

SUMMARISING THE BILL OF QUANTITIES IN CANDY

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SUMMARISING THE BILL OF QUANTITIES IN CANDY

Trade Totals Display

The trade totals display summarise the bill items into trades based on the first character of the Opcode. The value for each trade and the resource type split is displayed. The values may be displayed as nett , gross or sell and can be based on billed or the progress quantities.


Defining Trades

Candy System -> Definitions -> Trade Definitions or use the definitions shortcut  from the candy tool bar buttons.

OP CODE	DESCRIPTION	UNIT	BILLED QUANTITY	AMOUNT
*SECT2	SECTION 2: VENTILATION SHAFT	LEVEL	1	
*SCH11	SCHEDULE NO.1: FAN FOUNDATION	LEVEL	2	
*E	EARTHWORKS	LEVEL	3	
E1133	Bill item	m2		100
E20021	Bill item	m3		100
				200
				EARTHWORKS
*C	CONCRETE, FORMWORK & REINF	LEVEL	3	
*C1	CONCRETE	LEVEL	4	
C2212	Bill item	m2		100
C341	Bill item	m3		100
				200
				CONCRETE
*F	FORMWORK	LEVEL	4	
F2154	Bill item	m2		100
F2200	Bill item	m2		100
				200
				FORMWORK
*R	REINFORCEMENT	LEVEL	4	
R240	Bill item	t		100
R228	Bill item	t		100
				200
				REINFORCEMENT

Click  on the Candy tool bar buttons to do a Trade Totals display.

Trade Totals Display						
CCS Demonstration Job - 1.07 Original						
NETT TRADE TOTALS - Billed Quantity (1 unpriced items)						
TRADE DESCRIPTION	NETT AMOUNT	LABOUR	PLANT	MATERIAL	TEMP MATS.	Monday SUBCONTRACT
E EARTHWORKS	251,648.80	51,880.80	115,686.70	41,767.70		42,350.00
C CONCRETE	313,506.30	64,881.70	96,048.10	152,576.50		
F FORMWORK	137,670.50	82,037.00		27,291.60	28,341.90	
R REINFORCING	63,456.00	24,436.70		39,019.38		
B BRICKWORK	137,959.20	71,072.00		66,886.40		
W WATERPROOFING	505.60			505.60		
M METALWORK	95,183.10	16,847.60		74,955.50	3,380.00	
L PLUMBING	77,234.51	21,503.54	2,123.07	31,547.80	1,323.40	20,737.10
M MECHANICAL	13,144.38	1,532.88		11,611.50		
V PAINTING	19,507.00					19,507.00
Z PROV SUMS	6,150.00					6,150.00
GRAND TOTAL in STERLING	1,115,965.47	334,193.02	213,857.87	446,161.98	33,045.30	88,744.10

If shift  is used, the report may be based on valuation quantities.

Using Section Level Headings

The Candy bill of Quantities can be summarised using the headings.

Follow these steps to create a bill heading:

1. Use Ctrl+Ins(ert) to insert a line at the position where a heading is required.
2. Position the cursor in the Op Code column.
3. Type an asterisk (*) and use Enter, the system generates the rest of the Op Code or type your required Op code e.g. *SECT2
4. You can now over type the system-generated description with the required description.
5. The unit field of a section heading is automatically set to LEVEL and a level between 0 and 9 must be entered in the quantity field.
6. When the level is between 1 and 9. the section acts as a "Sub totaller" and gathers the value of the bill items below it to provide summary totals in the bill related reports.(See diagram below)
7. A level 1 heading is highest in the summarisation hierarchy and gathers bill item values until another level 1 heading is encountered below it. A level 2 gathers bill items

OP CODE	DESCRIPTION	UNIT	BILLED QUANTITY	AMOUNT
*SECT2	SECTION 2: VENTILATION SHAFT	LEVEL	1	
*SCH11	SCHEDULE NO.1: FAN FOUNDATION	LEVEL	2	
*E	EARTHWORKS	LEVEL	3	
E1133	Bill item	m2	100	
E20021	Bill item	m3	100	
*C	CONCRETE, FORMWORK & REINF	LEVEL	3	
*C1	CONCRETE	LEVEL	4	
C2212	Bill item	m2	100	
C341	Bill item	m3	100	
*F	FORMWORK	LEVEL	4	
F2154	Bill item	m2	100	
F2200	Bill item	m2	100	
*R	REINFORCEMENT	LEVEL	4	
R240	Bill item	t	100	
R228	Bill item	t	100	
*SECT3	SECTION 3: SUBSTATION AND YARD	LEVEL	1	

NOTE: A level zero heading is treated as a comment and the heading will not appear in the summary. If the level is not manually entered the level defaults to zero.

