# Excalibur 4.0

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# 1 Introduction

**Excalibur** is a Macintosh spelling checker. It will spell check documents created by any text editor such as `BBEdit`, `Alpha`, `Emacs` or `MPW`. It will also spell check the clipboard, making it a useful spelling checker for mail programs such as `Eudora` and news readers such as `NewsWatcher`. It will also work with any word processing program that supports Word Services (section 6 on page 3) such as AppleWorks (formerly ClarisWorks) or WordPerfect.

**Excalibur** is also a very good LaTeX spelling checker. LaTeX is a collection of typesetting macros. If you are a LaTeX user, you should turn on the option that makes **Excalibur** aware of LaTeX. See **LaTeX Options** (section 9.6.5 on page 12) for more information.

If you don't know what LaTeX is and you would like more information, there are some very good resources available on the Internet. Probably the best place to start is Gary Gray's Macintosh TeX/LaTeX web page.

`http://www.esm.psu.edu/mac-tex/`

George Grätzer has a good book called *Math into LaTeX*. You can download part 1 of this book from his web page.

`http://server.maths.umanitoba.ca/homepages/gratzer.html/`
`LaTeXBooks.html`

**Excalibur** is a stand-alone spelling checker that you can use with many other applications. If you want to use it for spell checking the clipboard, it's probably best to turn on the **Open the Clipboard** option or the **Open the Clipboard and Go** option. See **Start-up Actions** (section 9.6.4 on page 12) for more information.

**Excalibur** supports Word Services which streamlines its operation with MT-NewsWatcher, Eudora Pro, Communicate, Nisus Writer, WordPerfect, BBEdit, and AppleWorks (formerly ClarisWorks).

# 2 Excalibur's LaTeX Philosophy

One approach to LaTeX spell checking is to put all the commands into the dictionary. This yields limited success because it does not specify what should be done with the arguments of the commands. For example, the `\label` command has an argument that should always be ignored. On the other hand, the `\section` command has an argument that should always be spell checked. To complicate things more, there are commands such as `\addtocontents` that have one argument that should be ignored, and another that should be spell checked.

**Excalibur** does *not* put LaTeX commands into its dictionary. Instead, it knows how to process each command intelligently. It knows which arguments to ignore and which it should spell check. As a result, **Excalibur** is a LaTeX spelling checker that does a very good job.

## 3 Installing Excalibur

We have packaged **Excalibur** so that it is ready to go. **Excalibur** will know about any dictionaries that it finds in its folder. If you would like to keep your dictionaries on a server, put aliases to them in the **Excalibur** folder. Then, **Excalibur** will be able to insert them into its **Dictionary** menu when it starts up.

If you use dictionaries other than the Standard Dictionary, adjust **Excalibur**'s memory partition. System 8 is a bit more picky about having the memory partition set properly than System 7. See **Large Documents and Dictionaries** (section 11 on page 13) for more information.

## 4 Uninstalling Excalibur

To uninstall **Excalibur**, just throw the **Excalibur** folder in the trash. You should also remove the file **Excalibur Preferences** in the Preferences folder. There are no other files to remove.

## 5 Excalibur Features

- **Excalibur** recognizes LaTeX, AMS-LaTeX, and `epic` commands. It also recognizes a fair number of plain TeX commands.
- You can teach **Excalibur** about new commands and environments that you define.
- **Excalibur** knows about accented characters and ligatures. This should help non English speaking users. They can add words with accents and ligatures to their dictionaries.
- **Excalibur** knows about discretionary hyphens.
- **Excalibur** will optionally ignore text in the `\tt` font. This is very useful for people (like us) who are in computer science and often sprinkle their documents with file names in the typewriter font.

- **Excalibur** ignores everything that appears in the following environments:

| | |
|---|---|
| `alltt` | `equation` |
| `cprog` | `math` |
| `displaymath` | `subeqnarray` |
| `eqnarray` | `verbatim` |
| `eqnarray*` | `verbatim*` |

  **Excalibur** ignores the following AMS-LaTeX environments:

| | |
|---|---|
| `align` | `gather*` |
| `align*` | `multline` |
| `alignat` | `multline*` |
| `alignat*` | `xalignat` |
| `comment` | `xalignat*` |
| `equation*` | `xxalignat` |
| `gather` | `xxalignat*` |

  It also ignores everything that appears within

  - `\[...\]`, `\(...\)`,`$...$`, `$$...$$` and `\begintt...\endtt`.

- **Excalibur** ignores the arguments of `\verb` and `\verb*` commands.

- **Excalibur** will warn you if it thinks it found a LaTeX syntax error in a file. This usually means that you have unmatched braces, unmatched `\begin` ...`\end` pairs, or an unmatched math mode delimiter.

- **Excalibur** will spell check the contents of the clipboard. You can copy text to the clipboard, have **Excalibur** check it, and then write the results back onto the clipboard. With this feature you can use **Excalibur** as a spelling checker for programs such as Eudora Lite.

# 6 Word Services

Word Services is a protocol that allows any program to link to **Excalibur** as if it were a built-in spelling checker. For a partial list of programs that support Word Services, see the Word Services web page.

`http://www.wordservices.org/`

Here are the advantages of using Word Services as quoted from the Word Services web page.

> Word Services is good for users as you can share a single speller, and a single dictionary among all your applications that use Word Services. You can have a single interface for spelling, and the you are not stuck with a built-in speller. If you don't like the speller your application came with, you can use another, or even add several, one for each language that you use.

**Note:** If you are using Word Services, you should have **Excalibur**'s Start-Up Actions (section 9.6.4 on page 12) set to "Do Nothing."

# 7 Program Menus

This section explains **Excalibur**'s menus.

## 7.1 The File Menu

Most of the items in the **File** menu are standard for a Macintosh application. This menu contains items to open a file, close a file, save the changes to a file, reverting a file, and quitting the program. If you have started to spell check a file and you suddenly remember that you forgot to activate a dictionary, you can use **Revert** to put the spell checking operation in its initial state. Then, activate your dictionary and click **Start**.

The **Open Clipboard** item will let you open the clipboard for spell checking. When spell checking the clipboard, the **Save** item becomes **Save Clipboard** so you can save your changes back to the clipboard. This is useful if you want to spell check just a small portion of a document. You can copy the text to the clipboard, check its spelling, save the result back to the clipboard, and then paste the result back into your document.

## 7.2 The Edit Menu

The **Edit** menu contains the **Preferences** item which lets you change **Excalibur** settings.

## 7.3 The Dictionary Menu

The **Dictionary** menu lets you create new dictionaries and add words to existing dictionaries. It also lets you select the dictionaries that you would like to use for spell checking.

### 7.3.1 Create Dictionary

**Excalibur** comes with a Standard Dictionary of about 161,000 English words. If you would like to create your own dictionary so you can add words that aren't in the Standard Dictionary, use the **Create Dictionary** item in the **Dictionary** menu. You can save the dictionary any place you like, but **Excalibur** looks first in its own folder for dictionaries. If it doesn't find any dictionaries there, you will have to tell it where to find them. It's probably easiest to save your dictionaries in the **Excalibur** folder. **Excalibur** is capable of keeping track of up to 7 dictionaries at a time.

