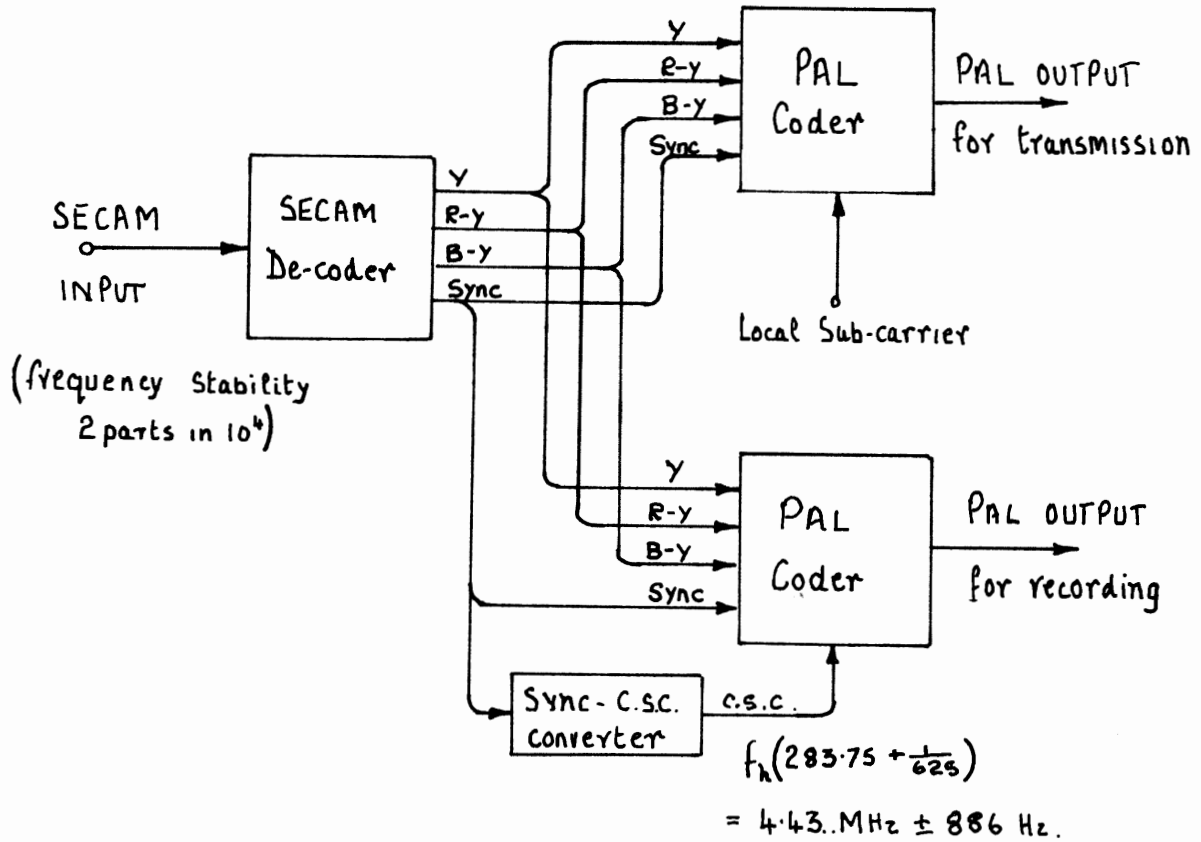


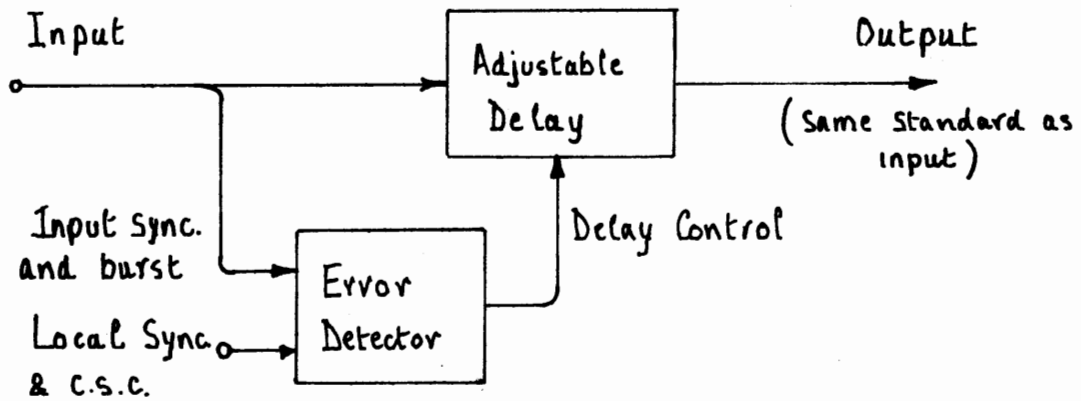
LECTURE NOTES (PRELIMINARY)

