

SwordHammer User's Manual and Documentation

Tom Sullivan
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BETA VERSION – BACKUP THY WORK OFTEN

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Those who have previously read this document will benefit from the [revision history](#) to see what material has been changed or added, so as to keep up-to-date with changes to SwordHammer.

This manual is not hard to use and has plenty of examples. In fact, screenshots take up a large percentage of its pages. There are step-by-step tutorials for all major operations.

However, his author has observed a lamentable impatience among some users; they want to just jump in and start using a program without taking the trouble to read the manual in order to learn how to use the program proficiently. Or they hope to read a few lines of text and learn all they need. Unfortunately, the short text bites in the "Help" provided by major software vendors encourages this. With complex software, such as spreadsheets or SwordHammer, such users deprive themselves of proficiency and efficiency, enduring frustration and poor work quality.

By its very nature, SwordHammer does take a bit of time to learn. However, this amount of time is *far* less than the time needed to manually do the tasks that SwordHammer will do for you. Our Lord Jesus Christ did all things well (Mark 7:37). As one brother to another, this author humbly asks you to follow Our Master's example and please make the time to read this manual before trying to use SwordHammer. You will be glad you did, and you will thus do your work well.

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Very Brief Introduction and Summary

SwordHammer is a program designed to easily convert Holy Bibles and related documents such as commentaries, creeds, and confessions to *Sword Modules* (SM) from word processor files. An SM (Sword Module) is a special set of files that serve as input to free computer Bible programs that are based on the Sword project (<http://www.crosswire.org/sword/index.jsp>). By design, these Bible programs and most SMs are free of cost. But normally, to create an SM, one must learn an alarming amount of detail about OSIS documents, XML, .conf files, and other arcane details.

With SwordHammer, you do not have to learn XML, OSIS, or other arcane details best left to computer nerds; SwordHammer is geared towards translators, authors, editors, and publishers.

SwordHammer asks the user a number of questions—and this user manual will guide you through each of these. Once the questions are answered, SwordHammer not only does all the work, but can help you find errors in your manuscript or other source document.

This present document is long and detailed. The reason for this is that this author wishes each user to succeed and to have a comfortable experience with SwordHammer without having to guess how to do things. There are plenty of examples and very many screenshots. SwordHammer performs some very complex tasks and needs good information from you in order to perform those tasks well. In spite of this, the time spent learning about SwordHammer and using it is far, far less than doing the conversion by hand! Using SwordHammer is also far less error prone than manual conversion.

Revision History

Note: Take care to note that revisions to this document and revisions to SwordHammer code happen independently. Thus, the revision history presented at the web site and upon updates to SwordHammer are *not* the same as this revision history of this document. Also, it may be assumed that minor editorial changes will be made at various times.

3 Feb 2018

- Special [download options](#) are now available for low-bandwidth users to reduce the size of the documentation; documentation, especially for Linux users, is the largest part of the total package size.
- Instructions were added for [translating](#) the General Questions base spreadsheet.
- A list of [annotated error messages](#) is supplied with explanations and hints about warning and error messages you may encounter.

27 Jan 2018

- A new feature has been added to [track](#) which of your answers to Question Documents apply to any fragment of text in your output document. This helps quickly find the source of strange results.

24 Jan 2018

- A new feature has been added to allow you to [enter](#) hard-to-type and non-printing characters as answers to `General Questions`.

- Due to implementation of caching, **Generate Question Doc.** and **Generate OSIS File** are vastly faster. Operations formerly taking over an hour now complete in about three minutes. Therefore, [paragraphs](#) regarding slowness of SwordHammer have been removed.

11 Jan 2018

- Figures were re-numbered by chapter and function. (In the future, figure numbers are not guaranteed to be in numerical order, but only ordered within a chapter or series.)
- SwordHammer.odt and OSIS.pdf are now [separate downloads](#) from the web site.
- A sub-chapter was added to give some hints on how to [modify](#) existing documents in order to change formatting so that certain things have distinct character attributes.
- Some changes to the [update system](#) were made and are documented.
- There is a more defined and robust [method](#) for including non-canonical introductions and commentaries within canonical Bible/Commentary text that Bible programs may be generally expected to display properly. How to treat these, is included in the [Step-by-Step](#).
- Chapter and verse titles are now [differentiated](#) properly. Discussion is included in [Step-by-Step](#).

28 Dec 2017

Original release.

Introduction and Summary

As noted above, SwordHammer is a program designed to easily convert Holy Bibles and Holy Bible related documents such as commentaries, creeds, and confessions to *Sword Modules*. An SM (Sword Module) is a special set of files that serve as input to free computer Bible programs that are based on the Sword project (<http://www.crosswire.org/sword/index.jsp>). By design, the Bible programs and most SMs are free of cost. There is however, provision for encrypting SMs so you can be paid for them.

Such programs are designed not only to display the text of the Holy Bible (in many different versions and languages) on a computer or other electronic device screen, but these programs also have functions that aid the user, such as searching for particular words and phrases, showing information about the original Greek, or Hebrew languages, simultaneously displaying cross references or commentary about a passage, and so on. Many of these programs can also display creeds, confessions, commentaries, or other books that discuss or shed light on the Holy Bible.

Compared to a human, or even a dog, computers can be pretty stupid. You, dear reader, by looking at these pages, have already identified such items as the title and this author's name, and made sense of the picture above. By contrast, a computer needs to be told exactly what all of these items mean and what to do with them. This contrast is starkly evident in the difference between a word processor or other document-handling program, and a Bible program.

In the early days of personal computers, word processing programs, such as Microsoft Word and WordStar, made great advances by presenting the document to the user just as it would be printed. (And, it would be typically printed, stuffed in an envelope, and mailed, not emailed.) This is called WYSIWYG – What You See Is What You Get. It remains far and away the best method for humans to create text documents. Word processors concentrate on helping the writer present the text to another human, and rightly so. Thus, output of a word processor basically tells a computer *how the document should look*, not the *meaning* of the words and things in the document.

But consider an accounting program – the program has to know the *meaning* of all of those numbers; there is a big difference between accounts payable and accounts receivable! Bible programs are much the same way. Books, chapters, and verses need to be properly identified. Many readers like the words of our Lord Jesus Christ to be in red. A large number of users want to do careful study, so they are interested in such things as parallel passages, cross references, information about the original languages, and so on. In other words, a Bible program has to know the *meaning* of much of the information, or at least be able to properly categorize it.

Printed Bibles convey the meaning of different things by changing their appearance. Here is an example from the well-known New King James Bible (Genesis 1:1-3 NKJV):

The History of Creation

1 In the ^abeginning ^bGod created the heavens and the earth. ² The earth was ^cwithout form, and void; and darkness ¹was on the face of the deep. ^cAnd the Spirit of God was hovering over the face of the waters.

³ ^eThen God said, ^f“Let there be ^glight”; and there was light.

SwordHammer can also use special strings that the document writer might use such as [c.f.: Jn 3:15-16] as well. The result is that not only can a word processor show how a document would *look* if printed, but SwordHammer will take that document and put *meaning* into the *looks* in a way that a computer Bible program can understand.

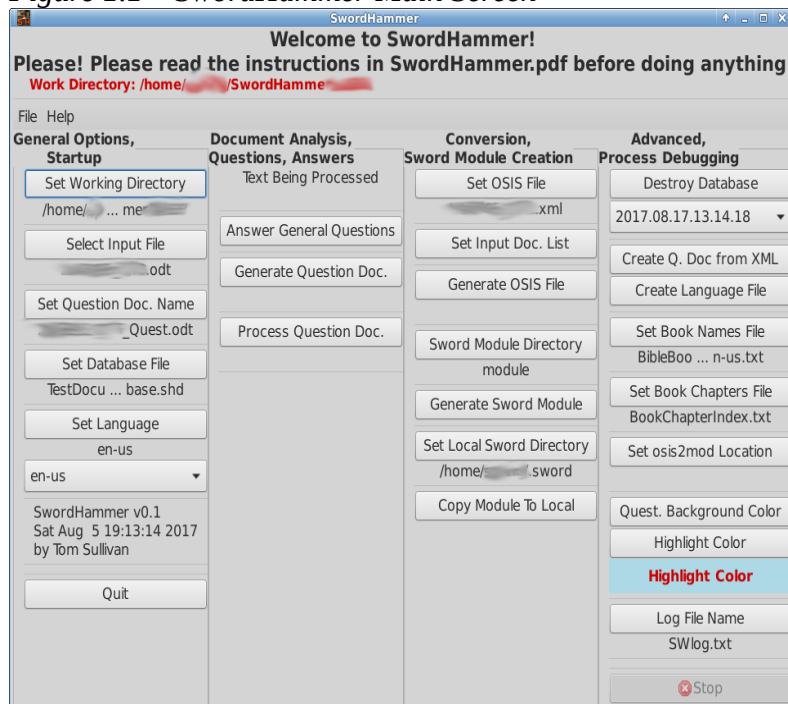
The power of SwordHammer is that when it first encounters a new *text format*, it asks you about it once and remembers it; thus there are very few questions compared with the size of a typical document. In the context of SwordHammer, text format includes not only such things as font, size, and color, but also the kind of paragraph, section, and so on, in which it resides.

There is another challenge that came with the World Wide Web: Rather than being printed on paper, many documents are now displayed on all kinds of devices with variable screen sizes and orientations. Thus, the WYSIWYG concept now needs to be modified to accommodate this; fixed document widths cannot be assumed and the concept of pagination vanishes; this is true for Bible programs as well. SwordHammer handles this also and lets each Bible program decide how to present the text to the user.

A Very Fast Overview of SwordHammer

Take a look at Figure 1.1. (In this manual, we will frequently use snippets from common English translations of the Bible for illustrative purposes.) That may look like one scary screen with a lot of buttons and all. But to use it, you can get well under way by giving it just a Working Directory (called a folder on some systems) and an input document name. The rest is just pushing buttons, occasionally entering file names, and answering questions. Seriously! (Of course, this assumes that there are not errors in your manuscript, but SwordHammer can help you there also.)

Figure 1.1 – SwordHammer Main Screen



(In case you are wondering, smudged areas in the figures protect confidential server names, credential names, and so on.)

Some questions are asked directly by SwordHammer. For other questions, SwordHammer creates a copy of your document and inserts questions right in the text as it asks questions about your text. Inserted questions look something like this: (The first line is the original text, the rest is inserted.)

The Deity of Christ

SwordHammer Question: Please identify the purpose of the following text snippet:

The Deity of Christ

SwordHammer Answer: [] (See instructions.)

Go to next SwordHammer question

You put your answer code, a number or mnemonic like “vtitle” between the []. In this case, the text snippet is a passage title. You thus get to see the questions in the context of the entire document. SwordHammer then reads the answers to create a database that tells it how to translate between *looks* and *meaning*. (SwordHammer never modifies your original input document.) In sum, you do not have to learn some complicated process or remember a lot of details. You only need to follow simple instructions and answer questions. There is another benefit as well: you only have to answer a particular question once. In the example above, you would never get another question about a passage

title unless you have some of them in a different font, with different indentation, in a different context, with different paragraph settings, or something similar. This greatly helps reduce errors for two reasons: First, the computer does all the work. Second, let us say you did get another question about a passage title. Assuming that the context (paragraph parameters, and so on.) is the same, you may have given it the wrong font or size; thus SwordHammer helps you reduce errors in the source document as well.

