Readability Tools

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A shareware plug-in for FrameMaker

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Introduction

Readability Tools is a FrameMaker plug-in that provides additional capabilities for analyzing and improving the readability of FrameMaker documents. Capabilities include determining document statistics, calculating standard readability formulas, generating readability reports, and producing lists and counts of all words used in a document or book.

Requirements

To use the Readability Tools plug-in, you must be using FrameMaker version 6.0 or later. The plug-in is available for the following platforms:

- Windows
- Macintosh

Installation

To install Readability Tools, perform the steps for the platform you are using.

Windows

Perform the following steps to install Readability Tools for Windows:

1. Copy the appropriate version of the ReadabilityTools.dll into the \fminit\PlugIns directory that is located in the directory where FrameMaker is installed.

   To install the plug-in, you will need to have file system permission to write to the PlugIns directory. For Windows XP and earlier, this means being logged into the system as a member of the Administrator or Power User groups. For Windows Vista with User Account Control (UAC) this means providing Administrator credentials when you copy the DLL file into the directory.

2. Restart FrameMaker.
Macintosh
Perform the following steps to install Readability Tools for the Macintosh:

1. Copy the ReadabilityTools file to the Modules folder. This folder is located in the folder where FrameMaker is installed.
2. Restart FrameMaker.

Removal
To remove Readability Tools, close FrameMaker if it is running. Remove the files you added when you installed the plug-in, and then restart FrameMaker.

Shareware notice
Readability Tools has been released as shareware. If you find the plug-in useful, please pay the shareware fee. The $20 cost is minimal, given the capabilities that Readability Tools provides. Paying the shareware fee also encourages development of other tools like Readability Tools.

Redistributing Readability Tools
Readability Tools is shareware. You may redistribute the Readability Tools package with the following restrictions:

• You may not alter the software.
• You must distribute the entire package.
• You may not charge a fee for redistributing Readability Tools.

Problem reports and suggestions
If you find any problems with the Readability Tools plug-in, or if you have any suggestions for future enhancements, e-mail them to:

support@siliconprairiesoftware.com
Chapter 1
Readability Overview

Readability is the ease with which a document can be read and understood. This chapter provides an overview of the topic. It is divided into the following sections:

- Readability History
- Improving Readability
- Why Measure Readability?
- Interpreting Readability Results
- Readability Example

Readability History

Calculating readability is done by counting the total number of paragraphs, sentences, words, and syllables in a document. These values are plugged into mathematical formulas that give an estimate of the readability of the document. Some readability tests use additional inputs, such as the number of complex words or the total number of characters in each word.

Rudolph Flesch (1911-1986) was one of the best-known readability experts. He created the Flesch Reading Ease test, and co-developed the Flesch-Kincaid Readability Test. These readability tests are the most common in use today.

Several other readability tests and indexes have been developed. Some of these tests were designed to be easier for writers to apply manually to blocks of text. Other tests were designed to be easily implemented with a computer. Manually applying readability tests is always tedious. Computers make analyzing readability much easier.
Improving Readability

To improve a document’s readability, it’s helpful to know the common things that reduce readability.

Long words
Generally, the more syllables a word has, the more difficult it is to understand when read quickly. To improve readability, use shorter synonyms when possible.

Unfamiliar words
Using words that are part of the standard vocabulary of the reader can make the document more difficult to read. Controlling the vocabulary of a document can improve the readability.

Long sentences
The average reader will forget the main point of a sentence after about 30 words. Shorter sentences with a single idea are easier to understand.

Long paragraphs
The more sentences a paragraph has, the more difficult it is to understand. In many cases, long paragraph contain multiple ideas. They should be divided into separate paragraphs to improve readability.

Why Measure Readability?
All writers want their documents to be readable. Readability values can be a useful tool for the writer, providing a measure to gauge how understandable a document is. In some cases readability tests are required, such as for some government documents.

There are additional benefits of improved readability. Better readability values can improve understanding for people who speak English as a second language. Also, documents with better readability scores and a controlled vocabulary can be easier to translate.

