

Listing 1 - The squash program

```
10 MEMORY 85000:location=89030:ES="ERROR
   IN "
20 GOSUB 500:IF checksum <> 1528 THEN P
   RINT ES;"1"
30 GOSUB 500:IF checksum <> 1320 THEN P
   RINT ES;"2"
40 GOSUB 500:IF checksum <> 2488 THEN P
   RINT ES;"3"
50 GOSUB 500:IF checksum <> 1831 THEN P
   RINT ES;"4"
60 GOSUB 500:IF checksum <> 5360 THEN P
   RINT ES;"5"
70 GOSUB 500:IF checksum <> 1611 THEN P
   RINT ES;"6"
80 GOSUB 500:IF checksum <> 806 THEN P
   RINT ES;"7"
100 GOSUB 500:IF checksum <>10394 THEN P
   RINT ES;"8"
120 GOSUB 500:IF checksum <>13339 THEN P
   RINT ES;"9"
199 END:'*****
      *****
500 checksum=0:code$="":READ code$
510 WHILE code$<>"-1":number=VAL("&" +cod
   e$)
520 POKE location,number:location=locati
   on+1
530 checksum=checksum+number:READ code$:
   WEND:RETURN
999 END:'*****
      *****
1000 '1*****CLEAR all BUFFERS
   to ZERO*****
   *
1010 DATA 21,0,90,3e,0,77,23,77,23,77,1,
   0,4,21,0,93,36,0,23,b,78,b1,20,f8,-
   1
1020 '-----
2000 '2*****CHECK for FREE NU
   MBERS*****
2010 DATA 1,0,40,21,0,c0,16,93,7e,5f,12,
   23,b,78,b1,20,f7,-1
2020 '-----
3000 '3*****RETURN if to few
   POINTERS*****
3010 DATA 16,0,21,ff,93,6,ff,7e,fe,0,20,
   1,14,2b,10,f7,7a,fe,0,c8,fe,1,c8,-1
3020 '-----
4000 '4*****PUT MARKERS to BU
   FFER..9001/3*****
4010 DATA 3e,7,cd,5a,bb,21,1,93,6,2,11,1
   ,90,7e,fe,0,20,6,7d,12,13,5,28,3,23
4020 DATA 18,f2,-1
4030 '-----
5000 '5*****COPY MODE,OFFSET
   & COLOURS*****
5010 DATA cd,b,bc,22,5,90,21,0,0,cd,5,bc
   ,cd,11,bc,32,4,90,21,a,90,e5,cd
5020 DATA 3b,bc,e1,70,23,71,23,3e,10,f5,
   e5,cd,35,bc,e1,f1,70,23,71,23,3d
5030 DATA fe,0,20,f0,-1
5040 '-----
6000 '6*****CREATE 400 BLOCK
   of SCREEN ADDRESSES*****
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6010 DATA 6,c8,11,0,94,21,0,c0,7d,12,13,
7c,12,13,cd,26,bc,10,f5,-1
6020 '-----
7000 '7*****CREATE 200 BLOCK*
*****
7010 DATA 21,0,93,6,c8,75,23,10,fc,-1
7020 '-----
8000 '8***** COMPARE THE LINES
8010 DATA 21,0,93,e5,21,1,93,dd,21,0,94,
fd,21,2,94,dd,46,1,dd,4e,0,fd,56,1
8020 DATA fd,5e,0,7d,be,20,11,e5,c5,e1,6
,50,1a,be,20,9,13,23,10,f8,e1,c1,71
8030 DATA c5,e5,e1,7d,fe,c7,20,16,e1,7d,
fe,c6,28,17,dd,23,dd,23,23,7d,be,20
8040 DATA f2,e5,dd,e5,fd,e1,18,c2,fd,23,
fd,23,23,18,bb,-1
8050 '-----
9000 '9***** SQUASH THE LINES
9010 DATA 11,0,90,3e,1,12,1b,1,0,c8,dd,2
1,0,94,fd,21,0,93,d5,dd,66,1,dd,6e,
0
9020 DATA fd,7e,0,b9,20,62,c5,1,50,0,11,
0,96,ed,b0,3a,1,90,32,50,96,c1,d1,c
5
9030 DATA 21,0,96,3e,0,32,7,90,6,1,7e,23
,4f,3a,1,90,be,28,32,79,be,20,3,4

9040 DATA 18,f1,4f,78,fe,3,28,15,fe,2,28
,11,fe,1,28,d,3a,2,90,12,1b,78,12,1
b
9050 DATA 79,12,1b,18,5,79,12,1b,10,fc,3
a,7,90,fe,63,28,c,18,c5,18,9c,3e,63
9060 DATA 32,7,90,79,18,cd,c1,18,b,d1,3a
,1,90,12,1b,fd,7e,0,12,1b,dd,23,dd,
23
9070 DATA fd,23,c,10,df,ed,53,8,90,c9,-1

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Listing 2 - The Unsquash program

```
10 MEMORY &5000:location=&9200
1000 checksum=0:code$="":READ code$
1010 WHILE code$<>"-1":number=VAL("&" + code
    $)
1020 POKE location,number:location=location+1
1030 checksum=checksum+number:READ code$:W
    END
1040 IF checksum <> 15781 THEN PRINT "Error
    in DATA !"
13000 '***** UNSQUASH THE DATA (Call &9200)*****
    *
13010 DATA 3a,4,90,cd,e,bc,21,0,0,cd,5,bc,
    21,a,90,46,23,4e,23,e5,cd,38,bc,e1
13020 DATA 3e,10,f5,46,23,4e,23,e5,cd,32,b
    c,e1,f1,3d,fe,0,20,f0,21,ff,8f,dd,21
13030 DATA 0,90,11,0,c0,e,c8,d5,6,50,7e,dd
    ,be,1,28,34,dd,be,2,20,18,2b,c5,4e,2
    b
13040 DATA 7e,12,13,5,d,79,fe,0,20,f6,78,c
    1,47,2b,fe,0,20,df,18,5,12,13,2b,10
13050 DATA d8,d1,d,79,fe,0,28,25,e5,62,6b,
    cd,26,bc,54,5d,e1,18,c3,c5,2b,46,4,e
    5
13060 DATA 21,0,c0,cd,26,bc,10,fb,cd,29,bc
    ,1,50,0,ed,b0,e1,2b,c1,18,d4,2a,5,90
13070 DATA cd,5,bc,c9,-1
13080 '-----
    ,
```

Listing 3 - Program to calculate the length of the file

```
10000 '***** CALCULATE START ADDRESS &  
      LENGTH OF SQUASHED FILE *****  
      **  
10010 lsb=PEEK(&9008):msb=PEEK(&9009):re  
      sult=msb*256+lsb  
10020 total=36912-result:PRINT"Memory us  
      ed = ";total  
10030 PRINT "Press <ENTER> to SAVE to TA  
      PE"  
10040 PRINT "Any other key to END"  
10050 WHILE get$="":get$=INKEY$:WEND  
10060 IF get$ <> CHR$(13) THEN END  
10070 LINE INPUT"Enter file name ";file$  
10080 SAVE "!" + file$,B,result,total  
10090 '-----
```