



B·U·I·L·D·S·O·F·T

GLOBAL ESTIMATING

**Estimating
BOQ Production
Cost Planning
Project Analysis
Digitizing**

Global Estimating

Global Estimating is an estimating program that has been tailored for use in the commercial sector of the building/construction industry. It is capable of producing bills of quantities or detailed estimates and cost plans primarily by commercial building contractors and professional quantity surveyors. It also has additional features which allow the product to be used in other industries where estimating is a requirement.

The Global Estimating System is designed for people with little or no experience in using personal computers. The popularity of this program began over a decade ago, when people who had never used a computer were able to commence estimating on a computer and produce bills of quantities within hours. Despite this, the program is very powerful and provides comprehensive features which would not disappoint a seasoned user.

This system has been proven to be very successful throughout the world and has undergone several improvements and upgrades over a 10 year period. Many improvements to the program have occurred by way of customer request or suggestion.

All information that is entered within the system can be re-sorted or analyzed by use of powerful grouping columns which allows an estimate to be reorganized as required. For example, the estimate can be summarized to produce totals by area, block, stage, cost centre, accounting group, or any user defined set of codes.

Some of the projects that this software has been used on include the new Hong Kong Airport, as well many of the developments for the Olympic Games in Sydney in the year 2000.



System Requirements

Features

of this program

4 Level Estimating	✓
Bill of Quantities	✓
Digitizing	✓
Print Preview (incl. BOQ)	✓
Take-Off Schedules	✓
Cost Planning	✓
Exporting/Importing Capabilities	✓
Job Analysis	✓
Price Book	✓
Variations	✓
Project Summary	✓
Spell Checking	✓
Searching Functions	✓
Tables (e.g. Weights)	✓
Networking	✓
Graphical Reports	✓
Progress Claims / Valuation System	optional
Subcontractors Comparison System	optional

- ▶ 486DX (Intel) computer or higher (Pentium recommended)
- ▶ 16 MB Ram
- ▶ Microsoft Windows 95 / Windows NT
- ▶ Microsoft Compatible mouse
- ▶ 50MB Free Hard Disk Space
- ▶ Super VGA Monitor

Four Level Estimating

1. Job Summary

This sheet summarizes your estimate. Typically, this screen contains a list of trades, but depending on the type of job, it could contain cost centres, elements or building stages. Some of the features on this screen include:-

- ▶ Cost per unit of gross floor area for each trade
- ▶ Subtotal trades/sections
- ▶ Spell checking facility
- ▶ Transfer of information from Price Book
- ▶ Different markups or extra contingency factors can be applied to individual trades
- ▶ Different jobs can be set up under different trade name listings to suit
- ▶ Percentages of cost distribution are shown
- ▶ Graphical presentation available
- ▶ Separate labour and material summary available

Trade Description	No. jobs	Trade unit	Unit Total	Mark Up %	Total \$
1 FOUNDATION & CONCRETE	10.00	578.00	5780.00		5780.00
2 SUBSTRUCTURE	5.00	247.95	1239.75		1239.75
3 COLUMN	3.00	58.40	175.20		175.20
4 CARPET FLOORING	10.00	418.29	4182.90		4182.90
5 STAIRCASES	5.00	13.70	68.50		68.50
6 ROOF	3.00	48.19	144.57		144.57
7 EXTERNAL WALLS, WINDOWS & DOORS	9.00	254.93	2294.37		2294.37
8 INTERNAL WALLS	3.75	183.11	686.66		686.66
9 INTERNAL DOORS	2.00	58.86	117.72		117.72
10 WALL FINISHES	3.00	52.87	158.61		158.61
11 FLOOR FINISHES	2.00	22.87	45.74		45.74
12 CEILING FINISHES	3.75	48.75	182.81		182.81
13 FITMENTS	3.75	195.83	734.46		734.46
14 HYDRAULIC SERVICES	4.00	118.13	472.52		472.52
15 MECHANICAL SERVICES	4.00	118.82	475.28		475.28
16 FIRE SERVICES	1.00	38.45	38.45		38.45
17 ELECTRICAL SERVICES	3.00	88.89	266.67		266.67
18 LIFT SERVICES	1.00	68.27	68.27		68.27
19 SECURITY SYSTEM	3.00	9.48	28.44		28.44
20 SWIMMING POOL	1.00	22.88	22.88		22.88
21 SITE PREPARATION	1.00	25.47	25.47		25.47
TOTAL			21000.00		21000.00

3. Calculation Sheet

This screen allows you to enter dimensions as you take them off the plan or use the digitizer to calculate an item quantity.