Interpreting Readability Results
The writer and editor of a document need to apply their discretion when interpreting the results. A document with a good readability score may not be understandable due to other factors like poor organization. Similarly, a document with a lower readability score may be perfectly suitable for the intended audience.
Don’t rely absolutely on the values returned by the readability formulas. Unless you have some specific guideline you must meet, there is little reason to try achieving a specific readability score for a document. For example, a document with a Flesch-Kincaid Grade Level score of 9.0 is likely just as readable as a document with a score of 8.9 or 9.1.

Instead, use the readability values as guidelines to help you identify documents that could be improved. Examine documents that have poorer readability scores to find areas to be improved. A better readability score after you made revisions will be a good indication that you have improved the document.

Readability Example

The following paragraph was taken from *The Story of Alchemy and the Beginnings of Chemistry*, which is electronic book available from the Gutenberg Project.

*Observations of the changes which are constantly happening in the sky, and on the earth, must have prompted men long ago to ask whether there are any limits to the changes of things around them. And this question must have become more urgent as working in metals, making colours and dyes, preparing new kinds of food and drink, producing substances with smells and tastes unlike those of familiar objects, and other pursuits like these, made men acquainted with transformations which seemed to penetrate to the very foundations of things.*

If you wanted to manually determine the readability of this paragraph, you would need to analyze it to produce the following values:

- **Total Sentences:** 2
- **Total Words:** 89
- **Total Characters:** 441
- **Total Syllables:** 135
- **Total Complex Words (3 syllables or more):** 11
From these values, you would apply the readability formulas and calculate the following results:

**Average Sentences per Paragraph:** 2.0

**Average Words per Sentence:** 44.5

**Flesch Reading Ease:** 33.3

**Flesch-Kincaid Grade Level:** 19.7

**ARI Grade Level:** 24.2

**SMOG Grade Level:** 16.5

**Gunning Fog Index:** 22.7

These results indicate that this paragraph has low readability. The paragraph’s primary problem is sentence length. These sentences should be shorter. A secondary problem is the significant number of complex words, which reduces readability.
Readability Tools provides several routines that can analyze the readability of a single FrameMaker document or all of the documents in a FrameMaker book. Information about the readability routines is divided into the following sections:

- Overview
- Statistics
- Flesch-Kincaid
- ARI
- SMOG
- Gunning Fog

**Overview**

The readability routines in Readability Tools use the following rules to determine what text will be analyzed:

- Text in the main flows of a document is examined.
- Text on only Body pages is examined. Text on Master Pages and References Pages is not examined.
- Paragraphs with the language “US English” or “UK English” are examined. Other languages, or paragraphs with the language set to “None” are not examined.
- Text insets are considered part of the document and are examined.
- Footnotes are examined.
- Table content, including the table title, is examined.
- Only visible text is examined. Hidden conditional text is not examined.
- Text lines in graphic frames are examined.
• Text in variables is examined as standard text where it appears in the
document.

• Text in markers is not examined.

When analyzing a document, Readability Tools must apply rules to determine
what are valid sentences, what are valid words, and how those words are
divided into proper syllables. To improve the performance of the readability
routines, these rules do not attempt to achieve a 100% perfect analysis. A small
number of exceptions are allowed.

For instance, a small number of words don’t follow the standard rules for
syllabification. In these cases, Readability Tools may interpret that a word has
one more or one fewer syllables than the word actually has.

Another common exception is abbreviations and acronyms. In some cases,
Readability Tools may not be able to distinguish abbreviations and acronyms
from extremely short sentences. To prevent skewing the readability results, the
rules remove these abbreviations and acronyms from the readability results.
For instance, a sentence containing an abbreviation like “e.g.” (for example)
will not have that abbreviation included in the readability analysis.

Even with these exceptions, the readability results from Readability Tools will
approach 100% accurate.

Statistics

The Statistics routine provides counts for the current document or current
book. The following items are counted or calculated:

• Total Paragraphs
• Total Sentences
• Total Words
• Total Characters (Includes just the characters in the words. Does not include
  spaces or punctuation.)
• Average Sentences per Paragraph
• Average Words per Sentence.

To use the routine, complete the following procedure:

1 Open a document or book.
The document or book should be active. The book-level routine is available
only after you have registered Readability Tools.

