

@RichReader

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â` A Word, HTML, and PDF Document Reader for the Palm Computing«
Platform

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BôőNew: DôőCÉőóEőřLôőóOőřREőő ÉŠřTLőőEÉLőXÉőÖTLöÖ!Éő

NOTE: The most recent documentation can always be found at the web site:

Éřřhttp://users.rcn.com/arenamk/RichReader.htmlÉő

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■dIntroduction@

┌FRichReader@ is a document reader application for Palm Computing« Platform and Handspring handheld devices (such as the PalmPilot Pro, Palm III, Palm V, Visor, etc.). Unlike other document readers, the power of this program is its ability to display Brichly@ formatted text from any word processor/application (such as Microsoft« Word) that can create Rich Text Format (DRTF@) files or from downloaded Web pages in DHTML@ files. Document readers display text documents that are stored on the handheld device. FRichReader@ can also read plain documents (without formatting codes) stored in standard AportisDocÖ format. This format is efficient for platforms with limited memory.

If you are viewing this document on your handheld, you can already see the benefits that FRichReader@ provides over standard plain text document readers. Words are displayed in various styles and sizes. Paragraphs can be indented, justified, and have preceding bullets/numbers. Not only do these highlights draw your eye to significant elements on the screen, but they also can improve comprehension of the author's intent for certain words and phrases. For example (to borrow Sun's catch phrase), if you read the sentence:

The Network Is The ComputerÖ.

┌, as plain text, it has a slightly different interpretation (to me) than when you read it as:

┌The NetworkF Is@ The ComputerÖ.

I developed this program to enhance your productivity while away from the desktop PC. As a professional in the information age, you send and receive documents (probably Microsoft« Word or DHTML@ documents) through email and can only view those documents while you are at your PC (or laptop). If you then need to bring that document to a meeting, you print it out, take it to the meeting, write notes and changes on the pages, bring it back to your desk, type in the notes, email the comments to the original author (or edit the original) document, and, finally, discard the paper that was only needed for a couple of hours.

Now you can streamline this process and go "paperless" at the same time. If you have a Document Reader such as FRichReader@ on your handheld and desktop conversion software, you could save the Microsoft« Word document as rich text and convert it to a Palm file to be synched with the handheld.

Then you will be able to read the formatted text and take notes in the Memo Pad.

↳FRichReaderd ěFeatures@

↳L DôösCÉŚÓEöŤLôŚÓOôöŤRÉös ÉŚŤŤLösEÉLśXEöÖŤLöÖ!Éös

↳↳L @Recognizes foreground color attributes in HTML and RTF (not PDF yet).

↳↳L Color formatting is ignored on non-Palm IIIc devices.

↳↳L Five different font styles:

↳Normal, DBold@, BItalic@, FBold Italic@, HFixed@

All styles work with all font sizes (except there is no Small Bold).

↳↳L Three different font sizes in proportional and fixed widths:

↳↳L Small (<9 points) (7 pixels high, up to 22 lines per screen)

↳Normal, \$Bold , "Italic , &Bold Italic@

(Normal, ,Bold(, *Italic(, .Bold Italic@

↳↳L Medium (9-13 points) (11 pixels high, up to 14 lines per screen)

↳Normal, DBold@, BItalic@, FBold Italic@

HNormal, LBoldH, JItalicH, NBold Italic@

↳↳L `Large (14+ points) (14 pixels high, up to 11 lines per screen)

↳Normal, dBold` , bItalic` , fBold Italic@

hNormal, lBoldh, jItalich, nBold Italic@

↳↳L ASolid underlining@ and PÉöŤdotted underlining@Éös (for links?).

↳↳L Three styles of paragraph justification:

↳Left justification is the most common. Lines will wrap at 160 pixels which is the width of the Palm screen.D

↳Centering for titles.

↳Right justification also works@.