Section Heading Reports

To generate and view the desired summary, do a Bill of Quantities Report. The summary appears at the end of the BOQ. Selecting a section level Cut-off and summary only will print the summary only. E.g. using a section level Cut-off of 2, would only print level 2 total and level 1 Grand total.

Candy System -> Estimating -> Reports Menu -> Bill of Quantities.

The screenshot shows the 'Bill Report Selector' dialog box with the following settings:

- Selection:**
 - Select all pages
 - Section cutoff level: 2
 - Start page: []
 - End page: []
 - Currency code: []
- Format:**
 - Spreadsheet
 - Client
 - Specification
- Rates:**
 - Nett rate
 - Gross rate
 - Selling rate
- Description:**
 - Op Code description
 - Client's description
- Totals:**
 - Page totals
 - Carried forward totals
 - Collection pages
- Options:**
 - Summary only
 - Omit Op Codes
 - Omit line between items
 - Resource type combinations
 - Print man hours
 - Carried forward level: 1
 - Omit page header
 - Marked up rate breakdown
 - Maximum lines/page: 60
 - Print remarks under desc.

Buttons: OK, Cancel, Help

Collection Page Set Up

Collection page setup document must be configured to correspond with the client’s collection pages before printing a collection page report.

Candy System -> Estimating -> Reports Menu -> Collection Page Set up.

This document is used to allocate collection and summaries, for the bill of quantities report. The description for the first item of the current page is shown in the top line of the header area. The first two columns of the input document, CCS page number and client page number are generated by the system. The third column, **T**(ype), which defaults to **C** for carry page, is altered by using the appropriate softkey.

Collection Page Setup					
SYSTEM PAGE	OFFICES CLIENT PAGE	T	CARRY PAGE	DESCRIPTION FOR PAGE TOTAL	DESCRIPTION ON COLLECTION PAGE
1	A-1	C	3	-	
2	A-2	C	3		
3	A-3	S	15		
4	A-4	C	6		
5	A-5	C	6		
6	A-6	S	15		
7	A-7	C	9		
8	A-8	C	9		
9	A-9	S	15		
11	A-10	C	14		
12	A-11	C	14		
13	A-12	C	14		
14	A-13	S	15		
15	A-14	S	31	Carried to final collection on page C	Total from Bill No 1
16	B-1	C	18		
17	B-2	C	18		
18	B-3	S	30		
19	B-4	C	21		
20	B-5	C	21		
21	B-6	S	30		
22	B-7	C	24		
23	B-8	C	24		
24	B-9	S	30		
26	B-10	C	29		
27	B-11	C	29		
28	B-12	C	29		
29	B-13	S	30		
30	B-14	S	31	Carried to final collection on page C	Total from Bill No 2
31	C	G		Totals for Bill 1 and 2	

The following five page types may be defined on this document:

No total page - A no total page is indicated by a **blank** in the T(type) column. This type of page may only contain non-priceable items. These pages are not carried forward.

Jump to summary page - A jump to summary page is indicated by the letter **J** in the T(type) column. The totals on these pages are carried forward to a summary page or a grand total page, and may jump over a succeeding summary page.

Carry page - A carry page is the default type, and is indicated by the letter **C** in the T(type) column. The totals on these pages are carried forward to a summary page or a grand total page.

Summary page - A summary page is indicated by the letter **S** in the T(type) column. The totals on these pages are carried forward to another summary page or a grand total page.

