

# Font Manager

---

## Contents

About Fonts	4-6
Characters, Character Codes, and Glyphs	4-6
Kinds of Fonts	4-7
Identifying Fonts	4-8
Font Measurements	4-8
About Font Resources	4-12
Font Resource Types	4-13
A Brief History of Font Resource Use	4-13
Font Family IDs	4-14
Restrictions on the Use of 'FONT' Resources	4-15
Font Resource Tables	4-16
About the Font Manager	4-16
How QuickDraw Requests a Font	4-16
How the Font Manager Responds to a Font Request	4-17
How the Font Manager Scales Fonts	4-19
The Scaling Process for a Bitmapped Font	4-22
The Scaling Process for an Outline Font	4-23
How the Font Manager Calculates Glyph Widths	4-23
Synthetic Fonts	4-25
How the Font Manager Renders Outline Fonts	4-25
Using the Font Manager	4-31
Adding Font Sizes and Names to the Menu	4-32
Storing a Font Name in a Document	4-33
Getting Font Measurement Information	4-34
Favoring Outline or Bitmapped Fonts	4-35
Preserving the Shapes of Glyphs	4-35
Using Width Tables	4-36
Getting the System or Application Font ID	4-38
Using Fractional Glyph Widths and Font Scaling	4-38
Font Manager Reference	4-39

Data Structures	4-39
The Font Input Record	4-40
The Font Output Record	4-41
The Global Width Table	4-43
The Font Record	4-46
The Font Family Record	4-47
The Font Association Table Record	4-47
The Family Glyph-Width Table Record	4-48
The Style-Mapping Table Record	4-49
The Font Family Kerning Table Record	4-49
Routines	4-50
Initializing the Font Manager	4-50
Getting Font Information	4-51
Using the Current, System, and Application Fonts	4-53
Getting the Characteristics of a Font	4-54
Enabling Fractional Glyph Widths	4-58
Disabling Font Scaling	4-59
Favoring Outline Fonts Over Bitmapped Fonts	4-60
Scaling Outline Fonts	4-62
Accessing Information About a Font	4-64
Handling Fonts in Memory	4-65
The Bitmapped Font ('NFNT') Resource	4-66
The Font Type Element	4-70
The Offset to the Width/Offset Table	4-71
The Outline Font ('sfnt') Resource	4-72
The Font Directory	4-74
The Character-Code Mapping Table	4-76
The Control-Value Table	4-77
The Font Program Table	4-77
The Glyph Data Table	4-77
The Horizontal Device Metrics Table	4-78
The Font Header Table	4-79
The Horizontal Header Table	4-83
The Horizontal Metrics Table	4-83
The Kerning Table	4-84
The Location Table	4-84
The Maximum Profile Table	4-84
The Font Naming Table	4-85
The PostScript Table	4-89
The Preprogram Table	4-89
The Font Family ('FOND') Resource	4-90
The Font Style Code	4-94
The Font Association Table	4-95
The Offset Table	4-96
The Bounding-Box Table	4-97
The Family Glyph-Width Table	4-98
The Style-Mapping Table	4-99

The Font Family Kerning Table	4-106
Summary of the Font Manager	4-108
Pascal Summary	4-108
Constants	4-108
Data Types	4-108
Routines	4-112
C Summary	4-113
Constants	4-113
Data Types	4-114
Routines	4-118
Assembly-Language Summary	4-119
Trap Macros	4-119
Global Variables	4-120

