



Popular programs for learning in school or at home

"turtle2"Modifications by Richard Bignell

This new implementation of "turtle" for the 16K Spectrum is for more advanced use than the original. It works in high-resolution graphics rather than low and includes some more commands. This sheet describes the differences.

COMMAND MENU

Option 1 is now LOAD/HELP and supplies a summary of the instructions allowed in practice mode and "turtle" routines. Use it too to load "turtle" routines from tape.

INSTRUCTIONS

- drawnnn - moves nnn pixels in current direction, leaving a trail
- wipennn - moves nnn pixels in current direction, erasing lighted pixels met
- bendnnn - gives circle round current position, radius nnn pixels
- jumpnnn - jumps a distance of nnn pixels without trail or erasure
- turnnnn - turns right (clockwise) by nnn degrees
- leftnnn - turns left (anticlockwise) by nnn degrees
- pencn - as in basic version (but take care with Spectrum hrg colour restrictions)
- hootn - as in basic version
- incrnnn - step size nnn in "draw" instructions in loops (see sample "demo2")
- *n - as in basic version (nesting not permitted)
- use*n - as in basic version
- end*n - as in basic version
- reptn - as in basic version
- endr, endp, stop - as in basic version

OTHER NOTES

Error-checking in "turtle" routines - syntax checked on entry, validity checked on execution. For instance, attempts to leave screen window are trapped to prevent BASIC crash.

"Break" during execution is obtained by holding down red shift STOP. You then return to the menu.

Practice after RUN (without clearing the screen) is obtained by pressing "0" rather than ENTER. ENTER returns you to the menu as in the basic version.

Edit by number now exists to enable you to

- change a single line without passing through the whole listing;
- place * sub-routines away from the main program lines.

Re-start with RUN (clears) or GO TO 70.

Otherwise the existing notes stand.

Sample turtle routines are supplied on the tape. Access through menu command 1; titles are "star", "demo1", "demo2".