

AcroTeX.Net

**The annot\_pro Package**  
**Text, Stamp, File Attachment,**  
**and Text Box Annotations**

**D. P. Story**

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## 1. Introduction

This package is used to create text, stamp, and file attachment annotations using **Adobe Distiller**, these annotations can be viewed in Adobe Reader. For users of pdf(la)tex, use the pdfcomment package by Josef Kleber.<sup>1</sup>

The package primarily in support of my **AcroTeX PDF Blog**. I plan to use sticky notes, file attachments, and custom stamps to make side-comments, and to provide source files.

## 2. Requirements

The requirements for your  $\text{\LaTeX}$  system, and well as any other software, is highlighted in this section.

### 2.1. $\text{\LaTeX}$ Package Requirements

The following packages, in addition to the standard  $\text{\LaTeX}$  distribution, are required:

1. The xkeyval package is used to set up the key-value pairs of the `\annotpro` command. Get a recent version.
2. The xcolor package is strongly recommended.
3. The hyperref package, a recent version.
4. If you want to create custom stamps (on the fly) using the techniques developed for that purpose, the graphicxsp Package is required.<sup>2</sup>

The annot\_pro package is part of the **AeB Pro** family, which means **Adobe Distiller** is required. The components of **AeB** and **AeB Pro** are not required.<sup>3,4</sup>

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<sup>1</sup>Available at [ctan.org/pkg/pdfcomment](http://ctan.org/pkg/pdfcomment)

<sup>2</sup>Available at [ctan.org/pkg/graphicxsp](http://ctan.org/pkg/graphicxsp)

<sup>3</sup>AeB: [ctan.org/pkg/acrotex](http://ctan.org/pkg/acrotex)

<sup>4</sup>AeB Pro: [ctan.org/pkg/aeb-pro](http://ctan.org/pkg/aeb-pro)

## 2.2. PDF Creator Requirements

The `annot_pro` package requires **Acrobat Distiller 5.0** (or later) as the PDF creator. The document author typically uses `dvips` (or `dvipsone`) to produce a PostScript file, which is then distilled to obtain a PDF.

If you wish to use (dynamically) created stamps that have opacity less than 1, you need to distill using **Standard\_transparency.joboptions** with `distiller`, in this case, **Acrobat Distiller 6.0** (or later) is required; otherwise, this `distiller job options` file is not needed.

The **Standard\_transparency.joboptions** file is supplied with the `graphicxsp` package; the documentation of the `graphicxsp` package includes installation instructions.

## 3. Installation

The installation is simple enough. Unzip `annot_pro.zip` in a folder that is on your  $\text{\LaTeX}$  search path. Refresh your filename database, if appropriate.

**Important:** When creating a file attachment annotation, you must specify a path to the file to be attached, and `distiller` must embed this file. In recent versions of Acrobat, security restrictions have been put in place to prevent **Distiller** from reading files (the PostScript `file` operator does not work). Fortunately, Distiller has a switch that turns off this particular restriction. To successfully use this package, therefore, you need to run Distiller by using the `-F` command line switch.

Those using Windows OS can create a shortcut on the desktop, for example, that starts Distiller with the `-F` switch. The Target of the shortcut might read

```
"C:\Program Files (x86)\Adobe\  
Acrobat 9.0\Acrobat\acrodist.exe" -F
```

where we have wrapped the path to the next line to fit within the margins. Once Distiller is started with `-F`, the switch remains in effect until Distiller is closed.

If this package is used to create file attachment annotations without the `-F` switch, you typically get the following error message in the Distiller log file

```
%%[ Error: undefinedfilename; OffendingCommand: file ]%%
```

This tells you that either you have not started Distiller with the `-F` command line switch, or Distiller can't find one of the files that the `file` operator was trying to read.

