

Indiana University – Purdue University Fort Wayne
Opus: Research & Creativity at IPFW

Computer and Electrical Engineering Technology &
Information Systems and Technology Senior Design
Projects

School of Engineering, Technology and Computer
Science Design Projects

5-1976

Tape-Slide Programmer

Pat Ormiston

Indiana University - Purdue University Fort Wayne

Follow this and additional works at: http://opus.ipfw.edu/etcs_seniorproj



Part of the [Computer Sciences Commons](#), and the [Engineering Commons](#)

Opus Citation

Pat Ormiston (1976). Tape-Slide Programmer.
http://opus.ipfw.edu/etcs_seniorproj/404

This Senior Design Project is brought to you for free and open access by the School of Engineering, Technology and Computer Science Design Projects at Opus: Research & Creativity at IPFW. It has been accepted for inclusion in Computer and Electrical Engineering Technology & Information Systems and Technology Senior Design Projects by an authorized administrator of Opus: Research & Creativity at IPFW. For more information, please contact admin@lib.ipfw.edu.

TAPE-SLIDE PROGRAMMER

Senior Design Project
May, 1976

Prepared by
Pat Ormiston

Prepared for
Department of Electrical Technology
Purdue University
Fort Wayne, Indiana

ABSTRACT

The Tape-Slide Programmer is a system for presenting a pre-recorded slide program to a large audience. The system has the capability of handling four slide projectors simultaneously by incorporating a cassette tape recorder to present the commentary and provide commands to synchronize the slides to the commentary.

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
	ABSTRACT	i
	TABLE OF CONTENTS	ii
	INTRODUCTION	1-3
1.0	Multi-Media Background	1-2
1.1	Specifications	2-3
1.2		4-7
2.0	GENERAL DESCRIPTION	4-5
2.1	System Description	5-6
2.1.1	Master Programmer Description	7
2.1.2	Program Controller Description	8-16
3.0	MASTER PROGRAMMER THEORY OF OPERATION	8
3.1	Switch Latch	9-10
3.2	Monostable Multivibrator	10-13
3.3	Tone Oscillator	13-15
3.4	Gating Circuitry	15-16
3.5	Power Supply	17-26
4.0	PROGRAM CONTROLLER THEORY OF OPERATION	17-21
4.1	Tone Decoder	21-22
4.2	Mode Selection and Gating	23-26
4.3	Control Circuit	26
4.4	Audio Amplifier	27-28
5.0	PERFORMANCE	27
5.1	Bandwidth	28
5.2	Power Supplies	29-31
	APPENDIX A - Computer Table	32-35
	APPENDIX B - System Schematics	36-41
	APPENDIX C - Controls and Indicators	42-48
	APPENDIX D - P.C. Board Layout	49
	ACKNOWLEDGEMENT	50
	REFERENCES	