↳↳L Long Word wrapping

↳Some lines that end in very long words can sometimes wrap after only a few characters in other programs:

↳↳ This is an

extremely-long-nonsense-word-with-no-embedded-spaces.

↳@But this seems wasteful so if the long word starts before about 58% of the width (95 pixels), then it will simply break the word like so:

↳↳ This is an extremely-long-nonsense-word-with-no-embedded-spaces.

↳↳L @Horizontal lines:î

test

îend test

↳↳L Tables are displayed one cell at a time with a horizontal line at the start and end of each row and a horizontal line at the end of a cell.

Therefore, when viewing a table in FRichReader@, you can distinguish row boundaries by "thick" lines and cell boundaries by "thin" lines.

îââDProduct

îÇâVersion

Price

RichReader

B1.61

ü \$14.95

RichWriter

B???

ü \$???

Rich

Added the Euro symbol (€) at character 128 in the Small and Medium fonts (not the Large font).

Paragraph Indenting

This paragraph is left indented one inch. The first line indent is set to zero so all lines are indented identically.

This paragraph is also left indented one inch but the first line is indented another one half inch relative to the left indent.

This last paragraph is also left indented one inch but the first line is negatively indented one half inch relative to the left indent.

Document information is saved between sessions

When a document is first opened, it is scanned for certain properties (this can take a while for large documents). This information along with the current line number is saved in a database so that when leaving the application and then returning, the program will quickly return to where you left off.

Bookmarks

Bookmarks from a Microsoft Word file will be added for:

Any "Heading" style (eg. Heading 2): the selected text will be bookmarked.

Bookmarks manually through the Insert -> Bookmark... menu.

A Table Of Contents (TOC): each item in the TOC will be bookmarked.

Bookmarks from an HTML file will be added for:

Header tags (<H1>, <H2>, <H3>, <H4>, <H5>, <H6>)

Anchor tags ().

Bookmarks saved by "another" Doc reader will also be scanned and added to the list.

Manually Add and Delete bookmarks

When Adding a bookmark, the first 15 characters of the top line of the screen are automatically copied to the Name: in the dialog.

Up to 200 bookmarks can be displayed.

Find

Allows you to search a document for a given string (up to 15 characters).

The line containing the matching string is displayed on the top line of the screen.

Case of letters are ignored (i.e. a = A)

↳ All All formatting is ignored

↳ "Whitespace" characters are all considered equal. You can enter a Space in the Find string and it will match a Space, Tab, Newline, or Carriage Return in the document

↳ Wildcards! The question mark (?) and period (.) characters in the Find string match any character in the document.

↳ The search can be started from the Top of the document or from the Current Position.

↳ Categories

↳ Up to 30 user defined categories can be created.

↳ When documents are first loaded they default to the DUnfiled@ category.

↳ Select a category from the Categories list to display only the documents within that category. NOTE: The DAll@ category will show all documents in all categories.

↳ Select Edit Categories... from the Categories list in order to DAdd@, DRename@, or DDelete@ categories.

↳ Tap the DCategory@ button to change the category of the currently selected document.

↳ View document in a single font style/size

↳ There are two options on the DCommand@ menu which allow you to view plain text documents with one of the many permutations of fonts. You can also force a rich document to be displayed in a single font/style (although why would you want to ;-).

↳ First, choose the DSelect Font@ menu item from the DCommand@ menu. This brings up a screen that displays the entire font character set. You can change the font size (Small, Medium, or Large) and set any combination of Bold, Italic, Underline, Fixed, and/or Link.

↳ Then DClose@ this screen (through the menu button).

↳ Next, select a document in the DMain@ screen, tap the DMenu@ button and then choose the DView with Selected Font@ item from the commands window.

↳ NOTE: Currently, every time you choose DView with Selected Font, this will recalculate the document formatting (even if it had been done previously) which means it could take a while for large documents and you will lose all manually added bookmarks. However, if you keep the document open, switch to another application, then switch back to FRichReader@, then no recalculation will be done. If you use the normal DView@ command you don't have to worry about this.