- ▶ Allows lineal, area and volume calculations
- ▶ Total returned to quantity column of trade breakup sheet
- ▶ Complex formulas accepted
- ▶ Deductions can be entered
- ▶ Lengths summary available
- ▶ A secondary quantity (eg. number of, length or area) or a length's summary can be appended to the item description

Calc Description	Factor	Length	Width	Unit Total	Area of
A	0.500	45.700	18.700	852.600	852.600
B	0.500	51.200	22.300	1141.600	1141.600
C	0.500	67.000	27.300	1830.900	1830.900
D	0.500	37.000	18.700	930.900	930.900
E	0.500	36.000	8.000	408.000	408.000
F	0.500	5.200	7.000	36.400	36.400
Area of job		4,500	2,500	11,800	
Area of job		7,000	2,800	4,500	

The four level estimating system has proven to be very successful and simple for both the first time and experienced user. There are four estimating sheets that are very similar to manual estimating methods currently used.

2. Trade Breakup

This screen contains the bill of quantities items for each trade. Each trade has its own trade breakup sheet. Some of the features of this screen include :-

- ▶ Large item descriptions
- ▶ Bill references are shown next to each item and can be updated immediately
- ▶ Quantities can be typed in, calculated in detail or derived from a digitizer
- ▶ Rates can be typed in, linked to a price list or produced from a breakup sheet
- ▶ Formulas or standard mathematical functions can be used
- ▶ Subtotal of a range of items
- ▶ Items can be coded to produce job analyses
- ▶ Values can be dependent on other numbers in the same screen
- ▶ Capable of storing thousands of items per trade

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Item Total
13	1.00 m ² concrete	11.00	m ²	110.00		1210.00
14	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]	40.00	m ²	200.00		8000.00
15	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]	40.00	m ²	275.00		11000.00
16	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]	40.00	m ²	275.00		11000.00
17	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]	275.00	m ²	41.25		11343.75
18	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
19	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
20	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
21	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
22	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
23	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
24	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
25	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
26	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
27	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
28	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
29	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					
30	1.00 m ² concrete (increased 1.000 x 1.000 x 1.000 mm deep) [25.0 m ²]					

4. Rate Breakup Sheet

This screen allows you to build up a composite rate that may include materials, labour, sub-contract, and equipment components for an item rate.

- ▶ Large item descriptions
- ▶ Quantities can be typed in, calculated in detail or derived from a digitizer
- ▶ Rates can be typed in, or linked to a price list
- ▶ Formulas or standard mathematical functions can be used
- ▶ Subtotal of a range of items
- ▶ Items can be coded to produce job analyses
- ▶ Values can be dependent on other numbers in the same screen

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Item Total
1	1.00 m ² concrete	2215.800	m ²			
2	1.00 m ² concrete	144.270	m ²	65.00		9378.15
3	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
4	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
5	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
6	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
7	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
8	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
9	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
10	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
11	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
12	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
13	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
14	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
15	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
16	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
17	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
18	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
19	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
20	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
21	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
22	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
23	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
24	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
25	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
26	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
27	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
28	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
29	1.00 m ² concrete	2215.800	m ²	5.00		11079.00
30	1.00 m ² concrete	2215.800	m ²	5.00		11079.00

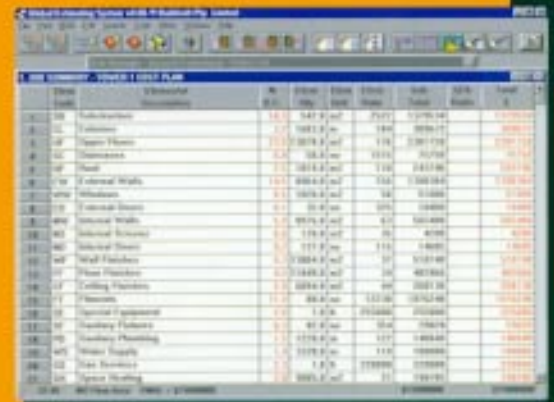
Cost Planning

The Cost Planning feature allows estimates to be generated in a slightly different format. If selected at the time a new estimate is created, the standard 47 NPWC elements are automatically filled in and the columns shown for the first two levels are more relevant.

