

Contents Overview

See RefMan1-4 for Chapters 1 through 4

Introduction 1

Chapter 1. Prograph: The Language 3

Overview

3

Classes

4

Methods

8

Operations

9

Multiplex Operations

18

Controls

19

Persistents

23

Chapter 2. The Editor Environment 25

General Rules in the Editor

25

Menu Descriptions

31

Window Descriptions

72

Chapter 3. The Interpreter Environment 105

Modes of Execution

105

Windows

106

Menus

114

Runtime Interruption

120

Apple Events

123

Chapter 4. Application Builder 125

General Features

125

Applicable Prograph Menus
127
Application Editor
129
Menu Editor
132
Window Editors
136
Window Item Editors
139
Balloon Help
153
Access to Events
158
Mouse Techniques
163

See RefMan 5-7 for Chapters 5 through 7

Chapter 5. System Classes 167

An Overview
167
Application Manager
169
System Class Methods
170
System Class Specifications
176

Chapter 6. Prograph Primitives 245

Prograph Primitives by Category
245
Prograph Primitives Descriptions
248

Chapter 7. The Macintosh Toolbox 363

Working with the Toolbox
363
Calling Conventions
370
Essential Mac Methods
381

This document's Contents include the following Chapters and Appendixes plus a complete index for the original printed Reference Manual.

Chapter 8. Pictopedia 425

Classes Window

426
Attributes Window
428
Methods Windows
429
Persistents Window
431
Case Window
432
Stack Window
435
Execution Case Window
436
Operation Icons
436

Chapter 9. The Prograph Compiler 447

(This information will be provided to you upon purchase of the Compiler from Pictorius Incorporated. For more information, see Chapter 9, or the "Classic Release Notes" document)

File and Project Information
447
Menu Descriptions
450
Special Considerations
461
Load and Save
463
External C Code
468

Chapter 10. The Datafile Manager 471

Overview
471
Using the Datafile Manager
475
Recommended Practices
487
MultiUser Access to Datafile Manager
489
Error Handling
492
Datafile Manager Primitives Descriptions
494

Appendix I. Prograph Data Types 517

List of Data Types
517
Descriptions
517

Appendix II. C Code Usage 521

General Remarks
521
Writing XPrims
557
Writing XCode
574

Appendix III. Compiler Internals 587

(This information will be provided to you upon purchase of the Compiler from Pictorius Incorporated. For more information, see Chapter 9, or the "Classic Release Notes" document)

Disassembly Files
588
Link Maps
590
Resources Generated by the Linker
591

Appendix IV. Syntax and Semantics 593

Definitions and Notation
594
Syntax
595
Semantics
608

Index
627

Detailed Table of Contents

Chapter 8. Pictopedia
425

Classes Windows
426
Attributes Window
428
System Attributes
428
User-defined Attributes
429
Methods Window

429
Persistents Window
431
Case Window
432
Banner
432
Logo
433
Class / Name
433
Case List Button
433
Case List Pane
434
Stack Window
435
Execution Case Window
436
Operation Icons
436
Call to a Primitive
436
Call to a Universal Method
437
Call to the Macintosh Toolbox or to an External
437
Call to a Method in a Class
437
Opers
438
Simple
438
Constant
438
Match
439
Persistent
439
Instance
439
Get
439
Set
439
Local
440
Evaluate
440
Mac Constant
440
Mac Match
440
Mac Global
440
Mac Address

441
Mac Get Field
441
Mac Set Field
441
Controls
441
Simple
441
Super
442
Repeat
442
Next Case
442
Continue
442
Terminate
442
Finish
442
Fail
443
Annotations on a Terminal
443
Simple
443
Inject
443
List
443
Loop
443
Partition
444
Annotations on a Root
444
Simple
444
List
444
Loop
444
Synchro Link
445

Chapter 9. The Prograph Compiler 447

(This information will be provided to you upon purchase of the Compiler from Pictorius Incorporated. For more information, see Chapter 9, or the "Classic Release Notes" document)

File and Project Information
447

The Locator Bar
448
The Project File Area
449
Menu Descriptions
450
The File Menu
450
New
450
Open...
450
Close
451
Save
451
Save As...
451
Revert to Saved
451
Page Setup...
451
Print...
451
Launch...
452
Quit
452
The Edit Menu
452
Undo
452
Cut, Copy, Paste, Clear
452
Select All
453
Options...
453
Show Clipboard
454
The Project Menu
454
Update
454
Update All
454
Disassemble...
454
File Info...
455
Project Info...
455
Build Library...
459
Build Application...
459

