

## **TPI AUDIO TAPESCRIPTS**

### **Unit 24 Task 2**

I'd like to begin the course by giving you a very basic overview of the programming process. We'll then move on to the details. So, to write a program, we normally follow these steps.

A program usually provides a solution to a given problem. For example, how to calculate wages and income tax in a big company. First of all, you have to understand exactly what the problem is and define it clearly. This means you have to decide in a general way how to solve the problem. The next step is to design a step by step plan of instructions. This usually takes the form of a flowchart, a diagram that uses special symbols to show how the computer works through the program, where it makes decisions, where it starts and ends, where data is input, things like that. Next you write the instructions in a programming language like Basic, Pascal or C. These computer instructions are called source code. Then you have to use a compiler, a special program that converts the source code into machine code, the only language understood by the processor which consists of ones and zeros.

Once you've written the program, you have to test it with sample data to see if there are any bugs or errors. The process of correcting these errors is called debugging. Computer programmers have to find the origin of each error, write the correct instructions, compile the program again and test it until it works correctly.

Finally, you have to write program documentation, a detailed description of how to use the program. A great program is not much good if people don't know how to use it.