### 7.3.2 Open Dictionary

You can use **Open Dictionary** to add another dictionary to the **Dictionary** menu. Since no dictionary may appear in the **Dictionary** menu more than once, the open file dialog will not display any file name that already appears in the **Dictionary** menu.

### 7.3.3 Save Dictionaries

The **Save Dictionaries** menu item will save any dictionaries that have changed since you started **Excalibur**. If you forget to invoke the **Save Dictionaries** command, **Excalibur** will warn you when you try to quit.

### 7.3.4 Add Word

You can use this to add a word to a dictionary when you are not spell checking a document. You must have a user defined *active dictionary* for this item to be enabled. See **Active Dictionaries** (section 8.1 page 8) for more information on active dictionaries.

This dialog will let you add a word if it is not already present in another dictionary. If the word is already present, **Excalibur** quietly does nothing when you click the **Add** button. If you would like to add a word to a selected dictionary even if it is already present in another dictionary, hold down the option key when you click on the **Add** button.

### 7.3.5 Conversions

Using the **Conversions** menu you can convert a dictionary to a text file so you can edit it. This is useful if you want to remove or add words. You can also convert a text file to a dictionary. The words do not have to be sorted.

When you convert a dictionary to a text file, **Excalibur** gives you the option of setting the file creator for the resulting text file. You can choose Alpha, BBEdit, Emacs **Excalibur**, MPW, MS Word, Nisus, OzTeX and *Textures*.

You can't do conversions when the **Dictionary** menu lists 7 dictionaries. In this case you should quit **Excalibur**. If you normally use 7 dictionaries, move one of them into a different folder and relaunch **Excalibur**.

When you convert a text file to a dictionary, **Excalibur** gives you the option of saving the file as *read only*. If you choose this option, you will not be able to add words to the dictionary from within **Excalibur**. It's a good idea to keep the Standard Dictionary read only.

**Excalibur** will recognize accents and ligatures if the **Do LaTeX Command Parsing** option is checked. If you don't have any accents or ligatures, you can uncheck this option and the conversion will be a little faster.

**Excalibur** also looks at the **Word Boundaries** options when doing a text to dictionary conversion. So, if you have **Regard 's as end of word** selected, **Excalibur** will not add any words ending in 's to your dictionary.

You can use **Excalibur**'s conversions to produce a sorted list of words that appear in a document. First, perform a text to dictionary conversion using a text document as input. Then, convert your new dictionary to a text document. The result will be a sorted list of all the words that appear in your document.

### 7.3.6 The Dictionary List

The bottom portion of the Dictionary menu contains a list of your dictionaries. **Excalibur** uses the checked dictionaries in its spell checking operation. You can check and uncheck dictionaries before you begin the spell check operation. Once you have begun, you can't change them. You *can* change dictionaries *between* spell checking operations. Any dictionary that is checked is an *active dictionary*. See section 8.1 on page 8 for more information on active dictionaries.

If a dictionary name appears in plain text, it is modifiable. That is, you can add words to it. If the name appears in italics, the dictionary is read only.

## 7.4 LaTeX Menu

You can teach **Excalibur** about new LaTeX commands and environments that you have defined with the **LaTeX** menu. If you define a new command with either `\newcommand` or `\renewcommand`, you can tell **Excalibur** about it by selecting the **Edit Commands...** item. Enter the name of your command in the text box, select the number of arguments with the pop-up menu, and click the **Add** button. You can add any number of commands to the list. Each command in the list is followed by the number of arguments that **Excalibur** should ignore. Thus, if you define a command that has three arguments and you would like **Excalibur** to spell check the third argument, tell **Excalibur** to ignore two arguments.

You can tell **Excalibur** about new environments in a similar fashion. Use the **Edit Environments…** menu item. It performs exactly the same as the **Edit Commands…** item.

You cannot specify the number of arguments for an environment since **Excalibur** doesn't need to know this number. If you add an environment called `foo`, **Excalibur** will ignore everything between `\begin{foo}` and `\end{foo}`. Thus, the number of arguments is irrelevant.

Use the **Save Definitions…** command to save the commands and environments that you have defined to a file. You can read a file that contains command and environment definitions with the **Read Definitions…** command.

The **Clear Definitions** command will cause **Excalibur** to forget about the currently defined definitions.

**Excalibur** will check the list of user defined commands and environments before checking to see if a command or environment is part of standard LaTeX. Thus, if you change the definition of a standard LaTeXcommand with

```
\renewcommand
```

**Excalibur** will not get confused.

### 7.5 Spell Menu

This menu provides menu and keyboard equivalents to the buttons in the spell check window.

### 7.6 The Help Menu

You can use the Help menu to get access to the complete **Excalibur** manual and the **Excalibur** home page. **Excalibur** will use the browser specified by Internet Config to open these URLs. If you do not have Internet Config installed on your machine, these menu items will not be available.

Internet Config is free and *very* useful. If you don't have it installed, you should consider it. It is available from most Macintosh archive sites and from the author:

`http://www.quinn.echidna.id.au/Quinn/Config/`

## 8 Other Program Components

This section explains other program concepts and components.

### 8.1 Active Dictionaries

Throughout this manual, we will refer to any dictionary that is checked in the **Dictionary** menu as an *active dictionary*. You can add or remove a check mark by selecting that menu item. **Excalibur** uses the active dictionaries when spell checking.

**Note:** In order for the **Add…** button to be operational, you must have at least one modifiable dictionary that is active. A dictionary is not modifiable if its name appears in italics in the **Dictionary** menu. A dictionary is active if it is checked.

### 8.2 The Document Display

The top portion of **Excalibur**'s display is the document display. **Excalibur** will show you the context for your misspelled words here.

### 8.3 The Spell Check Window

Most of your interaction with **Excalibur** will be through the spell check window. It contains buttons for starting the spell check operation and for making corrections to words. You must open a document using **Open…** in the **File** menu for the spell check window to appear.

## 9 Program Operation

This section explains how to perform a typical spell check operation. It also explains how to change **Excalibur**'s settings.

### 9.1 Getting Started

If you don't already have a document open, open one now with the **Open** or **Open Clipboard** items in the **File** menu. You can also open a document by dragging it onto the **Excalibur** icon. Note that **Excalibur** opens plain text documents only.

To begin spell checking, click the **Start** button.

**Excalibur** will display incorrect words in the **Unknown Word** field. This means that it wasn't able to find the word in any active dictionary. See **Active Dictionaries** (section 8.1 on page 8) for more information on active dictionaries.

### 9.2 How To Make a Spelling Correction

You enter spelling corrections through the **Change To:** box. You can get text into this box in several ways.

1. Simply enter the correct word.
2. Click the **Change** button. This will copy the incorrect word to the **Change To:** box. You can then edit the word.
3. Double click on the misspelled word in the document. This will copy the incorrect word to the **Change To:** box. You can then edit the word.
4. Ask **Excalibur** to suggest a correction by clicking the **Suggest** button. If you see the correct spelling in the list of words that **Excalibur** presents, double click on it. This will replace the misspelled word with the suggestion. A single click copies the word into the **Change To:** box.

To complete the change operation, click the **Change** button.

**Helpful hint:** If the **Change To:** box is empty, then **Excalibur** uses the flagged word to create its suggestion list. If the **Change To:** box has text in it, **Excalibur** uses that text as a basis for its suggestion list. So, if **Excalibur** doesn't give you a suggestion that you like, click the **Change** button to copy the flagged word into the **Change To:** box. Then change its spelling slightly and click **Suggest** again.