**Mac OS Users.** The above comments on the `-F` command line switch is for Windows users, Mac OS users must choose the `AllowPSFileOps` user preference, this is located in the `plist`, possibly located at

```
/Users/[User]/Library/Preferences/com.adobe.distiller9.plist
```

You can also use Spotlight, the search utility on Mac, to search for the string `com.adobe.distiller`; the result might be

```
com.adobe.distiller9.plist.5
```

Clicking on this find, Spotlight opens `com.adobe.distiller9.plist` in the `plist` editor, see [Figure 1](#). If necessary, click on the arrow next to the Root to expand the choices, then click the up and down arrows at the far right in the `AllowPSFileOps` row to select `Yes` as the value.

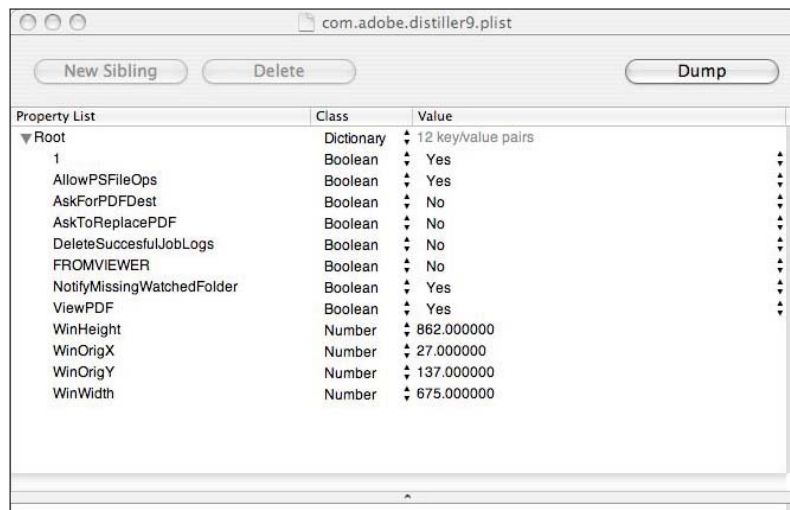


Figure 1: `com.adobe.distiller9.plist`

<sup>5</sup>In the case of Adobe Distiller, version 9.0

## 4. The `\annotpro` Command

The main command of this package is `\annotpro`; the command is controlled by its optional parameters. The same command can create a text annotation (sticky note), a stamp annotation, a file attachment or a Free Text (Text Box) annotation. The syntax of this command is

```
\annotpro[<KV-pairs>]{<text>}
```

 (1)

**Parameter Description:** The optional argument is one or more key-value pairs that describe the annotation; the required argument, `<text>`, is the “contents” of the annotation; for the text and stamp annotation, `<text>` becomes the contents of the popup annotation, for a file attachment annotation, which has not associated pop-up, it is the description of the file attachment that appears in the file attachment panel of Adobe Reader. In the latter case, the value of `<text>` should be rather short. The key-value pairs (*<KV-pairs>*) are described over the next few sections.

**Sample files.** The sample files `annots.tex` and `textbox.tex` illustrate the features of the `annotpro` package.

### 4.1. Key-values common to all annotations

The following are key-value pairs common to all annotations.

- `type=<text|stamp|fileattachment|textbox>` The `type` key determines the type of annotation to be produced; permissible values are `text`, `stamp`, and `fileattachment`. This key is optional, if not present, `type=text` is assumed.
- `name=<name>` The name of the icon to use for the declared type. Permissible values are dependent on the type, and are discussed in subsequent sections.
- `title=<text>` Text to be displayed in the title bar of the annotation’s pop-up window when open and active. By convention, this entry identifies the user who made the annotation, though any (short) text may be used. You can use `\setAnnotOptions` to globally set the title of each annotation, perhaps using your name.

```
\setAnnotOptions{title={D. P. Story}}
```

- `subject=<text>` Text representing a short description of the subject of the annotation. You can use `\setAnnotOptions` to globally set the subject of each annotation,

```
\setAnnotOptions{title={D. P. Story},
                 subject={AcroTeX Communiqu\'e}}
```

- `color`: The color of the title bar of the pop-up window of the annotation.
- `readonly=<true|false>` Set the annotation to readonly. The user can click on the annot to see the popup, but the user, if using Acrobat, cannot move the annotation around on the page. The popup window can still be move by the user. (This property makes no difference to the user of Adobe Reader.)
- `opacity=<dec>`: The opacity value ( $0 \leq \langle dec \rangle \leq 1$ ) to be used in painting the (icon of the) annotation, but does apply to the pop-up window. The default is 1.0.

