

Section 23 - International Utilities

This section covers aspects of the Candy system, which are of specific concern to International Estimators involved in multiple currency tenders.

This section of the Candy manual contains the following topics:

- Pricing currency - Sheet 23.01
- Currency exchange rates - Sheet 23.01 to 23.02
- Tax multipliers - Sheet 23.03
- Local/foreign mark up ratio - Sheet 23.04 to 23.06
- Multiple currency subcontract adjudication - Sheet 23.06
- Multiple currency reporting - Sheet 23.07 to 23.10




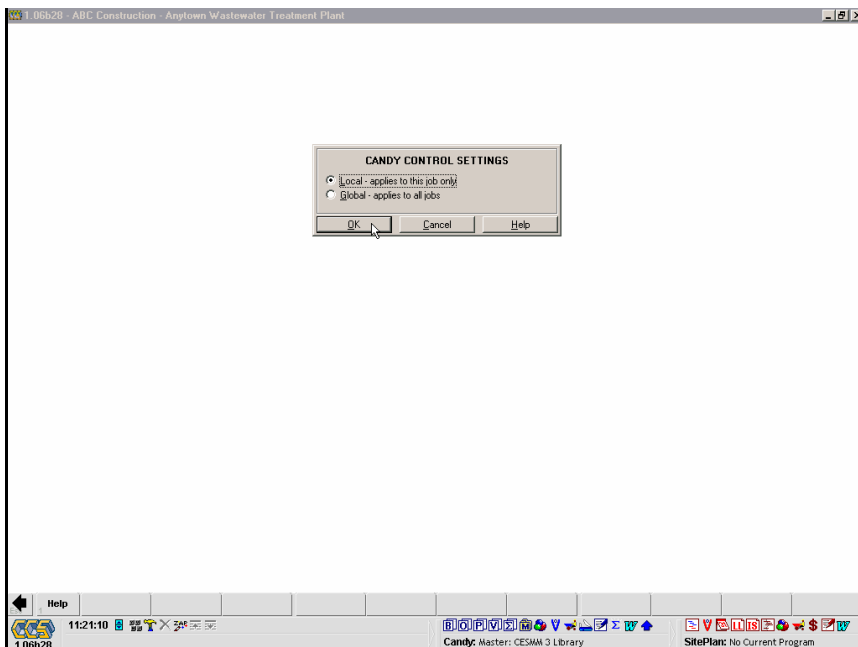
Pricing Currency

When working with multiple currencies, it is advisable to name the **Pricing Currency** - that is the currency to which all resources priced in a foreign currency are converted.

This would normally be the currency in which a tender is to be submitted.

From the **CCS Menu** follow the path to **Candy System to Definitions** and select **Candy Control Settings**.

A selector is displayed. Select the **Local** control settings option and use the  button.




The **Candy Local Control Settings** document is displayed.

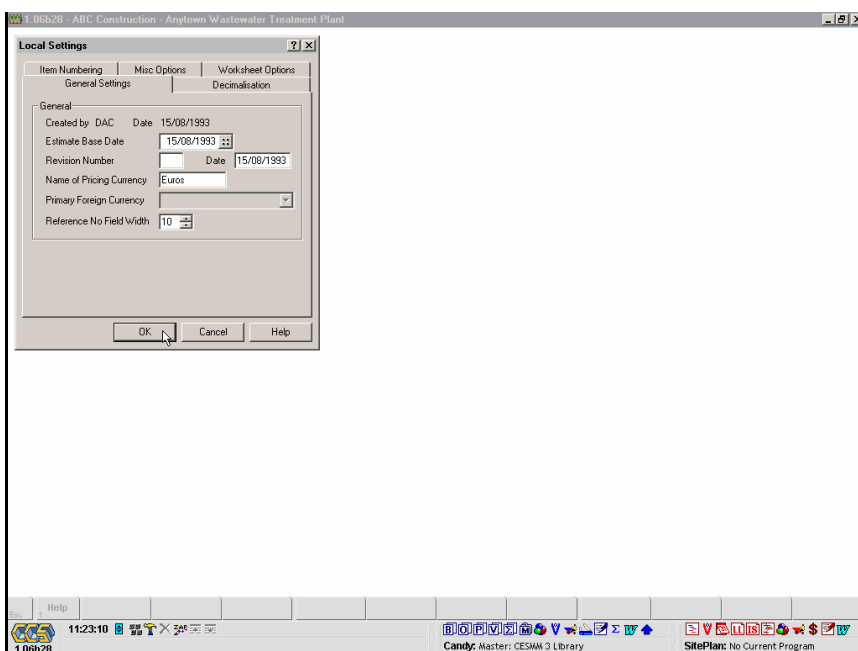
There are two options on the **General Settings** sheet, which are concerned with multiple currency pricing.

In the field called **Name of Pricing Currency**, type in the required currency name.

The purpose of the field called **Primary Foreign Currency** is explained later in this section.

Use the  button to store these settings.

Note: This document can also be called up by using the  button.



Currency Exchange Rates

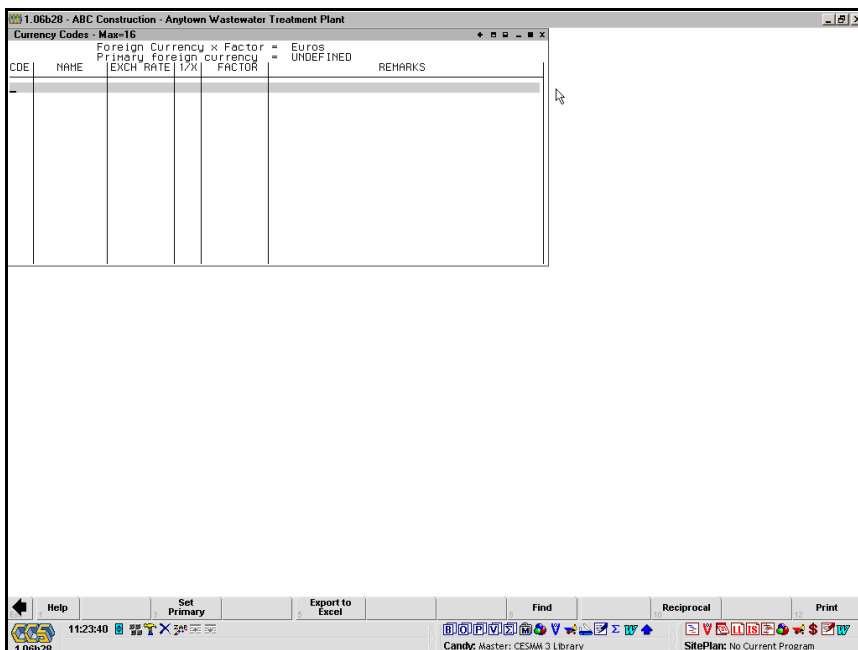
In any one job, the **Pricing Currency** is used, plus up to sixteen **Foreign Currencies**.

Before using foreign currencies in a job, they need to be defined.

From the **Definitions** menu select **Currency Exchange Rates**.

On this document up to eight currencies can be defined.

- **Currency Code** - A 3-digit alpha code.
- **Currency Name** - A 10-digit field.
- **Exchange Rate, 1/X and Factor** - Columns used to mathematically define the relationship between the **Foreign Currency** and the **Pricing Currency**.
- **Remarks** - Used to record a comment



against any of the defined currencies.