Another feature of SwordHammer is that you can always change your answers and resubmit them. You can also resubmit corrected input documents; these may result in additional questions. You never have to re-answer all of the questions since unused questions are ignored and later answers take precedence over earlier answers.

You should now begin to have some idea of whether SwordHammer is right for your needs. If you think it will, then read on. You don't have to remember it all right now and you can go back and follow the step-by-step instructions as you work, but reading this manual first will help keep you from making mistakes or wrong choices early in the process that might hamper later steps; nobody likes to repeat work. Speaking of repeating work, SwordHammer saves files at each step so you can recover from errors. You can also combine many source documents into one final output document.

A Typographical Note

In this manual, most of the text is in a serif, kerned font like this. But text that is in a monospaced, non-kerned font like this represents text you type, filenames, question answers, and other special items such as words a computer might display.

Initial Manuscript Preparation

The reader is encouraged to direct questions, requests for assistance, and bug fixes to this author. See appendix D. Assistance can be rendered regarding this document, SwordHammer itself, and manuscript conversion.

Even if your manuscript is well under way or complete, this section will help you if you wish make changes to it that will smooth your experience with SwordHammer.

It is a good idea to break your manuscript into several segments. You get the advantage of obtaining results, such as messages about errors in your manuscript, in a shorter time, making manuscript debugging faster. (And if you think this is not important, this author and editor can testify that most published works are loaded with formatting and typographical errors, this manual included.) The speed at which your word processor opens and saves documents is a good guide; if a document takes a long time to load or save, it is probably in need of splitting into two.

A UPS (Uninterruptable Power Supply) is likely to be a good investment. Good units that will allow you to ride out the short power interruptions that are most common, around five minutes or less, are available for less than US\$100.

Choice of Word Processor

LibreOffice (<https://www.libreoffice.org/>) *Writer* is a free word processing program that is part of a free office productivity suite. It compares very favorably with proprietary commercial products, being in some ways superior to the competition and in some ways inferior. In particular, it handles large manuscripts very well and is well suited for authoring. It installs easily on Windows, Mac, and Linux; most Linux distros supply it by default. **Importantly**, it natively produces .ODT format documents. This format is formally known as OASIS, is an international standard, ISO/IEC 26300-1. SwordHammer **expects** its input in this format. As of this writing, SwordHammer has been tested extensively with version 5.2.7.2 of *Writer*, and less extensively with other versions. Now, since the .ODT format is a standard, it is natural to expect that many competing word processors are also able to produce output in .ODT format. Such is, in fact, the case; versions of Microsoft Word, from the 2007 version forward can emit .ODT format.

The fly (bug) in the ointment however, is that all word processors are computer programs. And it has been observed that the definition of a “working program” is one that has only unobserved bugs. All programs of any size have bugs. Most of these bugs show up when something unusual is done or is done in unusual circumstances. There are two consequences to this in apart from bugs in SwordHammer: First, SwordHammer may be inadvertently dependent upon *Writer* producing non-standard .ODT format output in minor details. While such a case would be a *Writer* bug, it is not visible outside of *Writer* or SwordHammer. But, a competing product could possibly produce correct (conforming to the .ODT standard) output that looks bad to SwordHammer. Of course, the reverse could be true; bugs in competing programs may cause SwordHammer to malfunction. This discussion is not merely theoretical; this author has converted many documents to and from *Writer* (and other

LibreOffice applications) and competing products. Particularly in the area of graphics and charts, there are nearly always problems that need correction. Fortunately, text is very rarely a problem. This problem is hardly unique to Writer; this author has had much trouble even when moving documents between various versions of Microsoft Word.

The forgoing discussion is why the author strongly recommends that each author migrate his or her manuscript to Writer as early as possible and to begin new manuscripts using Writer.

Writer has strong support for many languages, including Asian, Slavic, and Semitic languages. SwordHammer, of course, depends on the correct handling of any language by Writer. This author has made every effort to make SwordHammer as language-independent as possible and to provide for translations of SwordHammer text and messages into other languages by others. Unfortunately, this author is not qualified to test languages other than English, so users of other languages will be somewhat on their own.

Migration Hints

Migration to Writer should be done as early as possible. However, in certain cases, authors may be using third-party software that is designed to interface with proprietary commercial word processors. In such cases, work with the third-party software should be completed as early as possible. Once such work is complete, the author can migrate to Writer.

Even if a competing word processor is able to produce .ODT output, it is generally far better to use the competing word processor to produce its output in its own “most native” format, the format that is most commonly used by users of that program. For example, users of Microsoft Word would create .DOC or .DOCX format files. Then Writer should be used to *import* the competing format. Normally, this is as simple as opening the competing-format file in Writer, then saving it in the Writer native .ODT format. This tends to be more reliable than depending on the competing program to produce correct .ODT format. Again, the principle here is that one is least likely to encounter bugs when using features that are most frequently used by most users.

Document Authoring Hints

Recall from the above introduction that SwordHammer converts differences in how text *looks* in the source document into *meanings* to a Bible program. Let us return to the earlier example to clarify this concept. (Please do not let the details bother you at this point – they will be explained in detail later.)

The History of Creation

1 In the ^abeginning ^bGod created the heavens and the earth. ² The earth was ^cwithout form, and void; and darkness ¹was on the face of the deep. ^dAnd the Spirit of God was hovering over the face of the waters.

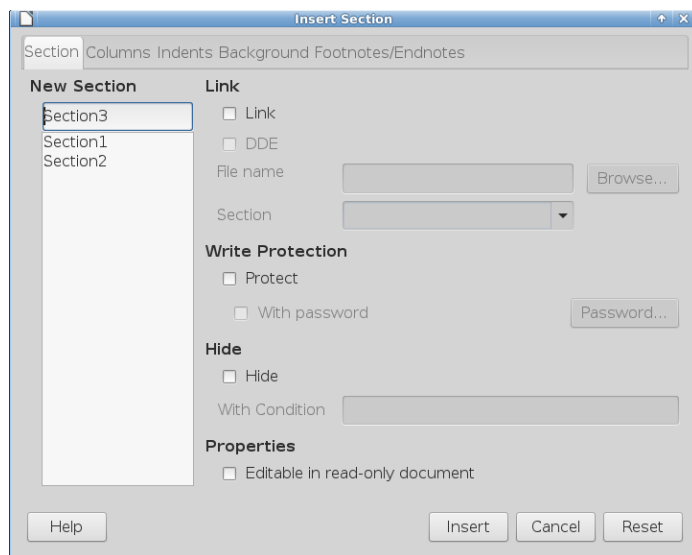
Only a few features are shown here. First notice that this version puts what may be called *verse titles* in the text to group verses under a common theme or historical event. The font is larger, in italics, and is bold. Thus, the font size, its italicization, and boldness set off verse titles. Next, the chapter number is a large bold numeral and the first verse number is skipped. There is actually a SwordHammer answer code to handle this (cnnv). Next, we note that there is normal text. Interspersed with normal text are lower case superscripted letters indicating cross references, superscripted numerals with translation notes and superscripted numerals separated by spaces which indicate verse numbers. The distinguishing feature that SwordHammer picks up between verse numbers and translation footnotes is the fact that the former is a footnote, and the latter a simple numeral with special formatting. Also Swordhammer

can distinguish, as different classes, between letter, numeral, special character (e.g., * †), or Roman numerals used as note markers. Thus, it behooves the writer to be consistent throughout the document; this will help reduce the number of questions that must be answered, and make the conversion process more reliable. Such consistency is also an aid to the reader of the original print (or .pdf, etc.) version as well.

From this discussion, it should be clear that *each* feature or category of text in your manuscript should have something about its appearance or type (main text, header, footnote, etc.) that distinguishes it from everything else. Certain contexts, such as paragraph formatting also help distinguish between categories of text. For those converting or editing an existing document, modifications to the document may be in order so as to comply with these principles. Now let us dig deeper, first beginning with an exception to the rule just given.

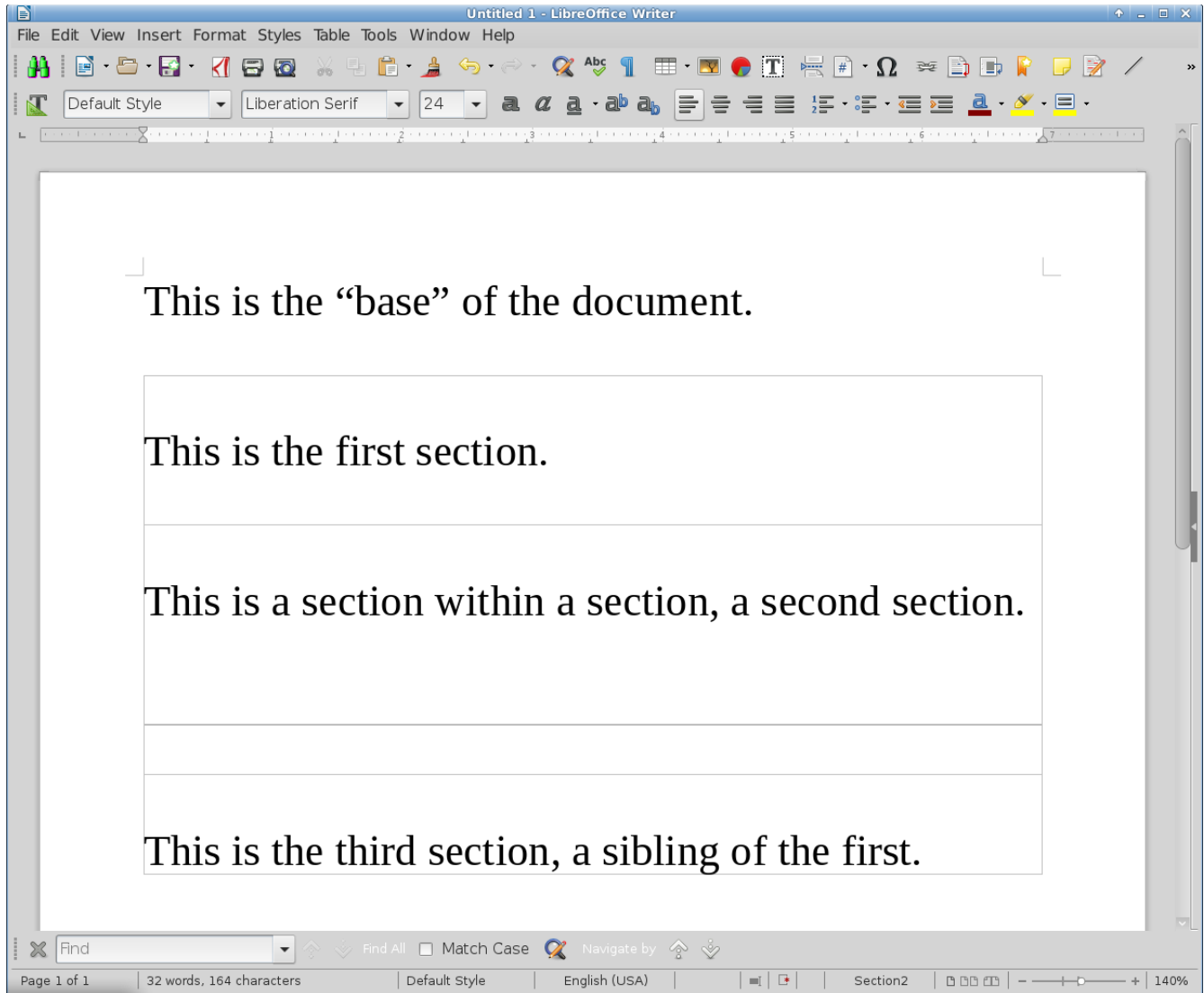
You may be aware that Writer (and other word processors) are able to separate a document into *sections*. These are independent of pagination and may be nested. Figure 2.1 shows the dialog box used to create sections, available in the menu of Writer as **Insert / Section**. To use this feature, simply highlight the portion of your document that is to be a new section, then select **Insert / Section**. To remove a section, use **Format / Sections**.