TELEVISION STANDARDS CONVERSION

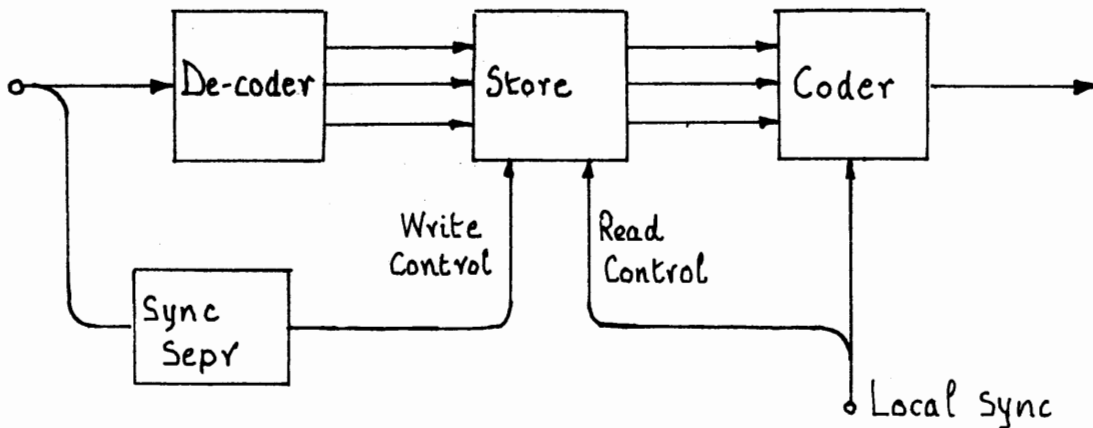


SECAM → PAL TRANSCODING (without field-store synchroniser)