## 9.3 Ignoring a Word

If you would like to ignore what **Excalibur** thinks is a misspelled word, click the **Ignore** button. **Excalibur** will ignore any subsequent occurrence of this word also. You can change this behavior in the **Preferences** dialog.

## 9.4 Adding Words to a Dictionary

**Excalibur** flags any word that is not in an active dictionary. To add the flagged word to an active dictionary, click the **Add…** button. You can add the word to any active dictionary that is modifiable. The Standard Dictionary is read only.

Use the checkbox to always select the same dictionary for the word you are spell checking. When you do this, **Excalibur** will stop presenting the **Add** dialog every time you add a word. If you have checked this box, you can force **Excalibur** to bring up the dialog by holding the shift key down while you click on **Add**. This allows you to deselect the checkbox or select a new set of dictionaries to automatically select from then on.

After adding a word to a dictionary, you will still have to take an action on the current word. It will often be the case that you would like to simply ignore the word now that you have entered it into a dictionary. You can use the **Options** menu to make this the default action.

**Note:** In order for the **Add...** button to be operational, you must have at least one modifiable dictionary that is active. A dictionary is not modifiable if its name appears in italics in the **Dictionary** menu. A dictionary is active if it is checked.

## 9.5 Quitting Excalibur

To quit **Excalibur**, select **Quit** from the **File** menu. If you forgot to save your corrections, **Excalibur** will warn you. **Excalibur** will also warn you if you forgot to save any changes to your dictionaries or if you have not saved any changes to your definitions.

## 9.6 Changing Preferences

You can change preferences by selecting **Preferences** from the **Edit** menu.

### 9.6.1 Spell Checking Options

**Ignore All CAPS** instructs **Excalibur** to ignore words that do not contain any lower case letters.

If you click the **Ignore** button and the **Ignore Throughout** option is checked, **Excalibur** will ignore any subsequent occurrences of the word.

If you change a word and the **Replace Throughout** option is checked, **Excalibur** will replace all subsequent occurrences of the word also. Note that you have to finish spell checking the document for this to happen. If you stop spell checking a document before reaching the end, **Excalibur** may not replace all occurrences of the word even though you have checked this option.

If you select the **Auto Suggest** option, **Excalibur** will automatically make suggestions when it shows you a misspelled word.

If you select the **Spell Check URLs** option, **Excalibur** will spell check e-mail addresses and other web addresses. If you uncheck this option, **Excalibur** will skip over these URLs.

### 9.6.2 Dialog Behavior Options

If you attempt to replace a misspelled word with a word that is not in any active dictionary, you may have **Excalibur** display a warning. If you tell **Excalibur** to proceed with the replacement anyway, **Excalibur** will remember the word and it will not ask you about it again. If you cancel the operation you will have the opportunity to use a different replacement. You could also cancel and then enter the word into a dictionary.

**Press Ignore Button Automatically** If you have just added a word to the dictionary, you will often want to press **Ignore** to indicate that you are finished with the word. This option causes this to happen automatically. You will immediately advance to the next misspelled word when this option is checked. If you find that you often want to enter several words at once to the dictionary (for example, the same word with several different endings), then you may wish to uncheck this option.

**Press Change Button Automatically** If you have just added a replacement word to the dictionary, you will often want to press **Change** to make the change and advance you to the next word. This option causes this to happen automatically. If you find that you often want to enter several words at once to the dictionary (for example, the same word with several different endings), then you may wish to uncheck this option.

**Save Dictionaries Automatically** If you have made changes to user defined dictionaries and you quit **Excalibur**, it will automatically save your dictionaries for you if this option is set. If this option is not set, **Excalibur** will warn you before quitting.

### 9.6.3 Word Boundary Options

The **Use German babel conventions** option tells **Excalibur** that you are using `"` when typing an umlaut. For example, this tells **Excalibur** that `"u` is the same as `\"u`. When you turn on this option **Excalibur** will also know about the German double quotes `"'` and ``"` ``, the French double quotes `"<` and `">`, the hyphens `"-`, `""`, and `"=`, and the ß (es-zet) `\3`, `"s` and `"z`. This option is not available if you do not have LaTeX command parsing turned on.

The **Treat single quotation mark as end of word** option tells **Excalibur** that a single quote will never be part of a word. This is probably not useful for English speaking users since this causes **Excalibur** to no longer recognize contractions. It may be useful in French though. If the word "application" is in the dictionary, then **Excalibur** won't flag "l'application." Even if this option is checked, **Excalibur** will still recognize the `\'` accent.

The **Regard 's as end of word** option tells **Excalibur** to stop parsing a word when it reaches 's. Thus, if the word "Knuth" is in your dictionary, **Excalibur** won't flag "Knuth's". This option is probably most useful to English speaking users. This option is not available if **Single quote marks end of word** is checked.

### 9.6.4 Start-Up Actions

The **Present an Open File dialog** option tells **Excalibur** to present a standard open file dialog when the program starts.

The **Open the clipboard** option tells **Excalibur** to open the clipboard when the program starts. This will only happen if the clipboard contains text. This option also causes **Excalibur** to automatically open the clipboard whenever you bring **Excalibur** into the foreground. If you keep **Excalibur** running so that you can periodically spell check the contents of the clipboard, this will make this operation faster.

The **Open clipboard and go** option is similar to the **Open the clipboard** option. It tells **Excalibur** to open the clipboard when the program starts or when you bring **Excalibur** into the foreground. It starts spell checking immediately without the need to press the **Start** button. When you close the window, **Excalibur** saves the results back onto the clipboard. To override this option, hold down the shift key when you bring **Excalibur** into the foreground. It will still open the clipboard, but it won't automatically start spell checking. If you hold down the shift key when you close the window, **Excalibur** will not automatically write the document back onto the clipboard. Instead, it will warn you if the document is dirty.

The **Do nothing** option causes **Excalibur** to do neither of the above actions when you start the program. You should set this option if you are using Word Services.

### 9.6.5 LaTeX Options

If **Do LaTeX Command Parsing** is checked, **Excalibur** assumes that the file you are processing contains TeX/LaTeX commands.

**Ignore `\tt` Text** instructs **Excalibur** to not spell check words that are in the typewriter font.

**Warn on parsing errors** causes **Excalibur** to warn you if it thinks it found a LaTeX syntax error.

**Use TeX style accents** instructs **Excalibur** to use escape sequences when making corrections that use accents. For example, when making a correction it will represent the word naïve as `na\"{\i}ve`. If you type text into the **Change To:** box using the extended character set, **Excalibur** will translate the text so that it uses TeX style accents when making the correction. This is useful if you don't remember the TeX sequence for a particular accent.

This option also affects how **Excalibur** copies text from the suggestion list to the **Change To:** box. Words always appear in the suggestion box using the extended character set. However, **Excalibur** will copy them to the **Change To:**

box with TEX style accents so you can see how they will appear in the document.

**Use extended character set** instructs **Excalibur** to use Apple's extended character set when making corrections that use accents. For example, it will use naïve instead of `na\"{\i}ve`. Even if you type text in the **Change To:** box using escape sequences, **Excalibur** will translate the text into the extended character set when making the correction. If no translation is available (for example, the character č doesn't exist in Apple's character set) **Excalibur** will insert the word unchanged.

