
Pascal String Utilities Reference

[Carbon](#) > [Text & Fonts](#)



2006-07-12



Apple Inc.
© 2006 Apple Computer, Inc.
All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without prior written permission of Apple Inc., with the following exceptions: Any person is hereby authorized to store documentation on a single computer for personal use only and to print copies of documentation for personal use provided that the documentation contains Apple's copyright notice.

The Apple logo is a trademark of Apple Inc.

Use of the "keyboard" Apple logo (Option-Shift-K) for commercial purposes without the prior written consent of Apple may constitute trademark infringement and unfair competition in violation of federal and state laws.

No licenses, express or implied, are granted with respect to any of the technology described in this document. Apple retains all intellectual property rights associated with the technology described in this document. This document is intended to assist application developers to develop applications only for Apple-labeled computers.

Every effort has been made to ensure that the information in this document is accurate. Apple is not responsible for typographical errors.

Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

Apple, the Apple logo, Carbon, Mac, and Mac OS are trademarks of Apple Inc., registered in the United States and other countries.

Simultaneously published in the United States and Canada.

Even though Apple has reviewed this document, APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, ITS QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS DOCUMENT IS PROVIDED "AS IS," AND YOU, THE READER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY.

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY

DEFECT OR INACCURACY IN THIS DOCUMENT, even if advised of the possibility of such damages.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Contents

Pascal String Utilities Reference 9

Overview	9
Data Types	10
PEF2ContainerHeader	10
PEF2ExportedSymbolKey	11
PEF2ImportedLibrary	12
PEF2LgExportedSymbolHashSlot	12
PEF2LgExportedSymbol	13
PEF2LgImportedSymbol	14
PEF2LoaderInfoHeader	15
PEF2LoaderRelocationHeader	16
PEF2SectionHeader	17
PEF2SmExportedSymbolHashSlot	17
PEF2SmExportedSymbol	18
PEF2SmImportedSymbol	18
PEFContainerHeader	19
PEFExportedSymbol	20
PEFExportedSymbolHashSlot	20
PEFExportedSymbolKey	21
PEFImportedLibrary	22
PEFImportedSymbol	22
PEFLoaderInfoHeader	23
PEFLoaderRelocationHeader	24
PEFRelocChunk	24
PEFSectionHeader	25
PEFSplitHashWord	26
XLibContainerHeader	27
XLibExportedSymbol	28
XLibExportedSymbolHashSlot	28
XLibExportedSymbolKey	28
Constants	29
kPEF2IsReexportLibraryMask	29
kPEF2LdrInfoLargImpSymMask	29
kPEF2PrivateShare	30
kPEF2SectionHasCodeMask	31
kPEF2StringsAreASCII	32
kPEF2Tag1	33
kPEF2WeakImportLibMask	33
kPEFAbsoluteExport	34
kPEFCodeSection	34
kPEFCodeSymbol	35

kPEFExpSymClassShift	36
kPEFFirstSectionHeaderOffset	37
kPEFHashLengthShift	37
kPEFHashSlotSymCountShift	38
kPEFImpSymClassShift	38
kPEFPkDataOpcodeShift	39
kPEFPkDataZero	40
kPEFProcessShare	40
kPEFRelocBasicOpcodeRange	41
kPEFRelocBySectDWithSkip	42
kPEFRelocIncrPositionMaxOffset	44
kPEFRelocLgByImportMaxIndex	44
kPEFRelocLgBySectionSubopcode	44
kPEFRelocLgRepeatMaxChunkCount	45
kPEFRelocLgSetOrBySectionMaxIndex	45
kPEFRelocRunMaxRunLength	46
kPEFRelocSetPosMaxOffset	46
kPEFRelocSmIndexMaxIndex	46
kPEFRelocSmRepeatMaxChunkCount	47
kPEFRelocWithSkipMaxSkipCount	47
kPEFTag1	48
kPEFWeakImportLibMask	48
kXLibTag1	49

Appendix A **Deprecated Pascal String Utilities Functions** 51

Deprecated in Mac OS X v10.4 51

PLpos	51
PLstrcat	51
PLstrchr	52
PLstrcmp	53
PLstrcpy	53
PLstrlen	54
PLstrncat	54
PLstrncmp	55
PLstrncpy	55
PLstrpbrk	56
PLstrrchr	57
PLstrspn	57
PLstrstr	58

Appendix B **Unsupported Functions** 59

Document Revision History 63

Index 65

Tables

Appendix B **Unsupported Functions 59**

Table B-1 Unsupported functions 59

Pascal String Utilities Reference

Framework:	CoreServices/CoreServices.h
Declared in	PEFBinaryFormat.h PLStringFuncs.h

Overview

Pascal String Utilities is an API that provides functions for performing common string manipulations, such as concatenation and copying, on Pascal strings. Although Unicode is the preferred encoding for strings on Mac OS X, you may find these functions useful if your application handles Pascal strings as well.

This category also includes structures and constants defining the PEF binary storage format.

Carbon fully supports the functions that assist you in manipulating Pascal strings.

Important: Pascal String Utilities is deprecated as of Mac OS X v10.4. You should update your applications to use Core Foundation Strings (CFStrings) instead. If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Data Types

PEF2ContainerHeader

```

struct PEF2ContainerHeader {
    OSType tag1;
    OSType tag2;
    UInt32 currentFormat;
    UInt32 oldestFormat;
    UInt32 containerHeaderSize;
    UInt32 containerLength;
    UInt32 checksum;
    UInt32 sectionHeadersOffset;
    UInt32 sectionHeaderSize;
    UInt32 totalSectionCount;
    UInt32 instSectionCount;
    UInt32 loaderSectionIndex;
    UInt32 containerStringsOffset;
    UInt32 containerStringsLength;
    UInt32 options;
    UInt32 preferredAddress;
    UInt8 alignment;
    UInt8 stringEncoding;
    UInt16 reservedA;
    UInt32 reservedB;
    UInt32 reservedC;
    UInt32 nameOffset;
    OSType architecture;
    UInt32 dateTimeStamp;
    UInt32 currentVersion;
    UInt32 oldDefVersion;
    UInt32 oldImpVersion;
    UInt32 reservedD;
    UInt32 reservedE;
};
typedef struct PEF2ContainerHeader PEF2ContainerHeader;

