

diskfont

COLLABORATORS

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| | <i>TITLE :</i> diskfont | | |
| <i>ACTION</i> | <i>NAME</i> | <i>DATE</i> | <i>SIGNATURE</i> |
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REVISION HISTORY

| NUMBER | DATE | DESCRIPTION | NAME |
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Chapter 1

diskfont

1.1 diskfont.doc

```
AvailFonts ()
DisposeFontContents ()
NewFontContents ()
NewScaledDiskFont ()
OpenDiskFont ()
```

1.2 diskfont.library/AvailFonts

NAME

AvailFonts -- Inquire available memory & disk fonts.

SYNOPSIS

```
error = AvailFonts(buffer, bufBytes, flags);
                A0      D0      D1
```

```
LONG AvailFonts( struct AvailFontsHeader *buffer, LONG bufBytes
                ULONG flags );
```

FUNCTION

AvailFonts fills a user supplied buffer with the structure, described below, that contains information about all the fonts available in memory and/or on disk. Those fonts available on disk need to be loaded into memory and opened via OpenDiskFont, those already in memory are accessed via OpenFont. The TextAttr structure required by the open calls is part of the information AvailFonts supplies.

When AvailFonts fails, it returns the number of extra bytes it needed to complete the command. Add this number to your current buffer size, allocate a new buffer, and try again.

INPUTS

buffer - memory to be filled with struct AvailFontsHeader followed by an array of AvailFonts elements, which contains entries for the available fonts and their names.

bufBytes - the number of bytes in the buffer

flags - AFF_MEMORY is set to search memory for fonts to fill the structure, AFF_DISK is set to search the disk for fonts to fill the structure. AFF_SCALED is set to not filter out memory fonts that are not designed. AFF_BITMAP is set to filter out fonts that are not stored in Amiga font format, i.e. to filter out outline fonts. Any combination may be specified. AFF_TAGGED is set to fill the buffer with TAvailFonts elements instead of AvailFonts elements.

RESULTS

buffer - filled with struct AvailFontsHeader followed by the [T]AvailFonts elements, There will be duplicate entries for fonts found both in memory and on disk, differing only by type. The existence of a disk font in the buffer indicates that it exists as an entry in a font contents file -- the underlying font file has not been checked for validity, thus an OpenDiskFont of it may fail.

error - if non-zero, this indicates the number of bytes needed for AvailFonts in addition to those supplied. Thus structure elements were not returned because of insufficient bufBytes.

EXAMPLE

```
int afShortage, afSize;
struct AvailFontsHeader *afh;

...

afSize = 400;
do {
    afh = (struct AvailFontsHeader *) AllocMem(afSize, 0);
    if (afh) {
        afShortage = AvailFonts(afh, afSize, AFF_MEMORY|AFF_DISK);
        if (afShortage) {
            FreeMem(afh, afSize);
            afSize += afShortage;
        }
    }
    else {
        fail("AllocMem of AvailFonts buffer afh failed\n");
        break;
    }
}
while (afShortage);

/*
 * if (afh) non-zero here, then:
```

```
* 1. it points to a valid AvailFontsHeader
* 2. it must have FreeMem(afh, afSize) called for it after use
*/
```

1.3 diskfont.library/DisposeFontContents

NAME

DisposeFontContents -- Free the result from NewFontContents. (V34)

SYNOPSIS

DisposeFontContents(fontContentsHeader)

A1

```
VOID DisposeFontContents( struct FontContentsHeader * );
```

FUNCTION

This function frees the array of FontContents entries returned by NewFontContents.

INPUTS

fontContentsHeader - a struct FontContentsHeader pointer returned by NewFontContents.

EXCEPTIONS

This command was first made available as of version 34.

A fontContentsHeader other than one acquired by a call NewFontContents will crash.

SEE ALSO

```
NewFontContents()
to get structure freed here.
```

1.4 diskfont.library/NewFontContents

NAME

NewFontContents -- Create a FontContents image for a font. (V34)

SYNOPSIS

fontContentsHeader = NewFontContents(fontsLock, fontName)

D0

A0

A1

```
struct FontContentsHeader *NewFontContents( BPTR, char * );
```

FUNCTION

This function creates a new array of FontContents entries that describe all the fonts associated with the fontName, specifically, all those in the font directory whose name is that of the font sans the ".font" suffix.

INPUTS

fontsLock - a DOS lock on the FONTS: directory (or other directory where the font contents file and associated font directory resides).

fontName - the font name, with the ".font" suffix, which is also the name of the font contents file.

RESULT

fontContentsHeader - a struct FontContentsHeader pointer.

EXCEPTIONS

This command was first made available as of version 34.

D0 is zero if the fontName is does not have a ".font" suffix, if the fontName is too long, if a DOS error occurred, or if memory could not be allocated for the fontContentsHeader.

SEE ALSO

DisposeFontContents()
to free the structure acquired here.

1.5 diskfont.library/NewScaledDiskFont

NAME

NewScaledDiskFont -- Create a DiskFont scaled from another. (V36)

SYNOPSIS

```
header = NewScaledDiskFont(srcFont, destTextAttr)
D0                A0                A1
```

```
struct DiskFontHeader *NewScaledDiskFont( struct TextFont *,
    struct TTextAttr * );
```

INPUTS

srcFont - the font from which the scaled font is to be constructed.

destTextAttr - the desired attributes for the new scaled font. This may be a structure of type TextAttr or TTextAttr.

RESULT

header - a pointer to a DiskFontHeader structure. This is not being managed by the diskfont.library, however.

NOTES

- o This function may use the blitter.
- o Fonts containing characters that render wholly outside the character advance cell are currently not scalable.
- o The font, and memory allocated for the scaled font can be freed by calling StripFont() on the font, and then calling UnLoadSeg() on the segment created by this function.

Both the `TextFont` structure, and segment pointer are contained within the `DiskFontHeader` struct. The `DiskFontHeader` structure will also be freed as part of the `UnLoadSeg()` call. `StripFont()` is a new `graphics.library` call as of V36.

1.6 diskfont.library/OpenDiskFont

NAME

`OpenDiskFont` - load and get a pointer to a disk font.

SYNOPSIS

```
font = OpenDiskFont(textAttr)
D0                                     A0
```

FUNCTION

This function finds the font with the specified `textAttr` on disk, loads it into memory, and returns a pointer to the font that can be used in subsequent `SetFont` and `CloseFont` calls. It is important to match this call with a corresponding `CloseFont` call for effective management of font memory.

If the font is already in memory, the copy in memory is used. The disk copy is not reloaded.

INPUTS

`textAttr` - a `TextAttr` structure that describes the text font attributes desired.

RESULTS

D0 is zero if the desired font cannot be found.

NOTES

As of V36, `OpenDiskFont()` will automatically attempt to construct a font for you if:

- You have requested a font size which does not exist as a designed font, and

- You have not set the `DESIGNED` bit in the `ta_Flags` field of the `TextAttr`, or `TTextAttr` struct.

Constructed fonts are created by scaling a designed font. A designed font is one which typically resides on disk, or in ROM (e.g., a font which has been designed by hand using a drawing tool). Designed fonts generally look better than fonts constructed by the font scaler, but designed fonts also require disk space for each font size.

Always set the `DESIGNED` bit if you do not want constructed fonts, or use

```
AvailFonts()
to find out which font sizes already exist.
```

As of V37 the `diskfont.library` supported built-in outline fonts. Then in V38 the outline font engine was moved to

a new library, "bullet.library."

BUGS

This routine will not work well with font names whose file name components are longer than the maximum allowed (30 characters).
