CET

Council for Educational Technology

Our Ref: VT/JEH/G170   7 November 1980

Dear Colleague,

Telesoftware Standards Meeting

CET has been working with manufacturers, users, and other
interested agencies, to prepare an interim standard for
the reception and transmission of teleosftware via Prestel.
The first attempt at this was discussed at a meeting here
at CET on 26th September. A second draft has now been
written, and is enclosed together with a note from its
author, Mike Brown. You may like to coment on this
and I would ask you to let me have your replies by the
5th December after which date a final document will be
prepared for wider circulation.

Yours sincerely,

Vincent Thompson
Programme Manager

Encls

FORMAT STANDARDS FOR PRESTEL TELESOFTWARE Second Draft

Although the enclosed Second Draft may appear radically different
from the First Draft the changes are largely cosmetic except for
the minor alterations which were agreed at the meeting on Friday
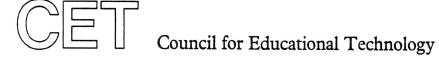26th September 1980 at CET. These were as follows:-

1 ESCAPE SEQUENCES Escape sequences have been introduced to
     indicate end-of-line, end-of-file, start-of block and
     end-of-block.

2 REMOVAL OF SPACES Since spaces are treated by Prestel as
     special characters they are now replaced by the character $\frac{3}{4}$
     wherever they occur in a source file.

3 ERROR DETECTION The single Block Check Character has been
     replaced by a Block Check Word of three similar characters
     to improve error detection.

4 HEADER INFORMATION Line 23 of the START FRAME now contains the
     number of BLOCKS (ie. Frames) in the converted source file as
     well as the filename. This line may be checked for errors.

5 SIZE OF FILES The size of the source file is now unlimited.

6 TIME OUT The Time Out interval has been increased to 2 seconds.

Yours faithfully,

Mike Brown EDITOR
PRESTEL EDUCATIONAL UMBRELLA SERVICE
COUNCIL FOR EDUCATIONAL TECHNOLOGY FOR THE UNITED KINGDOM

FORMAT STANDARDS
for
PRESTEL TELESOFTWARE

Second Draft

Mike Brown   October   1980

CET Council for Educational Technology

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2. File Conversion

Certain characters in the source file must be replaced and other characters added before the file may appear on Prestel.

2.1   An ESCAPE SEQUENCE consists of a pair of CHARACTERS the first of which is ¶(ASCII 124) called the ESCAPE CHARACTER, hereafter denoted by ESC.

2.2   Each occurence in the SOURCE FILE of the CHARACTER SPACE (ASCII 32) is replaced by the CHARACTER $\frac{3}{4}$ (ASCII 125).

2.3   Each occurence in the SOURCE FILE of the CHARACTER $\frac{3}{4}$ (ASCII 125) is replaced by the ESCAPE SEQUENCE ESC-$\frac{3}{4}$ (ASCII 125).

2.4   Each occurence in the SOURCE FILE of the   ESCAPE CHARACTER is replaced by the ESCAPE SEQUENCE ESC-E (ASCII 69).

2.5   The ESCAPE SEQUENCE ESC-L (ASCII 76) is inserted after each LINE in the SOURCE FILE.

2.6   The ESCAPE SEQUENCE ESC-F (ASCII 70) is inserted after the last ESC-L (ASCII 76) in the SOURCE FILE.

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4. Organisation on Prestel

4.1   Converted SOURCE FILES will appear on Prestel as sequences of Prestel frames beginning with a START FRAME.

4.2   A START FRAME must be the first frame of a Prestel page.

4.3   Each converted SOURCE FILE has a HEADER LINE consisting of the following sequence of CHARACTERS:-
   a)   The name of the SOURCE FILE (maximum 12 characters).
   b)   The ESCAPE SEQUENCE ESC-L.
   c)   The number of BLOCKS in the converted SOURCE FILE.

4.4   Line 23 of the START FRAME contains the ESCAPE SEQUENCE ESC-A, the HEADER LINE, the ESCAPE SEQUENCE ESC-Z followed by a LINE CHECK COUNT.

4.5   The LINE CHECK COUNT   is a CHARACTER c such that:-

$$\text{ASCII}(c) = \left[\sum_{r=m}^{r=1} \text{ASCII}(v_r) \right] .\text{AND}.63 + 33.$$

   where   m is the number of CHARACTERS in the HEADER LINE
           v_i is the ith CHARACTER in the HEADER LINE

4.6   The first BLOCK of a converted SOURCE FILE appears on the "b" frame of the page which contains its HEADER LINE on frame "a".

4.7   Subsequent BLOCKS appear on subsequent continuation frames. If the number of BLOCKS exceeds 25 then the zero route from the "z" frame will point to the page containing following blocks of the file.