2 Start the routine.
In the Tools menu, point to Readability and then choose Get Statistics.
3 View the results.
A dialog will be displayed with the document or book statistics.

Flesch-Kincaid

The Flesch-Kincaid routine provides two readability tests: Flesch Reading Ease and Flesch-Kincaid Grade Level.

Flesch Reading Ease

The Flesch Reading Ease test provides a general measure of readability. Larger values indicate better readability. The following table lists the standard results for this test.

<table>
<thead>
<tr>
<th>Value</th>
<th>Readability</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 to 100</td>
<td>Very Easy</td>
</tr>
<tr>
<td>80 to 90</td>
<td>Easy</td>
</tr>
<tr>
<td>70 to 80</td>
<td>Fairly Easy</td>
</tr>
<tr>
<td>60 to 70</td>
<td>Normal</td>
</tr>
<tr>
<td>50 to 60</td>
<td>Fairly Difficult</td>
</tr>
<tr>
<td>30 to 50</td>
<td>Difficult</td>
</tr>
<tr>
<td>0 to 30</td>
<td>Very Difficult</td>
</tr>
</tbody>
</table>

The Flesch Reading Ease test is often required for documents created for the United States Government.
The following formula is used to compute the Flesch Reading Ease value:

$$206.835 - 1.015 \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) - 84.6 \left( \frac{\text{Total Syllables}}{\text{Total Words}} \right)$$

**Flesch-Kincaid Grade Level**

The Flesch-Kincaid Grade Level provides an estimate of the grade level required to understand the document. For example, a value of 10 would indicate approximately 10 years of education would be needed.

The following formula is used to compute the Flesch-Kincaid Grade Level:

$$0.39 \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) + 11.8 \left( \frac{\text{Total Syllables}}{\text{Total Words}} \right) - 15.59$$

To use the routine, complete the following procedure:

1. **Open a document or book.**
   The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Calculate Flesch-Kincaid.

3. **View the results.**
   A dialog will be displayed with the Flesch Reading Ease and Flesch-Kincaid Grade Level for the document or book.
ARI

The ARI routine provides the Automated Readability Index (ARI) test. This test is similar to the Flesch-Kincaid test, because it produces an approximate grade level required to understand the document. The ARI uses characters per word instead of syllables to make calculating the result easier.

The following formula is used to compute the ARI Grade Level:

$$4.71 \left( \frac{\text{Total Characters}}{\text{Total Words}} \right) + 0.5 \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) - 21.43$$

To use the routine, complete the following procedure:

1. **Open a document or book.**
   The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Calculate ARI.

3. **View the results.**
   A dialog will be displayed with the ARI Grade Level for the document or book.

SMOG

The SMOG routine provides the Simple Measure of Gobbledygook (SMOG) readability test, which was developed by G. Harry McLaughlin. This test produces an approximate grade level required to understand the document. The results of this test are more affected by long words.

The following formula is used to compute the SMOG Grade Level:

$$1.043 \times \sqrt{30 \times \left( \frac{\text{Total Complex Words}}{\text{Total Sentences}} \right)} + 3.1291$$

Complex words are those with 3 or more syllables.
To use the routine, complete the following procedure:

1. **Open a document or book.**
   The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Calculate SMOG.

3. **View the results.**
   A dialog will be displayed with the SMOG Grade Level for the document or book.

### Gunning Fog

The Gunning Fog routine provides the Gunning Fog readability test. This test was developed by Robert Gunning. It produces an approximate grade level required to understand the document. The following table lists the results of this test for some typical documents:

<table>
<thead>
<tr>
<th>Item</th>
<th>Gunning Fog Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME or Newseek</td>
<td>11</td>
</tr>
<tr>
<td>Reader's Digest</td>
<td>9</td>
</tr>
<tr>
<td>Comic Books</td>
<td>6</td>
</tr>
</tbody>
</table>

The following formula is used to compute the Gunning Fog Index:

\[
0.4 \times \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) + 100 \left( \frac{\text{Complex Words}}{\text{Total Words}} \right)
\]

Complex words are those with 3 or more syllables.
To use the routine, complete the following procedure:

1 **Open a document or book.**
   The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2 **Start the routine.**
   In the Tools menu, point to Readability and then choose Calculate Gunning Fog.