The summary screen includes elemental quantity unit & rate columns, allowing each element's total to be related to a user selectable pertinent unit, not just a cost per m²/foot.

Building percentages are automatically produced for the first thirty elements (building elements). The system allows a user to change the elemental descriptions and codes if required.

Cost plan jobs can also have a column called "GFA Ratio", which can be used to scale up or down an existing cost plan to a new floor area by quickly adjusting some factors.



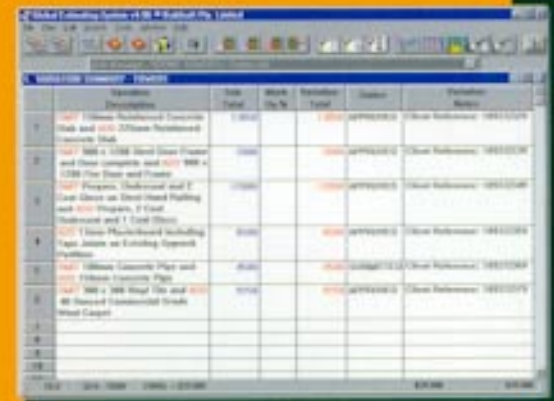
Item	Description	Unit	Rate	Total
1	Substructure	m ²	147.9	2171
2	Foundation	m ²	182.3	2734
3	Super Structure	m ²	134	2010
4	Roofing	m ²	16.1	241
5	Internal Walls	m ²	132	1980
6	Windows	m ²	34	510
7	External Walls	m ²	325	4875
8	External Roofs	m ²	4.5	67
9	Internal Roofs	m ²	20	300
10	Internal Doors	m ²	211	3165
11	Wall Partitions	m ²	31	465
12	Floor Partitions	m ²	35	525
13	Ceiling Partitions	m ²	35	525
14	Roofing Partitions	m ²	35	525
15	Roofing	m ²	132	1980
16	Roofing Partitions	m ²	35	525
17	Roofing Partitions	m ²	35	525
18	Roofing Partitions	m ²	35	525
19	Roofing Partitions	m ²	35	525
20	Roofing Partitions	m ²	35	525
21	Roofing Partitions	m ²	35	525
22	Roofing Partitions	m ²	35	525
23	Roofing Partitions	m ²	35	525
24	Roofing Partitions	m ²	35	525
25	Roofing Partitions	m ²	35	525
26	Roofing Partitions	m ²	35	525
27	Roofing Partitions	m ²	35	525
28	Roofing Partitions	m ²	35	525
29	Roofing Partitions	m ²	35	525
30	Roofing Partitions	m ²	35	525

Variations

The Variations screen allows for changes to be made to an estimate without modifying the original estimate items or totals. To this end, the variation section provides a fresh four level area for entering changes to the estimate.

Each variation takes up one line on the variation summary, and the items belonging to that variation are entered at the next level. Facilities for quantity calculations and/or rate breakups are provided as they are for an estimate.

Additions and deductions can be combined within a variation. At the end, the nett value of each variation appears on the variation summary. Many thousands of variations can be entered for each estimate.

