

The Art of Assembly Language Programming

(Short Contents)

The Art of Assembly Language	1
Chapter Two Volume One:Data Representation	1
Chapter One Foreword	3
Chapter Two Hello, World of Assembly Language	11
Chapter Three Data Representation	53
Chapter Four More Data Representation	87
Chapter Five	119
Chapter Five Questions, Projects, and Lab Exercises	119
Volume Two:	135
Machine Architecture	135
Chapter One System Organization	137
Chapter Two Memory Access and Organization	157
Chapter Three Introduction to Digital Design	203
Chapter Four CPU Architecture	234
Chapter Five Instruction Set Architecture	270
Chapter Six Memory Architecture	303
Chapter Seven The I/O Subsystem	327
Chapter Eight Questions, Projects, and Labs	355
Volume Three:	391
Basic Assembly Language	391
Chapter One Constants, Variables, and Data Types	393
Chapter Two Introduction to Character Strings	419
Chapter Three Characters and Character Sets	439
Chapter Four Arrays	463
Chapter Five Records, Unions, and Name Spaces	483
Chapter Six Dates and Times	501
Chapter Seven Files	517
Chapter Eight Introduction to Procedures	541
Chapter Nine Managing Large Programs	569
Chapter Ten Integer Arithmetic	587
Chapter Eleven Real Arithmetic	611
Chapter Twelve Calculation Via Table Lookups	647
Chapter Thirteen Questions, Projects, and Labs	663

Volume Four:	725
Intermediate Assembly Language	725
Chapter One Advanced High Level Control Structures	727
Chapter Two Low-Level Control Structures	751
Chapter Three Intermediate Procedures	805
Chapter Four Advanced Arithmetic	853
Chapter Five Bit Manipulation	909
Chapter Six The String Instructions	935
Chapter Seven The HLA Compile-Time Language	949
Chapter Eight Macros	969
Chapter Nine Domain Specific Embedded Languages	1003
Chapter Ten Classes and Objects	1059
Chapter Eleven The MMX Instruction Set	1113
Chapter Twelve Mixed Language Programming	1151
Chapter Thirteen Questions, Projects, and Labs	1195
Volume Five:	1277
Advanced Procedures	1277
Chapter One Thunks	1279
Chapter Two Iterators	1305
Chapter Three Coroutines and Generators	1329
Chapter Four Advanced Parameter Implementation	1341
Chapter Five Lexical Nesting	1375
Chapter Six Questions, Projects, and Labs	1399
Appendix A Answers to Selected Exercises	1405
Appendix B Console Graphic Characters	1407
Appendix D The 80x86 Instruction Set	1449
Appendix E The HLA Language Reference	1483
Appendix F The HLA Standard Library Reference	1485
Appendix G HLA Exceptions	1487
Appendix H HLA Compile-Time Functions	1493
Appendix I Installing HLA on Your System	1531
Appendix J Debugging HLA Programs	1533
Appendix K Comparing HLA and MASM	1539
Appendix L HLA Code Generation for HLL Statements	1541
Index	1561