```

Fields

```

tag1
tag2
currentFormat
oldestFormat
containerHeaderSize
containerLength
checksum
sectionHeadersOffset
sectionHeaderSize

```

totalSectionCount
instSectionCount
loaderSectionIndex
containerStringsOffset
containerStringsLength
options
preferredAddress
alignment
stringEncoding
reservedA
reservedB
reservedC
nameOffset
architecture
dateTimeStamp
currentVersion
oldDefVersion
oldImpVersion
reservedD
reservedE

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2ExportedSymbolKey

```
typedef PEFExportedSymbolKey PEF2ExportedSymbolKey;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2ImportedLibrary

```

struct PEF2ImportedLibrary {
    UInt32 nameOffset;
    UInt32 oldImpVersion;
    UInt32 currentVersion;
    UInt32 importedSymbolCount;
    UInt32 firstImportedSymbol;
    UInt32 options;
    UInt32 reservedA;
};
typedef struct PEF2ImportedLibrary PEF2ImportedLibrary;

```

Fields

nameOffset
oldImpVersion
currentVersion
importedSymbolCount
firstImportedSymbol
options
reservedA

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2LgExportedSymbolHashSlot

```

struct PEF2LgExportedSymbolHashSlot {
    UInt32 chainCount;
    UInt32 chainOffset;
};
typedef struct PEF2LgExportedSymbolHashSlot PEF2LgExportedSymbolHashSlot;

```

Fields

chainCount
chainOffset

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2LgExportedSymbol

```
struct PEF2LgExportedSymbol {
    UInt8 symClass;
    UInt8 flags;
    UInt16 reservedA;
    UInt32 nameOffset;
    UInt32 versionPair;
    SInt32 sectionIndex;
    UInt32 sectionOffset;
    UInt32 reservedB;
};
typedef struct PEF2LgExportedSymbol PEF2LgExportedSymbol;
```

Fields

symClass
flags
reservedA
nameOffset
versionPair
sectionIndex
sectionOffset
reservedB

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2LgImportedSymbol

```
struct PEF2LgImportedSymbol {
    UInt8 symClass;
    UInt8 flags;
    UInt16 reservedA;
    UInt32 nameOffset;
    UInt32 versionPair;
    UInt32 reservedB;
};
typedef struct PEF2LgImportedSymbol PEF2LgImportedSymbol;
```

Fields

symClass
flags
reservedA
nameOffset
versionPair
reservedB

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2LoaderInfoHeader

```

struct PEF2LoaderInfoHeader {
    UInt32 headerSize;
    UInt32 options;
    SInt32 mainSection;
    UInt32 mainOffset;
    SInt32 initSection;
    UInt32 initOffset;
    SInt32 termSection;
    UInt32 termOffset;
    SInt32 notifySection;
    UInt32 notifyOffset;
    UInt32 importedLibrariesOffset;
    UInt32 importedLibrarySize;
    UInt32 importedLibraryCount;
    UInt32 importedSymbolsOffset;
    UInt32 importedSymbolSize;
    UInt32 totalImportedSymbolCount;
    UInt32 loaderNamesOffset;
    UInt32 loaderNamesLength;
    UInt32 exportHashTableOffset;
    UInt8 exportHashTablePower;
    UInt8 reservedA;
    UInt16 reservedB;
    UInt32 exportedKeysOffset;
    UInt32 exportedSymbolsOffset;
    UInt32 exportedSymbolSize;
    UInt32 exportedSymbolCount;
    UInt32 relocHeadersOffset;
    UInt32 relocHeaderCount;
    UInt32 relocInstrOffset;
    UInt32 relocInstrLength;
    UInt32 reservedC;
    UInt32 reservedD;
};
typedef struct PEF2LoaderInfoHeader PEF2LoaderInfoHeader;

```

Fields

```

headerSize
options
mainSection
mainOffset
initSection
initOffset
termSection
termOffset
notifySection
notifyOffset
importedLibrariesOffset
importedLibrarySize
importedLibraryCount
importedSymbolsOffset
importedSymbolSize
totalImportedSymbolCount

```

loaderNamesOffset
loaderNamesLength
exportHashTableOffset
exportHashTablePower
reservedA
reservedB
exportedKeysOffset
exportedSymbolsOffset
exportedSymbolSize
exportedSymbolCount
relocHeadersOffset
relocHeaderCount
relocInstrOffset
relocInstrLength
reservedC
reservedD

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2LoaderRelocationHeader

```
struct PEF2LoaderRelocationHeader {  
    UInt32 sectionIndex;  
    UInt32 relocLength;  
    UInt32 firstRelocOffset;  
    UInt32 reservedA;  
};  
typedef struct PEF2LoaderRelocationHeader PEF2LoaderRelocationHeader;
```

Fields

sectionIndex
relocLength
firstRelocOffset
reservedA

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2SectionHeader

```

struct PEF2SectionHeader {
    UInt32 nameOffset;
    UInt32 presumedAddress;
    UInt32 totalLength;
    UInt32 unpackedLength;
    UInt32 containerLength;
    UInt32 containerOffset;
    UInt32 options;
    UInt8 shareKind;
    UInt8 alignment;
    UInt16 reservedA;
    UInt32 reservedB;
    UInt32 reservedC;
};
typedef struct PEF2SectionHeader PEF2SectionHeader;

```

Fields

nameOffset
presumedAddress
totalLength
unpackedLength
containerLength
containerOffset
options
shareKind
alignment
reservedA
reservedB
reservedC

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2SmExportedSymbolHashSlot

```

typedef PEFExportedSymbolHashSlot PEF2SmExportedSymbolHashSlot;

```

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2SmExportedSymbol

```
typedef PEFExportedSymbol PEF2SmExportedSymbol;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEF2SmImportedSymbol

```
typedef PEFImportedSymbol PEF2SmImportedSymbol;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFContainerHeader

```

struct PEFContainerHeader {
    OSType tag1;
    OSType tag2;
    OSType architecture;
    UInt32 formatVersion;
    UInt32 dateTimeStamp;
    UInt32 oldDefVersion;
    UInt32 oldImpVersion;
    UInt32 currentVersion;
    UInt16 sectionCount;
    UInt16 instSectionCount;
    UInt32 reservedA;
};
typedef struct PEFContainerHeader PEFContainerHeader;

```

Fields

tag1
tag2
architecture
formatVersion
dateTimeStamp
oldDefVersion
oldImpVersion
currentVersion
sectionCount
instSectionCount
reservedA

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFExportedSymbol

```

struct PEFExportedSymbol {
    UInt32 classAndName;
    UInt32 symbolValue;
    SInt16 sectionIndex;
};
typedef struct PEFExportedSymbol PEFExportedSymbol;
typedef PEFExportedSymbol PEF2SmExportedSymbol;

```

Fields

classAndName
symbolValue
sectionIndex

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFExportedSymbolHashSlot

```

struct PEFExportedSymbolHashSlot {
    UInt32 countAndStart;
};
typedef struct PEFExportedSymbolHashSlot PEFExportedSymbolHashSlot;
typedef PEFExportedSymbolHashSlot XLibExportedSymbolHashSlot;

```

Fields

countAndStart

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFExportedSymbolKey

```
struct PEFExportedSymbolKey {
    union {
        UInt32 fullHashWord;
        PEFSplitHashWord splitHashWord;
    } u;
};
typedef struct PEFExportedSymbolKey PEFExportedSymbolKey;
typedef PEFExportedSymbolKey XLibExportedSymbolKey;
```

Fields

fullHashWord
splitHashWord

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFImportedLibrary

```

struct PEFImportedLibrary {
    UInt32 nameOffset;
    UInt32 oldImpVersion;
    UInt32 currentVersion;
    UInt32 importedSymbolCount;
    UInt32 firstImportedSymbol;
    UInt8 options;
    UInt8 reservedA;
    UInt16 reservedB;
};
typedef struct PEFImportedLibrary PEFImportedLibrary;

```

Fields

nameOffset
oldImpVersion
currentVersion
importedSymbolCount
firstImportedSymbol
options
reservedA
reservedB

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFImportedSymbol

```

struct PEFImportedSymbol {
    UInt32 classAndName;
};
typedef struct PEFImportedSymbol PEFImportedSymbol;
typedef PEFImportedSymbol PEF2SmImportedSymbol;

```

Fields

classAndName

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFLoaderInfoHeader

```

struct PEFLoaderInfoHeader {
    SInt32 mainSection;
    UInt32 mainOffset;
    SInt32 initSection;
    UInt32 initOffset;
    SInt32 termSection;
    UInt32 termOffset;
    UInt32 importedLibraryCount;
    UInt32 totalImportedSymbolCount;
    UInt32 relocSectionCount;
    UInt32 relocInstrOffset;
    UInt32 loaderStringsOffset;
    UInt32 exportHashOffset;
    UInt32 exportHashTablePower;
    UInt32 exportedSymbolCount;
};
typedef struct PEFLoaderInfoHeader PEFLoaderInfoHeader;

```

Fields

```

mainSection
mainOffset
initSection
initOffset
termSection
termOffset
importedLibraryCount
totalImportedSymbolCount
relocSectionCount
relocInstrOffset
loaderStringsOffset
exportHashOffset
exportHashTablePower
exportedSymbolCount

```

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFLoaderRelocationHeader

```
struct PEFLoaderRelocationHeader {
    UInt16 sectionIndex;
    UInt16 reservedA;
    UInt32 relocCount;
    UInt32 firstRelocOffset;
};
typedef struct PEFLoaderRelocationHeader PEFLoaderRelocationHeader;
```

Fields

sectionIndex
reservedA
relocCount
firstRelocOffset

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFRelocChunk

```
typedef UInt16 PEFRelocChunk;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFSectionHeader

```

struct PEFSectionHeader {
    SInt32 nameOffset;
    UInt32 defaultAddress;
    UInt32 totalLength;
    UInt32 unpackedLength;
    UInt32 containerLength;
    UInt32 containerOffset;
    UInt8 sectionKind;
    UInt8 shareKind;
    UInt8 alignment;
    UInt8 reservedA;
};
typedef struct PEFSectionHeader PEFSectionHeader;

```

Fields

nameOffset
defaultAddress
totalLength
unpackedLength
containerLength
containerOffset
sectionKind
shareKind
alignment
reservedA

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

PEFSplitHashWord

```
struct PEFSplitHashWord {
    UInt16 nameLength;
    UInt16 hashValue;
};
typedef struct PEFSplitHashWord PEFSplitHashWord;
```

Fields

nameLength

hashValue

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

XLibContainerHeader

```

struct XLibContainerHeader {
    OSType tag1;
    OSType tag2;
    UInt32 currentFormat;
    UInt32 containerStringsOffset;
    UInt32 exportHashOffset;
    UInt32 exportKeyOffset;
    UInt32 exportSymbolOffset;
    UInt32 exportNamesOffset;
    UInt32 exportHashTablePower;
    UInt32 exportedSymbolCount;
    UInt32 fragNameOffset;
    UInt32 fragNameLength;
    UInt32 dylibPathOffset;
    UInt32 dylibPathLength;
    OSType cpuFamily;
    OSType cpuModel;
    UInt32 dateTimeStamp;
    UInt32 currentVersion;
    UInt32 oldDefVersion;
    UInt32 oldImpVersion;
};
typedef struct XLibContainerHeader XLibContainerHeader;

```

Fields

```

tag1
tag2
currentFormat
containerStringsOffset
exportHashOffset
exportKeyOffset
exportSymbolOffset
exportNamesOffset
exportHashTablePower
exportedSymbolCount
fragNameOffset
fragNameLength
dylibPathOffset
dylibPathLength
cpuFamily
cpuModel
dateTimeStamp
currentVersion
oldDefVersion
oldImpVersion

```

Discussion**Version Notes****Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