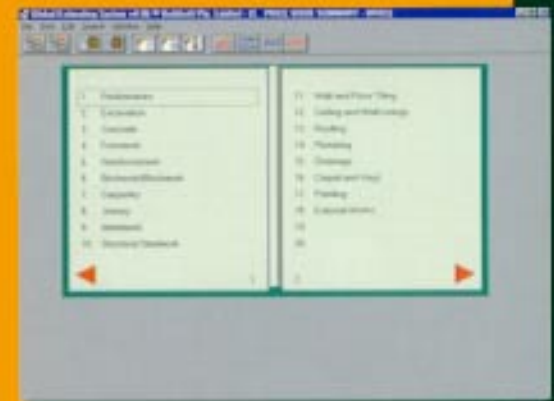


Variation	Description	Unit	Rate	Total
1	1000 External Reinforced Concrete Slab and 1000 External Reinforced Concrete Slab	m ²	1000	1000
2	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
3	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
4	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
5	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
6	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
7	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
8	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
9	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000
10	1000 1000 Steel Deck Panels and 1000 1000 Steel Deck Panels	m ²	1000	1000

Price Book

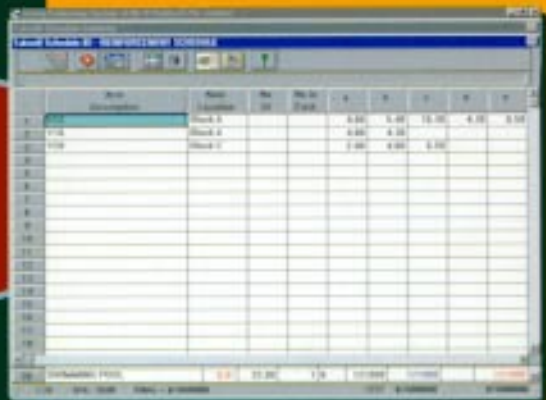
Some of the features of the price book include :

- ▶ Price book allows you to maintain a database of prices.
- ▶ Multiple price books can be maintained. This is useful for regional pricing.
- ▶ A last updated date is maintained for each rate.
- ▶ Item rates can be built up as composite rates or assemblies.
- ▶ Information can be copied into job estimates.
- ▶ One item can have rates from multiple suppliers.
- ▶ Powerful updating functions by supplier or trade to update by percentage or amount.
- ▶ Search functions to allow you to locate items anywhere within the price book.
- ▶ Items can also be set up in a manner to assist automatic purchase orders.



Item	Description	Unit	Rate
1	Substructure	m ²	147.9
2	Foundation	m ²	182.3
3	Super Structure	m ²	134
4	Roofing	m ²	16.1
5	Internal Walls	m ²	132
6	Windows	m ²	34
7	External Walls	m ²	325
8	External Roofs	m ²	4.5
9	Internal Roofs	m ²	20
10	Internal Doors	m ²	211
11	Wall Partitions	m ²	31
12	Floor Partitions	m ²	35
13	Ceiling Partitions	m ²	35
14	Roofing Partitions	m ²	35
15	Roofing	m ²	132
16	Roofing Partitions	m ²	35
17	Roofing Partitions	m ²	35
18	Roofing Partitions	m ²	35
19	Roofing Partitions	m ²	35
20	Roofing Partitions	m ²	35
21	Roofing Partitions	m ²	35
22	Roofing Partitions	m ²	35
23	Roofing Partitions	m ²	35
24	Roofing Partitions	m ²	35
25	Roofing Partitions	m ²	35
26	Roofing Partitions	m ²	35
27	Roofing Partitions	m ²	35
28	Roofing Partitions	m ²	35
29	Roofing Partitions	m ²	35
30	Roofing Partitions	m ²	35

Take-Off Schedules

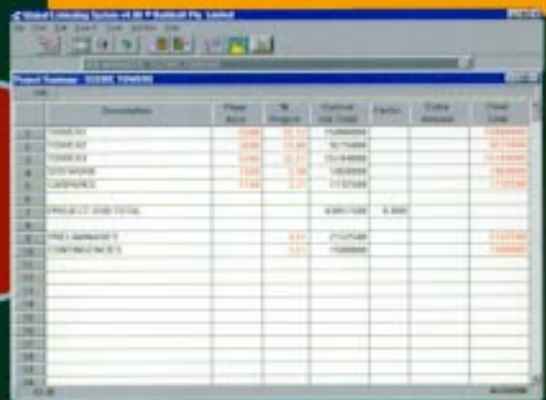


Item	Description	No. of Bars	Bar Size	Length	Weight	Volume
1	Bar 1	100	12	10.00	1000	1000
2	Bar 2	200	16	10.00	4000	4000
3	Bar 3	300	20	10.00	9000	9000

On occasions, a group of similar items need to be quantified and the preferred method of measuring these is to do them all on one screen, even though they are separate items with individual quantities. The Global Estimating System now contains a "Take-Off Schedule" capability to assist. For example, a drawing might contain all different sized reo bars to be calculated. By creating a "Bar Schedule" and then listing each type of bar, measurements for all the bars are then entered onto the one screen. The software then totals each type of bar, where final conversion factors can be applied if required (e.g. converting the length of bars into a weight).