Adobe Distiller handles the opacity for us in all cases except when we create a (dynamic) stamp. If an opacity value less than 1 is desired, special techniques are needed, and the file needs to be distilled using the **Standard\_tranparency** job options.

The following key-values are  $\LaTeX$  based concerning placement of the annotation in the margin.

- `margin`: Use this key (it has no value), to declare that you want the annotation to appear in the margin. The `\marginpar` command from core  $\LaTeX$  is used, the placement of the annotation follows the rules set down by  $\LaTeX$ . You can reverse the placement of the annotation by using the  $\LaTeX$  command `\reversemarginpar` (annots placed in the right margin, and now placed in the left); you can return to the default by using `\normalmarginpar`.

Given that you have use the `margin` key, there is an associated key that can be used, as well as a command.

- `margin\text`: The value of this key is text that will be typeset just below the annotation icon.

- `\marginparttextformat`: A  $\LaTeX$  command for formatting the text in the margin, the default definition is

```
\marginparttextformat{\bfseries\tiny\color{blue}}
```

For an annotation placed in the margin with margin text, you might want to use the `readonly` key, this prevents the user—even one using Acrobat—from moving the annotation away from its caption.

The following key-value is for your convenience.

- `presets`: A key to allow the introduction of pre-defined options, for example, you might like all your comment annotations to be red, so you can define

```
\def\myComments{type=text,name=Comment,color=red}
```

then say

```
\annotpro[presets=\myComment]{Way to go!}
```

Additional options may be included,

```
\annotpro[presets=\myComment,margin]{Way to go!}
```

for example.

#### 4.2. Key-values for text annotations

The position of the annotation is determined by its bounding rectangle; for the text annotation, an icon is placed so that its upper left corner is at the upper left corner of the bounding rectangle. The icons themselves have certain dimensions that have been recorded within the `annot_pro` package, so you need not worry about leaving space for them.

An important fact about the icons used by text annotation is that they *do not zoom in or out* as the page magnification is changed; furthermore, the graphics commands `\scalebox` and `\resizebox` do not rescale the icons as expected.



The following are options specific to the text annotation. Recall, the text annotation is of `type=text`.



- **name:** The name of the icon to use when displaying this annotation in closed form (no pop-up window visible). Possible values—as specified in the *PDF Reference*—are `Comment`, `Key`, `Note`, `Help`, `NewParagraph`, `Paragraph`, and `Insert`. Additional icons that are available in recent versions of Adobe Reader are

`Check`, `Circle`, `Cross`, `Star`, `RightArrow`, `RightPointer`,  
`UpArrow`, `UpLeftArrow`

If you are using comments in your document, and your audience have older versions of Adobe Reader, it is best to use only the seven listed in the *PDF Reference*.

- **open:** A Boolean value that determines whether the pop-up window is open or not. When `true` the pop-up is open. The package default is `false`. You can use `\setAnnotOptions` to set this option globally.
- **nospace, novspace, nospace:** The presence of these commands zeroes out the dimension(s) of the bounding rectangle. Specifying `nospace` as an option causes the icon to take up no horizontal space as the page is latexed. Here  an example of a sticky note with the `nospace` option. Without any of these three keys, the text annotation  fits exactly into the allotted space at **100% magnification**, try it.

