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12-7-1984

# A Computer Controlled Speech Synthesizer

Glen J. Reid

*Indiana University - Purdue University Fort Wayne*

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# **SENIOR DESIGN TECHNICAL REPORT**

for

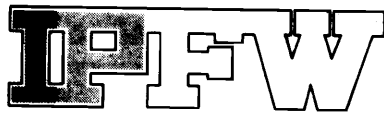
A COMPUTER CONTROLLED SPEECH SYNTHESIZER

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title

in partial fulfillment of the requirements  
for the degree of

**BACHELOR OF SCIENCE**



presented to the

**ELECTRICAL ENGINEERING TECHNOLOGY FACULTY**

**INDIANA UNIVERSITY-PURDUE UNIVERSITY AT FORT WAYNE**

DECEMBER 7, 1984

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date

by

GLEN J. REID

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GRADE: \_\_\_\_\_

APPROVED: \_\_\_\_\_

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ABSTRACT  
OF  
A COMPUTER CONTROLLED SPEECH SYNTHESIZER  
BY  
GLEN REID

The means is now available to economically equip a personal computer with a voice to tell you the results of a problem or to request that you perform a service, "turn on the printer please." as an example. This report describes the construction of such a device. A Timex Sinclair 1000 computer synthesizes speech using along with other circuits a General Instruments SP0256-AL2 speech processor chip. The SP0256-AL2 produces allophones which are concatenated (hooked together) by the computer to produce human sounding speech. Allophones are similar to phonemes which are speech sounds or utterances, the smallest unit of speech that distinguish one utterance from another in a language or dialect.