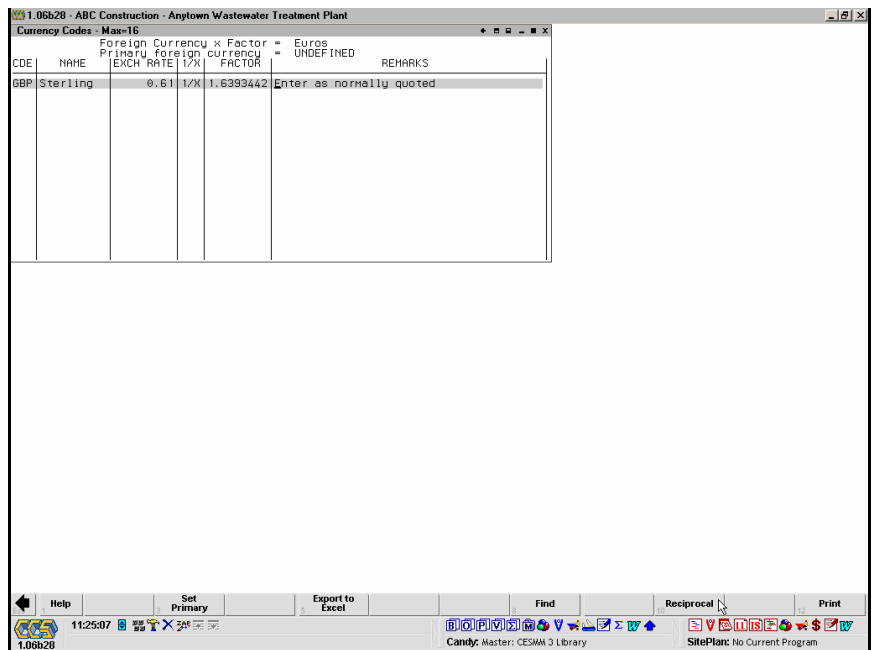
The numerical relationship between a **Foreign Currency** and the **Pricing Currency** can be entered in two different ways.

Type in a **Currency Code** and **Name**, and enter a number in the **Exch Rate** column.

Use the  softkey.

The characters **1/X** are displayed against this currency, and the reciprocal of the exchange rate is calculated and displayed in the **Factor** column.

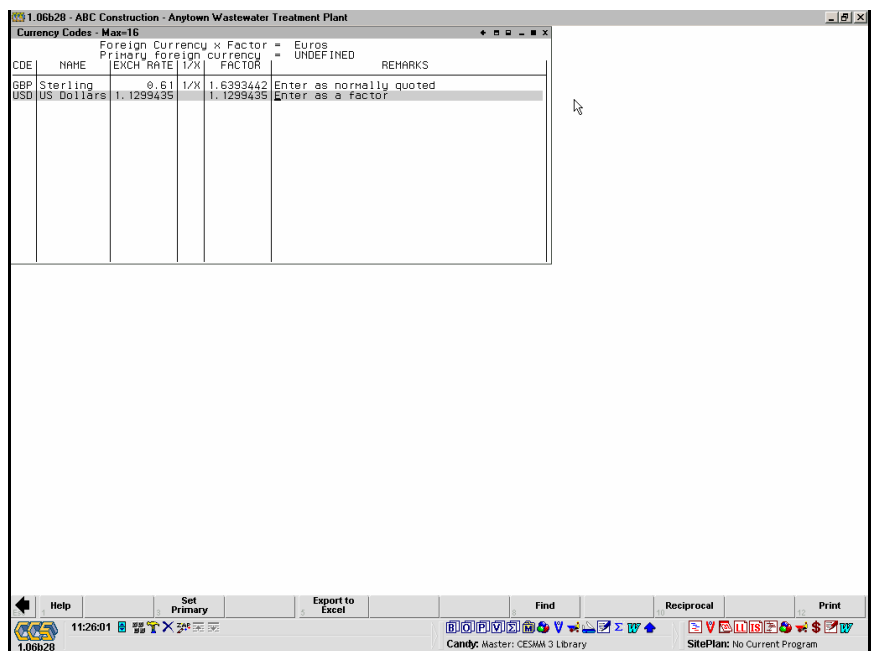
In this case 0.61 £ Sterling is worth 1 Euro.




Type in a second **Currency Code** and **Name**, enter a number in the **Exch Rate** column, and use Enter.


In this case the number in the Factor column is the same as the number which was entered.

In this case 1 US Dollar is equal to 1.1299435 Euro.



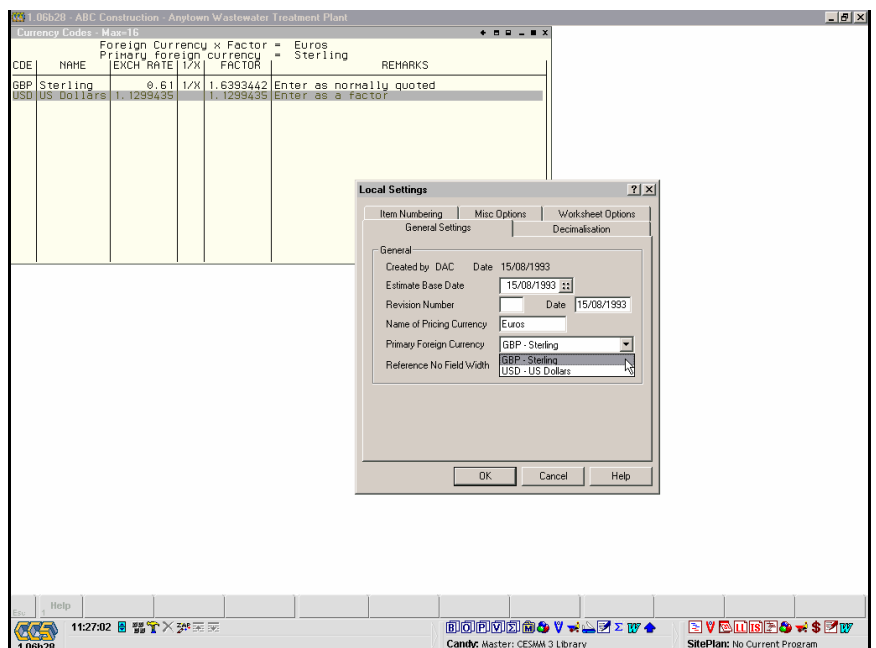
Having defined some foreign currencies, call up the **Candy Local Control Settings** document by using the  button.

Use the  button to the right of the **Primary Foreign Currency** field.

Select one of the defined currencies and use the  button.

Go back onto the Currency Exchange Rates document.

Notice that the **Primary Foreign Currency** is named at the top of the document.



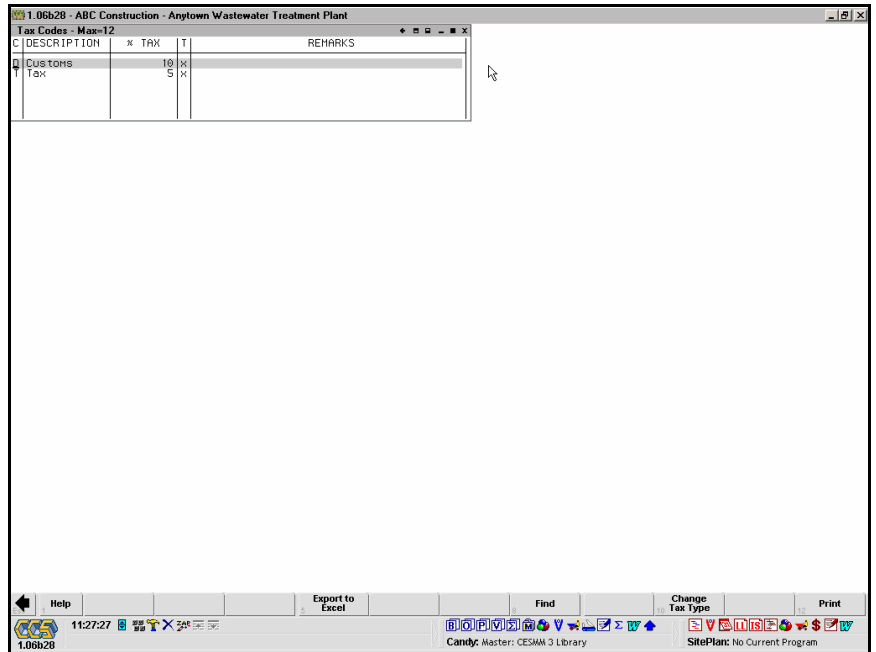
Tax Multipliers

If procuring resources from overseas, it may be necessary to allow for import duty, port taxes etc. in the pricing. Up to twelve **Tax Codes** can be defined.