XLibExportedSymbol

```
struct XLibExportedSymbol {
    UInt32 classAndName;
    UInt32 bpOffset;
};
typedef struct XLibExportedSymbol XLibExportedSymbol;
```

Fields

classAndName

bpOffset

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

XLibExportedSymbolHashSlot

```
typedef PEFExportedSymbolHashSlot XLibExportedSymbolHashSlot;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

XLibExportedSymbolKey

```
typedef PEFExportedSymbolKey XLibExportedSymbolKey;
```

Discussion

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Declared In

PEFBinaryFormat.h

Constants

kPEF2IsReexportLibraryMask

```
enum {
    kPEF2IsReexportLibraryMask = 0x00000001,
    kPEF2IsGlueLibraryMask = 0x00000002
};
```

Constants

kPEF2IsReexportLibraryMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2IsGlueLibraryMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes**

kPEF2LdrInfoLargeImpSymMask

```
enum {
    kPEF2LdrInfoLargeImpSymMask = 0x00000001,
    kPEF2LdrInfoLargeExpSymMask = 0x00000002,
    kPEF2LdrInfoLargeExpHashMask = 0x00000004
};
```

Constants

kPEF2LdrInfoLargeImpSymMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2LdrInfoLargeExpSymMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2LdrInfoLargeExpHashMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEF2PrivateShare

```
enum {  
    kPEF2PrivateShare = 0,  
    kPEF2ProcessShare = 1,  
    kPEF2GlobalShare = 4,  
    kPEF2ProtectedShare = 5  
};
```

Constants

kPEF2PrivateShare
 Available in Mac OS X v10.0 and later.
 Declared in PEFBinaryFormat.h.

kPEF2ProcessShare
 Available in Mac OS X v10.0 and later.
 Declared in PEFBinaryFormat.h.

kPEF2GlobalShare
 Available in Mac OS X v10.0 and later.
 Declared in PEFBinaryFormat.h.

kPEF2ProtectedShare
 Available in Mac OS X v10.0 and later.
 Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEF2SectionHasCodeMask**

```
enum {
    kPEF2SectionHasCodeMask = 0x00000001,
    kPEF2SectionIsWriteableMask = 0x00000002,
    kPEF2SectionHasRelocationsMask = 0x00000004,
    kPEF2SectionContentsArePackedMask = 0x00000100,
    kPEF2SectionNoZeroFillMask = 0x00000200,
    kPEF2SectionResidentMask = 0x00000400,
    kPEF2SectionFollowsPriorMask = 0x00010000,
    kPEF2SectionPrecedesNextMask = 0x00020000,
    kPEF2SectionHasLoaderTablesMask = 0x01000000,
    kPEF2SectionHasDebugTablesMask = 0x02000000,
    kPEF2SectionHasExceptionTablesMask = 0x04000000,
    kPEF2SectionHasTracebackTablesMask = 0x08000000
};
```

Constants

kPEF2SectionHasCodeMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionIsWriteableMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionHasRelocationsMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionContentsArePackedMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionNoZeroFillMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionResidentMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionFollowsPriorMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionPrecedesNextMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEF2SectionHasLoaderTablesMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2SectionHasDebugTablesMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2SectionHasExceptionTablesMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2SectionHasTracebackTablesMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEF2StringsAreASCII

```
enum {  
    kPEF2StringsAreASCII = 0,  
    kPEF2StringsAreUnicode = 1  
};
```

Constants

kPEF2StringsAreASCII
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2StringsAreUnicode
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEF2Tag1**

```
enum {
    kPEF2Tag1 = kPEFTag1,
    kPEF2Tag2 = 'PEF ',
    kPEF2CurrentFormat = 0x00000002,
    kPEF201destHandler = 0x00000002
};
```

Constants

kPEF2Tag1

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2Tag2

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2CurrentFormat

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF201destHandler

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEF2WeakImportLibMask**

```
enum {
    kPEF2WeakImportLibMask = kPEFWeakImportLibMask,
    kPEF2InitLibBeforeMask = kPEFInitLibBeforeMask
};
```

Constants

kPEF2WeakImportLibMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEF2InitLibBeforeMask

Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEFAbsoluteExport**

```
enum {
    kPEFAbsoluteExport = -2,
    kPEFReexportedImport = -3
};
```

Constants

kPEFAbsoluteExport
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFReexportedImport
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

Discussion**Version Notes****Carbon Porting Notes****kPEFCodeSection**

```
enum {
    kPEFCodeSection = 0,
    kPEFUnpackedDataSection = 1,
    kPEFPackedDataSection = 2,
    kPEFConstantSection = 3,
    kPEFExecDataSection = 6,
    kPEFLoaderSection = 4,
    kPEFDebugSection = 5,
    kPEFExceptionSection = 7,
    kPEFTracebackSection = 8
};
```

Constants

kPEFCodeSection
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFUnpackedDataSection
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFPackedDataSection
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

- kPEFConstantSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFExecDataSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFLoaderSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFDebugSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFExceptionSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFTracebackSection
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFCodeSymbol

```
enum {  
    kPEFCodeSymbol = 0x00,  
    kPEFDataSymbol = 0x01,  
    kPEFTVectorSymbol = 0x02,  
    kPEFTOCSymbol = 0x03,  
    kPEFGlueSymbol = 0x04,  
    kPEFUndefinedSymbol = 0x0F,  
    kPEFWeakImportSymMask = 0x80  
};
```

Constants

- kPEFCodeSymbol
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFDataSymbol
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.
- kPEFTVectorSymbol
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFTOCSymbol

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFGlueSymbol

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFUndefinedSymbol

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFWeakImportSymMask

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

Discussion

Version Notes

Carbon Porting Notes

kPEFExpSymClassShift

```
enum {
    kPEFExpSymClassShift = 24,
    kPEFExpSymNameOffsetMask = 0x00FFFFFF,
    kPEFExpSymMaxNameOffset = 0x00FFFFFF
};
```

Constants

kPEFExpSymClassShift

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFExpSymNameOffsetMask

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFExpSymMaxNameOffset

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

Discussion

Version Notes

Carbon Porting Notes

kPEFFirstSectionHeaderOffset