Figure 2.1 – Section Creation Menu



Swordhammer will ask you questions about each section by the name you give it, but the names are not otherwise significant. There is an exception to this – there is a special feature for [sections that mark poetry](#). Figure 2.2 shows three sections. The first line of text is in the “base” of the document and is not part of any section. SwordHammer will always ask you about this base section. The next line is in Section1. The next line is in Section2 which is contained within (nested in) Section1. The last line is in Section3.

Figure 2.2 – Trivial Section Example



So why might one use sections? Here are some examples. Open any Bible, and you will find some introductory material such as a title page, history of the translation, meanings of notes, and so on. Then comes the actual Scripture text, and after that, perhaps a concordance, maps, and what not. These opening and closing portions that are not Scripture need to be handled differently than the Scripture text. Such a Bible should ideally be separated by sections. For example, one might declare the “base” document to be Scripture, and put the non-*canonical* material in the front and back in separate sections.

NOTE: We will use the term *canonical* frequently. This does not refer to which books belong in the Bible. Rather, canonical text is text that appears in the source document. Non-canonical text is text which is added to the source document. In the case of a Bible, for example, the Scripture is canonical, and translator’s notes, cross references, and so on are not. In the case of a book, the original author’s text and the original author’s footnotes are canonical, but notes inserted by an editor or translator are not canonical.

Note: At the present time, it does not seem that Bible programs are able to handle such sections well, if at all. This author suggests creating *Generic Books* containing such non-Scriptural material to go along with the Bible. (Generic Books will be introduced later in this manual.)

Another very good use of sections is to mark off poetry. In fact, sections generate questions requiring answers just like all formatting, and as such, the questions can be given any reasonable answers.

There is a special feature for poetry sections. If you name your section `poetX`, where `X` can be any group of letters or numerals of any reasonable length, then when SwordHammer encounters the first section whose first four letters are (lower case only) `poet`, then the Question Document will generate a question for that section. When SwordHammer encounters any new sections whose first four characters are `poet` (and the `X` portion must be different for each section), then no new questions will be asked concerning that section itself; any new questions will be triggered by differences in the contained text only. During processing of such subsequent sections, SwordHammer will apply the answers you gave to the first `poet` section to all subsequent `poet` sections. If you were to fail to take advantage of this feature, the book of Psalms for example, would cause you to answer hundreds of unnecessary questions. Note that non `poet` sections will still work as normal sections – their presence will trigger new questions.

Caution: You can not include titles or other elements, except text formatting (such as italic), inside of a poetry section or other text marked as poetry.

When you do your first document, you may be surprised at how often the “same” question is asked. Internally, text in a .ODT document is divided into fragments. Every time some attribute affecting the text changes, a new fragment is started. (This description is imprecise so as not to trouble the reader with the arcane details of the .ODT document OASIS standard.) An attribute of a text fragment is just something like the font style, font size, and so on. Here are some of the kinds of attributes that affect text presentation:

- Character attributes such as font size, subscripted or not, color, and font modifications such as bold or italic
- Paragraph attributes such as line spacing, indentation of the first line, indentation of the whole paragraph
- Outline / Header attributes such as Heading 1, Heading 2
- Section attributes, typically given as answers to section questions
- Appearance of the text fragment in notes, lists, tables or other structures
- Special SwordHammer tests such as whether a note marker is alphabetic, numeric, special, Roman numeral, or Greek letters. (When using Greek letter note markers, consider that upper case Greek letters are often indistinguishable from upper case Latin letters by readers, even though computers are aware of the difference.)
- Whether the text is in a paragraph or heading, and if in a heading, the level of the heading.

As SwordHammer processes fragments of text, for each fragment, it bundles up all of the attributes of that text. If that exact bundle of attributes has not been seen before, SwordHammer generates a new question for you. But if that exact bundle of attributes has been seen before, no new question is generated.

It is well worth noting that a document can have features that are practically invisible to the user, but to which SwordHammer is sensitive. For example, LibreOffice will permit the font size to be 12 or 12.1. A paragraph may be indented by just one point or just one point more or one point less than others. If needed, you can use such distinctions to advantage—provided that care is taken to distinguish such practically invisible changes yourself. This author, in fact, got into trouble once for failure to

distinguish between the numeral 1 and lower-case L. Since presentation fonts are determined by Bible programs, it is strongly suggested that a working font be chosen that allows easy discrimination between zero and the letter O, between 1 and lower-case L, and between upper-case I and lower-case L. If using Greek, be sure you can distinguish between upper-case alpha and the latin A, and so on. (You may not be able to do this if you also want to have your manuscript printed.)

Finally, the KISS (Keep It Simple, Stupid) principle applies here, just as much as in rocket science. A document that is complex enough to do the job, but as simple as possible has the best chance of running into the fewest problems. Your manuscript, SwordHammer, and various Bible programs are all done by humans, not angels. The more complexity, the more likely you will encounter bugs. Readers will also benefit from a simple and straightforward document.

Specific Document Authoring Recommendations

Scripture Verse References

SwordHammer has the capability of automatically picking up Scripture passage references (e.g., Jn 3:16) from your input documents. This capability allows Bible programs to show or jump to the indicated passage by a mouse click, mouse hover, or other method. If you have not already done so, you may wish to download the SwordHammer program files and look at the Bible Book Abbreviations file using a spreadsheet program such as LibreOffice Calc.

The English language version of this file is in the SwordHammer Program Directory and is called `BibleBookAbbreviations_en-us.csv`, and, if any kind souls have provided translations, the translations will have the same name, except for the `en-us` part. But basically, almost every standard book English abbreviation is there, plus some that are specific to OSIS. Those specific to OSIS are in the first column. You do not need to know much about these, except in the rare case you wish to reference a range of passages that spans books, e.g., `1Pet . 1 - 2Pet . 2 . 4`. If you do need to span books, here are the rules: *These rules ONLY apply to osisRef formatted references.*

- Use only the book names in the first column in the Bible Book Abbreviations file, capitalized exactly as they appear.
- Separate book, chapter and verse with periods (.) only (`Mat t . 1 . 2`).
- No spaces are allowed.
- A range must be contiguous, without missing verses.
- Only a hyphen (-) may be used to indicate a range; no en-dashes or em-dashes, etc.
- Single-chapter books such as Jude must include the chapter number, e.g., `Jude 1 . 4` for the fourth verse.
- You may omit the verse (`Mat t . 1`). (Single book references are **not** allowed, as will be aptly illustrated by the sentence: “Paul Matthew is in the john singing some silly song; his exodus will be soon.”)

But if you do not need to span books, you may use nearly any standard method of referencing a Bible passage. In all cases (including osisRef style references), the text that is displayed in the Bible program is whatever is in the input document; SwordHammer does the conversion to osisRef, the internal format. But there are some rules, and these also eliminate confusion among human readers in addition to enabling SwordHammer to reliably pick up the references; examples are given. *These rules do NOT apply to osisRef formatted references.*

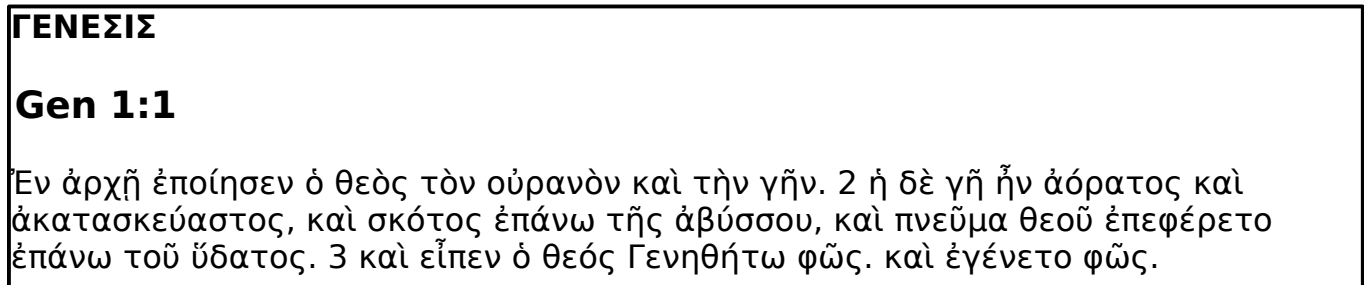
- Book names may be upper or lower case, and book abbreviations may be followed by a period. (Rom. rom Rom Romans)
- Book names (including their periods, if present) must be followed by a space. (Oba 3, Rom. 8, Act 1:3)
- Chapter and verse may be separated by either a colon (:) or period (.) (Jn 3:16, Jn 1.1).
- Ranges may be specified using hyphens (-), en-dashes(–), or em-dashes(—) (Jn 3:15-17, Lk 1–2).
- Ranges may not span books. (To do this, see oisRef formatted references above.)
- Spaces may be used freely.
- After a book, multiple chapters and chapter ranges may be given (Mark 1, 4, 7-9).
- After a chapter, multiple verses and verse ranges may be given (Rom 13: 1 – 6, 8, 10-12).
- Numbers not followed by a colon or period are presumed to be chapter numbers until the first verse reference is found (Acts 1, 3, 5:2, 7, 6:8 – The 2, 7 and 8 are verse numbers; the others are chapter numbers).
- Only the part of the text that is actually used to make a reference is tagged as a reference. In Bible programs, this tagged text is often displayed differently than other text. (See *Jn 3:15-17, 19* and also *Rom 8, 9* for some perspective.) This example is broken up as follows, where the references are in bold: See **Jn 3:15-17, 19** and also **Rom 8, 9** for some perspective. The first comma is regular text, but the second comma actually makes a contiguous range, so it is part of the reference.
- Semicolons may be used in place of commas.
- If a number is not preceded by a book name, chapter/verse separator (: .), list separator (, ;), or range indicator (- – —) it is presumed to be part of the regular text (See **1Cor. 5:7, 9** 7 is a number that often has special meaning in Scripture.).
- Chapter and verse numbers that do not exist according to your Book Chapter Index file (BookChapterIndex.csv) are not tagged as references, e.g, **Rom 50:1** will not be tagged.
- Canonical Bible text is normally not searched for passage references. Reference pickup may also be forced on with the answer code r (100). Reference pickup may also be disabled anywhere with the noref (76) answer code. An example would be in the case of where a passage reads something like “Is 7 the number of your men?” Here, Isaiah chapter 7 would be picked up as a reference. You may also wish to edit the Bible Book Abbreviations file to eliminate problematic choices if you do not use them in your manuscript.
- Single book references are **not** allowed, as will be aptly illustrated by the sentence: “Paul Matthew is in the john singing some silly song; his exodus will be soon.”