From the **Definitions** menu select **Tax Multipliers**.

On this document up to twelve Tax Multipliers can be defined.

- **Tax Code** - A 1-digit alpha code.
- **Description** - A 12-digit alphanumeric field.
- **% Tax** - A numeric percentage field.
- **T** - Tax type. A + indicates that a tax code always operates on the base rate, an x indicates that a tax code operates on the rate calculated thus far.
- **Remarks** - Used to record a comment against any of the defined tax codes.



Resource Scrollers

Foreign Currencies and Tax Multipliers are applied to **Resources**.

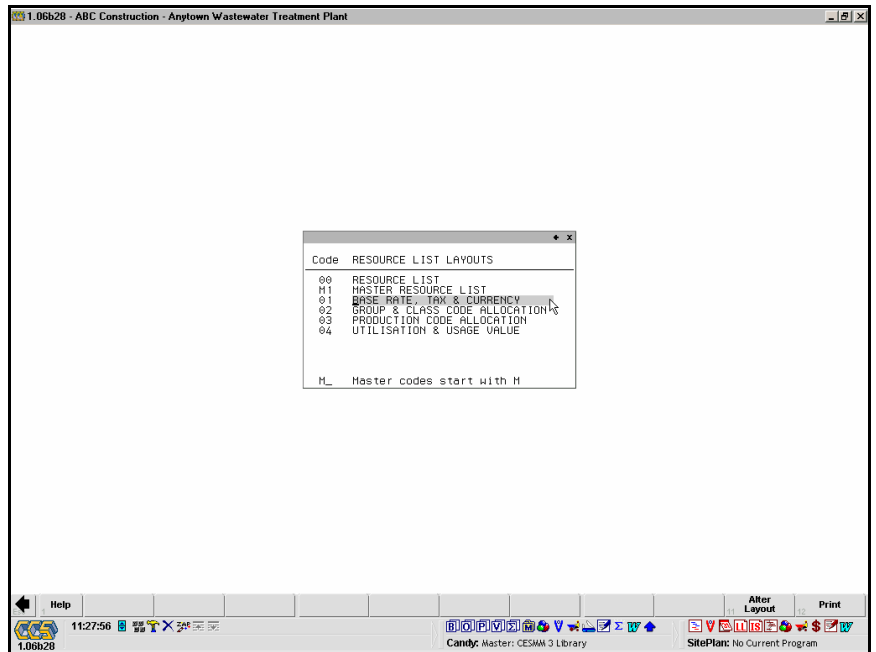
This application to resources forms the basis of all reports concerned with multiple currencies and taxes.

From the **CCS Menu** follow the path **Candy System to Estimating** and select **Resources**.

There may be some resource layouts already defined.

Select the layout called **Base rate, Tax and Currency**.

*Note: Refer to **Candy Manual Section 7 - Scrollers** for more information about setting up scrollers.*



Resource Scroller Layout

The resource list is displayed in the selected layout.

Scroll down the resource list using **Page-Down**, until the plant section of the list is displayed.

Some of these resources have **Base Rates** in US Dollars and have had the **Currency Code "USD"** allocated to them.

This takes the **Base Rate**, converts it into the **Pricing Currency**, and displays the result as a **Final Rate**.

RES CODE	Resource DESCRIPTION	UNIT	BASE RATE	CUR	TAX	FINAL RATE	Sterling
7 24218	Excavation Gang (G+B)	/Day				1,479.750	902.648
7 24412	Formwork Gang (C+2)	/Day				534.000	326.106
7 24416	Formwork Gang (C+E)	/Day				1,214.000	741.028
7 2443	Cast-in-Items Crew	/Day				581.300	365.793
7 24516	Placing Gang (G+B)	/Day				1,157.350	705.384
7 24812	Joint Sealing Gang (G+2)	/Day				512.350	312.658
* 30	PLANT - ALLOWANCE						
P 3001	Site Transport Allowance	/Sum				1.00	0.61
P 301421	Screw Conveyor	/Day				50.00	30.50
* 31	PLANT - TRANSPORT						
G 3150	Concrete Transport	/h3				27.400	16.768
P 3152	0.75M3 Dumper	/Day				359.550	219.326
P 31521	0.75M3 Dumper	/Day				125.000	76.23
7 3171	6M3 Tipper H&O	/Day				601.260	366.773
P 31711	6M3 Tipper	/Day				300.00	183.00
P 31712	6M3 Tipper Km Levu	/Km				1.50	0.92
* 32	PLANT - EXCAVATION						
7 32211	Kohatsu PC150 H&O	/Hour				89.123	48.875
P 322111	Kohatsu PC150 H&O	/Hour	40.00	USD		45.20*	27.57
7 32511	JD 410 Digger Loader H&O	/Day				772.825	471.423
P 325111	JD 410 Digger Loader	/Hour	50.00	USD		56.50*	34.47
* 33	PLANT - EARTHWORKS						
7 3342	Dynapac ST60 Roller H&O	/Day				329.340	200.897
P 33421	Dynapac ST60 Roller	/Day				112.99*	69.32
7 3351	CR20 Pan Compactor H&O	/Day	100.00	USD		376.000	229.409
P 33511	CR20 Pan Compactor	/Day	150.00	USD		159.49*	103.39
* 35	PLANT - CONCRETE						
7 3513	21/14 Mixing Plant	/h3				39.574	24.140
P 35131	21/14 Mixer	/Day	100.00			153.00*	92.33
P 3542	Boomscraper F14	/Day	80.00			64.00*	39.04
P 3553	Cement Silo 100t	/Day	38.00			30.40*	18.54
P 3556	Screw Conveyor	/Day	24.00			19.20*	11.7
* 36	PLANT PUMPS						
* 4	TEMPORARY MATERIALS						
* 40	FORMWORK						
T 4001	Formwork Material Allowance	/Sum				1.00	0.61
T 4002	Formwork to Sides	/h2				3.000	2.250
T 4009	Formwork (General)	/Sum				1.00	0.61
T 4010	Formwork NE 150mm Hide	/h				0.47	0.29
T 401111	1800x3000 EF Panels	/h2				7.855	4.853
T 41143	Economy 1800x600	/Heek				2.55	1.56
T 421112	B&C Clamps	/K				0.18	0.11
T 421151	Wedge Sets	/Each				0.65	0.40
T 421301	Rawl Washers	/Each				0.65	0.40
T 421302	Rawl Plastic Plugs	/Each				0.18	0.11
T 421303	Rawl Cones	/Each				0.36	0.22
T 421305	Rawl Bolts 127mm Long	/Each				1.67	1.02
T 421313	Rawl Ties 200mm Long	/Each				2.50	1.53
T 441211	Scaffold Tube	/h/k				0.25	0.15

Scroll down the resource list further to the concrete materials section.

Some of these resources have both **Currency** and **Tax Codes** applied to them.

The following formula applies to resource code 51111 in this example :

$$\begin{aligned}
 & ((\text{Base Rate} + D\%) + T\%) \\
 & \quad \times \\
 & \text{ESC (Currency)} \\
 & = \\
 & \text{Final Rate}
 \end{aligned}$$

Note: An asterisk () is displayed in the final rate column for any resource which has a base rate.*

Currency Codes and Tax Multipliers may be allocated either by typing or Double Clicking in the respective columns to call up a picklist of defined codes.