↳ Rotate the screen

↳ You can rotate the document DView@ screen 90° Clockwise (CW) or Counter-Clockwise (CCW). See the description of DPreferences@ below.

↳ The DMain@ screen and all pop up dialogs and menus will not be rotated.

└─┘ Document information is saved between sessions
└─┘ When a document is first opened, it is scanned for certain properties. This information along with the current line number and bookmarks is saved in a database so that when leaving the application and then returning, the program will quickly return to where you left off.

└─┘ Linux Converters

└─┘ The command-line programs DRTF2Doc@ and DHTML2Doc@ have been ported to Linux.

└─┘ Send me an email if you would like this distribution.

└─┘ Large and Small View Controls (see Preference screen):

└─┘ Use Large Controls for bigger buttons, icons, and scrollbar.

└─┘ Use Small Controls to fit more lines of text on the screen

└─┘

└─┘ Operation@

└─┘ RichReader@ accomplishes the above features by using embedded formatting characters in the text and by using bitmap fonts to supplement the built in fonts of the handheld device. The formatting characters are embedded using the command-line program DRTF2Doc@ or the Windows program DWRTF2Doc@ which will read a Rich Text Format D.rtf@ file or using the command-line program DHTML2Doc@ for reading .Dhtml@ files. These programs convert the documents into compressed AportisDoc@ format D.pdb@ files with embedded formatting. In order for these programs to run (as described in the included AÉöÏInstall.txt@Éös file) you must modify/add two Environment Variables in the file HC:\AUTOEXEC.BAT@ before running either program.

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↳ DRTF2Doc@, DWRTF2Doc@

↳ Assuming that you have installed the contents of the ZIP file into the directory HC:\RichReader@, then add the following two lines at the end of the HAUTOEXEC.BAT@ file:

```
(set PATH=%PATH%;C:\RichReader
set RTFLIBDIR=C:\RichReader
```

↳ From the MS-DOS console window, you can run DRTF2Doc.exe@:

Example: Assuming that you have created an RTF file from your word processor (HMyDoc.rtf@), then (at the DOS prompt) type (everything after the HC:\>@ prompt):

```
↳ (C:\>RTF2Doc MyDoc.rtf
```

Input RTF file: MyDoc.rtf: 30.5 kb

Temporary TXT file: MyDoc.txt: 21.5 kb

Output PDB file: MyDoc.pdb: 11.4 kb

↳ This will create an output file in the same directory called HMyDoc.pdb@ with the title "HMyDoc@".

You can also manually specify a title (which appears in the DMain@ window in FRichReader@):

```
↳ (C:\>RTF2Doc C:\Documents\MyDoc.rtf "My Document"
```

Input RTF file: C:\Documents\MyDoc.rtf: 30.5 kb

Temporary TXT file: C:\Documents\MyDoc.txt: 21.5 kb

Output PDB file: C:\Documents\MyDoc.pdb: 11.4 kb

↳ This will create an output file in the directory HC:\Documents@ called HMyDoc.pdb@ with the title "HMy Document@". DNOTE@: It is important to enclose the entire title in double quotes (").

↳ You can also have DRTF2Doc@ automatically install the output file in your HotSync directory and set the registry flag for the HotSync operation by using the -i option:

```
↳ (C:\>RTF2Doc -i MyDoc.rtf MyDoc
```

Input RTF file: MyDoc.rtf: 30.5 kb

Temporary TXT file: MyDoc.txt: 21.5 kb

Output PDB file: C:\pilot\ArenaM\Install\MyDoc.pdb: 11.4 kb

Installing file for HotSync user: Michael Arena

↳

↳ The Windows program DWRTF2Doc.exe@ is in its first release. It is a simple dialog application which prompts for a file name (using a standard file explorer dialog). It will automatically format the output filename (.pdb) and set the title to the base filename (without the path and extension).