When the icon takes up no  $\text{T}_\text{E}\text{X}$  space, it may cover content on the page, as it does above. Acrobat users can move the icon around, but AR users cannot move the icon. The pop-up window is **movable** and scalable, but the icon cannot be moved. Therefore, you must be careful about placement.

Additional positioning of the icons can be made using standard  $\text{E}\text{T}_\text{E}\text{X}$  commands such as `\raisebox` and `\smash`. For example, the blue icon above was created by

```
For example, \smash{\raisebox{1in}\raisebox{1in}{%
\annotpro[nospace,color=blue,
opacity=.25]{...clever message...}}
```

Note that I've set the `opacity` to `.25`.

### 4.3. Key-values for stamp annotations

A stamp annotation is similar to a text annotation in the sense that it has a pop-up window in which the contents of the message is displayed; however, unlike the text annotation icons, the stamp appearance by be re-scaled using `\scalebox` and `\resizebox` of the graphics package; however, the keys `scale`, `widthTo`, and `heightTo`, as described below, are the recommended methods of re-scaling a stamp.

The following are the key-values associated with this annotation type.

- **name:** The stamps listed in the *PDF Reference* are `Approved`, `AsIs`, `Confidential`, `Departmental`, `Draft`, `Experimental`, `Expired`, `Final`, `ForComment`, `ForPublicRelease`, `NotApproved`, `NotForPublicRelease`, `Sold`, and `TopSecret`. If `name` is not specified, `Draft` is the default.


There are other stamps, not listed in the *PDF Reference*, but available in more recent versions of Acrobat. The file `stamps.pdf` lists all the stamps that I have access to. The names of these other stamps are recognized by the `name` key.


The dimensions of the stamps listed above are all the same, they are 150bp width and 40bp high.


Additional stamps are shipped by Acrobat, a listing of these appears in the file `stamps.pdf` (`stamps.tex`).

- **width, height:** If the value of `name` key is something other than one of the stamps listed above (one of the stamps listed in the file `stamps.pdf`), the `width` and `height` are not known to `annot_pro`. In this case, use the `height` and `width` keys to set the dimensions of the bounding box. Adobe Distiller will resize the stamp to the stamp is the largest one that can fit in the bounding box, the stamp will be centered vertically and horizontally within the bounding box.



Here are a couple of examples, the bounding box is should as a black `\fbox`.

- This one  fits more or less exactly. I determined the dimensions of this stamp through some controls of

the user interface. Contrast this this stamp  obtained

by setting `width=50bp` and `height=50bp`. Notice the “best fit,” and that the bounding box takes up space. We can use `\smash` to smash its vertical height, let’s see how that looks, 

The code for producing these stamps are given in the margins.

You can resize these stamps using `\scalebox` and `\resizebox`, like so.  The code for producing this stamp are given here .

- To create a stamp that takes up the space of the text, use `\smash` and `\makebox[0pt][l]{text}`, here is one of the standard stamps as listed in the reference. The code for this stamp is given in this note .



Good Fit





Bad Fit

Try changing the magnification of the page, you’ll see that stamps are re-scaled as you zoom in or out, while the text annotations are not. I don’t like text annotations for this reason.

- **rotate:** Stamps can be rotated, use this key to enter an angle of rotation, for example, `rotate=30` rotates the stamp 30° counter clockwise.
- ☞ Do not use the `\rotatebox` command of `graphics` package, this command *does not rotate* the stamp.
- **scale:** Use this key to re-scale the stamp; the value of this key is a number between 0 and 1. For example, `scale=.5` reduces both width and height in half.
- **widthTo:** This key resizes the stamp so that the width is the value of this key; for example, `widthTo=2in` re-scales the stamp to have a 2in width.
- **heightTo:** This key resizes the stamp so that the height is the value of this key; for example, `heightTo=2in` re-scales the stamp to have a 2in height.

Only one of the keys `scale`, `widthTo`, and `heightTo` are recognized for any stamp annotation. If all three are specified, only `scale` is used. If `widthTo` and `heightTo` are both specified, then `widthTo` is used.