RES CODE	DESCRIPTION	UNIT	BASE RATE	CUR	TAX	FINAL RATE	Sterling
T 441211	Scaffold Tube	/m/HK				0.25	0.15
X 49	FUEL						
M 4911	Petrol 87 Octane	/Ltr				0.92	0.56
M 4912	Petrol 93 Octane	/Ltr				0.98	0.60
M 4914	Diesel #1 Rate	/Ltr				1.38	0.79
X 5	PERMIT MATERIALS						
X 50	ALLOWANCES						
M 50013	Imported aggregates	/SUM				1.00	0.61
M 50043	Joining Material Allowance	/SUM				1.00	0.61
X 51	CONCRETE MATERIALS						
M 51111	OPC Bags 50kg	/bag	4.58	GBP	DT	8.67*	5.29
M 51112	OPC Bulk 50kg	/bag	4.05	GBP	DT	7.67*	4.68
M 51151	Slagment Bags 50kg	/bag	4.10	GBP	DT	7.75*	4.73
M 51152	Slagment Bulk 50kg	/bag	3.59	GBP	DT	6.53*	4.04
M 51313	19mm Stone	/m3				45.00	27.45
M 51315	Crush Stone Grano Chips	/m3				52.00	31.72
M 51317	Crusher Sand	/m3				32.00	19.52
M 51331	River Sand	/m3				35.00	21.35
M 51333	Filler Sand	/m3				28.00	17.68
M 51334	Plaster Sand	/m3				25.00	15.25
M 51335	Building Sand	/m3				32.00	19.52
M 515101	C10/19 concrete Materials	/m3				115.581	70.504
M 515102	C10/19 Ready Mixed Concrete	/m3				87.50	53.30
M 515103	C10/19 Concrete Mixed & Delivered	/m3				102.543	111.412
M 515201	C20/19 Concrete Materials	/m3				117.327	71.569
M 515202	C20/19 Ready Mixed Concrete	/m3				95.65	58.35
M 515203	C20/19 Concrete Mixed & Delivered	/m3				104.389	112.477
M 515251	C25/19 Concrete Materials	/m3				118.724	72.422
M 515252	C25/19 Ready Mixed Concrete	/m3				102.75	62.68
M 515253	C25/19 Concrete Mixed & Delivered	/m3				105.786	113.323
X 52	MANHOLE MATERIALS						
M 52300	Step Irons	/Each				9.65	5.89
M 52311	Type 1 Manhole Circular Cover	/Each				338.00	201.30
X 53	BRICKWORK MATERIALS						
M 53011	Stock Bricks	/Thou				375.00	228.75
M 53012	Face Bricks	/Thou				408.00	292.00
M 530191	Crimped Ties	/Each				0.52	0.32
M 530200	1:4 Cement Mortar	/m3				102.612	62.593
M 530210	1:4 Cement Plaster	/m3				94.352	57.555
M 530220	1:3 Cement Grout	/m3				120.871	73.731
X 54	WATERPROOFING MATERIALS						
M 54250	250 Micron PUC	/m2				1.65	1.01
M 54375	375 Micron OPC	/m2				2.75	1.68
X 55	SUNDRY MATERIALS						
M 55010	Hardcore	/m3				8.00	4.88
M 55020	Terran 1000	/m2				0.30	0.19
X 6	CAST-IN ITEMS						
M 6001	Cast in Items Steel	/SUM				1.00	0.61
M 6002	Cast in Items H.d Bolts	/SUM				1.00	0.61
M 6120	High Tensile Steel (All Sizes)	/Tonne				550.00	335.50

Local Foreign Markup Ratio

The split of the Markup between the **Local** and the **Foreign** components can be adjusted using the **Local Foreign Markup Ratio**.

From the **CCS Menu** follow the path **Candy System** to **Estimating** to **Finalisation** to **Markup** and select **Local Foreign Markup Ratio**.

The screenshot shows the 'Markup' menu stack with the following options:

- Trade Markup
- Individual Op Codes
- Resource Type Risk
- Markup All Trades
- Individual Markup By Pages
- Trade Totals Display
- Set Gross Total

Below these options, the 'Projected Escalation' section is visible, with 'Local Foreign Markup Ratio' highlighted. A tooltip explains: "This utility may be used to adjust the split of the markup between the local and the foreign components."


The **Local Foreign Markup Ratio** document is displayed.

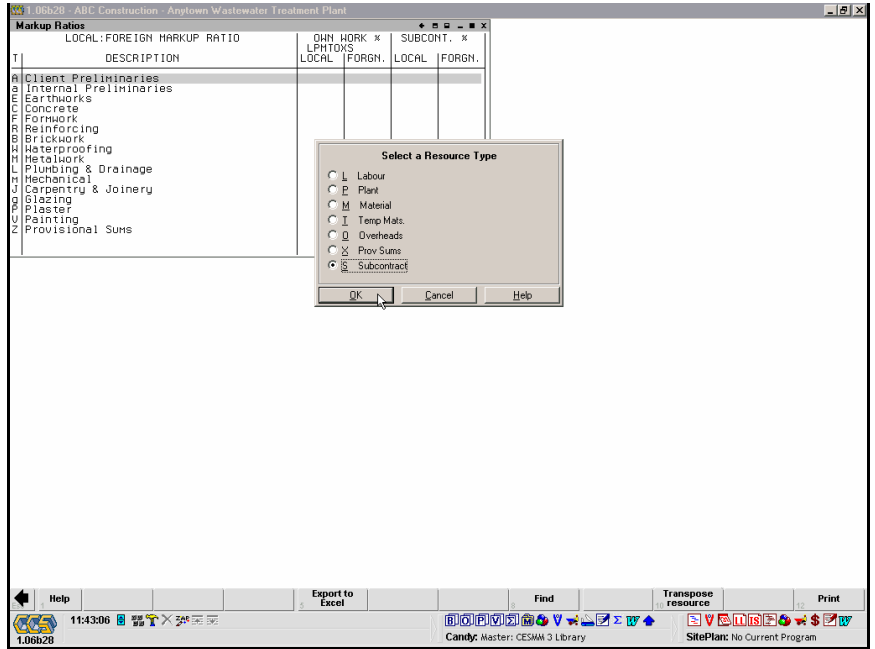
The Trade List for the job is displayed in the first two columns.

Use the **Transpose Resource** softkey.

T	DESCRIPTION	OWN WORK * LPHTOXS		SUBCONT. *	
		LOCAL	FORGN.	LOCAL	FORGN.
A	Client Preliminaries				
B	Internal Preliminaries				
E	Earthworks				
C	Concrete				
F	Formwork				
R	Reinforcing				
B	Brickwork				
W	Waterproofing				
M	Metalwork				
L	Plumbing & Drainage				
M	Mechanical				
J	Carpentry & Joinery				
G	Glazing				
P	Plaster				
U	Painting				
Z	Provisional Sums				

The Resource Types are displayed for this job.

Select **Subcontract** and use the  button.