## 10 Known Problems

When you correct a word, **Excalibur** does not update the screen to reflect the correction. However, the change *does* take place.

## 11 Large Documents and Dictionaries

The size of a document or dictionary is limited only by the amount of memory on your machine. **Excalibur** will use any free memory on your machine to load large documents or dictionaries, or to perform dictionary conversions. Quitting other applications will make more memory available to **Excalibur**.

To set the optimal partition size under all versions of the system software, use the following formula. Compute the total size of all your active (checked) dictionaries and add 688K. For example, if the dictionaries you are using have a total size of 1,000K, set **Excalibur**'s memory partition to 1,688K. These calculations assume that you have virtual memory turned on.

## 12 Excalibur and AppleScript

You can invoke **Excalibur** using AppleScript. For example, to see if a word is spelled correctly, you could use a script like this.

```
tell application "Excalibur"
   check word "myWord"
end tell
```

This will return true if the word is correct, false otherwise. If the word is spelled incorrectly, you can ask **Excalibur** for suggestions.

```
tell application "Excalibur"
   guess word "myWord"
end tell
```

This will return as many as 40 suggestions for your word. If you would like to limit the number of suggestions, you can supply an optional guess count. The next example will return at most 5 guesses.

```
tell application "Excalibur"
   guess word "myWord" guess count 5
end tell
```

## 13 Frequently Asked Questions

1. If there is a TEX and LATEX way of doing the same thing, which should I choose?

   If there is a TEX and LATEX way of doing things, **Excalibur** usually handles the LATEX method better. For example, use

   ```
   \input{file}
   ```

   instead of

   ```
   \input file
   ```

   Use the `\symbol{}` command instead of `\char`. For example, you should use

   ```
   \symbol{'134}
   ```

   instead of

   ```
   \char'134
   ```

   to produce a backslash. (Actually, the preferred method for producing a backslash is to use `\textbackslash`, or `$\backslash$`.)

   Use the `\setlength{}{}` command change the length of something. For example, you should use

   ```
   \setlength{\textwidth}{6.5in}
   ```

   instead of

   ```
   \textwidth=6.5in
   ```

Use `\newcommand` or `\renewcommand` instead of `\def` to define a command.

2. I've redefined a LaTeX command to have a different number of arguments than usual and now **Excalibur** is confused. What should I do?

   Be careful when using `\renewcommand`. **Excalibur** doesn't look at the new definition of a command. If you define it to have a different number of arguments than the original command, **Excalibur** will get confused. Tell **Excalibur** about the new form of the command by using the **LaTeX** menu. See section 7.4 on page 6.

3. **Excalibur** seems to be skipping large portions of my file. How do I fix this?

   **Excalibur** knows a fair amount about TeX/LaTeX syntax. If it looks like it's skipping large portions of a file, it's probably because of an unmatched brace or some other syntax error. It's best to run it on a syntactically correct file. It will warn you if it thinks it found a syntax error.

4. How do I get **Excalibur** to recognize accents in a tabbing environment?

   The commands `\=`, `\'`, and `` \` `` usually produce accents. However, they are redefined in a tabbing environment. To make sure that **Excalibur** interprets them properly in a tabbing environment, precede (unless at the beginning of a line) and follow them by a space. **Excalibur** knows about the special `\a` accent in the tabbing environment.

5. **Excalibur** is having trouble finding the end of an environment. How do I fix this?

   For any environment that **Excalibur** ignores, there should be no spaces between the `\end` and the left curly brace. For example, `\end {verbatim}` will confuse **Excalibur**.

6. I'm using `\equation` ... `\endequation` and **Excalibur** is not ignoring the equations contained within. What's wrong?

   If you use `\equation` ... `\endequation` to delimit the bounds of an equation, **Excalibur** won't ignore it. You should use

   ```
   \begin{equation}
   \end{equation}
   ```

   instead.

7. Are there any limitations on **Excalibur**'s parsing of TEX documents?

   A word may not begin with a left curly brace, but it may contain embedded curly braces. For example, **Excalibur** will recognize the word "naïve" when it is written as `na\"{\i}ve`, `na\"\i{}ve`, or `na\"\i ve` but not `{na\"\i}ve`, even though this last form is syntactically correct. Note that a space may be part of a word.

8. **Excalibur** is having trouble suggesting accented words. Why?

   If you are using version 2.3 or later, **Excalibur** will do a much better job of suggesting words if your dictionary has words stored using Apple's extended character set.

9. I've defined my own shorthand verbatim environment and **Excalibur** doesn't like it. How do I instruct **Excalibur** about my verbatim environment?

   A declaration such as `\def|{\verb|}` will allow you to write `|\rule|` as a shorthand for `\verb|\rule|`. However, this will completely confuse **Excalibur**. It will start looking for the arguments to `\rule` and report a syntax error. Use `\MakeShortVerb{\|}` instead and **Excalibur** will do the right thing. It knows about `\DeleteShortVerb{\|}` too.

   If you have an old LATEX 2.09 file that creates a shorthand verbatim environment in the manner just described, you can trick **Excalibur** into recognizing it by including the following lines in your file.

   ```
   \iffalse
   \MakeShortVerb{\|}
   \fi
   ```

   **Excalibur** doesn't process the `\iffalse` command and so it will process the `\MakeShortVerb` command.

10. I've checked the option that instructs **Excalibur** to ignore `\tt` text, but it doesn't ignore `\texttt` text. How do I get it to ignore this too?

    LATEX $2_\varepsilon$ defines the command `\texttt` for specifying text in the typewriter font. The option to ignore `\tt` text does not have any effect on this command. If you want **Excalibur** to ignore the argument of `\texttt`, use the **Edit Commands** dialog.

11. I want to nest math environments, but **Excalibur** gets confused by this. Is there a way around this?

If you nest math environments which are delimited by $'s, **Excalibur** will get confused. You should use `\(...\)` instead. For example, instead of

```
$\Lambda = n \in I \mbox{for all $n \ge 0$}$
```

use

```
\(\Lambda = n \in I \mbox{for all \(n \ge 0\)}\)
```

12. I'm using a package that redefines the `\cite` command to have more than one optional argument. Now **Excalibur** refuses to spell check my document. How do I tell **Excalibur** that `\cite` may have more than one optional argument?

    Use the **Edit Commands** dialog to tell **Excalibur** that the `\cite` command has one argument. This may not seem different than the usual definition, but there's a subtle difference. **Excalibur** will ignore *all* optional arguments for commands defined using the **Edit Commands** dialog. If you use this package frequently, save your preferences and **Excalibur** will remember this setting every time you use it.

13. How do I tell **Excalibur** not to spell check an e-mail or HTML address?

    Uncheck the **Spell check URLs** options.

14. How do I use **Excalibur** with AppleWorks (ClarisWorks)?

    **Excalibur** and AppleWorks communicate through Word Services. AppleWorks doesn't make this very obvious. For a good explanation of how it works, see Using Word Services with ClarisWorks.

    `http://www.wordservices.org/Products/clarisworksinst.html`

    Note that Apple has removed support for Word Services as of AppleWorks 6.0!