Finally, the program transfers the individual items into the user nominated trade(s), where all the quantities for each bar are available and can be further changed either in a calc sheet or again in the "Bar Schedule". This feature can be used in other aspects of estimating, such as hydraulics (different sized copper runs and ancillary items) and doors and hardware.

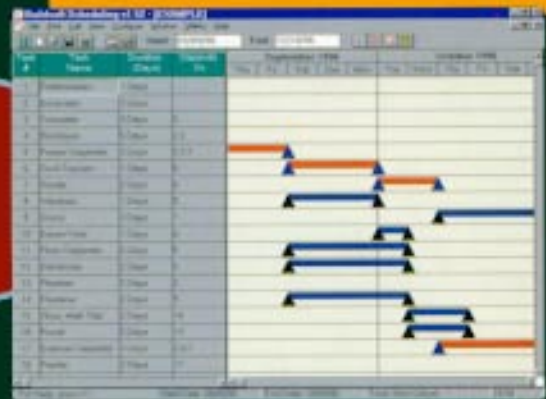
Project Summary



Description	Price Area	% Budget	Contract	Total
Item 1	1000	10%	10000	10000
Item 2	2000	20%	20000	20000
Item 3	3000	30%	30000	30000
Item 4	4000	40%	40000	40000
Item 5	5000	50%	50000	50000

A project is a group of related jobs. When a project is created, a project summary screen lists each job within that project, as well as other information such as the floor area and that job's total. Use of a project is very handy where specific tenders are required for different parts or stages of a site yet an overall total of all jobs on that site is also required. The individual job totals can be separately marked up or down to produce an overall project total. This also means that instead of having one huge list of jobs, related jobs can be grouped together.

Scheduling



This module calculates a critical path based on the job's start date, each task's duration and the order of the tasks.

It is designed to allow you to plan the job by taking into account weekends, holidays, RDOs and rain affected days which can delay the job. Individual tasks can be related to one or more previous tasks (i.e. cannot start until the previous task is finished).

If a task's real duration needs to be revised, the program will automatically adjust all the other variables and calculate a new completion date. Once the data is updated, a new critical path can be printed to give an accurate timeline of the entire job. The schedule is then available for on-hand reference.

A Critical Path for a job is displayed in **RED**

Planned start and finish dates of individual tasks are calculated

Digitizer Module

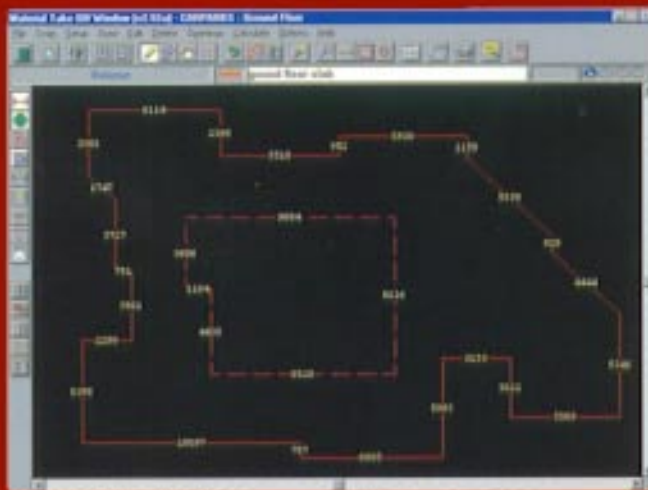
The Digitizer module is available from many screens in the program, but it will be used mostly from the Trade Breakup Screen as well as the Calculation Sheet.

By simply selecting the Digitizer icon, the software switches control to the Digitizer which allows you to trace over the relevant part of the plan with a digitizer pen to automatically work out the required quantity.

