cost \$: 0.1193      Qty Reqd #: 50  
Total \$: 6.80      Lengths Reqd #: 1  
Sugg Qty #: 57

Menu  
1. Add next Sheet Size  
2. View : Product Item  
3. Estimate Materials  
4. View : Supplier

Products  
Show Image

Form help   Field help   Stock-Menu

This file is used to calculate the less wastage (optimisation percentage) in using various sheet sizes to cust the required item from.

Please Note :

1. Suggested Quantity is based on the least wastage production quantity
2. The Cut Items are the number of items that can be cut from one sheet
3. Item Cost \$ is based on the cost of the lengths, divided by the Production Quantity Required
4. The Optimisation Percentage is based on cutting the item length from the Total Length
5. The Total Cost \$ is based on writing off any wastage as being unusable.

- A. When cutting from a length no width info is required, but still shows the "Profile"
- B. Calculates cost for easy comparison of the best cutting option
- C. Shows any photo image of the product (as taken from the Stock Masterfile)

Once again, only one field of data entry, and all other fields are shown/calculated automatically.