Run	460
Special Considerations	461
Naming Conventions	461
Inline Code	461
Efficiency Considerations	462
Unsupported Features	462
System 7 and 32-bit Clean	462
Load and Save	463
An Example of Load and Save	464
Load and Save Details	466
External C Code	468
Externals	468
XPrims	468
XCode	469

Chapter 10. The Datafile Manager

471

Overview	471
Components	472
Datafiles	472
Tables	473
Clusters	473
Keys	474
Using the Datafile Manager	475
High Level Overview	476
Loading Datafile Primitives	476
Creating A New Datafile	477
How to Create a Datafile	477
How to Create a Table	

478	How to Create a Key for the Table
478	Sample Method for Creating a Datafile
479	Opening Datafiles, Tables & Keys
479	Opening A Datafile
480	How to Open a Datafile
481	How to Open a Table
481	How to Open a Key
482	Sample Method for Opening a Datafile
482	Finding/Navigating Clusters
483	How to Find a Cluster
484	Reading Clusters
484	How to Read a Cluster
485	Writing Clusters
485	Adding a New Cluster to a Table
486	Overwriting an Existing Cluster
486	Closing Datafiles
487	How to Close a Datafile
487	Recommended Practices
487	Flushing Datafiles
488	Compacting Datafiles
489	MultiUser Access to Database Engine
490	Locking and Unlocking Clusters
492	Error Handling
494	Catching Errors
494	Datafile Manager Primitives Descriptions

517	Appendix 1. Prograph Data Types
-----	---------------------------------

List of Data Types
517
Descriptions
517

Appendix II. C Code Usage 521

General Remarks
521
Naming Conventions
522
Prograph Data Types
522
Macintosh Data Types
525
Data Types in XPrims
525
Data Types in XCode
530
Use Counts
533
Arity Macros
535
Arguments
536
Supplied Functions
536
Writing XPrims
557
Function Return Values
559
XPrims in Interpreted Code
560
Building Interpreted XPrims Using THINK C
561
Creating the 'STR#' Resources Using THINK C
561
The Main Routine in THINK C
563
Building Interpreted XPrims Using MPW C
564
Creating the 'STR#' Resources with MPW
564
The Main Routine in MPW C
566
XPrims in Compiled Code
567
Building Compiled XPrims Using THINK C
567
Building Compiled XPrims Using MPW C
567
Example XPrims
568
Example # 1

568
Example # 2
570
Example # 3
571
Example # 4
573
Writing XCode
574
Function Return Values
575
Prograph Language Elements
575
Persistents
575
Universal Methods and Primitives
576
Class Identifiers
576
Default Instances
577
Class Attributes
577
Instance Attributes
578
Class Methods and Selectors
578
Simple Class Methods
579
Initialization Class Methods
580
Get Methods
581
Set Methods
582
Default Get and Set Methods
583
Object C Extensions
583
Building XCode in THINK C
586
Building XCode in MPW C
586

Appendix III. Compiler Internals

587

(This information will be provided to you upon purchase of the Compiler from Pictorius Incorporated. For more information, see Chapter 9, or the "Classic Release Notes" document)

Disassembly Files
588
Link Maps
590

Resources Generated by the Linker
591

Appendix IV. Syntax and Semantics 593

Definitions and Notation

594

Syntax

595

Values

595

Program

597

External

598

Persistent

598

Class

598

Attribute

599

Method

599

Case

599

Operation

601

General

601

Simple

603

Get

603

Set

603

Instance Generator

604

Persistent

604

Local

604

Evaluation

605

Input

606

Output

607

Constant

607

Match

607

Mac Constant, Mac Match, Mac Global

608

Mac Get Field, Mac Set Field

608
Mac Address
608
Semantics
608
External
609
Method
609
Case
610
Execution Sequence
610
Execution Function for a Case
612
Operations in General
612
Controls
612
Method Selection
614
Runtime Name Determination
614
Operations in Plain mode
614
Simple Operations
614
Get
616
Set
617
Instance Generator
618
Persistent Operation
619
Local Operation
620
Evaluation
620
Output
620
Constant
620
Match
621
Mac Constant
621
Mac Match
621
Mac Global
621
Mac Get Field
621
Mac Set Field
622
Mac Get Address

622	Operations in Repeat Mode without True or False Roots
622	Input and Output Sequences
622	Execution Function for Repeat
624	Partition Operations
625	
	Index
627	