RECOMP II USERS' PROGRAM NO. 1128

PROGRAM TITLE: PRICE BREAKDOWN PROGRAM

PROGRAM CLASSIFICATION: General

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PURPOSE: To compute and type a cost proposal
                                price breakdown with variable con-
                                tents; to accumulate any number of
                                individual price breakdowns for
                                deferred type-out.

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PURPOSE

To compute and type a cost proposal price breakdown with variable contents;
to accumulate any number of individual price breakdowns for deferred type-out.

METHOD

The program accepts cost entries related to manufacturing operations, com-
putes, rounds and stores dollar extensions ready for type-out. After all
the cost elements are entered and computed, the program will type out a
summary of the estimated costs of the various operations and the estimated
total price followed by an explanatory paragraph describing the pro-ration
feature of the program. The price breakdown may then be typed out. Totals
of the figures may be accumulated and typed and the grand total computed
and typed.

When the primary price breakdown is completed, other price breakdowns may be
entered one at a time and typed out under secondary headings.

A concept of the scope of the price breakdown is obtained by a consideration
of the cost entries. The kinds of costs which may be entered into the pro-
gram are:

Fabrication Costs	Publication Costs
Tooling Costs	Parts Stability Costs
Engineering Costs	Quality Verification Testing Costs
Logistics Costs	Packaging and Crating Costs

For each cost category the program will type call-outs for cost elements to
be entered.

These include labor costs:

> hours
>
> labor rate
>
> burden rate or off-site burden percentage
>
> direct expense planning percentage
>
> off-site labor

For material costs the elements are entered as:

> material dollars or percentage of dimensional tooling labor dollars
>
> material procurement cost rate

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Input for General and Administrative costs and profit include:

> special items bearing G & A
>
> special items without G & A, with profit applied
>
> G & A and profit without special items
>
> G & A percentage
>
> profit percentage

OPERATING INSTRUCTIONS

1. **Preliminary Preparations**

    1.1. Set left margin at 10.

    1.2 Set tabs at 25, 35, 55, and 65.

    1.3 Load program tape. This will fill locations 0000_8 through 1777$_8$ and 5000_8 through 7177_8.

    1.4 Turn Sense Switch D ON (down), press START 1 button. The 2000/3000/4000 data regions are zeroed; the typewriter will execute a letter shift and carriage return; the ALPHA light on the console will come on. These commands are displayed: +6046600 1 0077660.

    1.5 Turn Sense Switch D OFF (up).

2. **Typing the Page Headings**

    2.1 Enter as the first two characters the appropriate shift (press either the LETTER SHIFT or the FIGURE SHIFT key) and a carriage return (press the CARRIAGE RETURN key). Type the primary page heading. Each time the computer reads in 8 characters, the "4660" address in the display register is incremented by one.

    2.2 If an error is made within an 8 character group:

    2.2.1 Turn Switch B ON (down).

    2.2.2 Strike the x key slowly until the display register clears. If 8 x's are typed before the display clears, it will be necessary to begin the program over.

    2.2.3 Turn Switch B OFF (up).

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      2.2.4 Type a character, any character, then count back from the 8th to the 1st character and re-type that part of the heading again.

2.3   To terminate the primary page heading, depress the BLANK key slowly until the address displayed on the left side of the register is incremented by one (to complete the alpha package). Then depress the BLANK key 8 more times.

2.4   Type a secondary page heading the same way. If a secondary page heading is not required, depress the BLANK key slowly until the display register clears, then depress the BLANK key 8 more times.

3.   **Input of Data**

After the secondary heading is entered, the display register will clear and the computer will halt at location 7762.1 with the ALPHA light on.

3.1   Type any one of the following three-character codes:

    FAB to enter Fabrication Costs
    TLG to enter Tooling Costs
    ENG to enter Engineering Costs
    LOG to enter Logistics Costs
    PUB to enter Publication Costs
    PSC to enter Parts Stability Costs
    QVT to enter Quality Verification Testing Costs
    PCC to enter Packaging and Crating Costs

3.2   If any other combination of letters are typed, the typewriter will print ERROR and will wait for one of the correct codes in Step 3.1 to be typed.

      3.2.1 If more than three characters (including space, tab, blank, etc.) are typed, the computer will reject the entry. Enter the correct code as follows:

        a.   Press the ERROR RESET button on the Console.

        b.   Turn Switch D ON (down).

        c.   Press START 2 button.

        d.   Turn Switch D OFF (up).

        e.   Type the code.

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3.3   Call-Outs of Cost Elements (see Program Control Locations
for method of skipping cost element call-outs).

The computer will type a call-out for each cost element in
the category selected. Wait until the typewriter types a
figure shift, the ALPHA light on the console comes on, and
the location counter shows 7760.1.

3.3.1   Type a "1" if the cost element is to be entered.
(Exception: See Step 3.3.6.) Type a "∅" if the
cost element is to be by-passed.

3.3.2   All cost elements are typed and entered with the
space bar. <u>Wait</u> for the computer to figure shift
between each entry of a cost element.

3.3.3   For labor costs enter the elements in this order:

hours
labor rate
burden rate or off-site burden percentage
direct expense planning percentage

a.   On off-site labor the typewriter will make
a carriage return and type T & S. Enter
travel and subsistence dollars directly.

3.3.4   For material costs, enter:

material dollars
for tooling material - the percentage of dimensional
   tooling labor dollars
material procurement cost rate

3.3.5   For other entries - enter the dollar value directly
if the cost element is wanted.

3.3.6   For SPECIAL entries - if a "1" is typed to enter the
element, the typewriter will letter shift and make a
carriage return.

a.   Type the alpha entry.

b.   Depress the FIGURE SHIFT key and tab:
to 55 if hours
to 65 if dollars.

c.   Depress the BLANK key (to terminate the alpha
package) until the address on the left side of
the display register is incremented by one.