```
enum {  
    kPEFFirstSectionHeaderOffset = sizeof(PEFContainerHeader)  
};
```

Constants

kPEFFirstSectionHeaderOffset
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFHashLengthShift

```
enum {  
    kPEFHashLengthShift = 16,  
    kPEFHashValueMask = 0x0000FFFF,  
    kPEFHashMaxLength = 0x0000FFFF  
};
```

Constants

kPEFHashLengthShift
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFHashValueMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFHashMaxLength
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEFHashSlotSymCountShift**

```
enum {
    kPEFHashSlotSymCountShift = 18,
    kPEFHashSlotFirstKeyMask = 0x0003FFFF,
    kPEFHashSlotMaxSymbolCount = 0x00003FFF,
    kPEFHashSlotMaxKeyIndex = 0x0003FFFF
};
```

Constants

kPEFHashSlotSymCountShift
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFHashSlotFirstKeyMask
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFHashSlotMaxSymbolCount
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFHashSlotMaxKeyIndex
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

Discussion**Version Notes****Carbon Porting Notes****kPEFImpSymClassShift**

```
enum {
    kPEFImpSymClassShift = 24,
    kPEFImpSymNameOffsetMask = 0x00FFFFFF,
    kPEFImpSymMaxNameOffset = 0x00FFFFFF
};
```

Constants

kPEFImpSymClassShift
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFImpSymNameOffsetMask
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFImpSymMaxNameOffset
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFPkDataOpcodeShift

```
enum {  
    kPEFPkDataOpcodeShift = 5,  
    kPEFPkDataCount5Mask = 0x1F,  
    kPEFPkDataMaxCount5 = 31,  
    kPEFPkDataVCountShift = 7,  
    kPEFPkDataVCountMask = 0x7F,  
    kPEFPkDataVCountEndMask = 0x80  
};
```

Constants

kPEFPkDataOpcodeShift
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFPkDataCount5Mask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFPkDataMaxCount5
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFPkDataVCountShift
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFPkDataVCountMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFPkDataVCountEndMask
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion**Version Notes****Carbon Porting Notes****kPEFPkDataZero**

```
enum {
    kPEFPkDataZero = 0,
    kPEFPkDataBlock = 1,
    kPEFPkDataRepeat = 2,
    kPEFPkDataRepeatBlock = 3,
    kPEFPkDataRepeatZero = 4
};
```

Constants

kPEFPkDataZero
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFPkDataBlock
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFPkDataRepeat
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFPkDataRepeatBlock
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFPkDataRepeatZero
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

Discussion**Version Notes****Carbon Porting Notes****kPEFProcessShare**

```
enum {
    kPEFProcessShare = 1,
    kPEFGlobalShare = 4,
    kPEFProtectedShare = 5
};
```

Constants

kPEFProcessShare
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

kPEFGlobalShare

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kPEFProtectedShare

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocBasicOpcodeRange

```
enum {  
    kPEFRelocBasicOpcodeRange = 128  
};
```

Constants

kPEFRelocBasicOpcodeRange

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

Discussion**Version Notes****Carbon Porting Notes****kPEFRelocBySectDWithSkip**

```
enum {
    kPEFRelocBySectDWithSkip = 0x00,
    kPEFRelocBySectC = 0x20,
    kPEFRelocBySectD = 0x21,
    kPEFRelocTVector12 = 0x22,
    kPEFRelocTVector8 = 0x23,
    kPEFRelocVTable8 = 0x24,
    kPEFRelocImportRun = 0x25,
    kPEFRelocSmByImport = 0x30,
    kPEFRelocSmSetSectC = 0x31,
    kPEFRelocSmSetSectD = 0x32,
    kPEFRelocSmBySection = 0x33,
    kPEFRelocIncrPosition = 0x40,
    kPEFRelocSmRepeat = 0x48,
    kPEFRelocSetPosition = 0x50,
    kPEFRelocLgByImport = 0x52,
    kPEFRelocLgRepeat = 0x58,
    kPEFRelocLgSetOrBySection = 0x5A,
    kPEFRelocUndefinedOpcode = 0xFF
};
```

Constants

kPEFRelocBySectDWithSkip
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocBySectC
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocBySectD
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocTVector12
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocTVector8
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocVTable8
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

kPEFRelocImportRun
 Available in Mac OS X v10.0 and later.
 Declared in `PEFBinaryFormat.h`.

- `kPEFRelocSmByImport`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocSmSetSectC`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocSmSetSectD`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocSmBySection`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocIncrPosition`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocSmRepeat`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocSetPosition`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocLgByImport`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocLgRepeat`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocLgSetOrBySection`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.
- `kPEFRelocUndefinedOpcode`
Available in Mac OS X v10.0 and later.
Declared in `PEFBinaryFormat.h`.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocIncrPositionMaxOffset

```
enum {  
    kPEFRelocIncrPositionMaxOffset = 4096  
};
```

Constants

kPEFRelocIncrPositionMaxOffset
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocLgByImportMaxIndex

```
enum {  
    kPEFRelocLgByImportMaxIndex = 0x03FFFFFF  
};
```

Constants

kPEFRelocLgByImportMaxIndex
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocLgBySectionSubopcode

```
enum {  
    kPEFRelocLgBySectionSubopcode = 0x00,  
    kPEFRelocLgSetSectCSubopcode = 0x01,  
    kPEFRelocLgSetSectDSubopcode = 0x02  
};
```

Constants

kPEFRelocLgBySectionSubopcode
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFRelocLgSetSectCSubopcode
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFRelocLgSetSectDSubopcode
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocLgRepeatMaxChunkCount

```
enum {  
    kPEFRelocLgRepeatMaxChunkCount = 16,  
    kPEFRelocLgRepeatMaxRepeatCount = 0x003FFFFF  
};
```

Constants

kPEFRelocLgRepeatMaxChunkCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFRelocLgRepeatMaxRepeatCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocLgSetOrBySectionMaxIndex