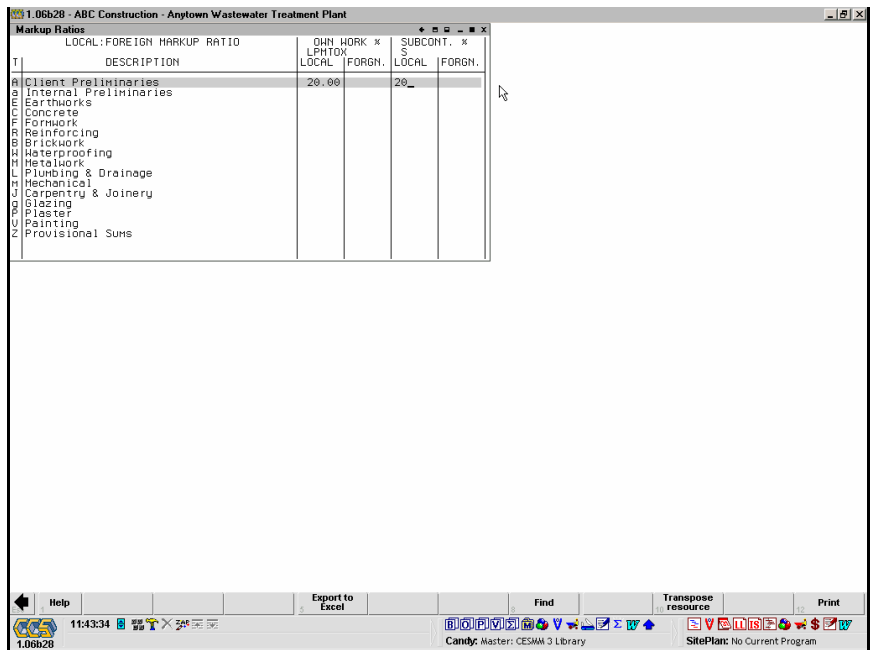
The resource type "S" is now displayed in the section headed SUBCONT %.

This allows you to apply different local foreign ratios to your own work and to subcontract work.

Enter a percentage figure against the first trade under the local column for the own work section.

Use Tab to move the cursor into the local column for the subcontract section.

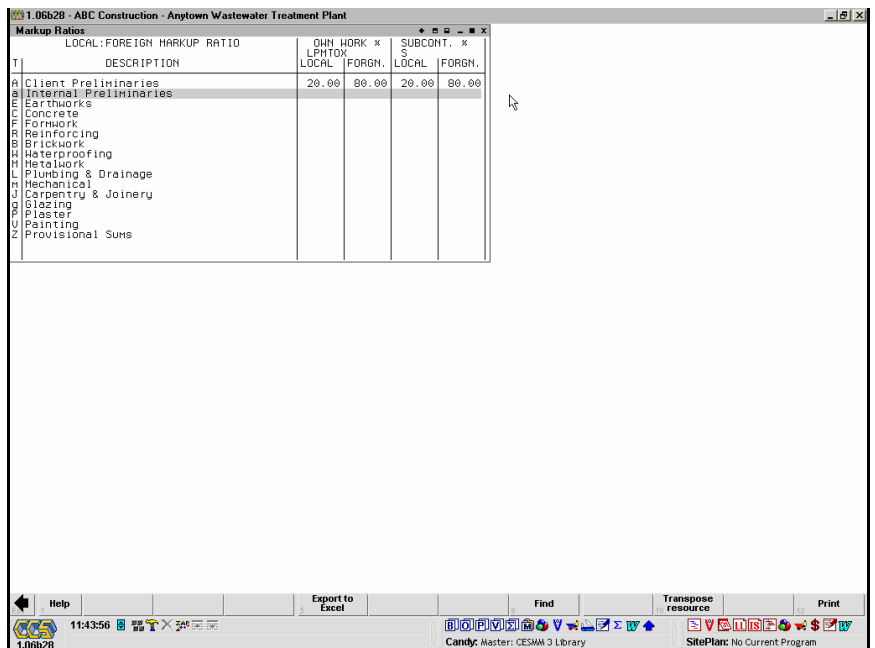
Enter a percentage figure under the local column for the subcontract section and use Enter.



The system has automatically calculated the percentage figures for the respective foreign columns.

The rule being that :

$$\text{Local \%} + \text{Foreign \%} = 100.00$$



Local Foreign Markup Ratio

By entering 100% in the local column, the foreign percentage is set to zero.

Therefore it is possible to generate local markup for items which have no local component in the pricing.

The reverse is true - it is possible to generate foreign markup for items that have no foreign component.

If no ratio is specified for any trade, the markup is calculated normally for that trade.

The result of applying local foreign markup ratios is visible when printing either a dual currency bill listing or a report writer report using **Gross Rates** only.

T	DESCRIPTION	OWN WORK		SUBCONT.	
		LOCAL	FORGN.	LOCAL	FORGN.
A	Client Preliminaries	20.00	80.00	20.00	80.00
B	Internal Preliminaries	20.00	80.00	20.00	80.00
C	Earthworks	100.00	0.00	50.00	50.00
D	Concrete	70.00	30.00	70.00	30.00
E	Formwork	70.00	30.00	70.00	30.00
F	Reinforcing	70.00	30.00	70.00	30.00
G	Brickwork	70.00	30.00	70.00	30.00
H	Waterproofing	70.00	30.00	70.00	30.00
I	Metelwork	70.00	30.00	70.00	30.00
L	Plumbing & Drainage	70.00	30.00	70.00	30.00
M	Mechanical	70.00	30.00	70.00	30.00
J	Carpentry & Joinery	70.00	30.00	70.00	30.00
K	Glazing	70.00	30.00	70.00	30.00
O	Plaster	70.00	30.00	70.00	30.00
U	Painting	40.00	60.00	100.00	0.00
Z	Provisional Sums	40.00	60.00	0.00	100.00

Multiple Currency Subcontract Adjudication

It is possible to adjudicate subcontract quotations that have been received in currencies other than the Pricing Currency.

This section describes only this feature of subcontract adjudication. Refer to **Section 9 - Subcontract Adjudication** for more information on this subject.

Call up a subcontract adjudication document.

There is a field above each column in which a **Currency Code** may be entered. The rates can be entered in their quoted currency; the calculated amounts for that column are displayed in the **Pricing Currency**.

PAGE	ITEM	SUBCONTRACT	QUANTITY	UNIT	1 Diggers Limited		2 R. Burrows		3 John Hole Limited		RATE
					RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	
3	A	3	LEVEL								
3	B	5,400	M2		2.18	11,772.00	1.38	12,294.00	2.10	12,798.00	
3	C	10,800	M3		16.41	177,228.00	9.50	162,156.00	15.48	188,892.00	
3	D	1,125	M3		10.33	12,285.25	6.68	12,341.25	9.62	12,228.75	
3	E	660	M2		14.19	9,385.40	8.44	5,134.40	13.00	8,685.40	
3	F	315	M3		117.35	36,965.25	74.40	38,420.55	114.18	40,641.30	
3	G	11,520	M3		10.78	124,185.60	7.02	132,595.20	3.50	123,609.60	
3	H	21,600	M3, KM		1.40	30,240.00			1.34	32,616.00	
7	A	2,850	LEVEL		2.15	6,127.50	1.42	6,640.50	2.18	7,011.00	
7	C	600	M2		10.93	6,558.00	6.89	6,780.00	9.62	6,522.00	
7	D	840	M3		117.35	98,574.00	74.40	102,454.80	114.18	109,376.80	
TOTAL						513,312.00		488,726.70		542,390.85	

Transferring Rates to Bill

The transfer of rates from a subcontract adjudicator uses the **Quoted Rates**, with the discount factor if applicable, for a given column.

Thus, if a set of rates has been entered in a foreign currency, those rates are transferred onto the worksheets.

The subcontract resource code must already exist, have a **Base Rate** of 1.00 and have the appropriate **Currency Code** in order that the **Final Rate**, and therefore the worksheet rate is correctly calculated in the **Pricing Currency**.

A message is displayed below the **Resource** fields that reminds you of the above point.

The screenshot shows a software window titled "Earthworks - Multi Currency Example Subcontract Adjudication" with a timestamp of "Amended: DAC 14/02/2002". The main window displays a table with columns for PAGE, ITEM, SUBCONTRACT QUANTITY, CURRENCY FACTOR, NAME UNIT, RATE, and AMOUNT. The table is organized into four columns representing different subcontractors: 1 Diggers Limited (GBP), 2 R. Burrows (GBP), 3 John Hole Limited (USD), and 4 (USD). The table lists various levels (LEVEL) and their corresponding rates and amounts in both the subcontractor's currency and the pricing currency (USD).