3 **View the results.**
   A dialog will be displayed with the Gunning Fog Index for the document or book.
Chapter 3
Readability Reports

Knowing the value for a specific readability test is helpful. However, most writers will want to know the results of all of the readability tests. Readability Tools can create reports that contain this information. Information about the readability reports is divided into the following sections:

- Document Readability Report
- Book Readability Report

**Document Readability Report**

The Document Readability Report produces a new FrameMaker document containing the statistics and all readability results for the currently-open document.

To generate a Document Readability Report, complete the following procedure:

1. **Open a document.**
   The document should be active.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Generate Readability Report.

3. **View the results.**
   A new FrameMaker document will be created that contains the statistics and readability values for the active document.
An example of a document readability report is shown in the following illustration.

**Book Readability Report**

The Book Readability Report produces a new FrameMaker document containing a table with the statistics and all readability results for all documents in the currently-active book. Any generated files, such as a table of contents or index are not included.

The last line of the chart contains the total statistics and readability values for the entire book. By looking at the individual components of the book, the documents with potential readability issues can be found easily.

*The Book Readability Report is available in only the registered version of Readability Tools.*

To generate a Book Readability Report, complete the following procedure:

1. **Open a book.**
   The book should be active.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Generate Readability Report.

3. **View the results.**
   A new FrameMaker document will be created that contains the statistics and readability values for the documents in the active book.
An example of a book readability report is shown in the following illustration.

<table>
<thead>
<tr>
<th>Title</th>
<th>F</th>
<th>Sm</th>
<th>RI</th>
<th>AR</th>
<th>SMOG</th>
<th>Paragraphs</th>
<th>Sentences</th>
<th>Words</th>
<th>Characters</th>
<th>Readability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology 1</td>
<td>25.1</td>
<td>34.4</td>
<td>14.3</td>
<td>10.2</td>
<td>16.6</td>
<td>157</td>
<td>306</td>
<td>3,782</td>
<td>32,236</td>
<td>1.1</td>
</tr>
<tr>
<td>Ecology 2</td>
<td>22.2</td>
<td>34.7</td>
<td>14.7</td>
<td>10.3</td>
<td>18.8</td>
<td>99</td>
<td>212</td>
<td>2,876</td>
<td>36,021</td>
<td>1.1</td>
</tr>
<tr>
<td>Ecology 3</td>
<td>20.3</td>
<td>36.7</td>
<td>14.8</td>
<td>10.4</td>
<td>18.7</td>
<td>96</td>
<td>200</td>
<td>3,050</td>
<td>30,931</td>
<td>1.0</td>
</tr>
<tr>
<td>Overall</td>
<td>24.7</td>
<td>36.0</td>
<td>14.1</td>
<td>10.3</td>
<td>18.7</td>
<td>103</td>
<td>491</td>
<td>3,048</td>
<td>30,946</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Chapter 4
Word Lists

One technique to improve the readability of a document is to control the vocabulary used for it. A smaller controlled vocabulary can be helpful, especially for readers who speak English as a second language. To control the vocabulary of a document, you must be able to analyze what words are used. Readability Tools provides the following routines for this task:

- Word List
- Word List - With Counts

Word List

The Word List routine produces an alphabetized list of all unique words found in the current document or book. This word list can be used for the following:

- Analyzing the size of the vocabulary used in a document or book.
- Examining the word choice for a document or book. This allows you to choose simpler words or locate synonyms to reduce the vocabulary size.
- Verifying the spelling. If a misspelled word is found, you can search for it in the document or book. This can be an excellent way to edit your own writing.

Case is considered when generating the word list. If the same word is used in both lowercase and uppercase form, both words will be included in the generated list.

When generating a word list for a book, generated documents such as a table of contents or index are not included.
To generate a word list for a document or book, complete the following procedure:

1 **Open a document or book.**
The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2 **Start the routine.**
In the Tools menu, point to Readability and then choose Get Word List.