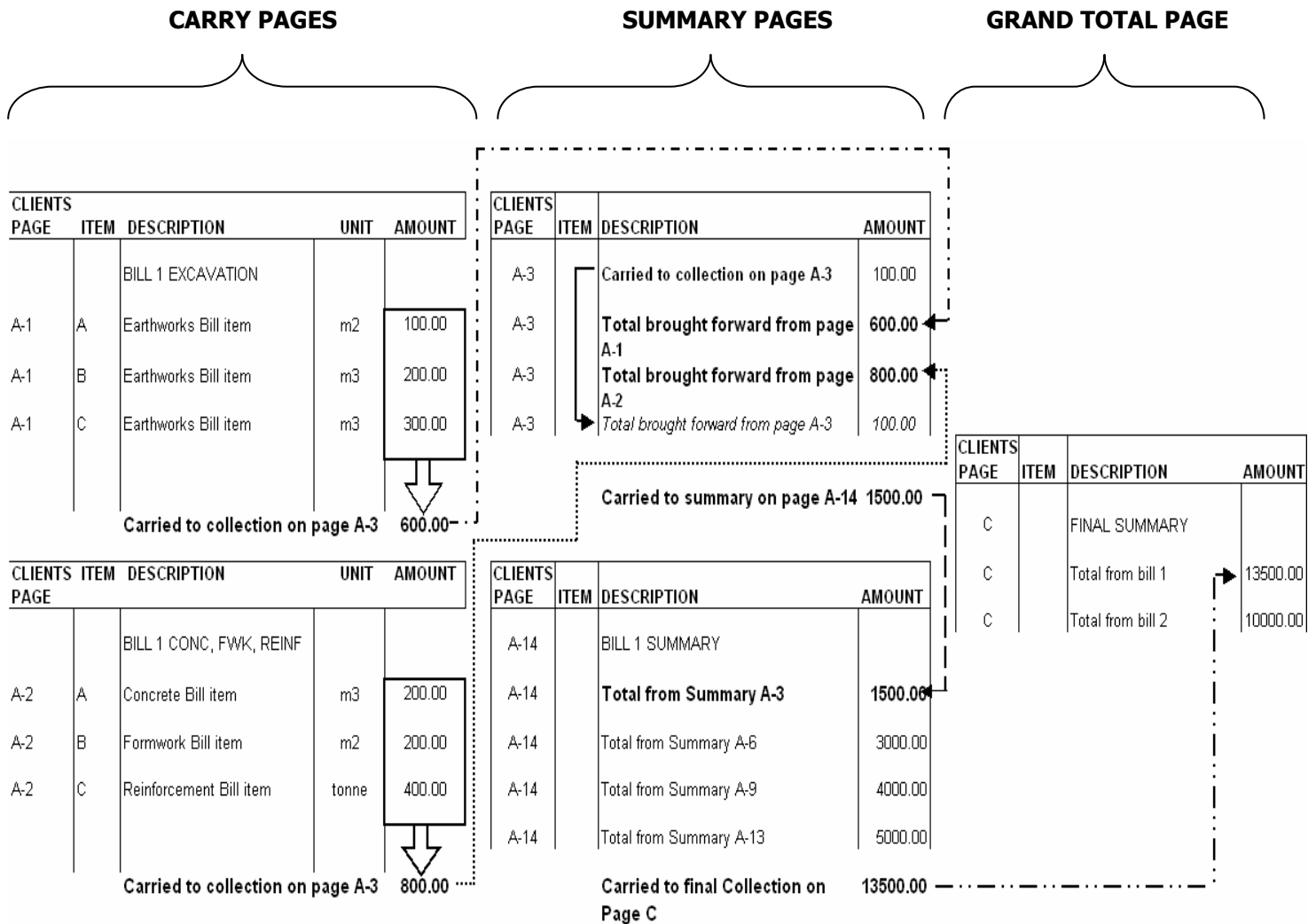
Grand total page - A grand total page is indicated by the letter **G** in the T(type) column. This type of page must receive either **C** or **S** and **J** type page totals, but not mixed. The totals on these pages are not carried forward.

The first description column is the one that appears at the bottom on the page. The second description column appears on the page that the total is carried to. Therefore the text on each page may be different.

Illustrated below are 3 T(types) of collection pages

The page totals of the two carry pages Clients page A-1 & A- 2 are carried to a Summary on Clients page A-3. On summary page A-3 the totals for pages A-1, A-2 and A-3 are all brought forward and displayed at the end of page A-3.

The total of the three Client pages, which are displayed at the bottom of Client page A-3, are then carried to another summary page on A-14. Clients page A-14 is the Summary page for bill 1 which then collects the final total for Bill 1 and carries it to the Grand total page



Collection Page Report

To print the collection page report, create a Bill of Quantities Report, select Client format and then collection pages.