Taking advantage of automatic Scripture reference pickup is not hard with a little care, and it pays big dividends to Bible students as they note and read parallel passages and cross references. The same thing is true with Generic Books, to say nothing of commentaries. It is the author’s experience that people are lazy and usually will not actually look at the Word of God when reading a human book, unless the author makes it really easy for them access the Bible passage being referenced.

Some Hints on Dealing with Existing Documents

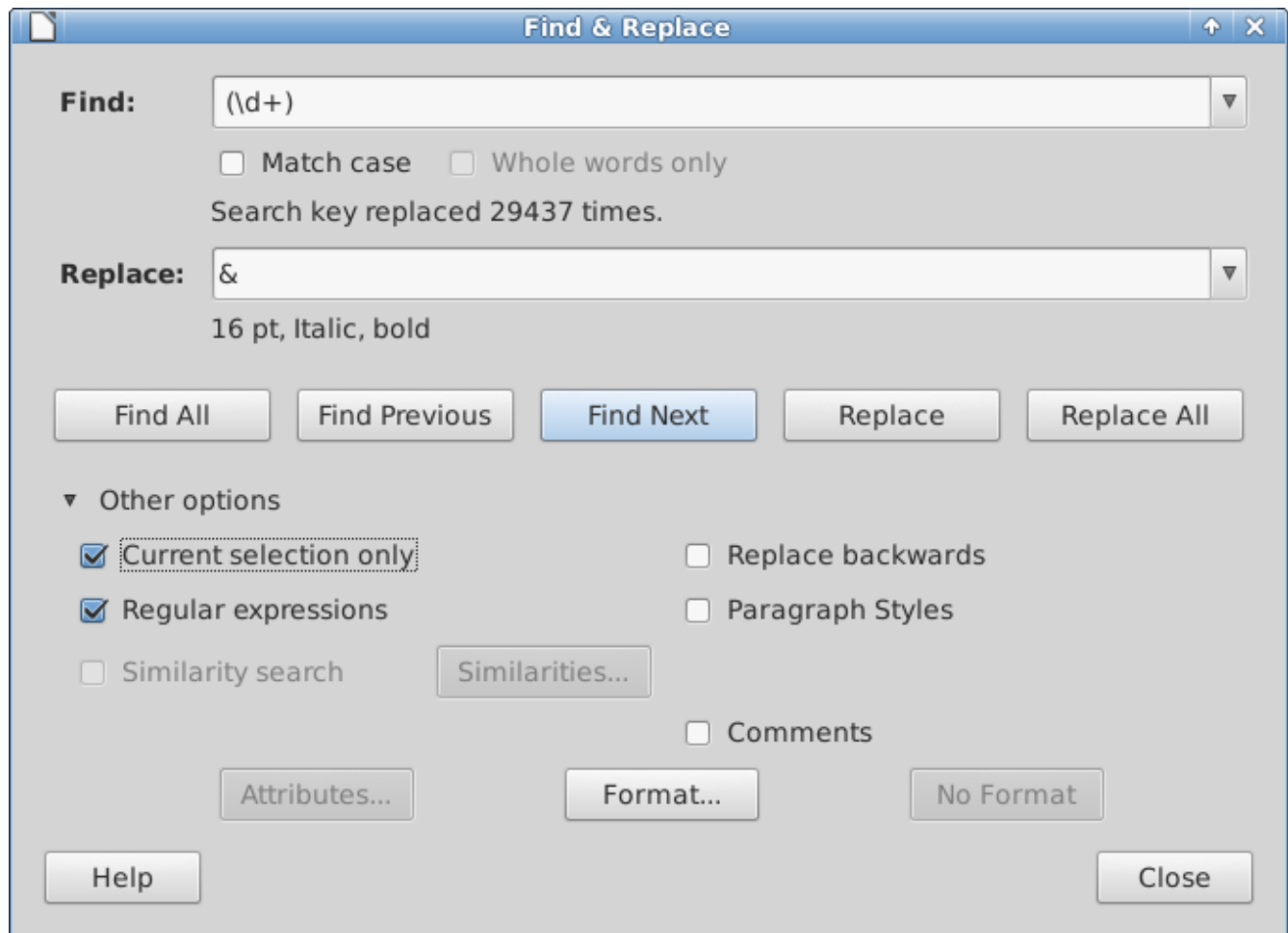
The sub-chapter above gives helpful hints concerning documents you have written. But sometimes, one may wish to take existing material and use it as input to SwordHammer. This is perfectly valid, but may present some challenges with respect to discriminating between different text attributes. Figure 2.3 exemplifies this type of problem with respect to verse numbers.

Figure 2.3 – A Snippet of a Document With Difficult Format Issues



In Figure 2.3, the verse numbers are in the same font, with the same size, etc., as the main text. Each verse number is surrounded by a space, just like all of the other words. But note that chapter numbers have a colon after them. So here is what we can do: First, we highlight all of our Bible text to exclude some introductory material and footnotes. Then we hit <ctl>H for Writer’s Find and Replace feature as shown in Figure 2.4.

Figure 2.4 – Find and Replace Trick



We check the **Regular expressions** box because we will use a regular expression, and the **Current selection only** box because we wish to limit our work to the actual selected Bible text. We then enter `(\d+)` in the Find box. The `(\d+)` is a type of *regular expression* that means,

“any number of digits.” If you look carefully, you will note that there is a space before the (`\d+`). There is also a space after it. The Writer help will tell you about many search and replace features including about regular expressions. Regular expressions are widely used in other programs and systems, so there is much help on the web. For example, `[:digit:]{1,3}` would limit the number of digits to between one and three.

CAUTION: The official Writer documentation would give `^[:digit:]{1,3}$`. Although this is a standard notation, Writer will **not** accept the two extra `^` and `$` characters.

So now all we have to do is use a `&` for the replacement text, which means, “do not change the text characters,” and also use the **Format** button to select size 16 bold italic font. This makes all of the verse numbers big and obvious. One downside to this is that some translations will give numbers as digits instead of words; it will thus be necessary to scan the document for such things and manually correct them. The observant reader will wonder why, since **GEN 1:1** is in a larger, bold font, why not add Format information to the **Find** part as well to limit the search to normal text. It turns out that the book/chapter titles are headers; the Find algorithm thus fails to recognize the format information, likely due to a Writer bug.

This writer encourages the reader to exercise some ingenuity and experiment as needed. In some cases, multiple Find and Replace operations may be needed, sometimes to undo some of the effects of previous operations.

Heading In the Right Direction for Generic Books

Note: The document organization system discussed below must **not** be used for Bibles or any other documents organized by book/chapter/verse; Bible programs are not equipped to handle both at the same time.

A *Generic Book*, often called a *General Book* is, within the context of Sword Modules, literature that is not organized by a Bible versification system. It is very important that you understand the difference, so read on.

Of course, the Bible has a versification system; it is organized using book names, chapters and verses. Many *dense commentaries* are organized by Bible versification also. Prominent examples include the *Treasury of Scripture Knowledge* and Matthew Henry’s *Complete Commentaries*. If you have such a commentary along with a Bible in a Bible program, asking for a specific passage brings up both the passage and the commentary applicable to that passage.

On the other hand, a book on marriage and family, even if it is thick with Bible references, is not organized by versification; it is thus a *Generic Book* because its Scripture references are not in the same order as the Bible; they are scattered all over, as is true of any book that treats biblical subjects topically.

Even though a *Generic Book* is not organized by versification, it must still have some kind of standard structure so that a Bible program knows how to present its various parts properly. This sub-chapter will tell you how to make that happen.

Note: Bible programs are a useful means of presenting *Generic Books* that have a lot of Scripture references in them. This is a valuable feature as it encourages readers to see the Word of God for themselves, but it comes at a cost because Bible programs do a relatively poor job of presenting books compared with general-purpose display systems such as web browsers and PDF readers. So if your

work does not have many Bible references, you should choose another format such as HTML, PDF, and so on.

LibreOffice Writer and all other major word processors have a built-in hierarchy of *headings*, numbered from one as a main heading and larger numbers for sub-headings. For example, the heading just above is a Heading 3. This system allows automatic generation of tables of contents and document outlines. Crucially, it mirrors the way Bible programs handle divisions within Generic Books. By way of example, this document makes liberal use of this heading hierarchy; you can see it in the Table of Contents. SwordHammer translates the document hierarchy for you into a hierarchy usable by Bible programs.

Important: By default, SwordHammer uses the first 12 characters of each Header in the navigation panes of Bible programs. So make the first 12 characters meaningful if you use the default. For example, `WCF Q 11-20 - Questions 11 - 20` is much to be preferred, for example, than `Westminster Confession of Faith, Questions ...`. In the former case, the navigation pane would show `WCF Q 11-20` (note the trailing space; this kind of strategy will help you produce neat work), but in the later case, only `Westminster` would show for each group of questions. Rather than use the default, however, it is suggested that you use the method of the next paragraph.

It is also possible, and generally preferable, to specify your own navigation string. You do this by making the title of your header in two parts, separated by a `|` character. The first part becomes the navigation string, and the second part shows up to the reader as the title. Consider the following example: `WCF|Westminster Confession of Faith`. In this case, the navigation string is `WCF` and the title is `Westminster Confession of Faith`.

Bible programs allow users to scan across headings of the same level, and to “dive deeper” into the hierarchy of headings for a given level. You should therefore give some careful consideration to how you use the hierarchical headings system to make it easiest for your reader to navigate. Too coarse-grained of a collection of headers will force the reader to scan through much text, while too fine-grained of a collection of headers will make navigating the header browser in a Bible program rather tedious unless the hierarchy is well-constructed and wisely collects only a limited number of sub headers under a given higher level header. Each item in a level should make it obvious to the reader what may be expected in lower levels.

A Generic Book **must** have at least a top Heading 1 or the document may not be found by the Bible program.

Caution: SwordHammer also has provisions for creating the same kind of division into sections as is provided by the document header system. This is not allowed for Generic Books, but only for Bibles and other book/chapter/verse organized material.

Non-Canonical Bible Discourses and Titles

It is often desired to place non-canonical material in Bibles. Typical material includes introductions, book or chapter introductions and commentaries, tables of weights and measures, and so on. To include such material, enclose it in sections as shown [above](#). SwordHammer supports the following kinds of sections in Bibles and other book/chapter/verse organized documents:

- General introductions and commentaries. Wherever they appear, the present verse, chapter, and book are all exited. Common uses would be at the beginning and end of a Bible or Testament, or a group of books.

- Book introductions and commentaries. Whenever these appear, the present verse and chapter are exited. Common uses would be at the beginning of a book. In this case, the book title and name would appear, then the introduction or commentary, then the first chapter.
- Chapter introductions and commentaries. These may appear anywhere in a chapter and terminate a verse, or for some Bible programs, they appear after the verse number, but before canonical text.

It is recommended that you leave a blank line or some text between any adjacent sections, and between a first section and the start of the document, as well as between a section and the end of the document. Otherwise, you may find it quite difficult to insert text later.

Another form of non-canonical text is titles. SwordHammer allows four basic kinds of titles:

- Canonical Psalm titles. These are the only canonical titles.
- General titles. These have no special meaning or handling.
- Chapter titles. These should appear in Bible programs in a larger font.
- Verse titles. These should appear in Bible programs in a more normal-sized font.

In the Step-By-Step tutorials below, you will learn how to designate different sections for different purposes. But the text above will help you decide where to put your non-canonical sections. You will also learn how to manage titles.