If the Digitizer is called from the calculation sheet, the system can also return lengths of each line, which becomes useful when checking quantities at a later date.

Once a shape is digitized, you are able to select any result from below to be calculated, eliminating the need to re-digitize the shape in order to derive a different result.

The results that may be generated by the Digitizer module are :-



Import DXF/DWG Files

The Digitizer module allows you to directly import DXF/DWG files. Using your mouse you can trace over the drawing, and the software will take off the quantities for the items that have been set up. All quantities derived are directly returned to the estimating system.



%	Cost/
Job	m2
2.50	5
0.57	

Progress Claims/Valuations (optional)

On completion of an estimate, an optional progress claims/valuations module can be invoked. This module assists with the periodic calculation of how much work has been done on a building site to determine the extent of payment from a client.

Primarily, percentages of completion are applied to items within the estimate. Sometimes, a group of items or even an entire trade may be apportioned a percentage completion. As the exact value of each item is available, the program uses these percentages to calculate the total value of work done to date. This process is repeated for all trade items until the value of the current progress claim is available, which can be submitted for immediate payment, confirmation or approval.

If an overestimation occurs during a claim, it can be corrected and reduced on a future claim. These reductions can either be by percentage or monetary amount.

Progress claims can also be carried out on variations in a similar manner.

Subcontractors Comparison (optional)

At different times during the tender process, time is often spent in refining the rates used to improve the estimate total. Further, some of the tasks within the tender are subcontracted to outside companies. The subcontractors comparison module is an ideal tool to assist with both of these tasks.

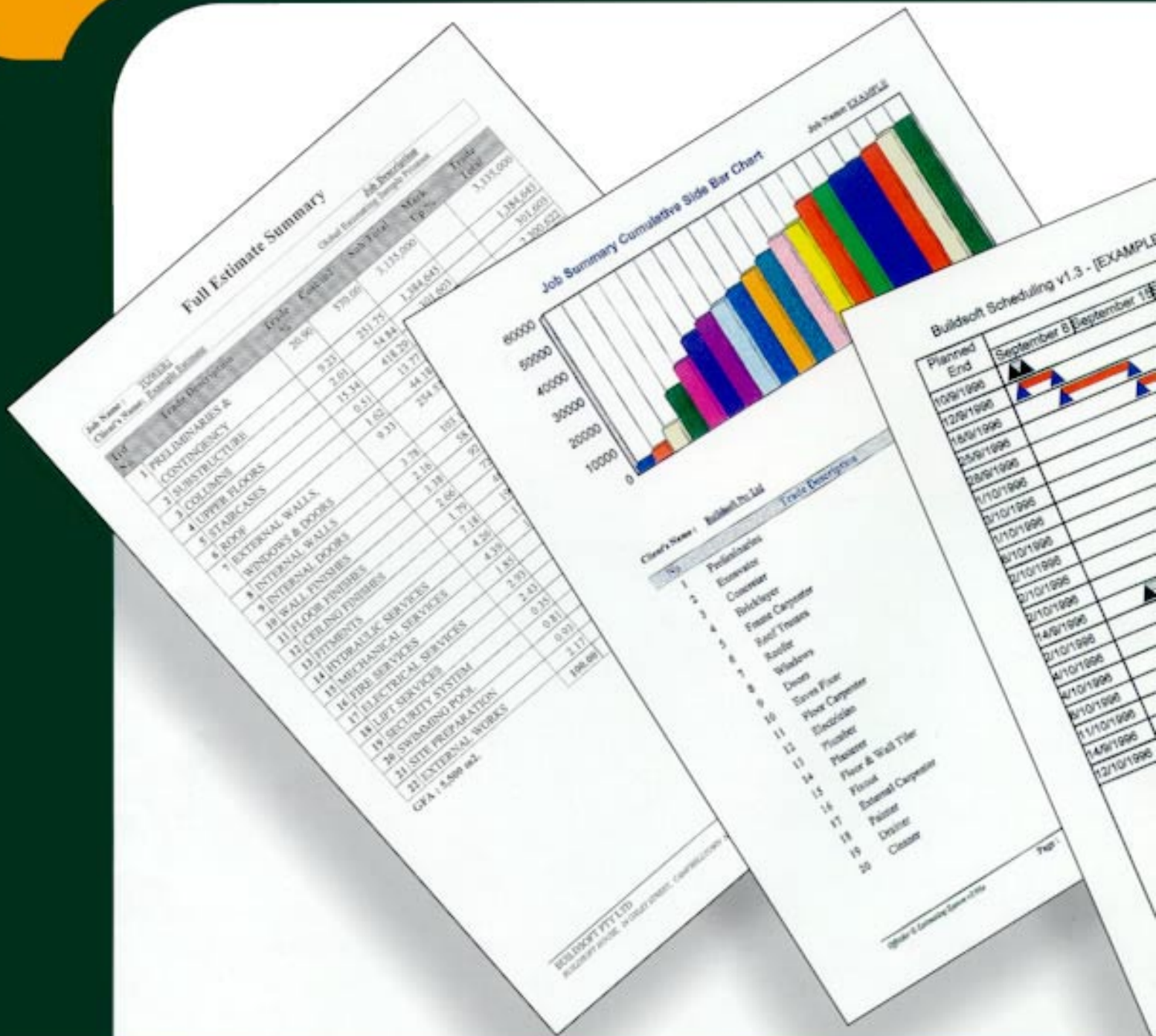
To use this module, the original estimate may be used "as is" or sorted into more suitable groupings of items. Regardless of the format, each group of items allows for prices to be obtained from many other subcontractors.