```
enum {  
    kPEFRelocLgSetOrBySectionMaxIndex = 0x003FFFFF  
};
```

Constants

kPEFRelocLgSetOrBySectionMaxIndex
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocRunMaxRunLength

```
enum {  
    kPEFRelocRunMaxRunLength = 512  
};
```

Constants

kPEFRelocRunMaxRunLength
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocSetPosMaxOffset

```
enum {  
    kPEFRelocSetPosMaxOffset = 0x03FFFFFF  
};
```

Constants

kPEFRelocSetPosMaxOffset
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocSmIndexMaxIndex

```
enum {  
    kPEFRelocSmIndexMaxIndex = 511  
};
```

Constants

kPEFRelocSmIndexMaxIndex
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocSmRepeatMaxChunkCount

```
enum {  
    kPEFRelocSmRepeatMaxChunkCount = 16,  
    kPEFRelocSmRepeatMaxRepeatCount = 256  
};
```

Constants

kPEFRelocSmRepeatMaxChunkCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFRelocSmRepeatMaxRepeatCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFRelocWithSkipMaxSkipCount

```
enum {  
    kPEFRelocWithSkipMaxSkipCount = 255,  
    kPEFRelocWithSkipMaxRelocCount = 63  
};
```

Constants

kPEFRelocWithSkipMaxSkipCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

kPEFRelocWithSkipMaxRelocCount
Available in Mac OS X v10.0 and later.
Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFTag1

```
enum {  
    kPEFTag1 = 'Joy!',  
    kPEFTag2 = 'peff',  
    kPEFVersion = 0x00000001  
};
```

Constants

kPEFTag1
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEFTag2
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEFVersion
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kPEFWeakImportLibMask

```
enum {  
    kPEFWeakImportLibMask = 0x40,  
    kPEFInitLibBeforeMask = 0x80  
};
```

Constants

kPEFWeakImportLibMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

kPEFInitLibBeforeMask
Available in Mac OS X v10.0 and later.

Declared in PEFBinaryFormat.h.

Discussion

Version Notes

Carbon Porting Notes

kXLibTag1

```
enum {  
    kXLibTag1 = 'Mac',  
    kVLibTag2 = 'VLib',  
    kBLibTag2 = 'BLib',  
    kXLibVersion = 0x00000001  
};
```

Constants

kXLibTag1

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kVLibTag2

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kBLibTag2

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

kXLibVersion

Available in Mac OS X v10.0 and later.

Declared in `PEFBinaryFormat.h`.

Discussion

Version Notes

Carbon Porting Notes

Deprecated Pascal String Utilities Functions

A function identified as deprecated has been superseded and may become unsupported in the future.

Deprecated in Mac OS X v10.4

PLpos

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
short PLpos (
    ConstStr255Param str1,
    ConstStr255Param searchStr
);
```

Parameters

str1

str2

Return Value

Discussion

Special Considerations

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes

Carbon Porting Notes

Availability

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrcat

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

Deprecated Pascal String Utilities Functions

```
StringPtr PLstrcat (
    StringPtr str,
    ConstStr255Param append
);
```

Parameters*str1**str2***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrchr

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
Ptr PLstrchr (
    ConstStr255Param str1,
    short ch1
);
```

Parameters*str1***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrcmp

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
short PLstrcmp (
    ConstStr255Param str1,
    ConstStr255Param str2
);
```

Parameters

str1

str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrcpy

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
StringPtr PLstrcpy (
    StringPtr dest,
    ConstStr255Param source
);
```

Parameters

str1

str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Deprecated Pascal String Utilities Functions

Related Sample Code

SoftVDigX

Declared In

PLStringFuncs.h

PLstrlen**(Deprecated in Mac OS X v10.4.** Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
short PLstrlen (
    ConstStr255Param str
);
```

Parameters*str***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrncat**(Deprecated in Mac OS X v10.4.** Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
StringPtr PLstrncat (
    StringPtr str1,
    ConstStr255Param append,
    short num
);
```

Parameters*str1**str2***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Deprecated Pascal String Utilities Functions

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrncmp

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
short PLstrncmp (  
    ConstStr255Param str1,  
    ConstStr255Param str2,  
    short num  
);
```

Parameters

str1

str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrncpy

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

Deprecated Pascal String Utilities Functions

```
StringPtr PLstrncpy (
    StringPtr dest,
    ConstStr255Param source,
    short num
);
```

Parameters

str1
str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

`PLStringFuncs.h`

PLstrpbkr

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
Ptr PLstrpbkr (
    ConstStr255Param str1,
    ConstStr255Param charSet
);
```

Parameters

str1
str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Deprecated Pascal String Utilities Functions

Declared In

PLStringFuncs.h

PLstrchr

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
Ptr PLstrchr (  
    ConstStr255Param str1,  
    short ch1  
);
```

Parameters*str1***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrspn

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
short PLstrspn (  
    ConstStr255Param str1,  
    ConstStr255Param charSet  
);
```

Parameters*str1**str2***Return Value****Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Deprecated Pascal String Utilities Functions

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

PLstrstr

(Deprecated in Mac OS X v10.4. Use Core Foundation strings (CFStrings) instead. See *CFString Reference*.)