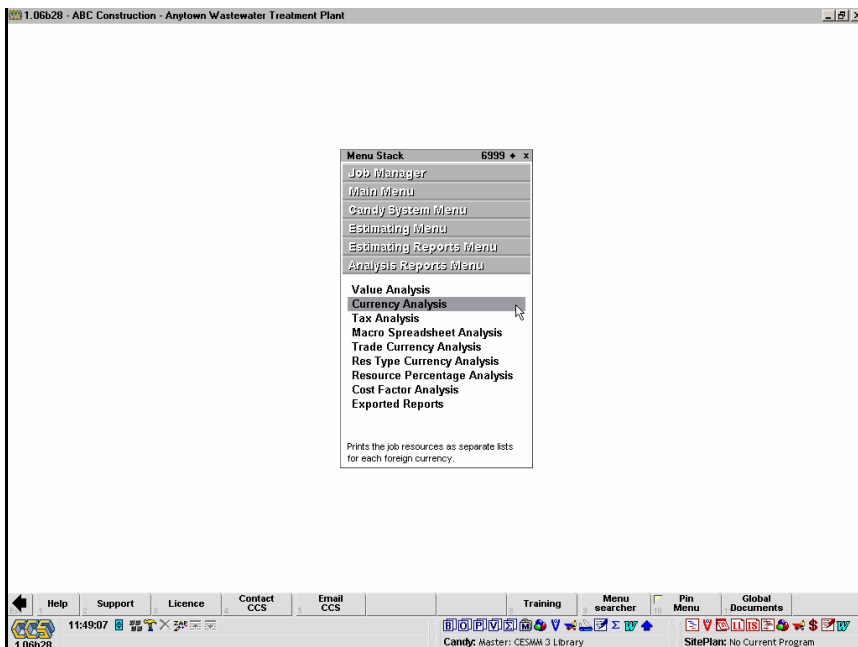
A dialog box titled "Transfer rates to Bill using John Hole Limited" is overlaid on the table. It contains "Net Rate Options" with radio buttons for "Net rate" (selected) and "Selling rate". Below this are "Resource Code" and "Description" fields, and a "Unit" field. A note states "Resource must have Currency code of USD". There are also checkboxes for "Scroll job resources", "Scroll master resources", "Copy subcontractor name to resource remarks", "Mark worksheets provisional for provisional s/c rate", "Clear provisional worksheet markers", and "Create bill entries at end of page for unlinked priced items". The dialog also includes "Notes" and buttons for "OK", "Cancel", and "Help".

The bottom of the screenshot shows a menu bar with options like "Help", "Export to Excel", "Import bill items", "Rates to bill", "Import bill rates", "Create zero rated w/s", "Import S/C rates", "Exit imp/exp", "Update q'tys", "Import by resource", "Copy to s/lib", and "CSV download". The status bar at the bottom indicates "Op Code Description", "Candy: Master: CESM 3 Library", and "SitePlan: No Current Program".

Analysis Reports

Various reports that analyse the foreign currency and tax components that have been used in the pricing are available.

From the **CCS Menu** follow the path **Candy System** to **Estimating** to **Reports** to **Analysis Reports** and select **Currency Analysis**.



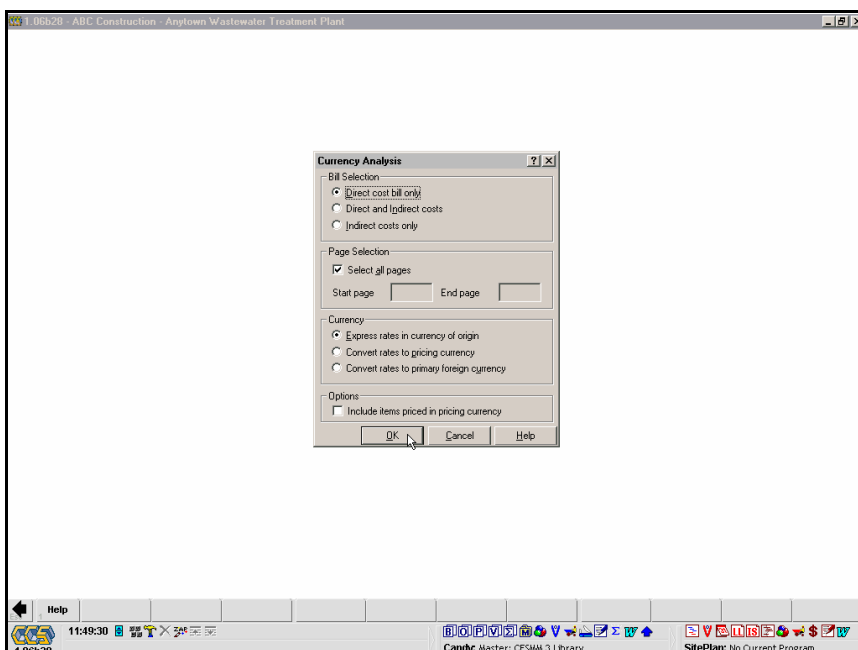
Currency Analysis

This report prints the job resources as separate lists for each foreign currency.

A selector is displayed with the following options :

Bill Selection

- **Direct cost bill only** - Select this option to base the report on the direct costs or measured works bill only.
- **Direct and indirect costs** - Select this option to base the report on both the direct costs bill and the indirect costs schedule.
- **Indirect costs only** - Select this option to base the report on the indirect costs schedule only.



Page Selection


- **Page range** - A CCS page range can be specified. Use **Select All Pages** to analyse the whole bill.

Currency

- **Express rates in currency of origin** - Select this option to print resource rates in their base currency, i.e.: the currency in which they are quoted.
- **Convert rates to pricing currency** - Select this option to print resource rates converted to the pricing currency.
- **Convert rates to primary foreign currency** - Select this option to print resource rates converted to the primary foreign currency.

Options

- **Include items priced in pricing currency** - Select this option to include resources that are priced in the pricing currency, otherwise the report only prints resources that are priced in a foreign currency.

Select the required options and use the  button.

The report prints, for each foreign currency and the pricing currency if selected a list of resources that have been priced in that currency.

The **Rates** and **Amounts** that are printed on this report are expressed in the **Currency of Origin**, the **Pricing Currency** or the **Primary Foreign Currency**, depending on the selection that was made on the report selector.

Tax Analysis

A report prints the **Tax** that is generated against **Resource Group Codes**, expressed in the pricing currency.

From the **Analysis Reports** menu select **Tax Analysis**.

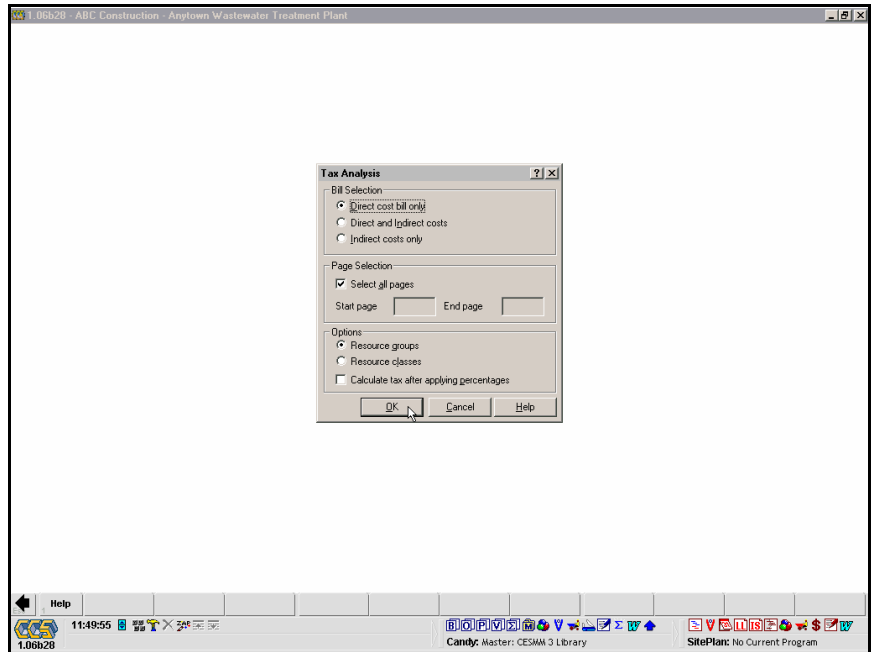
A selector is displayed with some of the same options that are described for the **Currency Analysis** report on sheet 23.07.