- ✎ The use of these keys is the recommend way of re-scaling a stamp. These methods are compatible with the `rotate` key.
- `customStamp`: You can create a custom stamp from any image you wish to use, here is  one such example. The code for the above stamp is given here .
- `ap`: When the `customStamp` key is used, you have to supply an indirect reference to the appearance of the stamp. This reference is made through the `ap` key. The example above demonstrates the use of the `ap` key.

**Important:** When using the stamps of Acrobat always perform a `SaveAs` on the file when you have finished building the file. This imports the appearances of the stamps into the document and saves them.

- ▶ The creation of a custom stamp requires detailed list of steps, at some point I'll write a white paper on the subject.<sup>6</sup>

Here's an example of the keys `rotate` and `widthTo`:



#### 4.4. Key-values file attachment annotations

The file attachment annotation has no pop-up window, the value of the required parameter is used as a description of the attached file, and appears in the file attachment window.



<sup>6</sup>Use the `mkstmp` package ([ctan.org/pkg/mkstmp](http://ctan.org/pkg/mkstmp)), details of how to create custom stamps are included in the documentation.

The key-value pairs special to this type of annotation are as follows.

- **name:** The name of the icon to use, permitted values are `Graph`, `Paperclip`, `PushPin`, and `Tag`. If the value of `name` is not specified, the default is `PushPin`. The `annot_pro` package knows the dimensions of each of these icons, so you need not worry about them. They can be re-scale using standard commands from the `graphics` package, though, there may be little need of doing so.
- **file:** The value of the `file` key is the *absolute path* to the file to be attached. I've devised a helper command `\defineAPath` that can be used to define the path to your file. For example, we can define a path to wherever the files are, like so

```
\defineAPath{\graphicsPath}
  {C:/Users/Public/Documents/My TeX Files/%
   tex/latex/aeb/aebpro/annot_pro/examples/graphics}
```

The command takes two arguments, the name of the command to be defined, and the path.

We can create a file attachment  like so, ho, ho. Here is the code for this file attachment . Clicking the file attachment icon will open the file, in recent versions of Acrobat, the file is listed in the file attachments panel. Open it using the user interface, and you'll see the file listed, as well as a description, as passed to the `annot` as the second argument of `\annotpro`.

The file attachment icons can be resized using any of the `graphics` commands, `\scalebox` or `\resizebox`.

#### 4.5. The Text Box (Free Text) annotation

A Text Box annotation is a rectangular region in which the user can enter rich text. The annotation may be created and 'pre-populated' with rich text from a  $\LaTeX$  source through the `annot_pro` package.

The Text Box annotation, as implemented by this package, requires the `richtex` package, dated 2016/09/30 or later. A one simple method for introducing `richtext` is through the `useTextBox` option of `annot_pro`. Placing the following line in the preamble:

```
\usepackage[useTextBox]{annot_pro}
```

declares you are going to use Text Box annotations. The option does nothing more than to execute `\usepackage{richtext}[2016/09/30]`. The option is more of a convenience.

To create a Text Box (originally named Free Text) annotation use the `\annotpro` command.

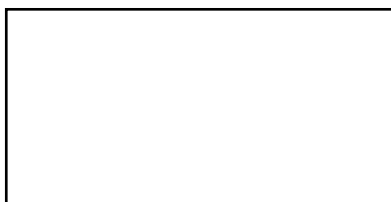
```
\annotpro[type=textbox, <KV-pairs>]           (2)
      {richtext=<name>, defstyle=<name>}
```

Notice the second argument is not `<text>` as it is with the other annotations, but consists of key-value pairs; recognized keys are `richtext` and `defstyle`.

The sample file `textbox.tex` illustrates the features of this section.

#### • Creating an empty Text Box

A common application would be to create an empty Text Box for the document consumer to type in comments. Below is an example of a Free Text annotation, called Text Box by the user-interface of Acrobat/Adobe Reader.