```
Ptr PLstrstr (  
    ConstStr255Param str1,  
    ConstStr255Param searchStr  
);
```

Parameters

str1

str2

Return Value**Discussion****Special Considerations**

If you need to convert Pascal strings, you can use functions like `CFStringCreateWithPascalString` to do so.

Version Notes**Carbon Porting Notes****Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.4.

Declared In

PLStringFuncs.h

Unsupported Functions

Table B-1 lists Pascal String Utilities functions not supported in Carbon or Mac OS X.

Table B-1 Unsupported functions

Name	Porting Notes
abortOnMC68000	68K-specific
abortToolOnMC68000	68K-specific
__dbl2dd	
__dd2dbl	
__dd2flt	
__dd2int	
__dd2uns	
__ddeq	
__ddge	
__ddle	
__ddl t	
__ddne	
__ddunordered	
__DebugMallocHeap	
dec2numDD	
Dis68kSetOptions	68K-specific
Disassembler	68K-specific
endOfModule	68K-specific
__flt2dd	
__g_fmt	
InitLookup	68K-specific

Unsupported Functions

Name	Porting Notes
__Int2dd	
Lookup	68K-specific
LookupTrapName	68K-specific
MAF	
MakeResolvedFSSpec	
MakeResolvedPath	
ModifyOperand	
__negdd	
num2decDD	
onMC68000	68K-specific
_qatof	
_qecvt	
_qfcvt	
_qint	
ResolveFolderAliases	
ResolvePath	
__RestoreInitialCFragWorld	
__RevertCFragWorld	
__RTExit	
__RTInit	
SetLookupProcs	
showMacBugSymbol	68K-specific
StandAlone	
str2decDD	
str2numDD	
__target_for_exit	
__uns2dd	

APPENDIX B

Unsupported Functions

Name	Porting Notes
validMacxBugSymbol	68K-specific
_xlqadd	
_xlqdiv	
_xlqmul	

Document Revision History

This table describes the changes to *Pascal String Utilities Reference*.

Date	Notes
2006-07-12	Made minor formatting changes.
2006-07-24	Deprecated entire document.
2003-01-01	Updated formatting and linking.
	Moved unsupported functions to Appendix A.

REVISION HISTORY

Document Revision History

Index

K

- kLibTag2 [constant 49](#)
- kPEF2CurrentFormat [constant 33](#)
- kPEF2GlobalShare [constant 30](#)
- kPEF2InitLibBeforeMask [constant 33](#)
- kPEF2IsGlueLibraryMask [constant 29](#)
- kPEF2IsReexportLibraryMask [29](#)
- kPEF2IsReexportLibraryMask [constant 29](#)
- kPEF2LdrInfoLargeExpHashMask [constant 29](#)
- kPEF2LdrInfoLargeExpSymMask [constant 29](#)
- kPEF2LdrInfoLargeImpSymMask [29](#)
- kPEF2LdrInfoLargeImpSymMask [constant 29](#)
- kPEF2OidHandler [constant 33](#)
- kPEF2PrivateShare [30](#)
- kPEF2PrivateShare [constant 30](#)
- kPEF2ProcessShare [constant 30](#)
- kPEF2ProtectedShare [constant 30](#)
- kPEF2SectionContentsArePackedMask [constant 31](#)
- kPEF2SectionFollowsPriorMask [constant 31](#)
- kPEF2SectionHasCodeMask [31](#)
- kPEF2SectionHasCodeMask [constant 31](#)
- kPEF2SectionHasDebugTablesMask [constant 32](#)
- kPEF2SectionHasExceptionTablesMask [constant 32](#)
- kPEF2SectionHasLoaderTablesMask [constant 32](#)
- kPEF2SectionHasRelocationsMask [constant 31](#)
- kPEF2SectionHasTracebackTablesMask [constant 32](#)
- kPEF2SectionIsWriteableMask [constant 31](#)
- kPEF2SectionNoZeroFillMask [constant 31](#)
- kPEF2SectionPrecedesNextMask [constant 31](#)
- kPEF2SectionResidentMask [constant 31](#)
- kPEF2StringsAreASCII [22](#)
- kPEF2StringsAreASCII [constant 32](#)
- kPEF2StringsAreUnicode [constant 32](#)
- kPEF2Tag1 [33](#)
- kPEF2Tag1 [constant 33](#)
- kPEF2Tag2 [constant 33](#)
- kPEF2WeakImportLibMask [33](#)
- kPEF2WeakImportLibMask [constant 33](#)
- kPEFAbsoluteExport [34](#)
- kPEFAbsoluteExport [constant 34](#)
- kPEFCodeSection [34](#)
- kPEFCodeSection [constant 34](#)
- kPEFCodeSymbol [35](#)
- kPEFCodeSymbol [constant 35](#)
- kPEFConstantSection [constant 35](#)
- kPEFDataSymbol [constant 35](#)
- kPEFDebugSection [constant 35](#)
- kPEFExceptionSection [constant 35](#)
- kPEFExecDataSection [constant 35](#)
- kPEFExpSymClassShift [36](#)
- kPEFExpSymClassShift [constant 36](#)
- kPEFExpSymMaxNameOffset [constant 36](#)
- kPEFExpSymNameOffsetMask [constant 36](#)
- kPEFFirstSectionHeaderOffset [37](#)
- kPEFFirstSectionHeaderOffset [constant 37](#)
- kPEFGlobalShare [constant 41](#)
- kPEFGlueSymbol [constant 36](#)
- kPEFHashLengthShift [37](#)
- kPEFHashLengthShift [constant 37](#)
- kPEFHashMaxLength [constant 37](#)
- kPEFHashSlotFirstKeyMask [constant 38](#)
- kPEFHashSlotMaxKeyIndex [constant 38](#)
- kPEFHashSlotMaxSymbolCount [constant 38](#)
- kPEFHashSlotSymCountShift [38](#)
- kPEFHashSlotSymCountShift [constant 38](#)
- kPEFHashValueMask [constant 37](#)
- kPEFImpSymClassShift [38](#)
- kPEFImpSymClassShift [constant 38](#)
- kPEFImpSymMaxNameOffset [constant 39](#)
- kPEFImpSymNameOffsetMask [constant 38](#)
- kPEFInitLibBeforeMask [constant 48](#)
- kPEFLoaderSection [constant 35](#)
- kPEFPackedDataSection [constant 34](#)
- kPEFPkDataBlock [constant 40](#)
- kPEFPkDataCount5Mask [constant 39](#)