3 **View the results.**
A new document will be created containing the word list for the current document or book. An example is shown in the following illustration.

![](image)

**Word List - With Counts**

The Word List - With Counts routine generates the same alphabetized list for the current document or book as the Word List routine. However, it processes the document or book a second time to retrieve the count of how many times each word in the list was used.

At the end of the list, Readability Tools provides a count of the total number of unique words in the document or book. If two words in the list differ only in their case, only one of the words will be counted. For example, the words “most” and “Most” could both appear in the list. They would be considered one word for the count.

*There are some limits to the total number of words that can be counted. On Windows, the total is 50,000 unique words. On the Macintosh, the total is 10,000 unique words.*
To generate a word list with counts for a document or book, complete the following procedure:

1. **Open a document or book.**
   The document or book should be active. The book-level routine is available only after you have registered Readability Tools.

2. **Start the routine.**
   In the Tools menu, point to Readability and then choose Get Word List - With Counts.

3. **View the results.**
   A new document will be created containing the word list and counts for the current document or book. The total number of unique words will be listed at the end. An example is shown in the following illustration.
Appendix A
Command Reference

If you want to define keyboard shortcuts for the commands in Readability Tools, this appendix contains a list of the names for each command.

Command reference

The following commands are defined in Readability Tools for the document-level operations:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetStatisticsDoc</td>
<td>Displays the statistics for the current document.</td>
</tr>
<tr>
<td>CalculateFleschReadabilityDoc</td>
<td>Displays the Flesch Readability and Flesch-Kincaid grade level for the current document.</td>
</tr>
<tr>
<td>CalculateARIReadabilityDoc</td>
<td>Displays the ARI grade level for the current document.</td>
</tr>
<tr>
<td>CalculateSMOGReadabilityDoc</td>
<td>Displays the SMOG grade level for the current document.</td>
</tr>
<tr>
<td>CalculateGunningFogDoc</td>
<td>Displays the Gunning Fog index for the current document.</td>
</tr>
<tr>
<td>GenerateReadabilityReportDoc</td>
<td>Generates the readability report for the current document.</td>
</tr>
<tr>
<td>GetWordListDoc</td>
<td>Generates the word list for the current document.</td>
</tr>
<tr>
<td>GetWordListCountDoc</td>
<td>Generates the word list and word counts for the current document.</td>
</tr>
</tbody>
</table>
The following commands are defined in Readability Tools for the book-level operations:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetStatisticsBook</td>
<td>Displays the statistics for the current book.</td>
</tr>
<tr>
<td>CalculateFleschReadabilityBook</td>
<td>Displays the Flesch Readability and Flesch-Kincaid grade level for the current book.</td>
</tr>
<tr>
<td>CalculateARIReadabilityBook</td>
<td>Displays the ARI grade level for the current book.</td>
</tr>
<tr>
<td>CalculateSMOGReadabilityBook</td>
<td>Displays the SMOG grade level for the current book.</td>
</tr>
<tr>
<td>CalculateGunningFogBook</td>
<td>Displays the Gunning Fog index for the current book.</td>
</tr>
<tr>
<td>GetWordListBook</td>
<td>Generates the word list for the current book.</td>
</tr>
<tr>
<td>GetWordListCountBook</td>
<td>Generates the word list and word counts for the current book.</td>
</tr>
</tbody>
</table>

The following miscellaneous command is defined in Readability Tools:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReadabilityToolsAbout</td>
<td>Displays the About dialog</td>
</tr>
</tbody>
</table>
**Modifying a shortcut**

You can use a FrameMaker customization file to add a shortcut for any of the commands in Readability Tools. For example, the following lines from the “Customui.cfg” file specify that the F1 key will display the Flesch-Kincaid readability values for the current the document. Notice the command value came from the tables in the previous section.

```xml
<Command CalculateFleschReadabilityDoc>
  <Label CalculateFleschReadabilityDoc/>
  <KeySequence /F1>
  <Definition \x1000>>
</Command>
```

Refer to the Customizing FrameMaker online manual for more information about creating and using a customization file to add or change FrameMaker shortcuts.
Appendix B
SPOutput.fm

Readability Tools produces several output files, such as the Word List and Word List - With Counts. By default, these new documents are based on the default document for your FrameMaker installation. The routines in Readability Tools expect certain paragraph and character formats to be in this default document.