15. I want to spell check a plain TeX document that uses the `\line` command. **Excalibur** gets confused because LaTeX redefines this command. What's the best way to solve this problem?

    You have two options. You can use `\leftline` instead. It does the same thing but doesn't confuse **Excalibur**. You could also use the **Edit Commands** dialog to tell **Excalibur** that `\line` has one argument.

16. How do I get **Excalibur** to handle more than 7 dictionaries?

    When you launch **Excalibur**, it inserts any dictionaries that it finds in the **Excalibur** folder into the **Dictionary** menu. This menu is capable of holding just 7 dictionaries. I suggest that you store dictionaries that you don't use very often in a separate folder. It could even be a subfolder of the **Excalibur** folder. This will leave some slots free in the **Dictionary** menu so you can explicitly open another dictionary.

    Once a dictionary appears in the **Dictionary** menu, there is no way to remove it other than quit **Excalibur** and make sure it's not in the **Excalibur** folder when you relaunch.

# 14 Plans for the Future

I will fix any bugs that people find. Please use the information in **Suggestions and Bug Reports** (section 15 on page 18) to send bug reports.

I welcome suggestions on how to improve **Excalibur**.

# 15 Suggestions, Bug Reports, and Contact Information

I am very interested in maintaining and improving this program. If you have a bug report and your bug is not easy to reproduce, try to send us a small file that readily reproduces the problem. Be sure to mention which version of **Excalibur** you are using.

Send comments, suggestions, contributions, and bug reports to:

Rick Zaccone
Computer Science Department
Bucknell University
Lewisburg, PA 17837
U.S.A

Phone: 570-577-1393

Electronic mail: `zaccone@bucknell.edu`

# 16 Other Dictionaries

You will always find the latest version of **Excalibur** on the **Excalibur** home page.

`http://www.eg.bucknell.edu/~excalibr/excalibur.html`

You will also find dictionaries for atomic elements, biblical terms, biomedical terms, British English, Catalan, Danish, Dutch (both old and new spellings), French, German, HTML, Indonesian, Italian, life sciences, Manx Gaelic, medical terms, Norwegian, Portuguese, Spanish, and Swedish.

## 17 Acknowledgments

Special thanks to Adrienne Forbes for her tireless testing and Stephanie DiBello for **Excalibur**'s new splash screen and About box.

I produced **Excalibur** using Metrowerks CodeWarrior.

We wish to acknowledge the efforts of Matt Biar for Version 1.0 LaTeX parsing and significant contributions to the design of **Excalibur**. We also thank Mohamad Daimon for great user interface ideas, knick-knacks, and hours of tedious testing.

We also acknowledge the rest of the original **Excalibur** team: Nancy Dodge (documentation), Dan Jamieson , John Meehan, James Mitchell, Frank Lijoi, and Joe Lijoi.

## 18 Excalibur Legend

Excalibur is King Arthur's great sword. It sometimes gives off light and occasionally is wielded by Gawain. Excalibur is given to Arthur, and finally taken from him, by a hand in the lake. Merlin, who brings Arthur to the Lady of the Lake to receive Excalibur, informs the King that the scabbard is worth far more than the sword itself, for the former will protect its bearer from injury. Despite this fact, it is the sword rather than its scabbard that has captured the imagination of later writers and readers.

## 19 Legal Fine Print

**Excalibur** is free. However it is not public domain and we retain the copyright. You may not charge to redistribute this program except for normal download fees. You may not distribute **Excalibur** with a commercial package without written permission from the authors.

*Textures* is a commercial version of TeX for the Macintosh produced by Blue Sky Research.

OzTeX is a shareware version of TeX for the Macintosh produced by Andrew Trevorrow.

# 20 Excalibur Genealogy

**Excalibur** has its roots in a software engineering course at Bucknell University in the spring semester of 1990. Rick Zaccone produced the current version using the original application as a base.

## 20.1 Version 4.0, August 5, 2001

- What's New
  - Carbonized
  - Can't automatically open the clipboard yet. This feature will return in a future release, if there's enough demand and after Apple has updated its manuals. The options related to this are now dimmed in the Startup preferences panel. This is to remind you that they aren't available.
  - All program text now comes from a resource. This makes it easier to localize.
  - When running under Mac OS X, there is a cosmetic problem in the **Edit Commands** dialog. The items in the number of arguments column don't line up. I will fix this when Apple provides a means for doing it.
  - Larger fields for flagged words.
  - No more balloon help. Sorry, but Carbon doesn't allow it!
  - The **Help** menu is gone.
  - **Excalibur** has new icons courtesy of William Adams.
  - Added a section to the manual that explains how to use **Excalibur** with AppleScript.
- Bugs Fixed
  - A word will be recognized as the same word regardless of how its accent is typed. This applies to LaTeX users.
  - Fixed a minor problem with translating a capital A with a grave accent into its TeX equivalent.
  - Fixed a bug in the "guess word" Apple Event that prevented it from working if the optional parameter was missing. Thanks to Rich Love for helping me find this.

## 20.2 Version 3.0.2, June 18, 2000

- New Features
  - Added about 500 words to the Standard Dictionary. Most are proper names. The dictionary now contains 162,459 words. This is version 2.2 of the Standard Dictionary.
  - Single clicking on a suggestion copies it to the **Change To:** box. Double clicking makes the change.
- Bugs Fixed
  - Fixed the dialog that warns of an old version of the Appearance Manager. It needed to be a bit larger.
  - Fixed a URL parsing bug. **Excalibur** would sometimes think that a left curly brace was part of a URL. As a result, you would get a LaTeX parsing error.
  - Words that contain a long Hungarian umlaut are now added to the dictionary properly.
  - **Excalibur** will run with a monitor that displays just black and white.
  - Increased the size of the tabs in the preferences dialog.
  - **Excalibur** no longer becomes unresponsive for 60 seconds after trying to open a locked file.
  - User defined environment names may optionally end in an asterisk.
  - **Excalibur** is more careful about declaring that user definitions are dirty.
  - Use the new icon and file type for emacs files.

## 20.3 Version 3.0.1, November 11, 1999

- Bugs Fixed:
  - Fixed a warning message about Appearance not being installed properly.
  - Fixed a URL parsing bug.
  - Fixed a bug that caused possible data corruption if you saved while making corrections.
  - Fixed problem with the About Box not appearing properly on some systems.
  - Did some performance tuning.

### 20.4 Version 3.0, October 11, 1999

- New Features:
  - **Excalibur** will now optionally skip over URLs. By default, it will skip over URLs when spell checking.
  - You can zoom and grow **Excalibur**'s window.
  - Preferences are now in a tab panel and they are automatically saved.
  - Spell checking, particularly on large documents, is much faster.
  - Text to dictionary conversions are dramatically faster, regardless of the ordering of the original text file. Dictionary to text conversions are about twice as fast as before.
  - Adding words to an existing dictionary is faster.
  - Improved how Replace Throughout works. **Excalibur** now does a better job with case preservation and multi-word replacements.
  - Made some corrections to the Standard Dictionary. Eliminated a few errors and added more words. There are now 161,855 words in the Standard Dictionary!
  - Improved suggestions.
  - Changed the behavior when replacing a word with something that is not in an active dictionary.
  - There are keyboard equivalents for most operations.
  - Added Nisus Writer to the file type popup menu.
  - **Excalibur** is now PowerPC only.
  - Many smaller changes.
- Bugs Fixed:
  - Fixed a bug that caused the last word in a text file to sometimes not get included when doing a text to dictionary conversion.
  - Fixed a bug that would have caused a few error message not to be displayed properly.
- Special Notes:
  - **Excalibur** is still freeware, but please consider helping me defray development costs by making a contribution. I have supported this program since 1991 and I will continue to do that. However, development

tools are expensive. If you would like to contribute a development tool directly, please contact me and I'll let you know what I need.