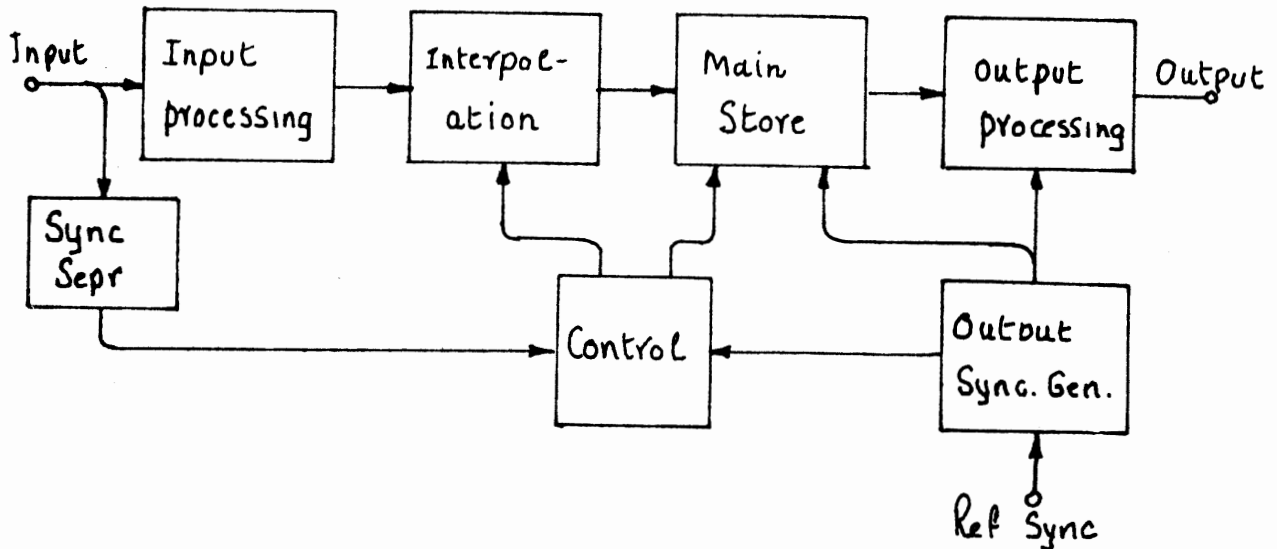
R J CARR.  
October '80



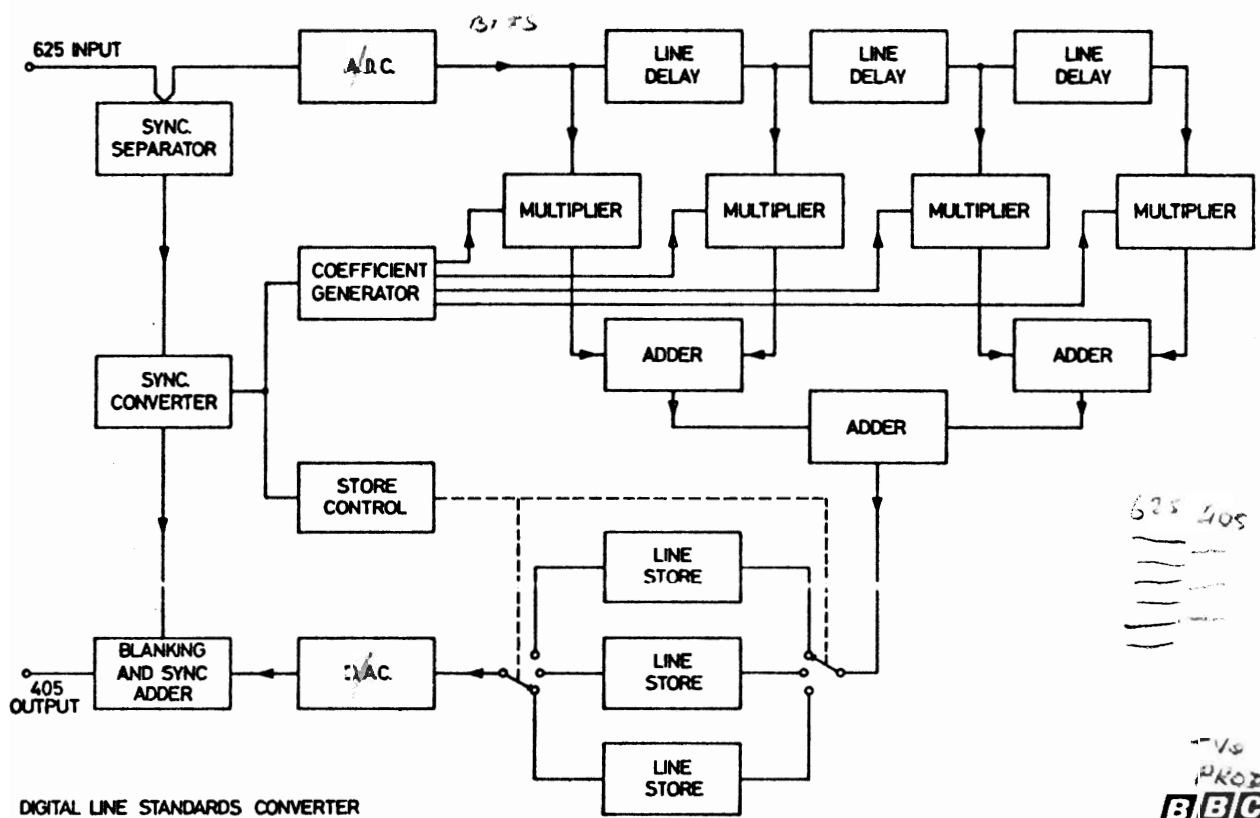
Elements of a Timebase Corrector or Synchroniser.