Please do not stop reading here and start working on your manuscript; the rest of this manual will help you make certain that SwordHammer has the capabilities and features you will need and, if so, will help you use them wisely. Even if SwordHammer is lacking in certain features, these may be added in the future, or at least SwordHammer may be able to do a large part of your work.

SwordHammer Installation

Downloading SwordHammer

SwordHammer, for the most part, does not have to be “installed.” It is simply a collection of files including Python programs. So the first task for all computers is to download the file collection, and then unzip them to a directory (called a *folder* by some systems) of your choice. This directory is called the *Program Directory* in this documentation. Some place in your Documents directory, if you have one, will work fine, for example. Details are given below for this and other steps that are required to install SwordHammer and supporting programs and some specific notes for different operating systems are also presented.

Reminder: That directory into which you copy your SwordHammer files is called the Program Directory throughout this document.

The download page for SwordHammer is <http://BeForgiven.INFO/SwordHammer>. The web site name is case-sensitive.

There is also an auxiliary site: <https://github.com/BeForgiven-Info/SwordHammer>. The web site name is case-sensitive.

There are different files for both Linux and Windows. Zip files are also present for use by SwordHammer to update itself, but there is nothing wrong with using these manually if you wish. Complete download and installation details are given below for each operating system.

Note: All documentation is kept strictly up-to-date. However, during a download, only the .PDF version of this document is automatically included in downloads and, if needed, SwordHammer updates. The .ODT (LibreOffice Writer) version of this document, as well as OSIS .pdf, must be downloaded separately from the web site.

Note: Criminals sometimes put up sites with similar addresses to legitimate addresses. For maximum safety, you should bookmark these two sites in your browser so in the future you can safely obtain updates without having to worry about accidentally visiting a hazardous web site.

If perhaps you are leery about downloading software from a stranger, please kindly consider how unlikely it would be for a criminal to set up the rest of the <http://BeForgiven.INFO> site, including all of the [translation labor](#). If you are concerned about the possibility of criminals hacking this author’s site, and that can be a valid concern, then [as described below](#), you can check the signatures of all of the files with their signatures. The public keys to the signatures are posted on two different sites for added security.

Setting Up Your Computer for SwordHammer

SwordHammer is a *Python 3.x* program. Python is a programming language. Like all computer programs, SwordHammer needs a certain amount of infrastructure on your computer to run. Most of the instructions in this section will tell you how to provide the necessary infrastructure. The good news is that once that infrastructure is in place, SwordHammer will update itself automatically.

SwordHammer also stores its public key internally, so all updates are inherently secure and protected against accidental corruption or tampering. Regarding the necessary infrastructure, most systems have

built-in facilities for keeping software up-to-date; this process is independent from any updates to SwordHammer.

First, if you have not already done so, get and install LibreOffice from <http://www.libreoffice.org/> for Windows and Mac, or if using Linux, install the appropriate package for your distro if not already present.

Note about Xiphos: Xiphos is a SwordHammer recommended Bible program. Please note the following:

When you install Xiphos for the first time on a computer, you may follow the instructions to load modules and Xiphos may crash or hang on certain systems. This happens only on first install and all is fine after that. If:

1. When you refresh your module sources, Xiphos exits when finished or on close. Just restart Xiphos.
2. When you click on Install/Upgrade, Xiphos crashes. Re-open Xiphos and first click on Maintenance (and do nothing there), then click on Install/Upgrade. All should be well.
3. After installing your modules, Xiphos may falsely complain that you have installed no modules and exit. Re-open Xiphos. All is fine.
4. After installing your modules, Xiphos may take forever to get started. Just be patient.

Linux

This is the easiest OS. There are two ways to install SwordHammer on Linux. On Debian and most of its derivatives, there is a script that you can use to do all the work for you. If this script works, you will be all set. If not, you can delve into the instructions below the next sub-chapter.

Linux, The Easy Way

This method should work for Debian and its derivatives, and others as well. The easiest way to see if this method should work for you is just to open a terminal and type `apt -get` (with no parameters). If you get a screen full of information, things look good for this easy method. If after trying this method, you are not able to install SwordHammer, and you have the skills, you can examine the scripts and see what changes you may need to make them work for your system. Otherwise, please proceed to the next sub-chapter.

Procedure:

1. The download page for SwordHammer is <http://BeForgiven.INFO/SwordHammer>. Download the `SwordHammer Tarball for Linux`. The web site name is case-sensitive.
2. Note: If you are concerned about the authenticity and security of the SwordHammer files, you may, if you like, wish to do the steps in [SwordHammer Source File Security](#) before proceeding with the steps below.
1. Create a directory to hold your SwordHammer program files. This directory will be your Program Directory and should be in `home/(user)` or some sub-directory therein. A place such as in `Documents` will be good. (SwordHammer, being written in Python 3, and using other files in your Program Directory, is not a good fit for the usual Linux binary files locations due to permissions and other issues. It also makes your job of maintaining SwordHammer (when necessary) a lot easier.)
2. Unpack the `SwordHammer .tar.gz` tarball into the Program Directory you created above. An easy way to do this is to just right-click on `SwordHammer .tar.gz` and most systems will offer to open it for you in an archive manager such as `Xarchiver` or `Engrampa`, to do the unpacking into your Program Directory for you.

3. Now open a terminal so you can use the command line. Be sure to do this as your own self, not as root (yet).
4. Use the `cd` command to navigate to your Program Directory. You know you are in the right place if you can type `ls Main.py` and see `Main.py`.
5. Type `LinuxInstall/StartInstall.sh`. If the system complained about it not being executable, then the execute permission did not get transferred in the copy. If such is the case, just type `chmod +x LinuxInstall/StartInstall.sh`, and try again.
6. You might be asked for the name of your default .pdf reader. The installation script searches for `evince`, `atril`, and `okular`, in that order in `/usr/bin`, and if it finds none of them, it must ask you. This is done because sometimes LibreOffice sets itself as the default for a .pdf and tries to open them in Draw. You must give the file name of the program, *not* its title.
7. Along the way, you will be asked for your root or user password. Type it in. (The installer looks to see if you can do `sudo`, and if so, prefers it. Otherwise, it uses `SU`. This step is the last step of the first script, so if something goes awry, just run as root `LinuxInstall/continueinstallasroot.sh`; you do not have to re-run `StartInstall.sh`.)
8. Answer any questions `y`, and ignore messages about things no longer needed.
9. If you get messages to the effect that resources are locked, make sure to close any package managers such as `Synaptic Package Manager` or `Aptitude`. Sometimes, typing, as root, `apt-get clean` will fix it. If not, reboot. If you still have problems, type, as root:
 - i. `rm /var/lib/dpkg/lock`
 - ii. `rm /var/lib/apt/lists/lock`
 - iii. `rm /var/cache/apt/archives/lock`
 - iv. And then try again.
10. You should be able to double-click the desktop `SwordHammer` icon and see `SwordHammer` launch. (You may also get a dialog warning that the file is not executable; if so, mark it as executable.)

Linux, The Manual Way

This discussion assumes that, as a Linux user, you should already know how to install *packages* using either command line or GUI based programs (e.g., *Synaptic Package Manager*). If you do not know how to install new programs, this is an essential skill, so please search on the web for tutorials on how to do this for your distro.

However, see below for a step-by-step example using *Synaptic Package Manager* on Debian Stretch.

Packages are how most Linux *distros* enable users to install new programs. A distro is a distribution, such as Ubuntu, Debian or Red Hat. A distro contains Linux itself, plus a collection of software that runs on Linux. (With certain other distros, it may be necessary to compile new programs (except `SwordHammer`, which is interpreted by Python 3). If you have such a distro, you should do whatever research is necessary to, for example, download and compile the software listed below.)

Important: LibreOffice and `SwordHammer` are *GUI* based programs. Your distro must support GUI programs. `SwordHammer` was developed for Gnome and derivatives, but is not at all limited to them.

Most Linux distros have Python 3.x already installed. To check, just type

```
Python3
```

in a terminal. You should see a blurb about Python 3.x, where x is 4 or greater. If not, see below for the package. Hit <ctl>D to exit.

You will need to already have or install the following packages:

- Python3 (3.4 or higher, generally pre-installed on most Linux distros)
- libgtk-3-0 (or higher)
- libgtk-3-bin
- libgtk-3-common
- gnupg
- python-gobject
- python3-certifi
- python3-dateutil
- python3-gi
- python3-gi-cairo
- python3-lxml
- python3-gnupg
- python3-psutil
- python3-requests
- libsword-utils
- Xiphos and/or BibleTime and/or BibleDesktop

CAUTION: Please be sure to install libsword-utils. Other versions of these utilities that come with some Bible programs may not be compatible with SwordHammer.

The download page for SwordHammer is <http://BeForgiven.INFO/SwordHammer>. Download the **SwordHammer Tarball for Linux**. The web site name is case-sensitive.

Note: If you are concerned about the authenticity and security of the SwordHammer files, you may, if you like, wish to do the steps in [SwordHammer Source File Security](#) before proceeding with the steps below.

Create a directory to hold your SwordHammer program files. This directory will be your Program Directory and should be in `home/(user)` or some sub-directory therein. A place such as in `Documents` will be good. (SwordHammer, being written in Python 3, and using other files in your Program Directory, is not a good fit for the usual Linux binary files locations due to permissions and other issues. It also makes your job of maintaining SwordHammer (when necessary) a lot easier.)

Unpack the `SwordHammer.tar.gz` tarball into the Program Directory you created above. An easy way to do this is to just right-click on `SwordHammer.tar.gz` and most systems will offer to open it for you in an archive manager such as `Xarchiver` or `Engrampa`, to do the unpacking into your Program Directory for you.

Then, in a terminal, type:

```
cd <path to your SwordHammer files, the Program Directory>
```

```
python3 <Program Directory>/Main.py
```

SwordHammer should launch. You should use this method the first few times you use SwordHammer in order to observe any error messages that might indicate problems with your installation. (All error messages appear in the SwordHammer log once SwordHammer is basically installed and running properly.)

Once you are sure of your installation, you should create a desktop launcher. For Gnome and derivatives, right click on your desktop and choose **Create Launcher**. The **Working Directory** is the path to your Program Directory. (There is also a *Working Directory* used by SwordHammer to hold your data, but that is **not** the same as the working directory for a Launcher.) The Command is:

```
python3 <Program Directory>/Main.py
```

In the step-by-step below, you can see an example of creating a Launcher. KDE and other desktop environments will have similar procedures. (If you are using LXDE, it is not entirely straightforward. See <https://lkubaski.wordpress.com/2012/06/29/adding-lxde-start-menu-and-desktop-shortcuts/>.)

The author hopes to create a package Debian and derivatives for SwordHammer at some point in the future to make the above process easier; SwordHammer is still in the process of development and there is much to do.

Linux (Debian Stretch) Step-By-Step

Caution: This step-by-step was done on the author's Debian Stretch, 64 bit machine, using the XFCE desktop environment. Different flavors of Linux or desktop environments will, of course, require different methods. This sub-chapter is thus illustrative only.

The download page for SwordHammer is <http://BeForgiven.INFO/SwordHammer>. Download the **SwordHammer Tarball for Linux**. The web site name is case-sensitive.

