```
100 {*********************************************************************}
110 {*    HISOFT SPRITES                 Version 1.0                    *}
120 {*                          by Alwin Ertl                          *}
130 {*********************************************************************}
140
150 PROGRAM drawblock;
160
170   CONST
180     breite = 20;
190     hoehe = 40;
200     maxsprites = 10;
210
220   TYPE
230     sprite = PACKED ARRAY [1..hoehe,1..breite] OF boolean;
240     spritearray = PACKED ARRAY [1..maxsprites] OF sprite;
250     spritestr = PACKED ARRAY [1..breite] OF char;
260
270   VAR
280     spr : spritearray;
290
300   PROCEDURE line (s, z: integer; shape : spritestr);
310     VAR
320       i : integer;
330     BEGIN
340     FOR i := 1 TO breite DO
350       IF shape[i] = ' '
360         THEN
370           spr [s][z,i] := false
380         ELSE
390           spr [s][z,i] := true
400     END;
410
420   PROCEDURE mirrorleft (s : integer);
430     VAR
440       i, j : integer;
450     BEGIN
460     FOR i := 1 TO hoehe DO
470       FOR j := 1 TO breite DIV 2 DO
480         spr [s][i,breite-j+1] := spr [s][i,j]
490     END;
500
510   PROCEDURE mirrortop (s : integer);
520     VAR
530       i : integer;
540     BEGIN
550     FOR i := hoehe DOWNTO hoehe DIV 2 DO
560       spr [s][hoehe-i+1] := spr [s][i]
570     END;
580
590   PROCEDURE invert (s : integer);
600     VAR
610       i, j : integer;
620     BEGIN
630     FOR i := 1 TO hoehe DO
640       FOR j := 1 TO breite DO
650         spr [s][i,j] := NOT (spr[s][i,j])
660     END;
670
680   PROCEDURE initsprites;
690     VAR
```

```
700        i, j, k : integer;
710      BEGIN
720      FOR i := 1 TO maxsprites DO
730        FOR j := 1 TO hoehe DO
740         FOR k := 1 TO breite DO
750           spr [i][j,k] := false
760      END;
770
780
790    PROCEDURE gpen (z : integer);
800      BEGIN
810      ra := chr(z);
820      user (#bbde) [gra SET pen]
830      END;
840
850    PROCEDURE plotd (x, y : integer);
860      BEGIN
870      rde := x; rhl := y;
880      user (#bbea) [gra plot absolute]
890      END;
900
910
920    PROCEDURE setsprite (s, x, y, vfak : integer; hg : boolean);
930      VAR
940       i,j,k,l, xh,yh : integer;
950      BEGIN
960      yh := y;
970      FOR i := 1 TO hoehe DO
980        BEGIN
990         xh := x;
1000        FOR j := 1 TO breite DO
1010         BEGIN
1020          IF spr [s][i,j]
1030            THEN
1040             BEGIN
1050              gpen (1);
1060              FOR k := 0 TO vfak-1 DO
1070                FOR l := 0 TO vfak-1 DO
1080                 plotd (xh+k,yh+2*l);
1090             END
1100            ELSE
1110             IF NOT hg
1120               THEN
1130                BEGIN
1140                 gpen (0);
1150                 FOR k := 0 TO vfak-1 DO
1160                   FOR l := 0 TO vfak-1 DO
1170                    plotd (xh+k,yh+2*l);
1180                END;
1190          xh := xh + vfak
1200         END;
1210        yh := yh + 2*vfak
1220        END;
1230      gpen (1);
1240      END;
1250
1260 BEGIN
1270   page;
1280   initsprites; writeln ('Sprites initialisiert!');
1290   line (1,40,'           *           ');
```

```
1300  line (1,39,'          *              ');
1310  line (1,38,'          **             ');
1320  line (1,37,'          **             ');
1330  line (1,36,'          ***            ');
1340  line (1,35,'          ****           ');
1350  line (1,34,'          ****           ');
1360  line (1,33,'          *****          ');
1370  line (1,32,'          *****          ');
1380  line (1,31,'          *****          ');
1390  line (1,30,'          ******         ');
1400  line (1,29,'          *******        ');
1410  line (1,28,'          *******        ');
1420  line (1,27,'          ********       ');
1430  line (1,26,'          ********       ');
1440  line (1,25,'          ********       ');
1450  line (1,24,'         *********       ');
1460  line (1,23,'         *********       ');
1470  line (1,22,'*********                ');
1480  line (1,21,'*********                '); writeln ('Sprite 1 teildefiniert');
1490  mirrorleft (1); writeln ('nach rechts');
1500  mirrortop (1); writeln ('und unten gespiegelt.');
1510  setsprite (1,10,10,1,true);
1520  setsprite (1,100,10,2,true);
1530  setsprite (1,300,10,3,true);
1540  setsprite (1,450,10,4,false)
1550  END.
```