Computer program for pitch measurements

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A computer program for on-line analysis of the fundamental frequency of tape recorded utterances has been written. The tape recorder is connected to the A/D converter of a PDP-7 computer. In response to a certain command the computer samples a 2.5 sec segment of the speech wave at a rate of 5 kc (9 bits/sample) and stores the sampled data in core memory. A segment of 200 msec duration of the sampled wave may be displayed on the oscilloscope which is attached to the computer. By turning a knob the operator may translate the 200 msec window of the display throughout the utterance that has been sampled. A vertical line at the center of the display indicates zero time of the translated wave. Whenever a certain button is pushed the computer records the position of the wave in relation to this vertical line. The operator can thus determine visually the successive boundaries of the pitch periods by appropriately turning the knob and pushing the button while the computer - on a certain command - calculates the fundamental frequency data. The computed results may be stored on a digital magnetic tape and plotted in various graphical forms.