Portions of the estimate can now be sent out to potential subcontractors, including information such as bill reference, item description, estimate quantity and an empty rate column. These subcontractors can also be issued software to price the items they have been requested to provide. The aim of electronically pricing these items is to reduce the amount of time needed to re-enter this information at the original user's computer. It also eliminates the possibility of potentially expensive typing errors.

Along with the original estimate's quantities and rates, the user now has the ability to reduce the overall cost of a group of items by comparing each subcontractor's rates. Even though some subcontractors will not provide prices for all of the items within a group, the user can enter what information is available and then select one or more subcontractors to provide those items where their rates are more competitive.

At the end of this process, a revised estimate total is available. The difference between each original group total and the revised group total is displayed in either a column headed "Add" or "Omit" accordingly. This process can be finally reviewed by management in case an alternate subcontractor is preferred for a group of items, and the impact of any change is reflected.

Bill of Quantities Production



Global Estimating has built-in functions that will automatically produce the Bill of Quantities at any stage during the estimating process. By selecting the "print bill of quantities" function the software will automatically format the bill of quantities, giving each item a bill reference, as well as automatically working out how many items fit on each page and calculating a page total that is transferred to the collection page for the trade. A huge variety of print options and formats are available for tailoring the bill of quantities in small but important ways, from different page numbering formats and indenting options to preferring (Cont'd) over (Cont) or excluding the letters 'I' and 'O' from the item numbering.



Company Information



B·U·I·L·D·S·O·F·T

Buildsoft is an Australian company with its head office in Sydney. A select network of accredited distributors have been appointed to handle our products world wide.

Buildsoft was established in 1986 to develop and market computer software for the building and construction industry. We are staffed by an enthusiastic team with many years of experience in the building industry and qualifications in computer science.

In Australia, our products have quickly become the industry standard and are now exported to more than 15 countries throughout the world. Universities and TAFE colleges throughout Australia as well as selected universities throughout Asia and the UK are teaching our products as industry standard. Our client base has exceeded 2500 users worldwide.

Other Buildsoft programs include :

Offsider Estimating Series

A choice of 3 estimating programs more suited to the housing industry or trade estimating.

Offsider Job Costing/Accounts

A Job Costing and Accounts program that includes general ledger. Being fully integrated with the Offsider Estimating Series, it will help you to keep track of job costs and income in your business. It also includes a Diary Manager to remind you of outstanding orders, invoices and other day to day activities.

Maths Mate

A handy and useful tool which calculates geometric, financial and building results that you may have forgotten how to.

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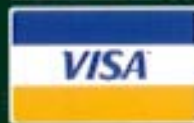
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