  - Special thanks to Adrienne Forbes for her tireless testing and Stephanie DiBello for **Excalibur**'s new splash screen and About box.

### 20.5 Version 2.6, November 5, 1998

- New features:

  - You can now drag multiple files on **Excalibur**. When you do, it will operate in a slightly different fashion. It will automatically start spell checking each file and it will auto save each file when you are finished with it.
  - Added Navigation Services support. You can select more than one file to spell check. When you select more than one file, the behavior is the same as when you drop multiple files onto **Excalibur**.
  - **Excalibur** has a significantly better Standard Dictionary. The new dictionary is several times larger than the previous one. As a result, **Excalibur**'s suggested application size is now about 2 MB. I am grateful to Adrienne Forbes for her invaluable help in putting this dictionary together.

- Bugs fixed:

  - Fixed a display bug that appeared when a document was open and you tried to open another document that was busy.
  - Fixed the handling of **Save As**... while correcting.
  - Clicking on the splash screen no longer causes a crash.

### 20.6 Version 2.5.2, August 8, 1998

- Bugs fixed:

  - Fixed **Excalibur**'s handling of Word Services. It works much better with most applications now. In particular, you don't lose formatting with ClarisWorks and WordPerfect.
  - **Excalibur** knows about `\tabularnewline`, `\r` (ring accent), `\SS` (capital `\ss`), `\k` (ogonek accent), `\DH` (eth), `\DJ` (dbar), `\NG` (eng), `\TH` (thorn) and their lower case equivalents.

- Zap null characters if they're present in a file. This prevents parsing errors that sometimes occurred.
- Double clicking on a misspelled word should copy it into the **Change To:** box. When the word was at the beginning of a line, this did not always work. It does now.
- Fixed some internal workings that are not presently a problem, but might cause problems in future versions of the operating system.
- Fixed a bug that could have caused an occasional crash while saving commands. (No crash was ever reported.)
- Updated the popup menu that appears in the Save dialog when performing dictionary to text conversions.
- Fixed a cosmetic problem related to window shading.
- Fixed a bug that prevented **Excalibur** from adding certain dictionary names to the Dictionary menu properly.
- Many other minor changes.

## 20.7 Version 2.5.1, November 26, 1997

- Bugs fixed:
  - **Excalibur** no longer displays a dialog when it receives an Apple Event it doesn't understand.
  - **Excalibur** now handles DOS and Unix files correctly.
  - Fixed a rare bug that sometimes caused saves to fail under System 6 while running over an AppleTalk network.

## 20.8 Version 2.5, July 3, 1997

- New Features:
  - **Excalibur** supports the Word Services batch check, check word and guess word events. I have tested it with MT-NewsWatcher, Eudora Pro, Communicate 2.0 (due in late summer), Nisus Writer, and ClarisWorks. **Excalibur** is a plain text spell checker, so it works best in Nisus Writer and ClarisWorks if you check a segment of text that uses a single font and size.
  - The **Excalibur** manual and the **Excalibur** home page are now available through the help menu if you have Internet Config installed.

- If you have Internet Config installed, **Excalibur** will use it to determine the file type when you select **Save As**.

- Bugs Fixed:
  - Fixed a bug that caused buttons to appear as check boxes under System 8.
  - Fixed another bug related to converting very large dictionaries to text files on 68K machines.

## 20.9 Version 2.4, June 1, 1997

- New Features:
  - Improved suggestions.
  - Use a AGA compliant popup menu in the edit commands dialog if possible.
  - Changed the **Edit Commands** dialog so that there is more room for the command name.
  - The "Use german.sty conventions" option is now called "Use German babel conventions".
  - **Excalibur** knows how to translate `"s` and `"z` when German babel conventions are turned on.
  - Added a check box to the open file dialog that enables you to view only `*.tex` and `*.ltx` files. If you save preferences, **Excalibur** will remember the contents of this check box.
  - **Excalibur** knows about the Catalan geminated-l digraph. In LaTeX it recognizes `\l.l` and `\L.L`. Using the Macintosh character set, type `l·l` or `L·L` where · is a centered dot.
  - Modal dialogs are now moveable.
  - Better handling of eastern European and extended Roman scripts.

- Bugs Fixed:
  - Fixed a crashing bug when converting a dictionary to text. It only occurred when converting very large dictionaries.
  - Fixed an minor update problem in the spell check window.
  - Better error detection when opening files. It knows about AppleShare deny modes and it checks for locked volume.
  - Fixed a minor update problem in open and save file dialogs.

### 20.10 Version 2.3.1, November 17, 1996

- New features:
  - Added some conformance to Apple's Grayscale Appearance.
  - If you ask **Excalibur** to remember which dictionaries are currently active, it checks to see if the file or an alias to it is in its folder. If not, it will remind you that it won't be able to find the dictionary the next time you launch the program.
- Bugs fixed:
  - Suggestions are much faster.
  - Fixed a bug that caused **Excalibur** to squeeze blanks out of words in the **Change To:** box.
  - Fix a problem with **Excalibur** not being able to recognize characters in the extended character set on systems that use a non Roman script.

### 20.11 Version 2.3, September 7, 1996

- New features:
  - **Excalibur** is much better at making suggestions.
  - **Excalibur** gives you the option of making corrections using TeX style accents or with Apple's extended character set. See **LaTeX Options** on page 12 for more information.
  - When **Excalibur** adds a word to a dictionary, it will do so using Apple's extended character set if possible. This helps to make the new suggestion algorithm work better.

    If you have been saving words with TeX style accents, you should convert your dictionary. Using **Excalibur** 2.3, convert your current dictionary to a plain text file. Then, convert it back into a dictionary. Don't forget to set your spell checking options before doing this second conversion. You do not need to make any changes to the Standard Dictionary.
- Bug fixes:
  - Improved error checking and error recovery when opening and saving files that are in use by other applications.

## 20.12 Version 2.2.2, April 18, 1996

- New features:
  - Added processing for

    ```
    \DeclareMathOperator
    \font
    \textcircled
    ```

  - **Excalibur** now knows about the AMS-LaTeX variants of the following commands:

    ```
    \newcommand
    \newenvironment
    \newtheorem
    \parbox
    \providecommand
    \renewcommand
    \renewenvironment
    ```

  - Buttons are now indented when you press them so they look like they're pressed.

- Bugs Fixed:
  - Fixed a bug that caused **Excalibur** to skip two characters following a math environment delimited by `\(...\)`.
  - Fixed a hard to reproduce bug that caused **Excalibur** to crash on some machines that don't have color.
  - Corrected the processing of `\email`.
  - Shift key didn't bring up Add Words dialog if there was only one modifiable dictionary.