A further option is available:

- **Calculate tax after applying percentages** - Select this option to base the tax calculation after applying any positive or negative adjustments to the resources.

Select the required options and use the

button.



Trade Currency Analysis

This report looks something like a **Trade Totals Display**, showing the split between the **Pricing Currency** and the **Foreign Currencies**.

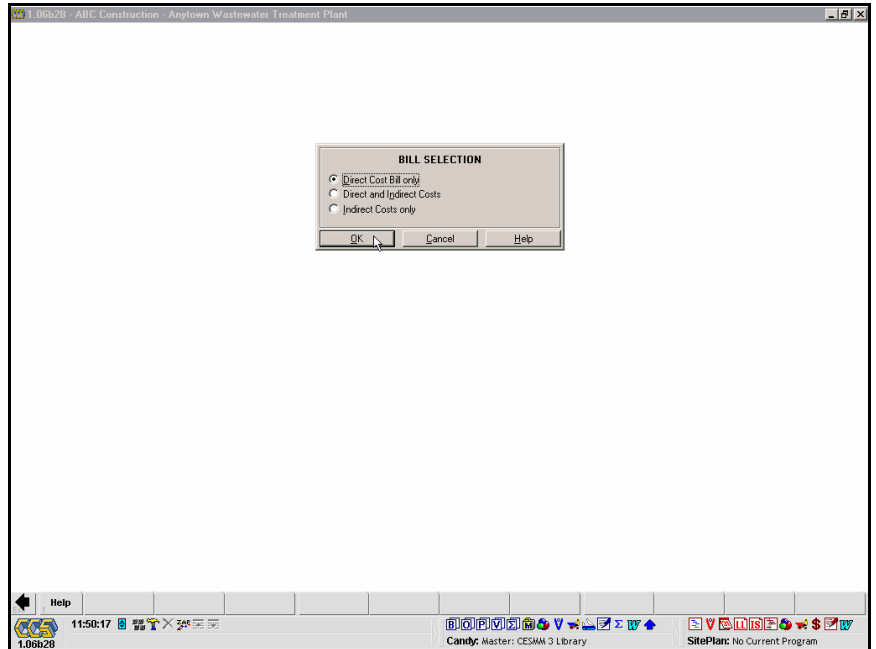
All the figures displayed on this report are expressed in the **Pricing Currency**.

From the **Analysis Reports** menu select **Trade Currency Analysis**.

A selector is displayed with some of the same options that are described for the **Currency Analysis** report on sheet 23.07.

Select the required options and use the

button.




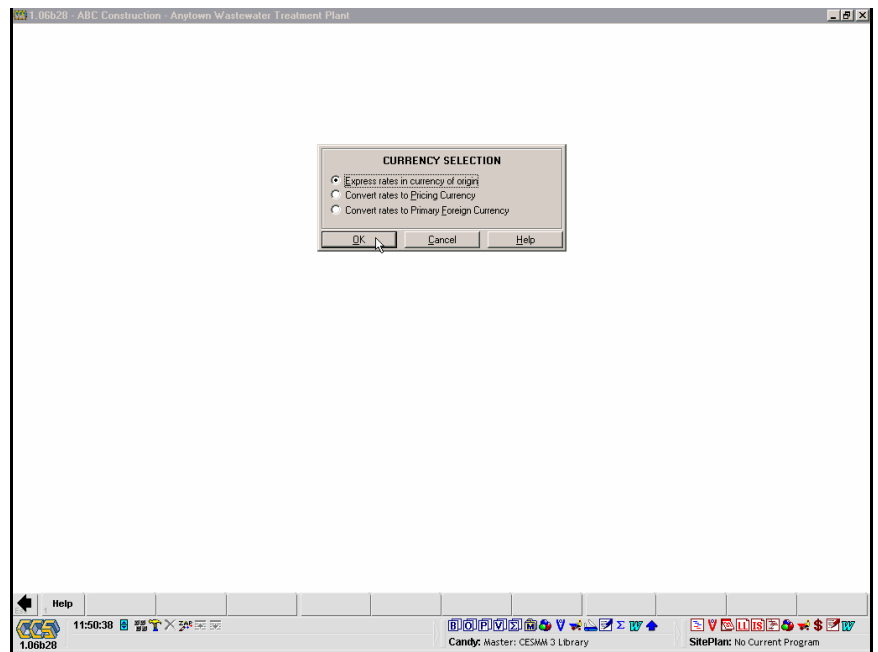
Resource Type Currency Analysis

This report prints the value for each foreign currency broken down into resource types.

From the **Analysis Reports** menu select **Resource Type Currency Analysis**.

A selector is displayed with some of the same options that are described for the **Currency Analysis** report on sheet 23.07.

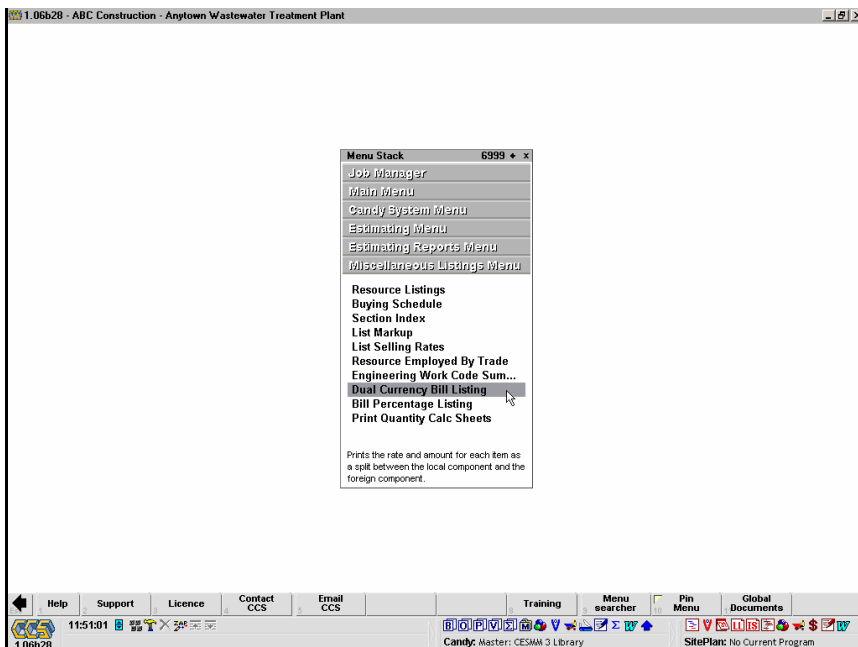
Select the required options and use the  button.



Dual Currency Bill Listing

A bill of quantities report which prints the **Rate** and **Amount** for each item as a split between the **Local** component and the **Foreign** component is available.

From the **CCS Menu** follow the path **Candy System** to **Estimating** to **Reports** to **Miscellaneous Listings** and select **Dual Currency Bill Listing**.




