

27. *Program Design - Coding from Structure Diagrams (Iteration)*

Use the method shown in lesson 23 to turn the structure diagram into COBOL code.

1. Make up a paragraph name corresponding to each rectangle on your diagram - giving the top rectangle a name to indicate that it is the main one. There are two rectangles in the Example 1 structure diagram from the previous lesson - so suitable paragraph names might be:

```
PRODUCE-MESSAGE-SCREEN-MAIN.  
and  
PRODUCE-MESSAGE-LINE.
```

2. Fill the main paragraph with code telling it to carry out *the task immediately below it* the required number of times - then finish off with a STOP RUN.

From the structure diagram - the main task (produce a screen of 'hello's) consists of repetitively producing a single line - so this is what needs to be said in the main paragraph. The whole job has been summarised by this statement so STOP RUN can follow.

```
DISPLAY-MESSAGE-SCREEN-MAIN.  
    PERFORM DISPLAY-MESSAGE-LINE 24 TIMES  
STOP RUN.
```

3. Fill the next paragraph with COBOL statements so that it will do the job required (i.e. display the message line 'hello').

```
DISPLAY-MESSAGE-LINE.  
    DISPLAY 'HELLO'.
```

Exercise

Produce programs from the structure diagrams you produced for the previous exercises (Lesson 26). For Question 2 - make the computer display the 100 lines on the screen.