## 20.13 Version 2.2.1, March 13, 1996

- New features:
  - **Excalibur** knows about the commands

    ```
    \MakeShortVerb
    \DeleteShortVerb
    ```

- Added a start-up option that causes **Excalibur** to start spell checking whenever it opens the clipboard. When this option is set, closing the window saves the results back to the clipboard. Holding down the shift key overrides the new behavior in both cases.
- Got rid of the **Save To Clipboard** menu item. Now the text of the **Save** item changes to **Save Clipboard** when the document is a clipboard.
- Allow the nesting of `\(...\)` pairs.
- Better memory management. You don't have to increase the application size to use a large dictionary.

- Bugs fixed:
  - Fixed a bug that caused the **Add** button to not update when the user creates a new dictionary.
  - Fixed the About Box animation.
  - Fixed a bug that caused new commands not to get inserted into the list of commands properly.
  - Improved reporting for LaTeX syntax errors. Most of the parsing code is new.
  - Better recovery when a dictionary fails to load.
  - Disable **Convert** menu if the dictionary list is full.
  - Fixed two minor bugs that caused Excalibur to report a syntax error when there was no error.

### 20.14 Version 2.2, January 25, 1996

- Got rid of some of **Excalibur**'s alerts. The program operation is much smoother. **Excalibur** displays the current state of the program rather than announce it with alerts.
- **Excalibur** no longer beeps when it can't find a suggestion. Instead, it puts a message into the suggestion box. It's much less annoying now, and it's fast enough on the power Mac that you may want to leave the **Auto Suggest** option checked.
- **Excalibur** will now open aliases to dictionaries. For example, suppose there's a dictionary on a server that you would like to use every time you launch **Excalibur**. Put an alias to that dictionary in the **Excalibur** folder and it will open it when you launch the program.

- If a document is already open, you can replace it with another as long as a spell check operation is not in progress.
- **Excalibur** now has a Spanish dictionary. See **Other Dictionaries** (section 16 on page 18) for information on where to find it and other dictionaries.
- **Excalibur** remembers the folder of the last file you opened.
- **Excalibur** continues to look for dictionaries after finding an old style dictionary.
- Fixed a dictionary conversion bug that caused **Excalibur** to think it was out of memory when it really wasn't.
- Revised **Excalibur**'s balloon help.
- Dialogs draw faster on a PowerPC.
- Numbers now have a thousands separator.
- Fixed a problem with pressing the **Restart** button when the document is a clipboard snapshot.
- Updated the `BBEdit` icon so that it is in step with the `BBEdit` 3.5 icon.
- Fixed a bug that caused **Excalibur** to not properly remember your preferences for commands.
- Fixed a menu update problem.
- Made e-mail address in About Box easier to read.
- There are many other minor changes.

### 20.15 Version 2.1, March 28, 1995

- **Excalibur** now has a new look!
- There are better error message when **Excalibur** detects a syntax error.
- There are better error messages when doing conversions.
- When doing a dictionary to text conversion you can select the text file type from a pop-up menu.

- Double clicking on a misspelled word copies it into the **Change To: box**.
- If you have just one modifiable dictionary, **Excalibur** doesn't ask you which dictionary to add a word.
- **Excalibur** requires System 6.0.5 or greater.
- **Excalibur** now observes the **Ignore all CAPS** option when converting from text to dictionary.
- Fixed a bug that caused **Excalibur** to sometimes suggest the same word more than once.
- Added support for the `german.sty` sequences `"|` (separate ligatures) and `"~` (unbreakable hyphen).
- The About box animation works at the same rate regardless of the CPU speed.
- There are various other adjustments and bug fixes.

### 20.16 Version 2.0.1, January 12, 1995

- A word is considered to be all caps if it doesn't contain any lower case letters. Thus, "FRED'S" is now all caps as is "68K". Previously, all characters had to be upper case letters.
- **Excalibur** sometimes thought that definitions were dirty when they were not. This no longer happens.
- Fixed some minor problems with dictionary names in the **Dictionary** menu.
- Better handling of dictionaries and memory. Unchecking a dictionary purges it from memory.
- The Edit Commands and Edit Environments dialogs are now in color.
- It's now legal to create a command with zero arguments. This is useful if you want to override a built-in command to have zero arguments.
- Fixed a problem that caused **Excalibur** to sometimes not find dictionaries at start-up.
- Various other minor fixes.

### 20.17 Version 2.0, July 6, 1994

- **Excalibur** now runs in native mode on a PowerPC.
- **Excalibur** uses a new dictionary format that greatly speeds up operations in languages other than English.

  You will need to convert any dictionaries you created with a previous version of **Excalibur** to this new format. Here's the procedure for doing that. (The dictionary we are distributing with **Excalibur** 2.0 is a new version of the Standard Dictionary.)

  Use your current version of **Excalibur** (1.x) convert your dictionary to a text file. Then use **Excalibur** 2.0 to convert that text file back into a dictionary. Don't forget to pay attention to your option settings when creating a new dictionary. For example, if you set the option to treat 's as the end of a word, no words with 's will appear in your dictionary.

  **Excalibur** 2.0 is smart enough to display an error message if you try to open an old style dictionary. Old versions of **Excalibur** may crash if you try to open a new style dictionary.
- **Excalibur** uses temporary memory to open large files and when doing text to dictionary and dictionary to text conversions. This means that if there is enough memory on your machine, you won't have to increase **Excalibur**'s partition size to open a large file or to do a conversion.
- **Excalibur** has a vastly improved memory management scheme. It should always recover gracefully from a low memory situation.
- Text to dictionary conversions use much less memory. Fixed a few bugs associated with conversions.
- Pressing the Enter key selects the default item in the spell check window.
- **Excalibur** knows about the SLITEX and `seminar.sty` versions of the slide environment.
- **Excalibur**'s interaction with Alpha is smoother. If you select Spellcheck Window in Alpha and **Excalibur** already has a window open, it will close it and spell check the new document. It does this more smoothly now.
- **Excalibur** uses intelligent suggestions for the new file names when doing conversions. You can customize the strings that **Excalibur** uses for extensions by changing resource `STR#` 306.

- The behavior of the **Add Word**... menu item has changed slightly. Now it adds a word only if it doesn't appear in any other active dictionary. If you would like to add a word to a dictionary even if it appears in another dictionary, hold down the option key when you click on the Add button.

- Various smaller changes.

## 20.18 Version 1.5.1, April 10, 1994

- Fixed some clipboard problems that surfaced when running System 6.

- Saving now works properly on EasyServer and CAP (Columbia AppleTalk Package) volumes. It now works under A/UX 3.0 too. (Thanks to Stuart Castergine for helping me fix this.)

- **Excalibur** knows about new LaTeX $2_\varepsilon$ commands.

- Put up an alert if the preferences file is out of date.

- The updating of statistics while spell checking is now flicker free.

- The buttons in the spell check window are handled a bit more intelligently. If the text in the **Change To:** box and the flagged word are the same, then the **Change** button is inactive. If there is no text in the **Change To:** box, then the **Ignore** button is the default.

- A '@' can now be part of a user defined command or environment name.

- Fine tuned memory management somewhat.

- Fixed a rare bug that would cause **Excalibur** to be unable to find dictionaries.