A more comprehensive Synchroniser Transcoder



Basic Elements of a Standards Converter



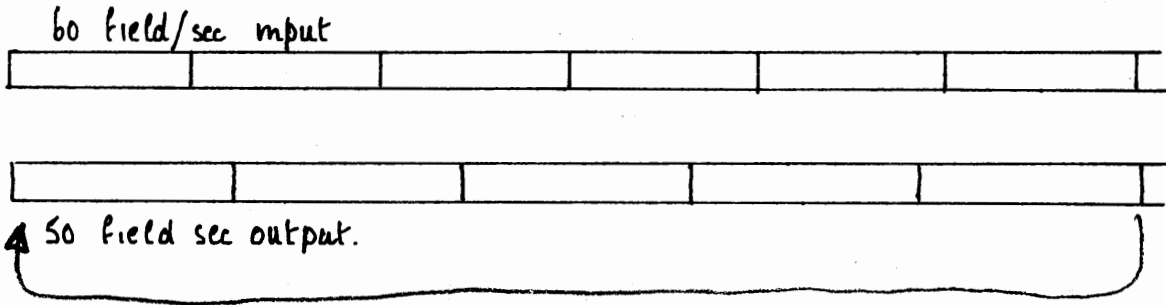
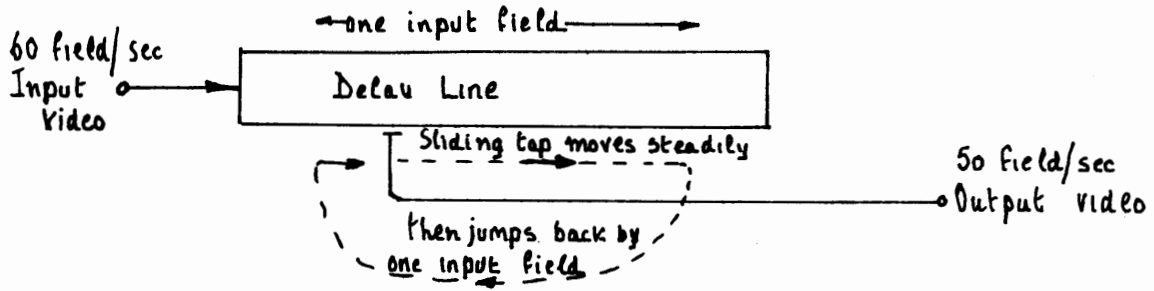
DIGITAL LINE STANDARDS CONVERTER