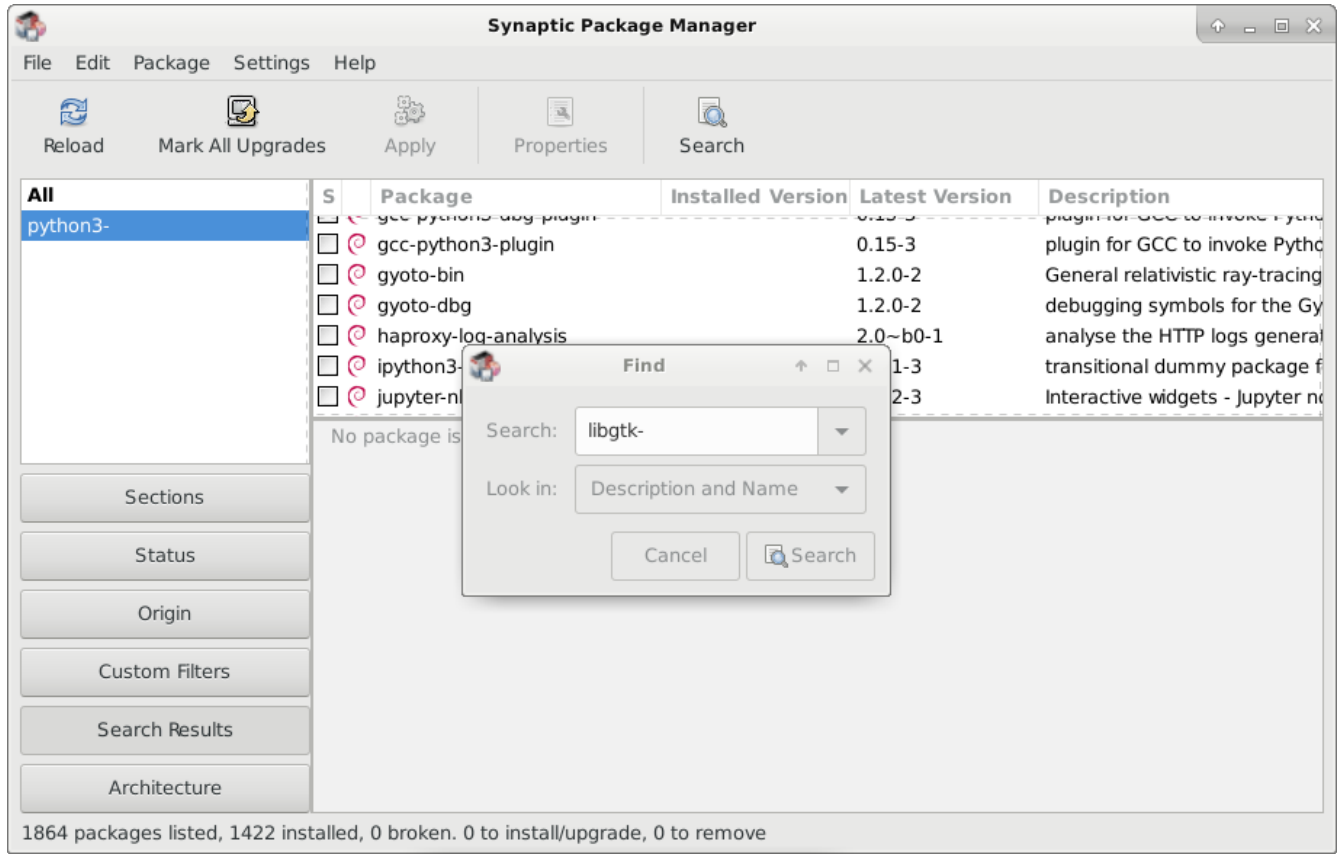
Note: If you are concerned about the authenticity and security of the SwordHammer files, you may, if you like, wish to do the steps in [SwordHammer Source File Security](#) before proceeding with the steps below.

Create a directory to hold your SwordHammer program files. This directory will be your Program Directory and should be in `home/(user)` or some sub-directory therein. A place such as in `Documents` will be good. (SwordHammer, being written in Python 3, and using other files in your Program Directory, is not a good fit for the usual Linux binary files locations due to permissions and other issues. It also makes your job of maintaining SwordHammer (when necessary) a lot easier.)

Unpack the `SwordHammer.tar.gz` tarball into the Program Directory you created above. An easy way to do this is to just right-click on `SwordHammer.tar.gz` and most systems will offer to open it for you in an archive manager such as `Xarchiver` or `Engrampa`, to do the unpacking into your Program Directory for you.

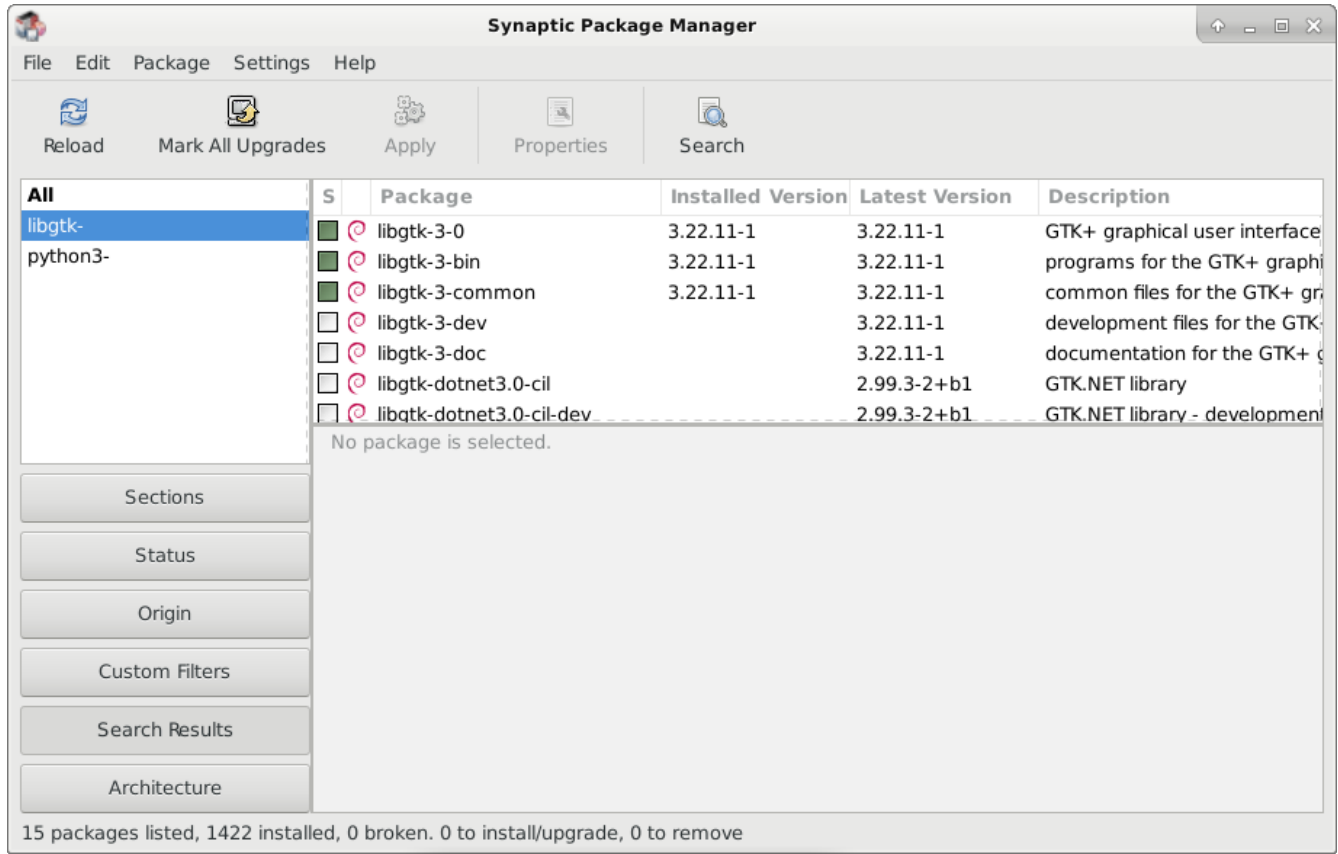
Then, open the menu item `Synaptic Package Manager` under the `Applications` menu, `System`. Unless you are running as root (which you should not be), you will have to enter either your user password or the root password. Then click the `Search` (with the magnifier icon) button; you will see something like Figure 3.1. Enter `libgtk-` in the search box and hit the `Search` button in the little dialog box.

Figure 3.1 – Synaptic Package Manager – Search for Packages Starting with libgtk-.



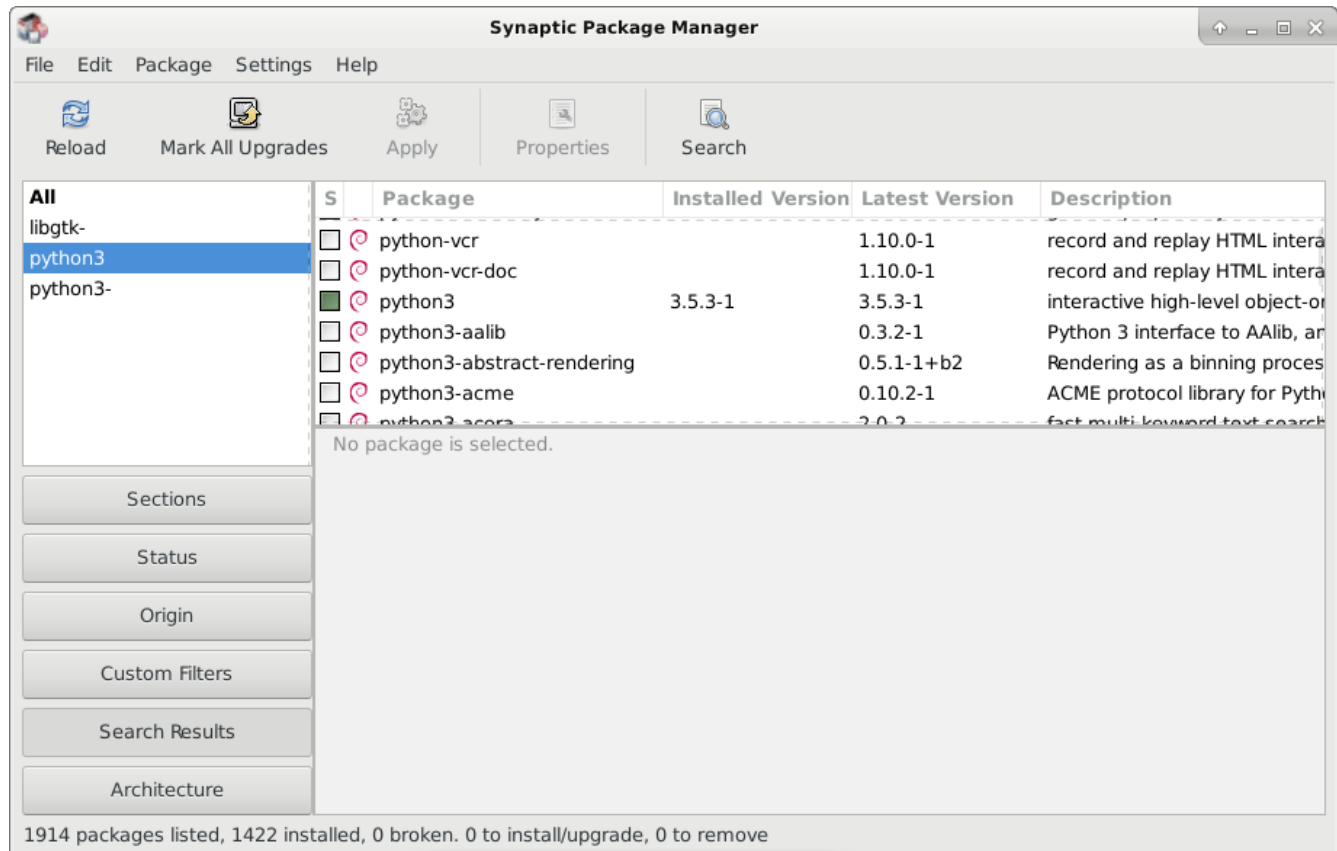
Now scroll down the list and look for the first of the required packages on the list above. In Figure 3.2, you can see that the first three on the list already have green squares. This means that they are installed already, and you need take no action. But if any of the boxes are **not** green, look below to see what to do about it. You should be installing `libgtk-3-0`, `libgtk-3-bin` and `libgtk-3-common`.