Candy System -> Estimating -> Reports Menu -> Bill of Quantities

The screenshot shows the "Bill Report Selector" dialog box with the following settings:

- Selection:**
 - Select all pages
 - Section cutoff level: 8
 - Start page: []
 - End page: []
 - Currency code: []
 - STERLING
- Format:**
 - Spreadsheet
 - Client
 - Specification
- Rates:**
 - Nett rate
 - Gross rate
 - Selling rate
- Description:**
 - Op Code description
 - Client's description
- Totals:**
 - Page totals
 - Carried forward totals
 - Collection pages
- Options:**
 - Summary only
 - Omit Op Codes
 - Omit line between items
 - Resource type combinations
 - Print man hours
 - Carried forward level: 1
 - Omit page header
 - Marked up rate breakdown
 - Maximum lines/page: 60
 - Print remarks under desc.

Buttons: OK, Cancel, Help

Summarising Using Task Codes (What/ Functional Control)

Task codes are allocated to Bill items (Op Codes) to summarise the bill into tasks providing the total quantity, value and derived rate for each task.

The Task code should for example; summarise all bulk earthworks items to generate the total quantity, derived rate and amount to complete the bulk earthworks Task.

Task codes are eight digit alphanumeric codes and must be defined on the definitions document before use.

Defining The Task Code

Candy System -> Definitions -> Task Code Definitions or use the definitions shortcut  from the candy tool bar buttons.

The following fields are available:

- L(evel) - A one digit numeric field to describe the level of the task code heading allowing further summary into headings.
- Code - An eight digit alphanumeric code to identify a task code.
- Description - A 40 character field to name the task code.
- Unit - A six-character field to describe the unit of the task code.
- Project Factor - A five digit number field to apply a factor to the task code allowing further summaries into task headings.

	TASK			PROJ
L	CODE	DESCRIPTION	UNIT	FACTOR
1	01	EARTHWORKS	m3	1
	0100	Clear Site	m2	0.100
	0110	Excavations	m3	1
	0120	Filling	m3	1
2	10	CONCRETE	m3	1
	1100	Blinding	m3	1
	1200	Foundations	m3	1
	1300	Walls	m3	1
	1400	Ground Slabs	m3	1

Task Code Headings

Task codes may be summarised into Task code headings. The L(evel) column represents the heading level from a level 9 to a level 1. When the level is between 1 and 9, the heading acts as a "Sub totaller" and gathers the value of the Tasks below it to provide summary totals for the tasks. i.e. the earthworks heading will summarise the three tasks clear site, excavations and filling.

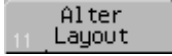

Project Factor

In order to summarise the Quantity of Task code to a Task heading we need to factorise the Task code to the same unit of measurement as the Task Heading. We do this by using the project factor. If the unit of measure for the Task code is the same as the Task heading, then the quantity factor will equal 1 for the relevant Task codes. If the quantity factor column is blank, then the quantities for those Task code will not be taken into consideration when a quantity summary is performed. A blank indicates that the quantity is multiplied by zero, but the value of the Task codes will be summaries into the task heading.

Applying The Task Codes To The Bill Items

The Task Code column must be un-hidden in order to allocate the codes to the Bill items

Candy System -> Estimation -> Bill of Quantities -> enter a new 2-digit code and description i.e. "07 TASK CODE ALLOCATION."

Place the cursor on the new entry and hit enter, now click the  softkey. Select the **Task Code** and **Task Quantity Factor columns**, and store the selection by clicking on the 

OP CODE	DESCRIPTION	UNIT	BILL QTY	TASK CODE	TASK FACTOR	BILL AMOUNT
*SECT2	SECTION 2: VENTILATION SHAFT	LEVEL	1			
*SCH11	SCHEDULE NO.1: FAN FOUNDATION	LEVEL	2			
*E	EARTHWORKS	LEVEL	3			
E1133	Clear and strip site	m2	100	0100	1	100
E20021	Remove top soil 150mm thick	m2	100	0110	0.15	100
E42111	Excavation in foundations ne 2m deep	m3	100	0110	1	100
E52003	Excavate for working space in Class A	m3	100	0110	1	100
9E30013	Excavate for trench and holes	m3	100	0110	1	100
*C1	CONCRETE	LEVEL	4			
C2212	10MPa concrete in blinding 50mm thick	m2	100	1100	0.05	100
C341	20MPa concrete in foundations	m3	100	1200	1	100
C3520	25MPa concrete in walls	m3	100	1300	1	100
C3580	25MPa concrete in surface beds	m3	100	1400	1	100
C950	Wood float finish	m2	100	1400	0	100

The Task Factor

Task codes summarise value and quantity of the relevant bill items. A Task Quantity factor has to be allocated against each bill item in order to factorise every bill item's quantity to the unit of measure of the task code, e.g. factorise a bill item measured in m2 to a task quantity measured in m3.

