

## PROGRAMMING LANGUAGES SERIES

The Programmer's  
Introduction to  
SNOBOL

W. Douglas Maurer  
George Washington University



**Elsevier**

New York Oxford Amsterdam

Technische Hochschule Darmstadt  
FACHBEREICH INFORMATIK

BIBLIOTHEK

Inventor-Nr.: 3592

Sachgebiete: Software

Standort: D.4 / Maur

# **CONTENTS**

Preface	ix
<b>CHAPTER 1 Elementary Features of SNOBOL</b>	
1.1 Character Strings	1
1.2 Elementary Operations	3
1.3 The Null String	5
1.4 Success and Failure	7
1.5 Conditional Statements and Loops	10
1.6 Replacement	12
1.7 Complete SNOBOL Programs	14
<b>CHAPTER 2 Pattern Matching</b>	
2.1 The Functions ANY and NOTANY	22
2.2 Assignment in a Pattern	24
2.3 The Function LEN	26
2.4 The Functions SPAN and BREAK	28
2.5 The Pattern Primitives ARB and REM	30
2.6 The Functions POS, RPOS, TAB, and RTAB	32
2.7 Subroutines	34
<b>CHAPTER 3 Associative Features of SNOBOL</b>	
3.1 Indirect Reference	42
3.2 Indirect Assignment	44
3.3 Arrays	46
3.4 Tables	48
3.5 Nonstandard Identifiers	50
3.6 Never Make a Linear Search in SNOBOL	51
3.7 Data Structures	53
<b>CHAPTER 4 Further Properties of Patterns</b>	
4.1 The Pattern Matching Process	62
4.2 Pattern Variables	64
4.3 Alternation	66

4.4 Deferred Evaluation	68
4.5 Immediate Assignment	71
4.6 FAIL and Fullscan Mode	73
4.7 Pattern Programming	75
 CHAPTER 5 Advanced Topics	
5.1 Recursive Subroutines	82
5.2 Advanced Input/Output	84
5.3 Operating System Interface	86
5.4 SPITBOL	88
5.5 FASBOL	90
5.6 Further Operators In SNOBOL	92
5.7 The Functions EVAL, APPLY, ITEM, and CODE	95
 CHAPTER 6 Systems Programming in SNOBOL	
6.1 Interpreters	97
6.2 More General Expressions	99
6.3 More General Statements	101
6.4 Compilers	103
6.5 Compiling With Multiple Registers	105
6.6 More General Compiling	107
6.7 Assemblers	110
Bibliography	113
Appendix A SNOBOL Concepts	115
Appendix B Data Types in SNOBOL	124
Answers to Starred Exercises	127
Index	133