INTERP APERTURE

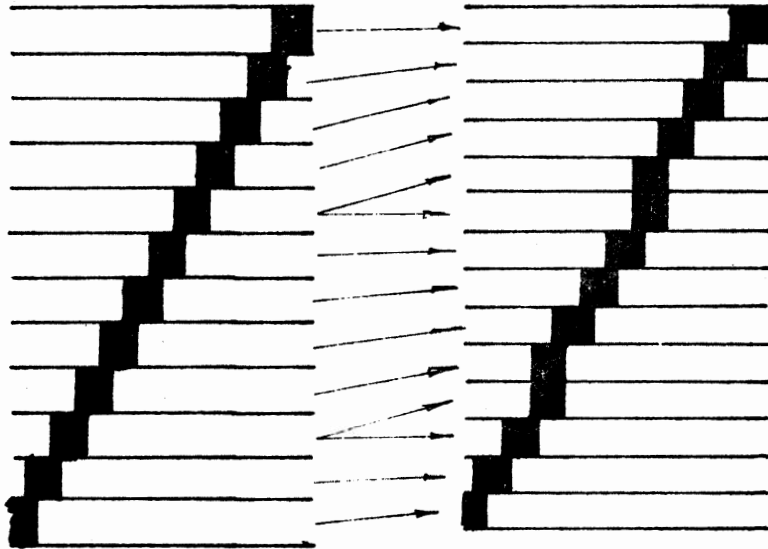
625 405

11 LINES

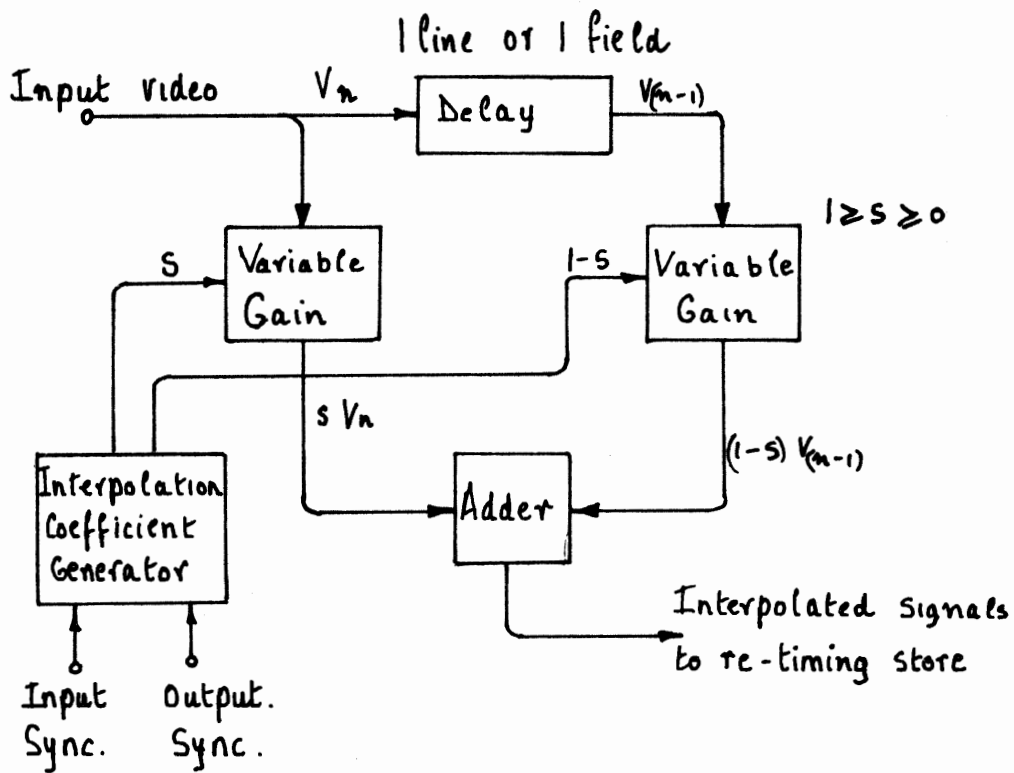
-1/4 LINES  
PRODUCE SOME  
BBC VARIATION  
REDUCE BLURRING  
PRODUCED BY  
INTERPOLATION