Figure 3.2 – libgtk Packages Available



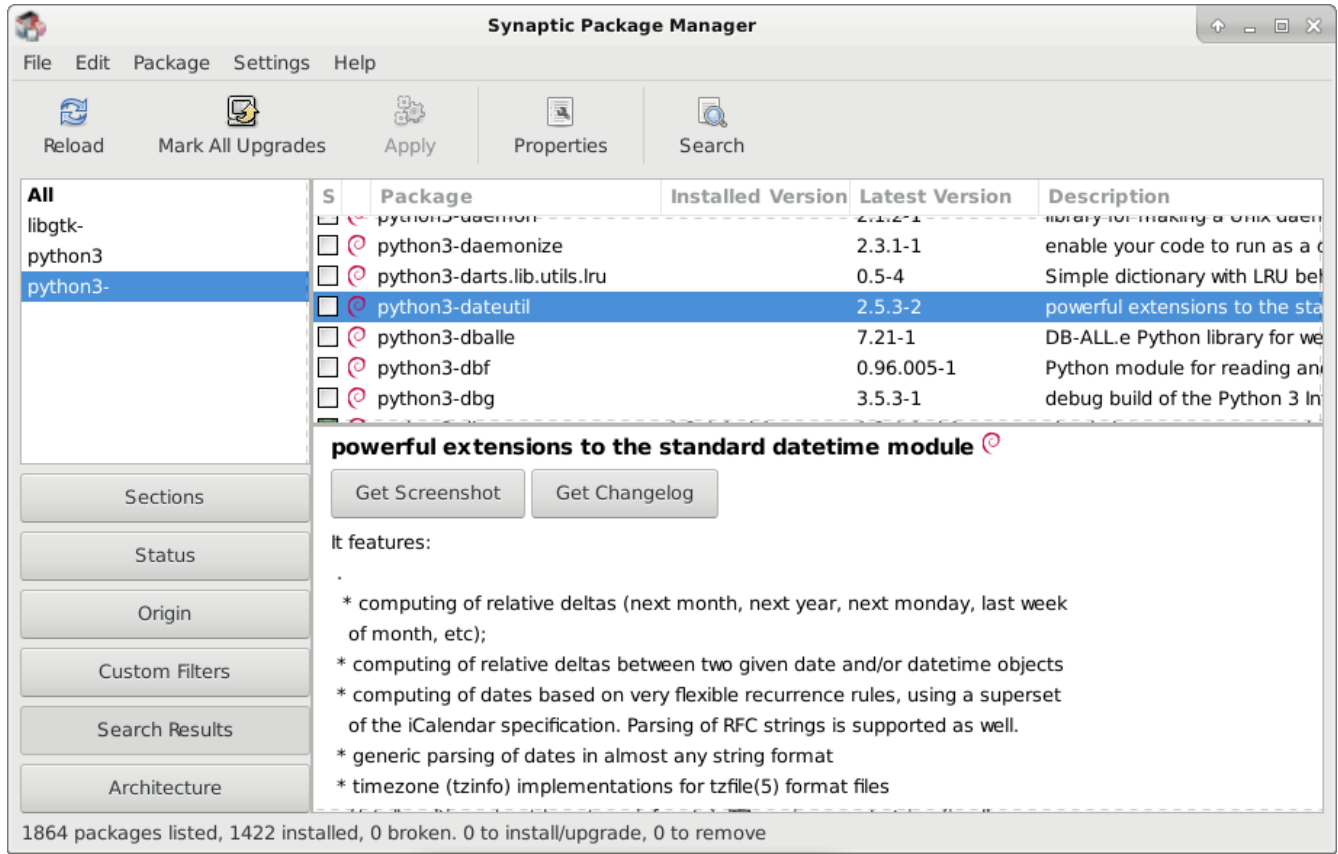
Then repeat the search for python3-.

Figure 3.3 – Search Results for python3-, python3



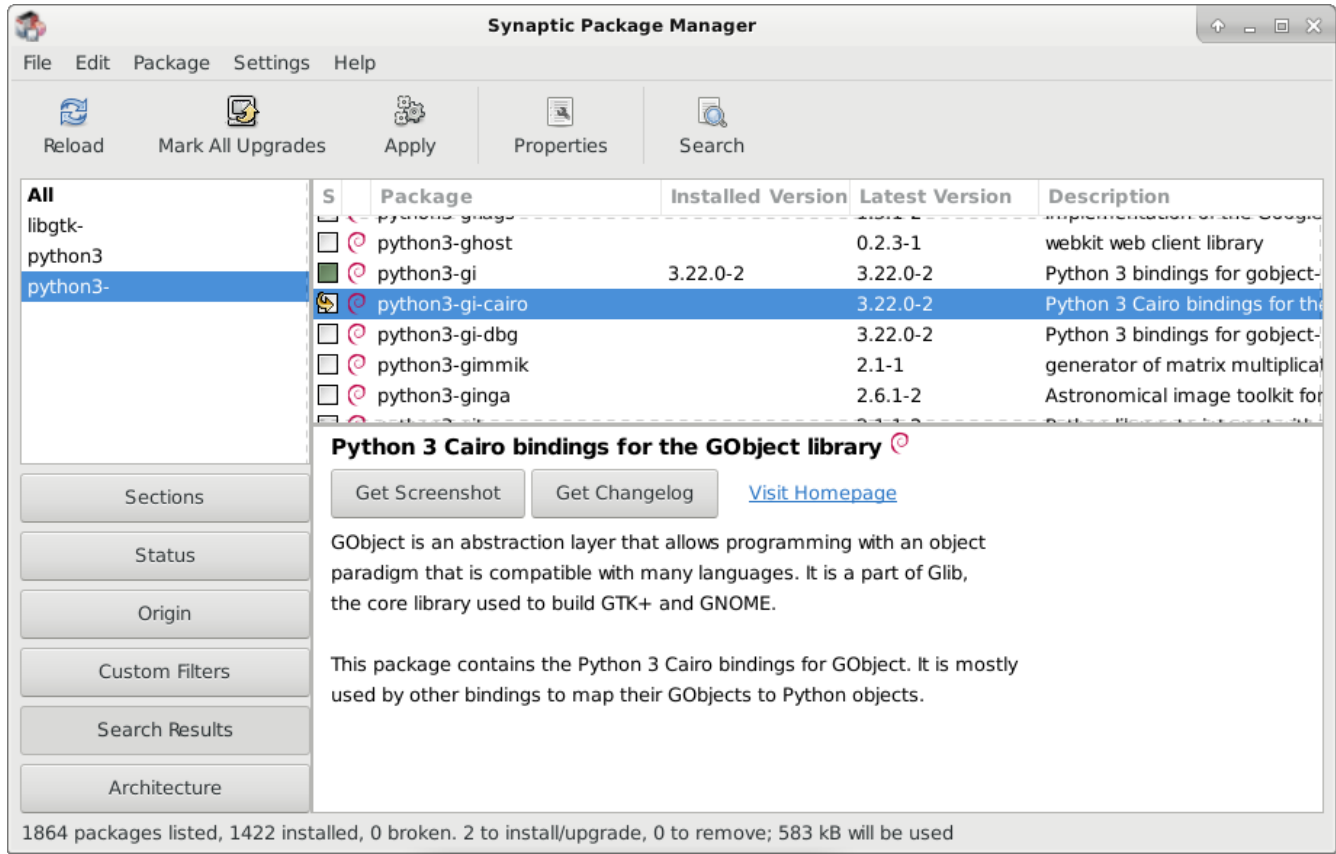
Scrolling down the python3- results, we see that we do have Python 3 installed. Again, if it is not, look below for what to do about it. Scrolling down further, we look at python3-dateutil.

Figure 3.4 – Search Results for dateutil



Here, for `python3-dateutil`, we see a white box; that means that `python3-dateutil` is not installed. So right-click on the empty box and select **Mark for Installation**. Figure 3.5 shows that `python3-gi` was already installed, but `python3-gi-cairo` was not.

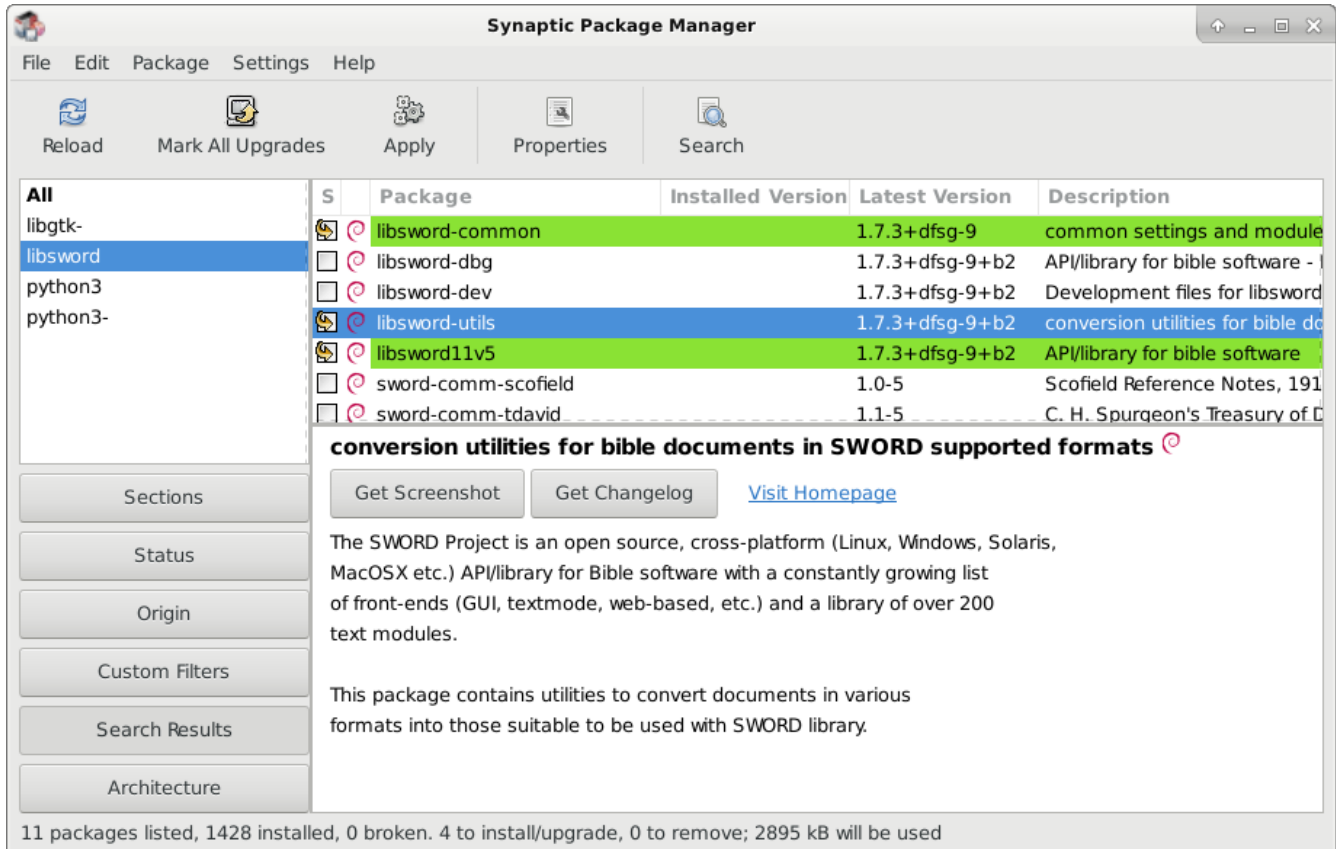
Figure 3.5 – Search Results for python3-gi and python3-gi-cairo



Continue scrolling down and look for `python3-lxml` and mark it for installation if needed. Now repeat the search process for `libsword-utils` and mark it for installation if needed. Figure 3.6 shows the results. You will notice here that you are asked if you wish to install *dependencies*, which are required for `libsword-utils` to run. Answer yes to the Mark additional required changes question.