If you have modified the default document for your FrameMaker installation, it may not have the formats needed by Readability Tools. If this occurs, copy the SPOutput.fm template document included with Readability Tools to your FrameMaker installation.

- On Windows, place the SPOutput.fm document in the \FrameMaker\fminit\ folder for the FrameMaker installation.
- On the Macintosh, place the SPOutput.fm document in the Modules folder for the FrameMaker installation.

When Readability Tools creates an output document, it will use this SPOutput.fm document as the source template. The book-level Readability Report is an exception to this rule. It doesn’t use the SPOutput.fm document.

*If you want to customize the output from Readability Tools, you can do this in the SPOutput.fm document. Every output file created will use the modified characteristics you added to the SPOutput.fm document.*
Appendix C
Scripting Support

Readability Tools can be controlled with standard FrameMaker scripting tools, including the Frame Developer’s Kit (FDK) and FrameScript.

Scriptable commands

The following commands can be accessed through scripting for both FrameScript and the FDK:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetStatisticsDoc</td>
<td>Displays the statistics for the current document.</td>
</tr>
<tr>
<td>CalculateFleschReadabilityDoc</td>
<td>Displays the Flesch Readability and Flesch-Kincaid grade level for the current document.</td>
</tr>
<tr>
<td>CalculateARIReadabilityDoc</td>
<td>Displays the ARI grade level for the current document.</td>
</tr>
<tr>
<td>CalculateSMOGReadabilityDoc</td>
<td>Displays the SMOG grade level for the current document.</td>
</tr>
<tr>
<td>CalculateGunningFogDoc</td>
<td>Displays the Gunning Fog index for the current document.</td>
</tr>
<tr>
<td>GenerateReadabilityReportDoc</td>
<td>Generates the readability report for the current document.</td>
</tr>
<tr>
<td>GetWordListDoc</td>
<td>Generates the word list for the current document.</td>
</tr>
<tr>
<td>GetWordListCountDoc</td>
<td>Generates the word list and word counts for the current document.</td>
</tr>
</tbody>
</table>
For scripting commands to work properly, you must specify the name of the plug-in you want to access. The name depends on the platform on which you are using FrameMaker.

## Windows

For Windows, the Readability Tools plug-in is named “Readability Tools”. This is the client name that was given to the plug-in when it was created.

### Client name

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetStatisticsBook</td>
<td>Displays the statistics for the current book.</td>
</tr>
<tr>
<td>CalculateFleschReadabilityBook</td>
<td>Displays the Flesch Readability and Flesch-Kincaid grade level for the current book.</td>
</tr>
<tr>
<td>CalculateARIReadabilityBook</td>
<td>Displays the ARI grade level for the current book.</td>
</tr>
<tr>
<td>CalculateSMOGReadabilityBook</td>
<td>Displays the SMOG grade level for the current book.</td>
</tr>
<tr>
<td>CalculateGunningFogBook</td>
<td>Displays the Gunning Fog index for the current book.</td>
</tr>
<tr>
<td>GetWordListBook</td>
<td>Generates the word list for the current book.</td>
</tr>
<tr>
<td>GetWordListCountBook</td>
<td>Generates the word list and word counts for the current book.</td>
</tr>
<tr>
<td>SetDocId</td>
<td>Specifies the ID of the document to be acted on.</td>
</tr>
<tr>
<td>SetBookId</td>
<td>Specifies the ID of the book to be acted on.</td>
</tr>
</tbody>
</table>
Macintosh
For the Macintosh, the Readability Tools plug-in is named “ReadabilityTools”. This is the filename of the plug-in that is installed in the Modules folder of the FrameMaker installation. If you change the name of the plug-in file, you must use the new name you have chosen.

Scripting examples
The following examples show how to call commands in Readability Tools from FrameScript and the FDK.

FrameScript
To control Readability Tools with FrameScript, you will use the CALLCLIENT command. Be sure that you use the appropriate client name for the platform on which you are using FrameMaker.