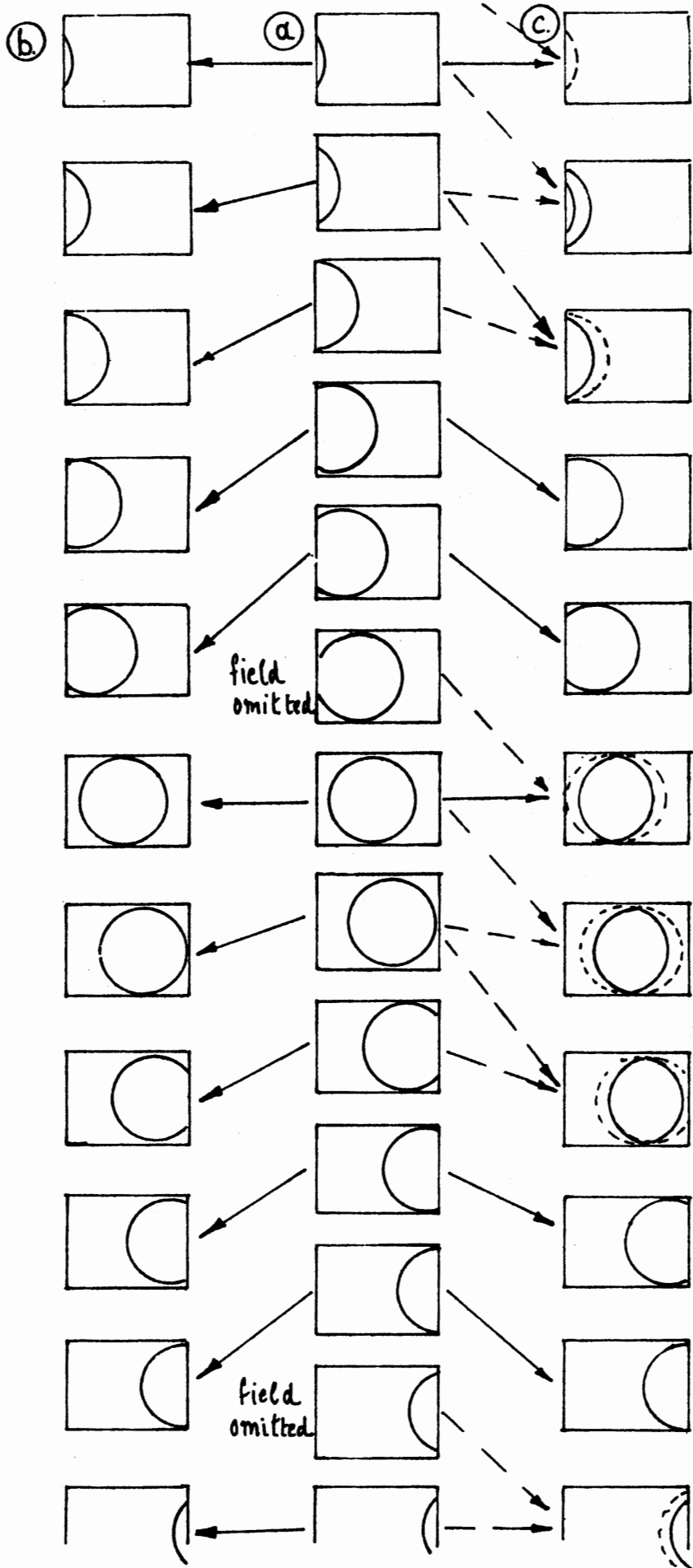
Analogue Field-Store Converter.