## 20.19 Version 1.5, January 14, 1994

- Added options that let the user choose how **Excalibur** should behave when you launch it. You may choose to present an "open file" dialog, open the clipboard if it has text, or do nothing. When the clipboard option is checked, **Excalibur** will also open the clipboard when it receives a resume event (if it contains text).

- Adjusted a few of the dialogs so that they all appear and behave consistently. Pressing Return or Enter is the same as clicking the default button. Command period is the same as cancel.

- Made some changes so that **Excalibur**'s interactions with Alpha are better.
- Fixed the **Edit Commands** dialog so that it is a bit more intuitive.
- Fixed the **Edit Environments** dialog so that you no longer enter the number of arguments. **Excalibur** never used these values anyway.
- You can now drag **Excalibur**'s windows to another monitor.
- Fixed a few minor bugs.

## 20.20 Version 1.4.2, August 11, 1993

Fixed a bug that caused all the buttons in the spell check window to be inactive during the correction phase. This happened on 68000 based machines.

## 20.21 Version 1.4.1, August 4, 1993

- Repaired several minor bugs including better error handling under low memory conditions.
- You can now convert larger text files into dictionaries. If you create a really large dictionary you may not be able to read it with an older version of **Excalibur**.
- **Excalibur** knows about the conventions in `german.sty`. If you turn on the option to treat `"` as if it were `\"`, **Excalibur** will also know about the hyphens and quotes defined in `german.sty`.

## 20.22 Version 1.4, July 11, 1993

- You may now spell check the contents of the clipboard. You may save the results back to the clipboard too.
- You may now teach **Excalibur** about new commands and environments that you have defined.
- Fixed some update problems that occurred when balloon help was on.
- Fixed a problem with the **Save As...** command.
- Fixed a problem that caused a flagged word to not appear on the screen. This occurred very rarely.

- **Excalibur** now handles the `\cite` command properly.
- Fixed an obscure bug in the **Add Words...** dialog.
- Added an option that tells **Excalibur** to treat `"` as if it were `\"`. If you type ü as `"u` instead of `\"u`, **Excalibur** will be happy. Many German speaking users requested this change.
- There is an option that will cause **Excalibur** to always have a single quote mark the end of a word. This is not good for English speaking users since **Excalibur** will not recognize contractions when this is on. However, many French speaking users requested this.
- When the **Use selection from now on** box is checked in the **Add...** dialog, the ellipses no longer appear in the **Add** button. This gives you a visual indication that this box is checked.
- If you have an older version of **Excalibur**, you will need to rebuild your desktop in order to see the new icon for definition files.

## 20.23 Version 1.3.3, May 1, 1993

- Version 1.3.3 has a better algorithm for suggesting words with accents.
- Added processing for `\epsfbox` command.
- Most text that appears in dialog boxes is now in string resources. This should make it easier to localize **Excalibur**.
- Some **Excalibur** users have been kind enough to contribute additional dictionaries. There are British, Dutch, French, German, Italian and Spanish dictionaries. We will gladly accept any other non-copyrighted dictionaries that users are willing to contribute.
- We also eliminated the help facility in this version. The balloon help makes it unnecessary.

## 20.24 Version 1.3.2, April 10, 1993

- **Excalibur** now has balloon help.
- You may now optionally ignore `'s` at the end of words.
- There is an option to automatically suggest a correction to a misspelled word.

- The error correction phase of **Excalibur** is now faster. Under certain rare circumstances, the error correction phase would slow down. This no longer happens.

- In preparation for some future additions to **Excalibur**, we have rewritten much of the display code. A few things look different, but there are a lot of changes under the hood.

- Fixed some problems with the Standard Dictionary.

- Numerous minor fixes and adjustments.

## 20.25 Version 1.3.1, February 7, 1993

This version corrects a bug in the LaTeX parsing, and it correct several minor display problems.

## 20.26 Version 1.3, January 10, 1993

- **Excalibur** handles disk insert events. If you insert an uninitialized disk while **Excalibur** is running, it will ask you if you want to initialize it.

- **Excalibur** now recognizes the `\lefteqn` command.

- **Excalibur** positions alerts and dialogs according to the Human Interface Guidelines.

- **Excalibur** saves both the resource and data forks of a file. Previously, it didn't save the resource fork under System 7.

- **Excalibur** looks at the "Do LaTeX Parsing" option when doing text to dictionary conversions. If this option is checked, **Excalibur** will recognize TeX accents and ligatures in words.

- Text to Dictionary conversions are faster. They also require more memory.

- **Excalibur** correctly updates the document display.

- Drag and Drop should work better.

- Numerous bug fixes.

### 20.27 Version 1.2

We produced version 1.2 in September 1992. Here are the features and bug fixes we added.

- Fixed problem with recognizing the `tabular*` environment.
- **Excalibur** is now System 7 friendly. It handles the required Apple events. (It handles the Print event, although it doesn't do anything.) As a result, it handles drag and drop operations properly. You may drag just one file at a time.
- **Excalibur** now uses a "safe save" technique for saving files if you are running System 7. That is, it saves the file into a temporary file. Once the save has successfully completed, **Excalibur** moves the file onto the original. This may make a difference if you are saving onto a floppy disk. Make sure there is enough room for two copies of the file.
- **Excalibur** now requires System 6.0.4 or higher.
- **Excalibur** recognizes the Apple extended character set.
- Fixed a display bug in the "About the Authors" dialog.
- **Excalibur** now recognizes AMS-LaTeX environments. In particular, it knows about the environments

| | |
|---|---|
| `align` | `gather*` |
| `align*` | `multline` |
| `alignat` | `multline*` |
| `alignat*` | `xalignat` |
| `comment` | `xalignat*` |
| `equation*` | `xxalignat` |
| `gather` | `xxalignat*` |

- It knows the AMS-LaTeX commands

| | |
|---|---|
| `accentedsymbol` | `numberwithin` |
| `addtoversion` | `operatorname` |
| `email` | `operatornamewithlimits` |
| `eqref` | `series` |
| `family` | `shape` |
| `newmathalphabet` | `theoremstyle` |

- If **Excalibur** gets an error while trying to save a file, it tries to print a meaningful error message. If it gets an error for which it doesn't have a message, it prints the error number.
- Added Preferences File that saves spell-checking and dialog options as well as the names of active dictionaries.
- Changed Help dialog button from OK to Done.
- Added Text to Dictionary and Dictionary to text file conversions. Text files can be saved as MS Word, Alpha, or generic text files. Alpha contains some nice support for LaTeX. It's well worth the shareware fee.

## 20.28 Version 1.1

Version 1.1 was produced in February 1992. We have rewritten substantial portions of version 1.0.

Some new features include:

- User defined dictionaries now work.
- Many improvements to the user interface.
- LaTeX/TeX command recognizer completely rewritten. LaTeX command recognition is now excellent. Plain TeX command recognition is good. The syntax of plain TeX is difficult to parse. We are not sure how much the plain TeX recognition will improve in the future, but please send us information about any problems you have.
- **Excalibur** knows about accented characters and ligatures.
- **Excalibur** will optionally ignore text in the `\tt` font.
- **Excalibur** will now warn you if it thinks it found a LaTeX syntax error in a file.
- **Excalibur** is considerably faster than version 1.0.

## 20.29 Version 1.0

Version 1.0 was produced in May 1990.