

# Appendix E

## Fast and efficient programs

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### Programming

The book which accompanies this one, *Start Programming with the Electron*, is intended as a guide to writing programs in Electron BASIC. Once you start writing your own programs, however small they may be, please make good use of the *Start Programming with the Electron* book. It will help you to develop a good style and help you to avoid getting into bad habits. You will find the programs referred to in the book on the Introductory Cassette.

### Speeding up programs

There may be times where the program must run as quickly as possible, and here are a few tips for increasing execution speed.

- Use integer variables rather than real variables whenever possible.
- Use integer division (**DIV**) rather than normal division (/).
- Use integer arrays rather than real arrays.
- Start your variable names with different letters of the alphabet.
- Omit the control variable after the instruction **NEXT**.
- **REPEAT...UNTIL** loops are faster than **IF...THEN GOTO** loops.
- Use procedures instead of **GOSUBs**.
- Use as few line numbers as possible by using a colon to separate each statement.
- Leave out as many spaces as possible, without confusing the computer.
- Omit **REM** statements.

Some of these tips will have the effect of making your programs less readable. This is not a good thing, but in cases where speed is all important, you may find that you will have to reach a compromise between readability and execution speed.