A 525 → 625 CONVERSION WITHOUT INTERPOLATION



Principles of Interpolation



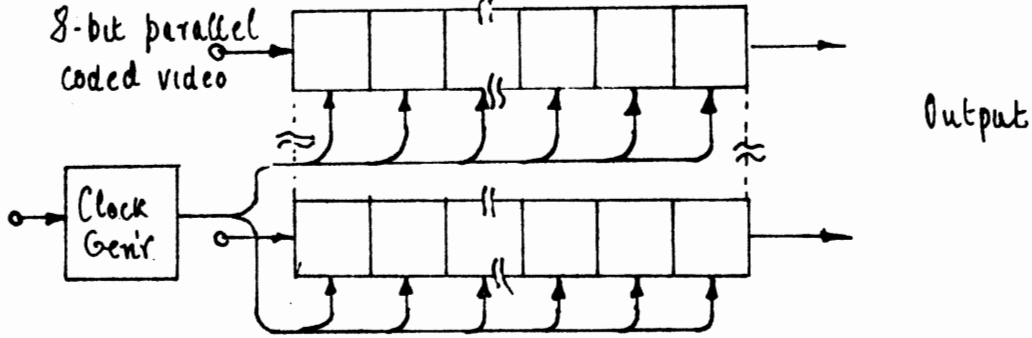
STANDARDS

CONVERSION

60 field/sec  
→ 50 field/sec  
conversion showing  
movement rendering

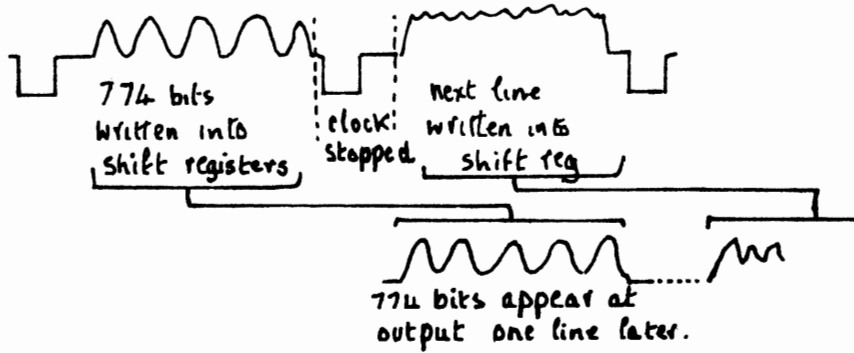
- (a) 60 field/sec input
- (b) 50 field/sec output without interpolation
- (c) with simple interpolation.