- kPEFPkDataMaxCount5 [constant 39](#)
- kPEFPkDataOpcodeShift [39](#)
- kPEFPkDataOpcodeShift [constant 39](#)
- kPEFPkDataRepeat [constant 40](#)
- kPEFPkDataRepeatBlock [constant 40](#)
- kPEFPkDataRepeatZero [constant 40](#)
- kPEFPkDataVCountEndMask [constant 39](#)

kPEFPkDataVCountMask **constant** 39
 kPEFPkDataVCountShift **constant** 39
 kPEFPkDataZero **40**
 kPEFPkDataZero **constant** 40
 kPEFPProcessShare **40**
 kPEFPProcessShare **constant** 40
 kPEFPProtectedShare **constant** 41
 kPEFReexportedImport **constant** 34
 kPEFRelocBasicOpcodeRange **41**
 kPEFRelocBasicOpcodeRange **constant** 41
 kPEFRelocBySectC **constant** 42
 kPEFRelocBySectD **constant** 42
 kPEFRelocBySectDWithSkip **42**
 kPEFRelocBySectDWithSkip **constant** 42
 kPEFRelocImportRun **constant** 42
 kPEFRelocIncrPosition **constant** 43
 kPEFRelocIncrPositionMaxOffset **44**
 kPEFRelocIncrPositionMaxOffset **constant** 44
 kPEFRelocLgByImport **constant** 43
 kPEFRelocLgByImportMaxIndex **44**
 kPEFRelocLgByImportMaxIndex **constant** 44
 kPEFRelocLgBySectionSubopcode **44**
 kPEFRelocLgBySectionSubopcode **constant** 44
 kPEFRelocLgRepeat **constant** 43
 kPEFRelocLgRepeatMaxChunkCount **45**
 kPEFRelocLgRepeatMaxChunkCount **constant** 45
 kPEFRelocLgRepeatMaxRepeatCount **constant** 45
 kPEFRelocLgSetOrBySection **constant** 43
 kPEFRelocLgSetOrBySectionMaxIndex **45**
 kPEFRelocLgSetOrBySectionMaxIndex **constant** 45
 kPEFRelocLgSetSectCSubopcode **constant** 45
 kPEFRelocLgSetSectDSubopcode **constant** 45
 kPEFRelocRunMaxRunLength **46**
 kPEFRelocRunMaxRunLength **constant** 46
 kPEFRelocSetPosition **constant** 43
 kPEFRelocSetPosMaxOffset **46**
 kPEFRelocSetPosMaxOffset **constant** 46
 kPEFRelocSmByImport **constant** 43
 kPEFRelocSmBySection **constant** 43
 kPEFRelocSmIndexMaxIndex **46**
 kPEFRelocSmIndexMaxIndex **constant** 46
 kPEFRelocSmRepeat **constant** 43
 kPEFRelocSmRepeatMaxChunkCount **47**
 kPEFRelocSmRepeatMaxChunkCount **constant** 47
 kPEFRelocSmRepeatMaxRepeatCount **constant** 47
 kPEFRelocSmSetSectC **constant** 43
 kPEFRelocSmSetSectD **constant** 43
 kPEFRelocTVector12 **constant** 42
 kPEFRelocTVector8 **constant** 42
 kPEFRelocUndefinedOpcode **constant** 43
 kPEFRelocVTable8 **constant** 42
 kPEFRelocWithSkipMaxRelocCount **constant** 47
 kPEFRelocWithSkipMaxSkipCount **47**

kPEFRelocWithSkipMaxSkipCount **constant** 47
 kPEFTag1 **48**
 kPEFTag1 **constant** 48
 kPEFTag2 **constant** 48
 kPEFTOCSymbol **constant** 36
 kPEFTracebackSection **constant** 35
 kPEFTVectorSymbol **constant** 35
 kPEFUndefinedSymbol **constant** 36
 kPEFUnpackedDataSection **constant** 34
 kPEFVersion **constant** 48
 kPEFWeakImportLibMask **48**
 kPEFWeakImportLibMask **constant** 48
 kPEFWeakImportSymMask **constant** 36
 kVLibTag2 **constant** 49
 kXLibTag1 **49**
 kXLibTag1 **constant** 49
 kXLibVersion **constant** 49

P

PEF2ContainerHeader **structure** 10
 PEF2ExportedSymbolKey **data type** 11
 PEF2ImportedLibrary **structure** 12
 PEF2LgExportedSymbol **structure** 13
 PEF2LgExportedSymbolHashSlot **structure** 12
 PEF2LgImportedSymbol **structure** 14
 PEF2LoaderInfoHeader **structure** 15
 PEF2LoaderRelocationHeader **structure** 16
 PEF2SectionHeader **structure** 17
 PEF2SmExportedSymbol **data type** 18
 PEF2SmExportedSymbolHashSlot **data type** 17
 PEF2SmImportedSymbol **data type** 18
 PEFContainerHeader **structure** 19
 PEFExportedSymbol **structure** 20
 PEFExportedSymbolHashSlot **structure** 20
 PEFExportedSymbolKey **structure** 21
 PEFImportedLibrary **structure** 22
 PEFImportedSymbol **structure** 22
 PEFLoaderInfoHeader **structure** 23
 PEFLoaderRelocationHeader **structure** 24
 PEFRelocChunk **data type** 24
 PEFSectionHeader **structure** 25
 PEFSplitHashWord **structure** 26
 PLpos **function** (Deprecated in Mac OS X v10.4) 51
 PLstrcat **function** (Deprecated in Mac OS X v10.4) 51
 PLstrchr **function** (Deprecated in Mac OS X v10.4) 52
 PLstrcmp **function** (Deprecated in Mac OS X v10.4) 53
 PLstrcpy **function** (Deprecated in Mac OS X v10.4) 53
 PLstrlen **function** (Deprecated in Mac OS X v10.4) 54
 PLstrncat **function** (Deprecated in Mac OS X v10.4) 54
 PLstrncmp **function** (Deprecated in Mac OS X v10.4) 55
 PLstrncpy **function** (Deprecated in Mac OS X v10.4) 55

PLstrpbkr **function** (Deprecated in Mac OS X v10.4) [56](#)
PLstrrchr **function** (Deprecated in Mac OS X v10.4) [57](#)
PLstrspn **function** (Deprecated in Mac OS X v10.4) [57](#)
PLstrstr **function** (Deprecated in Mac OS X v10.4) [58](#)

X

XLibContainerHeader **structure** [27](#)
XLibExportedSymbol **structure** [28](#)
XLibExportedSymbolHashSlot **data type** [28](#)
XLibExportedSymbolKey **data type** [28](#)