The following example shows how to use the CALLCLIENT command on Windows to generate the Readability Report for the current document.

```plaintext
CALLCLIENT FrameClient('Readability Tools')
Message('GenerateReadabilityReportDoc') ReturnVal(retVar);
```

The following example shows how to use the CALLCLIENT command on the Macintosh to generate a Word List for the current document.

```plaintext
CALLCLIENT FrameClient('ReadabilityTools')
Message('GetWordListDoc') ReturnVal(retVar);
```

Refer to the FrameScript documentation for more information about the CALLCLIENT command.

FDK
To control Readability Tools with the FDK, you will use the F_ApiCallClient() function. Be sure that you use the appropriate client name for the platform on which you are using FrameMaker.

The following example shows how the F_ApiCallClient() function is used on Windows to display the statistics for the current document.

```plaintext
F_ApiCallClient("Readability Tools", "GetStatisticsDoc");
```

The following example shows how the F_ApiCallClient() function is used on the Macintosh to display statistics for the current book.

```plaintext
F_ApiCallClient("ReadabilityTools", "GetStatisticsBook");
```
Background processing

If you will be running scripts with FrameMaker in the background, you must use an additional command to specify which document or book will be acted on. Do this using the SetDocId or SetBookId commands.

It’s necessary to use these commands only if scripts will be running while FrameMaker is in the background and is not the active application.

Syntax

Like other scripting commands, the SetDocId and SetBookId commands are string values. The command is followed by a space and then the string representation of the document Id or book Id. For instance, the following command specifies the document with the Id 12345:

SetDocId 12345

Scope

The SetDocId and SetBookId commands specify which document or book the next command will affect. After the next command has been run, the scope is reset, meaning that subsequent commands will affect the currently-active document or book. If you want to perform several commands in succession, each command must be preceded by a SetDocId or SetBookId command.

Script example

The following code for the FDK uses the SetDocId command to specify the document that will be affected by the next script command that is run. Notice that a document Id is converted to a string representation and included in the command.

```c
StringT s = NULL;

docId = { The Id of the document to be affected }

s = F_StrCopyString("SetDocId ");

s = F_Realloc(s, F_StrLen(s)+(IntT)10, NO_DSE);

F_StrCatIntN(s, docId, (IntT)10+F_StrLen(s));

F_ApiCallClient("Readability Tools", s);

F_ApiCallClient("Readability Tools", "GenerateReadabilityReportDoc" );
```
Appendix D
Registration

Readability Tools is shareware, so you can try the software before you purchase it. The document-level features of the software are fully functional. As you evaluate the software, you will see periodic “reminder” messages indicating the software hasn’t been registered. You will also see these messages when you try to use book-level features. If you find Readability Tools useful, we encourage you to pay the registration fee.

License types

The following types of licenses are available for Readability Tools:

**Single-user license**

Each single-user license allows you to use one copy of the software on one computer. If you have fewer than 10 users, it’s most cost-effective to purchase single-user licenses.

**Site license**

A site license allows you to use copies of the software on any machine on the site. A site is defined as an area within a 100 mile radius. It’s most cost-effective to purchase a site license if you have 10 or more users.

**Worldwide license**

A worldwide license allows you to use copies of the software on any machine within the organization, regardless of where the installations are located. It’s most cost-effective to purchase a worldwide license if you have 10 or more sites where the software will be used.
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You can purchase a license online through the Silicon Prairie web site (http://www.siliconprairiesoftware.com). There you will find a secure link to the Silicon Prairie page on the Kagi web site. This is the easiest and fastest way to obtain a license.

Direct purchase
If you don’t want to purchase online, you can contact Silicon Prairie Software directly to arrange payment. Contact us via e-mail at the following address: support@siliconprairiesoftware.com.

Registration code

When you register the software, you will receive your registration code through e-mail. Save this e-mail! You will need it if you need to reinstall the software. If you printed this documentation, write the registration code here:

Registration Code: ______________________________________

To apply the registration code, choose the Register menu option via the Tools menu. Enter the registration code you received in the dialog that’s displayed.
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