a) 1-line Delay (eg in line store 625-405 converter)  
774 bit shift registers

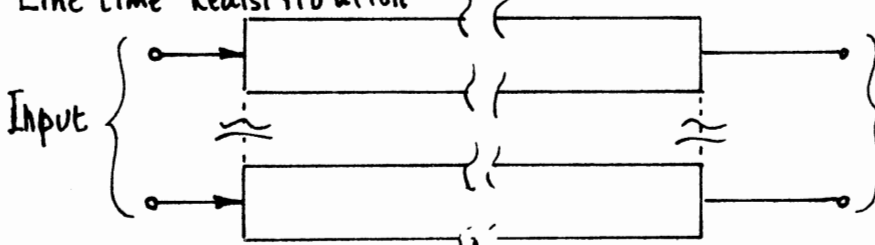


Clock at  $810 \times$  line freq

Reading and writing done simultaneously

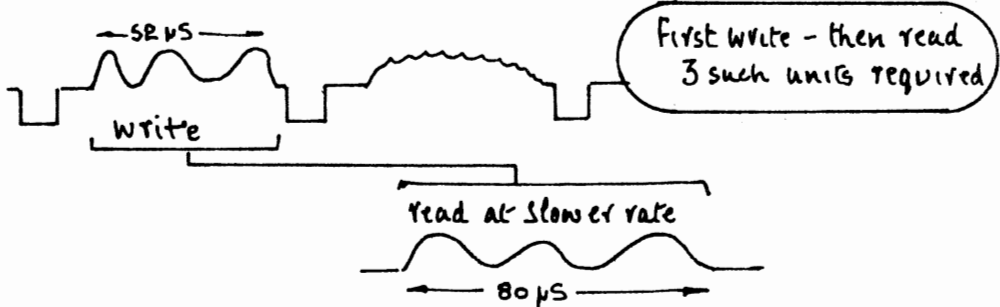


b) Line time Redistribution

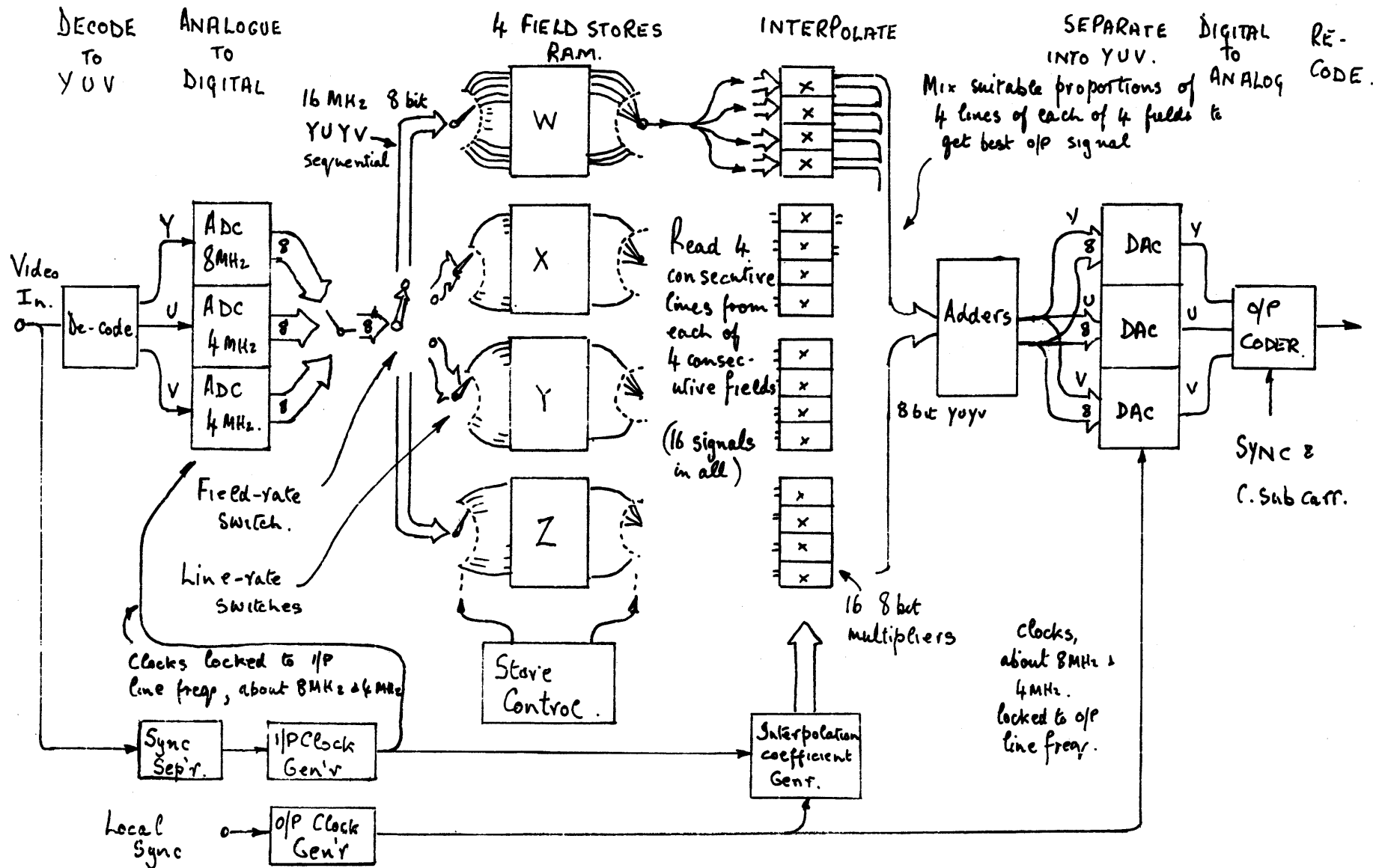


Clock in at  $810 \times 625$  line frequency  
12.625 MHz.

clock out at  $810 \times 405$  line frequency  
8.20125 MHz.



Digital Delay by shift registers



DIGITAL FIELD-STORE CONVERTER  
in "Convert" mode.

12.12.80  
RSCam.