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     d.   Depress the BLANK key 8 more times.

     e.   Type numbers.

3.3.7 Input of G & A and Profit, with Special Items.

     a.   Type XXX to permit entry of special items bearing G & A. Enter the items as described in Step 3.3.6.

     b.   Type XXX for entry of special items without G & A but with profit applied.

          (1)   For the alphabetic information of the first item only - type a carriage return preceding the alphabetic information. (This preserves the spacing between G & A and the sub-total.)

          (2)   Terminate alpha entries and enter numbers as described in Steps c through e of 3.3.6.

          (3)   The program will type G & A PERCENT. Enter G & A percentage.

          (4)   The program will type FEE PERCENTAGE. Enter profit percentage. If the profit is a fixed dollar amount, enter a zero.

          (5)   The program will type FEE. Enter the dollar amount of profit.

     c.   Type YYY for entry of G & A and profit without the call-outs for special items.

          (1)   Continue with Step 4 (Step 3.3.8 is by-passed).

3.3.8 Ending of Input.

     a.   The program will type out a summary of the estimated total cost of the proposal, followed by an explanatory paragraph describing the pro-ration feature of the program.

     b.   Type Ø to preserve the existing figures for type-out, or type the prorate figure, and the computer will prorate to that figure.

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4.   <u>To Obtain Type-Out of Price Breakdown</u>   (Type-out begins in location
                                                          5140.0)

  4.1   Turn Sense Switches B, C, and D OFF (up).

  4.2   Press START 2 button.

  4.3   To halt the type-out (to start a new page, etc.):

        Turn Sense Switch C ON (down) while the program is typing
        the last entry selected.

        The typewriter will make a carriage return, and the program
        will halt at 5250.0.

  4.4   To continue the program:

        4.4.1 Turn Sense Switch C OFF (up).

        4.4.2 Depress the START key on the console.
               The program repeats the heading and continues with
                 the price breakdown.

5.   <u>To Correct a Section of The Price Breakdown</u>   [Must be done before
                                                          accumulating totals
                                                          (Step 6)]

  5.1   Turn Switch D ON (down).

  5.2   Press START 2 button.

  5.3   Turn Switch D OFF (up).

  5.4   Re-enter the section to be corrected beginning with Step 3.1.

  5.5   Re-enter G & A and Profit.

6.   <u>Accumulate Totals</u>

  6.1   Turn Sense Switches B, C, and D OFF (up).

  6.2   Press START 3 button.

  6.3   When completed, computer will halt at 0002.0.

7.   <u>To Obtain Type-Out of Accumulated Totals</u>

  7.1   Turn Sense Switches B, C, and D OFF (up).

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7.2   Press START 2 button.

8.   **To Obtain Type-Out of The Grand Total**

8.1   Turn Sense Switches B, C, and D OFF (up).

8.2   Press START 1 button.

8.3   Press ERROR RESET button.

8.4   Turn Switch D ON (down).

8.5   Press START 2 button. The typewriter carriage will return.

8.6   Turn Switch D OFF (up).

8.7   Type TOT. The total is intact after this operation and may be added to if desired.

8.8   Wait until the lights on the location counter remain stationary.

8.9   Press START 2 button.

9.   **To Enter Another Price Breakdown**

9.1   Turn Sense Switches B, C, and D OFF.

9.2   Press START 1 button. The program returns to the entry of the secondary heading after zeroing the 2000 portion of memory.

10.   **To Obtain Type-Out of The Grand Total When a Secondary Heading is Required**

10.1   Turn Sense Switches B, C, and D OFF (up).

10.2   Press START 1 button.

10.3   Type secondary heading.

10.4   When the typewriter carriage returns, type TOT. The total is intact after this operation, and may be added to if desired.

10.5   Wait until the location counter lights are stationary.

10.6   Press START 2 button.

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USE OF MEMORY

0000-0007	Start Switches
0010-0207	AN007.1
0210-0337	Program
0340-0467	Not Used
0470-1777	Program
2000-2657	Hrs/Dollars for PB entered
2660-2777	Temporary Storage for Hrs. and Rates
3000-3777	Storage for Special Alpha
4000-4657	Storage for Total Hrs/Dollars
4660-4777	Alpha for Heading
5000-5777	Program
6000-6517	Alpha
6520-7077	Program
7100-7127	AN001
7130-7177	Program
7200-7757	Not Used

Special programs used in conjunction with the major program to utilize
sub-routines within the major program may be written in locations 7200_8
through 7757_8. A transfer to the beginning of such programs is in
location 7363.0. To enter the special program turn Sense Switch D on.
Press START 3 button.

PROGRAM CONTROL LOCATION

If it is desired to skip call-outs of cost elements in a given category and
yet preserve the figures already entered in that category, set the location
counter on the console to the terminal location of that category by:

1.   Depressing the ERROR RESET button.

2.   Depressing the L key on the console.

3.   Typing the terminal location.

4.   Depressing the ENTER key.

5.   Depressing the START button. When the ALPHA light comes on, another
      cost element code may be typed (Step 3.1).

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	Input	Termination
FAB	1006.0	1140.0
TLG	1150.0	1223.0
ENG	1261.0	1334.0
LOG	1375.0	1431.0
PUB	1452.0	1502.0
PSC-FAB	1522.0	1542.0
PSC-TLG	1555.0	1600.0
PSC-ENG	1615.0	1622.0
PSC-P/C	1626.0	1634.0
QVT	1645.0	1661.0
P/C	1674.0	1706.0
XXX	1716.0	
YYY	1754.0	
TOT	7047.0	