Then, you can change the title if you wish. Then hit the DConvert@ button. After a brief pause (sorry, no progress indicator yet), a results dialog will

pop up which shows the sizes of the input, output, (and temporary text) files so you can see the results of the compression (and how verbose RTF format is!)

DNOTE:@ DWRTF2Doc.exe@ was built using Visual C++ 6.0 which means you will need two Microsoft libraries (Mfc42.dll and Msvcrt.dll) to be installed in the directory HC:\Windows\System@ (or in HC:\Winnt\System32@ if on Windows NT). If these files do not already exist on your system, then send me an email and I will send you the DLLs.

↳DHTML2Doc

↳@The console program DHTML2Doc.exe@ is very similar to DRTF2Doc.exe@. You specify the input HTML file, a title, and optionally the -i@ flag for automatic installation of the output file for HotSync:

```
↳(C:\>HTML2Doc -i MyDoc.html -o MyDoc
```

Input HTML file: MyDoc.html: 30.5 kb

Temporary TXT file: MyDoc.txt: 21.5 kb

Output PDB file: C:\pilot\ArenaM\Install\MyDoc.pdb: 11.4 kb

Installing file for HotSync user: Michael Arena

↳@

↳FRichReader

↳@Once the document has been synched to the handheld, it will be displayed in FRichReader@'s EÉöTMain@Éös screen. Select the document you wish to view from the list (scroll the list if necessary). The date the document was loaded is displayed along with its size in kilobytes. Select the DView@ button to view the document in the EÉöTView@Éös screen. The DMain@ screen has two menus. The DCommands@ menu displays DView, View with Selected Font@, DSelect Font, @ and DReinitialize@. DView@ is identical to the DView@ button. DSelect Font @displays a form which lets you examine a full character set in any of the sizes and styles listed above. DReinitialize@ is used to discard saved information about documents and fonts. This information will automatically be recalculated when necessary. The DOptions@ menu displays DAbout@, DPreferences@, and DRegister@. DAbout@ displays the version of FRichReader@. Use this number when registering. DPreferences@ displays a dialog where you can change the behavior of certain features of the program. Currently, there are two options. One is to set the behavior of tapping the screen in DView@ mode. A tap can either scroll one page (up or down) or one line (up or down). The other is to set the DRotation@ of the screen when displaying a document. Choose DNone@ for normal display. Choose DCW@ to rotate the screen Clockwise which means the hardware buttons will be in your right hand. Choose DCCW@ to rotate the screen Counter-Clockwise which means the hardware buttons will be in your left hand (NOTE: The meaning of the PageUp and PageDown keys is reversed in this orientation). DRegister@ displays a dialog where you enter the registration key. Once the payment information has been received by me from PalmPilotGear HQ (which

└─┘└─┘ You could set up a directory on the PC such that any D.rtf@ files which are saved in this directory will automatically get converted and sent to the handheld when synching (using a conduit to do all the work). The only manual step is coping (or saving) the RTF file to the special directory.

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I would welcome any other suggestions for enhancements or changes to existing features.

└─┘ Acknowledgments@

└─┘ The DRTF2Doc@ program is based on:

└─┘ RTF Tools, Release 1.10

6 April 1994 Paul DuBois dubois@primate.wisc.edu

└─┘└─┘ Almost the entire file Dmakedoc7.cpp@ by Pat Beirne, Harold Bamford, and Rick Bram has been included in all of the conversion programs.

└─┘└─┘ The decompression algorithm in FRichReader@ was based on information from the DCQ Codeworks: The Doc Format@ page by Rob Tillotson robt@debian.org:

└─┘ <http://www.concentric.net/~N9mtb/cq/doc/format.html>@ and from makedoc7.cpp (from above).

└─┘└─┘ James Clark's (jjc@jclark.com) SP package was used for HTML parsing.

└─┘└─┘ The source for the HotSync install process in the conversion programs was from Mark Pierce.

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└─┘ <http://users.rcn.com/arenamk>@

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