NOTE: An Opcode may only have one Task code allocated regardless of the number of times the Opcode is used in the job.

Screen Shot Summary Using Project Analysis

After defining and allocating the task codes, the total quantity, derived rate and amount per Task code can be viewed. Derived rates for each task code should be compared to previous jobs.

To perform this analysis, click on the **[P]** from the Candy tool bar buttons and update you document totals using

the **Update ex Candy** softkey, and then select Task Codes and Click **OK**

L	PROJECT CODE	DESCRIPTION	UNIT	PROJ FACTR	FINAL QUANTITY	BILLED QUANTITY	DERIVED RATE	TOTAL AMOUNT	LABOUR	PLANT	MATE
2	P0	PRELIMINARIES	SUM								
	P001	Site Supervision	SUM	1	0.00	0.00					
	P002	Services and Transport	SUM	1	0.00	0.00					
	P003	Fixed Costs	SUM	1	0.00	0.00					
	P004	Value Related Costs	SUM	1	0.00	0.00					
	P005	Time Related Costs	SUM	1	0.00	0.00					
2	01	EARTHWORKS	M3								
	0100	Clear Site	M2	1	0.00	5,500.00	0.91	5,005	1,155	2,750	1
	0110	Excavation	M3	1	0.00	12430.00	15.58	193,625	32,985	86,146	32
	0120	Filling	M3	1	0.00	7,680.00	6.90	52,992	17,741	26,726	8
2	11	CONCRETE, FORMWORK & REINFORCING	M3								
3	1100	CONCRETE	M3	1							
	1101	Blinding	M3	1	0.00	56.50	193.01	10,905	1,559	3,752	5
	1102	Foundations	M3	1	0.00	1,430.00	143.35	204,989	29,960	67,969	107
	1103	Walls	M3	1	0.00	210.00	143.78	30,194	5,691	9,471	15
	1104	Ground Slabs	M3	1	0.00	320.00	153.18	43,019	10,583	14,858	23
3	2100	FORMWORK	M2								
	2102	Vertical Formwork - Founds.	M2	1	0.00	2,210.00	16.65	36,797	24,023		
	2103	Vertical Formwork - Walls	M2	1	0.00	1,180.00	19.37	22,856	16,036		
	2105	Vertical Formwork - Beams	M2	1	0.00	224.50	60.65	13,615	6,942		
3	3100	REINFORCING	Tonne								
	3101	Mesh	M2	0.004	0.00	1,960.00	4.99	9,772	973		8
	3201	High Tensile Bars	Tonne	1	0.00	152.80	351.34	53,684	23,463		30
2	4000	FINISHING TRADES	SUM								
	4100	Miscellaneous metalwork	kg	1	0.00	14773.90	6.44	95,182	16,846		74
	4200	Joints	lm	1	0.00	840.00	76.67	64,404	35,037		27
	4300	Grouting	dm3	1	0.00	11950.00	1.54	18,404	17,089		1
2	5000	STORMWATER & DRAINAGE									
	5100	Stormwater drainage	lm	1	0.00	350.00	76.03	26,611	6,525	733	19
	5200	Manholes	No	1	0.00	21.00	1,423.29	29,889	14,979	1,391	12
	5300	Rainwater goods	lm	1	0.00	410.00	50.58	20,737			
2	6100	VENTILATION SYSTEM	SUM								
	6101	Supply and Install	SUM	1	0.00	1.00	11,760.0	11,760	148		11
	6201	Maintenance	SUM	1	0.00	1.00	1,385.00	1,385	1,385		
2	7100	BRICKWORK	M2								
	7101	Foundation Brickwork	M2	1	0.00	1,060.00	42.64	45,196	24,232		20
	7201	Superstructure Brickwork	M2	1	0.00	1,340.00	69.60	93,270	46,842		46
2	8100	PAINTWORK	M2								
	8101	Paintwork	M2	1	0.00	1,690.00	11.54	19,507			
2	9000	PROVISIONAL SUMS	SUM								
	9101	Ceilings	SUM	1	0.00	1.00	5,125.00	5,125			
	9201	Vinyl Flooring	SUM	1	0.00	1.00	1,025.00	1,025			

Task Code Reports

To print the task code summary, do a Project Codes Report selecting the task code as a primary code, none for secondary code. The sieve can be used to extract specific codes only.