Press Ctrl+E (Windows) or Cmd+E (Mac OS) to obtain the Properties toolbar, now click on the text box to obtain the Text Box Properties toolbar. Double clicking on the text box brings up the Text Box Text Properties toolbar.

The verbatim listing of the above Text Box is,

```
\annotpro[type=textbox,
      title=dpstory,subject=Empty Text Box]{}
```

The required second argument is empty, which leads to an empty Text Box.

#### • Creating a non-empty Text Box

A much more interesting exercise is to pre-populate the Text Box with rich text for the document consumer to read and/or to respond.

¶ **Steps to create rich text content.** We briefly outline the techniques to create rich text for a Text Box annotation.

- Use the `textboxpara` environment and the `\rtpara` command to declare your rich text paragraph.

```
\begin{textboxpara}
\rtpara[⟨KV-pairs⟩]{⟨namepara⟩}{⟨rich-content⟩}
...
\end{textboxpara}
```

(3)

Details of the `\rtpara` command are found in the documentation manual of the `richtext` package. The `textboxpara` environment is needed for certain redefinitions of internals because of the different way rich text is supported and implemented in the Text Box annotation verses the rich text field.

- Use the `\setRVVContent` command on your `\rtpara`-declared rich text and give it a name `⟨namerVVC⟩`.

```
\setRVVContent{⟨namerVVC⟩}{⟨namepara⟩}
...
```

(4)

This command expands the paragraph named `⟨namepara⟩` and develops the rich text version and the plain text version. It is `⟨namerVVC⟩` that is used as a value for the `richtext` key above and illustrated below. To reduce the number of names, you can use the same name for `⟨namerVVC⟩` as for `⟨namepara⟩` (`\setRVVContent{para1}{para1}`).

The rich text *form field* supports multiple paragraphs, and richer formatting options than the Text Box annotation. Of importance is that the Text Box annotation only permits a *single paragraph*.

- (Optional) Declare a (named) default style using `\setDefaultStyle`:

```
\setDefaultStyle{⟨nameds⟩}{⟨KV-pairs⟩}
...
```

(5)

This default style is assignment a name that is used as the value of the `defstyle` key mentioned earlier, and illustrated below. If a value for `defstyle` is not provided, a standard default style is used.

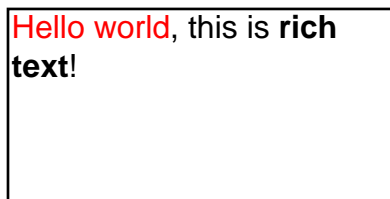
Once the \rtpara-declared paragraphs have been made and their names have passed through \setRVVContent, you are ready to create a Text Box annotation.

¶ **Key-values for second argument.** The required second argument, refer to display (2), has two keys, both of which are optional. You are encouraged to read the documentation for the richtext package for greater understanding of the descriptions and examples found below.

`richtext=<nameRVV>` The `richtext` key is the way the rich text is passed to the Text Box. The `<nameRVV>` is declared by the `\setRVVContent` command. Use the command `\rtpara` within the `textboxpara` environment to define the actual rich text paragraph. For example,

```
\begin{textboxpara}
\rtpara{para1}{\span{color=FF0000}{Hello world},
  this is \bf{rich text}}
\end{textboxpara}
\setRVVContent{myContent}{para1}
\annotpro[type=textbox,title=dpstory,
  subject=Text Box]{richtext=myContent}
```

The above code produces the following Text Box:



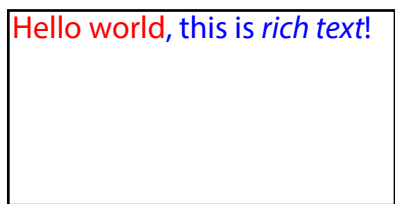
`defstyle=<nameds>` Through the `defstyle` you can define set the default style (refer to the documentation of the richtext package. If this key does not appear, then a predefined default style is provided.

```
\setDefaultStyle{myDS}{font={'Myriad Pro',sans-serif},
  color=0000FF}
\begin{textboxpara}
\rtpara{para1}{\span{color=FF0000}{Hello world},
  this is \it{rich text}}
\setRVVContent{para1}{para1}
\end{textboxpara}
```



```
\annotpro[type=textbox,title=dpstory,
  subject=Text Box]{richtext=para1,defstyle=myDS}
```

Notice that we've used the name 'para1' for both `\setRVVContent` and `\rtpara`. The above code produces the following Text Box:



Press Ctrl+E (Windows) or Cmd+E (Mac OS) to obtain the Properties toolbar, now double click on the text box to obtain the Text Box Text Properties toolbar to verify the font used is indeed Myriad Pro.

If you are at all interested in generating the Text Box annotation using rich text strings, you are encouraged to read the documentation on `richtext`, there you will learn about all the key-values available to format the text and the paragraph.

The `richtext` package was written for rich text form fields, but applies to rich text annotations as well; however, it should be noted that there are differences between forms and text box annotations in how they handle rich text. One of the major differences is that rich text annotations (Text Box) *do not support* multiple paragraphs as form fields do; as a result, features listed in the Paragraph and Link tabs of the Form Field Text Properties dialog box are not available for the Text Box.

¶ **Keys & commands inherited from the `richtext` package.** The following keys are supported by the Text Box annotation:

```
font, size, raise, ulstyle, color, url,
style, raw, halign
```

(6)

The following commands are supported:

```
\span, \br, \it, \bf, \sup and \sub
```

(7)

The ones having an overstrike are supported in a rich text *form field*, but not within an Text Box. Refer to the documentation of the `richtext` for details of these keys and commands. In this document, we illustrate by example.

¶ **Key-values of `\rtpara`.** The keys of display (6) - excluding the overstrike ones - may be used in the  $\langle KV-pairs \rangle$  argument of `\rtpara` of display (3).

¶ **Permissible commands within  $\langle rich-content \rangle$ .** The  $\langle rich-content \rangle$  argument of display (3) (normally) consists of Latin 1 characters, plus any markup in the form of the commands listed in display (7).

- `\span` has two arguments, more on this command in the paragraph below titled ‘Some comments on the `\span` command’ on page 18.
- `\br` is a line break, it has no argument.
- `\it` is italic font; it has one argument, the text to be placed in italics: `\it{this is italic}`.
- `\bf` is bold font; it has one argument, the text to be placed in bold: `\bf{this is bold}`.  
`\it` and `\bf` may be nested: `\it{\bf{bold and italic}}`.
- `\sup` and `\sub` are superscript and subscript, respectively; they each have one argument, the text to be raised or lowered. For example, We can `\sup{raise}` or we can `\sub{lower}` text.

The above markups, with the exception of `\span` are illustrated below.

*This is italic*, whereas **this is bold**, but wait, we can do ***bold and italic***.

Moving on, we can <sup>raise</sup> or we can <sub>lower</sub> text.



The Code

The verbatim listing for this example is in the sticky note in the margin.

¶ **Some comments on the `\span` command.** the `\span` command, defined only locally within the  $\langle rich-text \rangle$  argument `\rtspan` is a general purpose command to format text. It has two argument:

```
\span{\langle KV-pairs \rangle}{\langle text \rangle}.
```

The  $\langle KV-pairs \rangle$  argument can be the keys of display (6) (again excluding the overstrike keys). The  $\langle text \rangle$  argument is the text to be made rich; experience shows that `\it`, `\bf`, `\sub` and `\sup` may be used within  $\langle text \rangle$ . Italic and bold may be accomplished using the `style` key, probably preferred over using `\it` and `\bf` within  $\langle text \rangle$ .

Welcome to my **poorrich text world**. We add a little color shall we try **red** or **green**?

