

**COMPUTERIZED SOUND SOURCE PROGRAMMABLE
BY USER'S EDITING OF TONE SYNTHESIS
ALGORITHM**

ABSTRACT

In a sound source apparatus, a display unit displays a block diagram containing various functional blocks which represent corresponding elementary functions selectively usable for synthesis of a desired musical tone. A secondary memory provisionally stores a pair of an effective elementary program and an ineffective elementary program for each functional block such that the effective elementary program is designed to effectuate the corresponding elementary function while the ineffective elementary program is designed to ineffectuate the corresponding elementary function. An editor unit graphically treats the displayed block diagram so that each functional block is selected if the corresponding elementary function is necessary for the synthesis of the desired musical tone and is otherwise nonselected if the corresponding elementary function is unnecessary for the synthesis of the desired musical tone to thereby edit an algorithm which defines an arithmetic procedure for the synthesis of the desired musical tone. An assembler unit retrieves from the secondary memory an effective elementary program for each selected functional block so as to enable the

corresponding elementary function, and retrieves an ineffective elementary program for each nonselected functional block so as to disable the corresponding elementary function to thereby assemble the retrieved ones of the effective and ineffective elementary programs into a complete program according to the edited algorithm. A primary memory stores the complete program. A generator unit is connected to the primary memory for executing the edited arithmetic procedure according to the stored complete program to thereby generate the desired musical tone.