A selector is displayed with the following options :

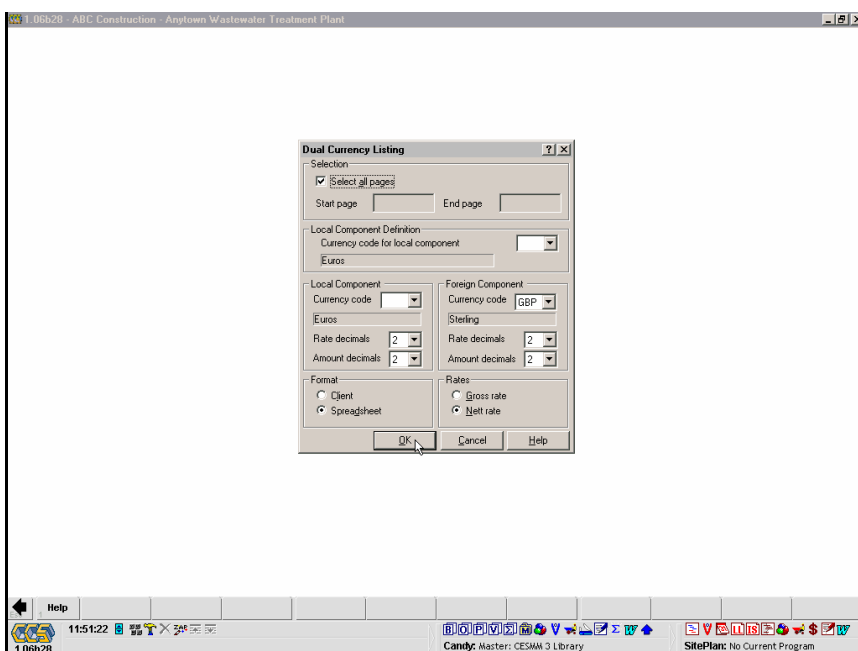
Page Selection

- **Page range** - A CCS page range can be specified. Use **Select All Pages** to analyse the whole bill.



Local Component Definition

- **Local component definition** - Use the  button to display a picklist of foreign currencies defined in the job, from which any one may be specified for the calculation of the local component - if left blank the pricing currency is used.



Note: The name of the selected currency is displayed in the panel.



Local Component

- **Currency code** - Use the  button to display a picklist of foreign currencies defined in the job, from which any one may be specified for the printing of the calculated local component - if left blank the pricing currency is used.
- **Decimalisation** - Use the  button to set the required decimalisation for **Rates** and **Amounts** for the local component.

Foreign Component


- **Currency code** - Use the  button to display a picklist of foreign currencies defined in the job, from which any one may be specified for the printing of the calculated foreign component - if left blank the pricing currency is used.
- **Decimalisation** - Use the  button to set the required decimalisation for **Rates** and **Amounts** for the foreign component.

Format

- **Client format** - Select this option to print the report without each value broken down into resource types.
- **Spreadsheet format** - Select this option to print the report with each value broken down into resource types.

Rates

- **Gross rate** - Select this option to base the report on the gross rate.
- **Nett rate** - Select this option to base the report on the nett rate.

Select the required options and use the  button.

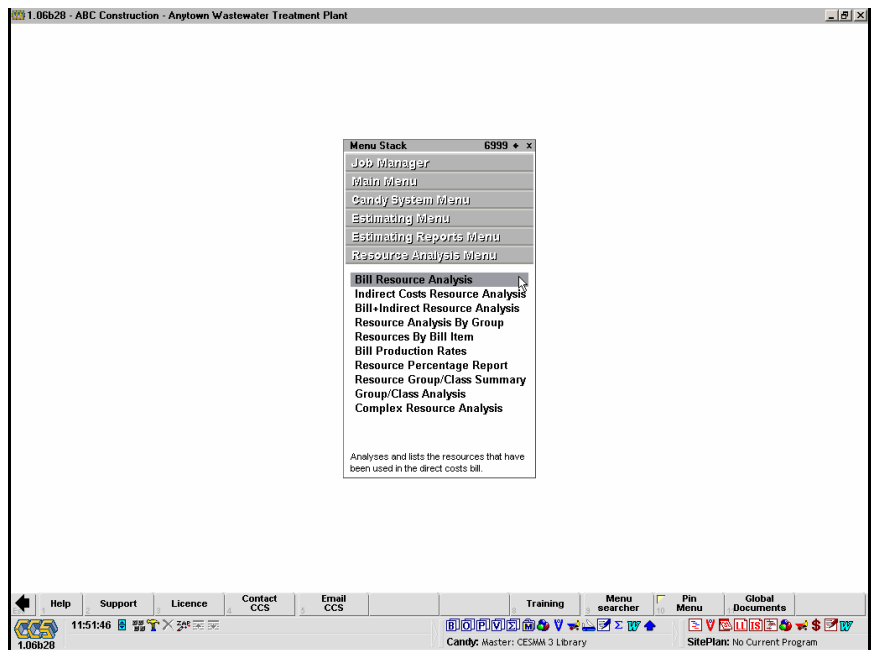
*Note: A dual currency bill can also be produced using the **Candy Report Writer**. Refer to **Candy Manual Section 17-***

Report Writer for more information.

Resource Reports

Any of the standard system reports can be expressed in the **Primary Foreign Currency**.

From the **CCS Menu** follow the path **Candy System** to **Estimating** to **Reports** to **Resource Analysis** and select **Bill Resource Analysis**.

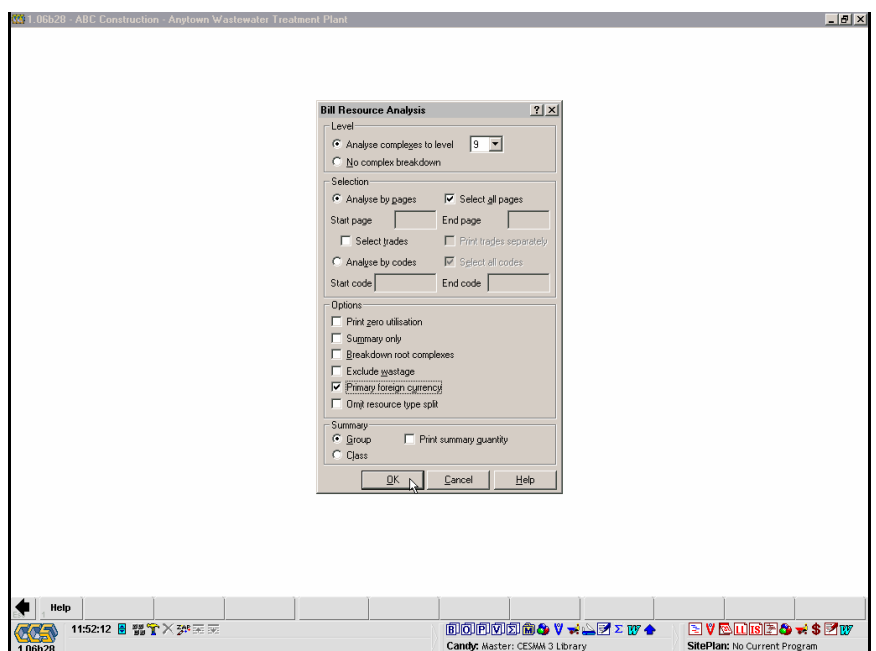


The Bill Resource Analysis Selector is displayed on which various options are available.

In the **Options** section of the selector, if you select **Primary Foreign Currency**, the monetary information on the report is expressed in the Primary Foreign Currency.

If this option is not selected, the monetary information on the report is expressed in the Pricing Currency.

Use the **OK** button to continue.



*Note: Refer to **Candy Manual Section 16-Reporting** for more information about the options that are available on this report.*

A further selector is displayed.

Use the **▼** button to select the required decimalisation to which the reported rates should be rounded.

Use the **OK** button to print the report.

Note: This option is not available for worksheet reports and generally not available for valuation reports.