There are several styles of underlining basic underlining, double underlining, word underlining, and double word underlining. Cool.



The verbatim listing for this example is in the sticky note in the margin.

¶ **Key-values of \setDefaultStyle.** The keys of display (6) - excluding the overstrike ones - may be used in the  $\langle KV-pairs \rangle$  argument of \setDefaultStyle of display (5); however, only the keys font, size, color, and halign are typically used. For example,

```
\setDefaultStyle{myDS}{font={'Myriad Pro',sans-serif},
    size=12.0,color=0000FF,halign=left}
```

The name 'myDS' may then be used as the value of defstyle key in the second argument of \annotpro, see display (2).

#### • Key-values for text box annotations

Section 4.1 lists keys that are common to all annotations; we list the ones that make sense for the Text Box annotation, and ~~strikeout~~ these that do not:

type, name, title, subject, color, readonly, opacity, margin, presets

In addition to these keys, there are several keys particular to the text box annotation. We list these and describe them in detail.

- `width=\langle length \rangle`: The width of the annotation, the default is 144bp (2in).
- `height=\langle length \rangle`: The height of the annotation, the default is 72bp (1in).
- `bgcolor=\langle color \rangle`: The color to be used as the background color of the text box annotation. If `bgcolor` has no value, transparent color is used. The default is white.

- `bcolor=<color>` The color to be used as the boundary color of the annotation. The default is black.
- `borderstyle=<choice>`: This keys determines the style of border to be used. It is a choice key, choices are `none`, `solid`, `dash1`, `dash2`, `dash3`, `dash4`, `dash5`, `dash6`, `cloud1`, and `cloud2`. The default is `solid`.
- `borderwidth=<choice>`: The border width of the annotation, acceptable choices are `.5`, `1`, `2`, `3`, `4`, `6`, `8`, and `10`. The default is `1`.

```
\annotpro[type=textbox, width=\linewidth,
height=14bp*2, bgcolor=cornsilk, bcolor=blue]
```

```
\annotpro[type=textbox, width=\linewidth,
height=16bp*3, bgcolor, bcolor=red, borderstyle=dash2,
borderwidth=2]{richtext=para2}
```

```
\annotpro[type=textbox, width=\linewidth,
height=18bp*3, bcolor=red, borderstyle=cloud1]
{richtext=para3}
```

The second text box annotation above has transparent background color. Using your pointing device, move it around to verify the background is 'see through', compare with the other two by moving them around, not 'see through'.

#### • Accented glyphs and the unicode characters

There are several advantages that text box annotation have over rich text form fields: movability and unicode. An annotation can be moved around the page by the user quite easily, a form field typically cannot unless the user is using Acrobat. Also, when it comes to using unicode, text box annotations are far superior to rich text form fields. Unicode characters may be inserted using the convenience commands `\uHex` and `\uDec`, where the first take a hex code as its argument and the second takes a non-negative integer as its argument. Latin1 accented characters can be entered using octal notation for example, `J\374rgen`

Jürgen is a nice fellow, though I've never met him.

We've communicated, Jürgen and I, via email. Jürgen where are you?



The Code

But wait, we're not done. In theory, we can access any unicode character through the use of \uHex or \uDec. I'll randomly pick off some unicode characters.

Ц, Ɔ, Σ, Ж, ϕ, ∞, ☺, ق, 苳, 令, 郎, 呵



The Code

Cool!

#### 4.6. Setting Global Options with \setAnnotOptions

Global options are by using the \setAnnotOptions command. In the preamble of this document I placed

```
\setAnnotOptions{subject={AcroTeX Communiqu'e},title={D.P. Story}}
```

That way, I didn't have to constantly type in my personal name for each example. These options can be overwritten by specifying options locally, if I say, \annotpro[author=Don Story]{Hi there!}, the author is now my alter ego, Don Story.

That's all for now, I simply must get back to my retirement. 