Candy System -> Estimating -> Reports Menu -> Project Codes Menu -> Project Codes Report.

Project Codes Report

Project Code Selection

Primary: Task codes, Work codes, Bill codes

Secondary: Task codes, Work codes, Bill codes, None

Sieve

Primary: [] or [] or [] or []

Secondary: [] or [] or [] or []

? in any position matches a single character
* as last character matches any sequence of trailing characters

Options

Print section headings

Omit Op Code column

Macros without Task/Work Primary codes are broken down until the relevant code is found for Nett rates only

OK Cancel Help

Task codes are normally used for internal analysis. Select spreadsheet format of Bill and summary on nett rates.

Project Codes Report

Report Selection

Summary only

Bill and summary

Bill only

Format

Spreadsheet

Client

Rates

Nett

Gross

Selling

OK Cancel Help

Additional Task code reports can also be printed from the project codes reports menu. For an example, a resource analysis per task code can be printed.

Candy System -> Estimating -> Reports Menu -> Project Codes Menu -> project Codes Resource Analysis.

Refer to candy manual module 15 for more information.

Summarising using bill codes (Where / Locational control)

To summarise the items into locations, for example summarise all items for section 1 or section 2.

Define the Bill Codes

Candy System -> Definitions -> Bill Code Definitions or use the definitions shortcut  from the candy tool bar buttons.

BILL CODE	DESCRIPTION	UNIT
PRELIM	PRELIMINARIES	SUM
SHAFT	VENTILATION SHAFT	SUM
YARD	SUB STATION AND YARD	SUM
SECT 1	SECTION 1	SUM
SECT 2	SECTION 2	SUM
SECT 3	SECTION 3	SUM

Bill codes are eight digit alphanumeric codes and should be defined prior to allocation.

Code - An eight digit alphanumeric code to identify a bill code.

Description - A 40 character field to name the bill code.

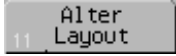

Unit - A six character field to describe the unit of the bill code.

NOTE: An Op Code can have many different bill codes allocated as the bill item (Op code) could occur in many locations.

Allocating the Bill codes to Bill items

The Bill code column must be un-hidden in order to allocate the codes to the bill items

Candy System -> Estimating -> Bill of Quantities, enter a new 2-digit code and description i.e. "08 BILL CODE ALLOCATION."

Place the cursor on the new entry and hit enter, now click the  softkey. Select the **Bill Code** column, and store the selection by clicking on the 

OP CODE	DESCRIPTION	UNIT	BILLED QUANTITY	BILL CODE	AMOUNT
*BLL1	BILL 1: VENTILATION SHAFT	LEVEL	1		
*E	EARTHWORKS	LEVEL	2		
E1133	Bill item	m2	100	SECT 1	100
E2033	Bill item	m3	50	SECT 1	100
E2331	Bill item	m3	70	SECT 2	100
E4566	Bill item	m3	50	SECT 2	100
E4999	Bill item	m3	80	SECT 1	100
*C	CONCRETE	LEVEL	2		
C2212	Bill item	m3	70	SECT 1	100
C3455	Bill item	m3	10	SECT 1	100
C4567	Bill item	m3	30	SECT 2	100
C5411	Bill item	m3	47	SECT 2	100
C5653a	Bill item	m3	41	SECT 3	100

500	SECTION 1
400	SECTION 2
100	SECTION 3

Bill Code Reports

To print a bill code summary, do a Project Codes Report selecting bill codes as a primary code, none for secondary code. The sieve can be used to filter selected codes only if required.

Candy System -> Estimating -> Reports Menu -> Project Codes Menu -> Project Codes Report.

Project Codes Report

Project Code Selection

Primary Secondary

Task codes Task codes

Work codes Work codes

Bill codes Bill codes

None

Options

Print section headings

Omit Op Code column

Sieve

Primary Secondary

or or

or or

or or

? in any position matches a single character
* as last character matches any sequence of trailing characters

Macros without Task/Work Primary codes are broken down until the relevant code is found for Nett rates only

OK Cancel Help

Select Bill and summary, nett rates and spreadsheet format.

Project Codes Report

Report Selection

Summary only

Bill and summary

Bill only

Format

Spreadsheet

Client

Rates

Nett

Gross

Selling

OK Cancel Help

Refer to candy manual module 15 for more information.