In the same manner, install `gnupg`, `python3-certifi`, `python3-psutil`, `python3-requests`, `python3-gnupg` and `python-gobject`. Note that that last one has no 3 in it. Then check the list above and be sure you have marked for installation all the programs on the list.

Figure 3.6 – libsword-utils



Finally, you will wish to install one or (preferably) more Bible programs. This author recommends Xiphos and/or BibleTime. So search for and mark these for installation also.

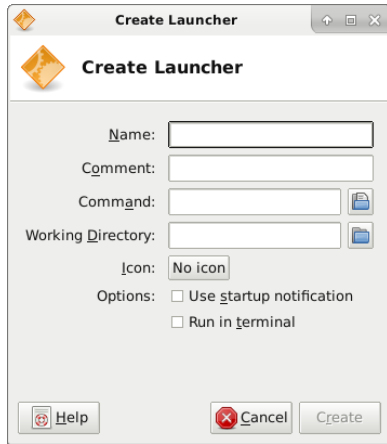
Caution: When installing Sword Modules in Xiphos for the first time, do not close either of the help windows or Xiphos (as of this writing) will exit on you; just move them out of the way if needed.

When you have marked all you need to mark, click the **Apply** button, then **Apply** again in the resulting dialog box. You will have to wait for Synaptic Package Manager to do its work.

Now you are ready to create a desktop launcher for SwordHammer. Also, you may wish to install **menulibre**, a program that allows you to edit the menus in your desktop environment. The concepts required to use it are similar to that for installing Launchers.

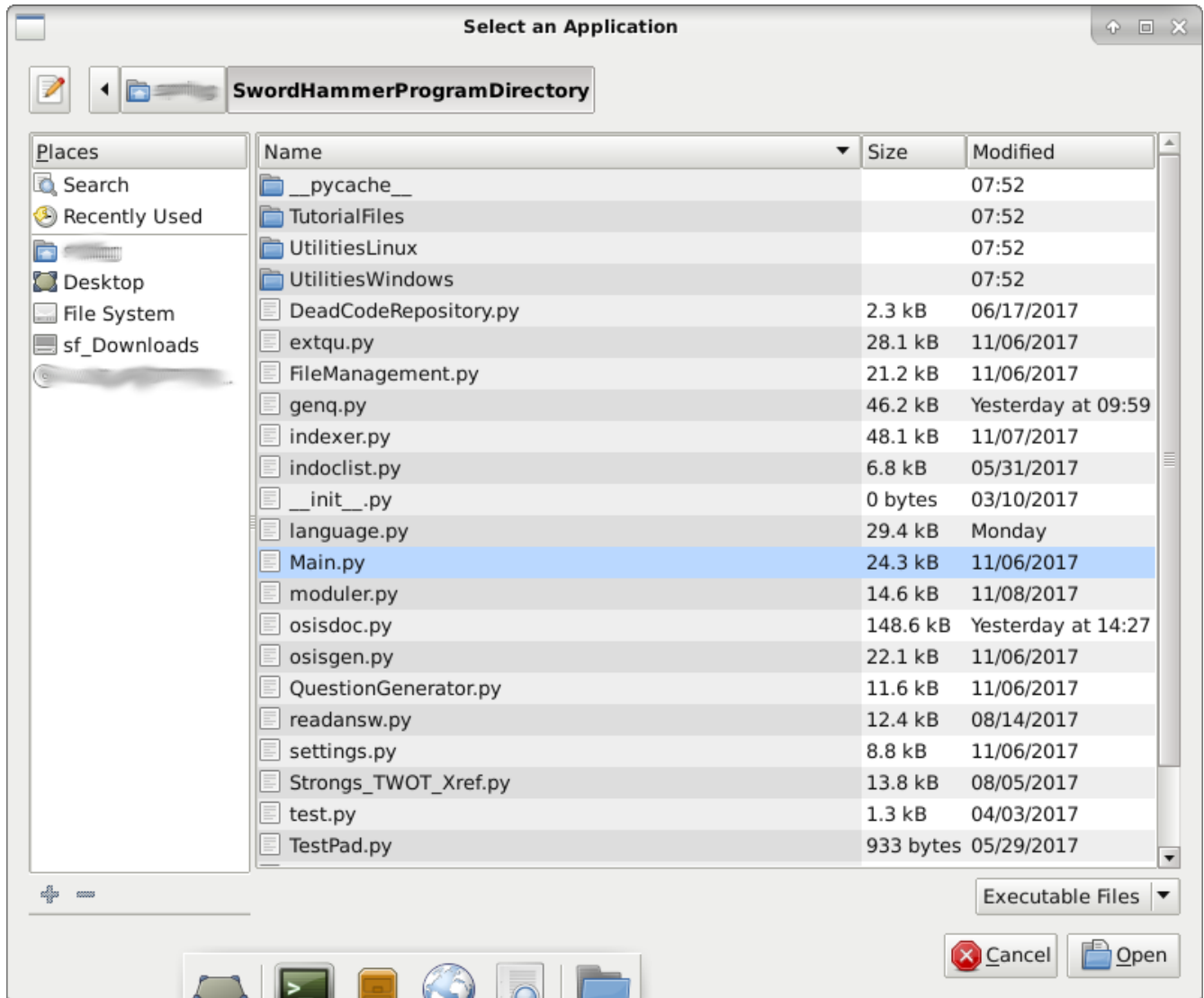
Right-click on the desktop and select **Create Launcher**.

Figure 3.7 – Create Launcher



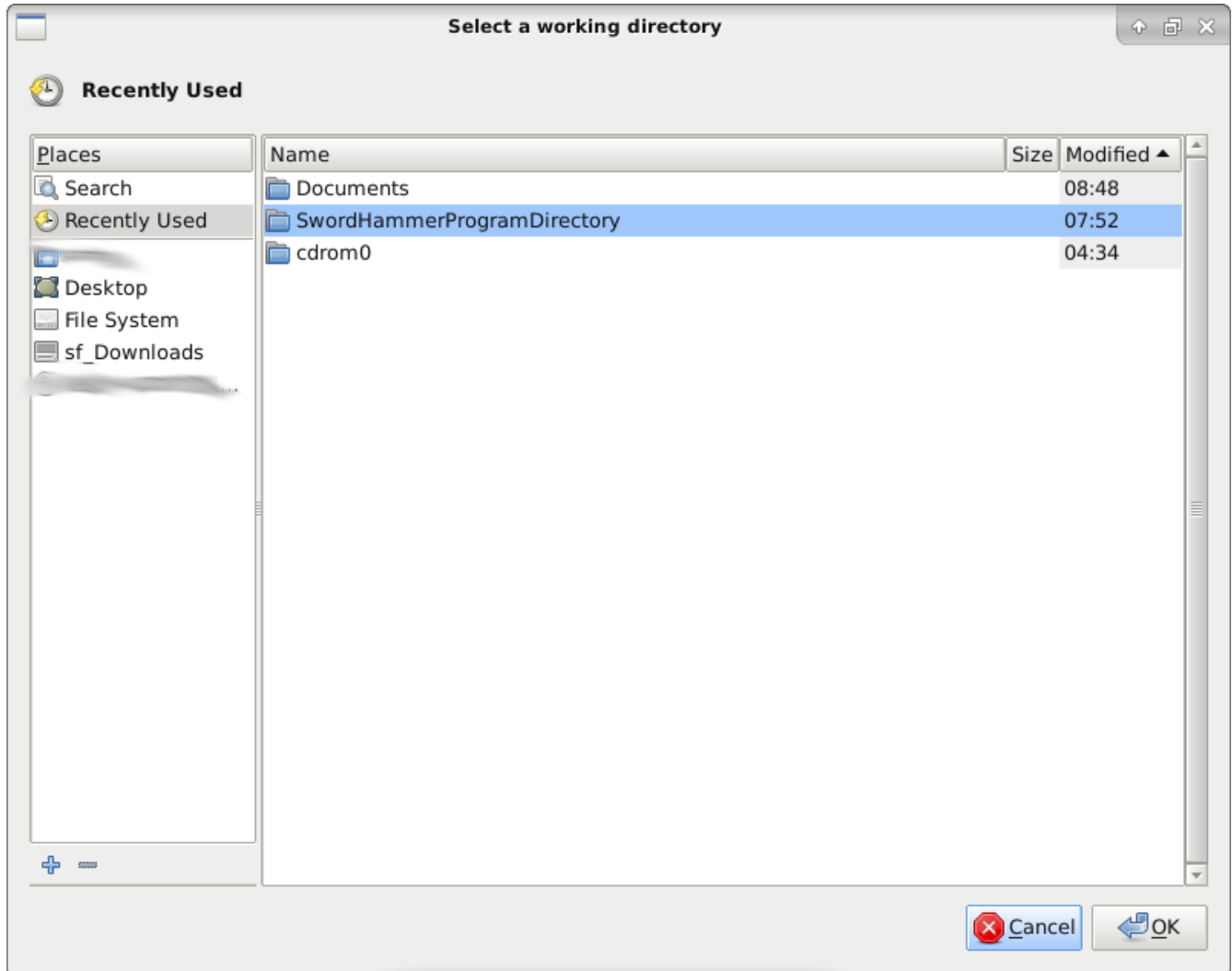
Now put a name in the Name box, such as SwordHammer. Then click the folder icon to the right of Command.

Figure 3.8 – Select An Application



Navigate to the SwordHammer Program Directory, then select `Main.py`, then click `Open`. Then click the folder icon next to `Working Directory` and select the SwordHammer Program Directory itself, as in Figure 3.9. (Recall that the *Working Directory* here is not the same as the *Working Directory* term used elsewhere in this manual.) Then click `OK`.

Figure 3.9 – Select A Working Directory.



Next, click the **ICON** button, then select **Image Files** in the drop-down at the top. Navigate again to the **SwordHammer Program Directory**, select the **SHicon.png** file, then click **OK**.

Figure 3.10 – Icon Selection

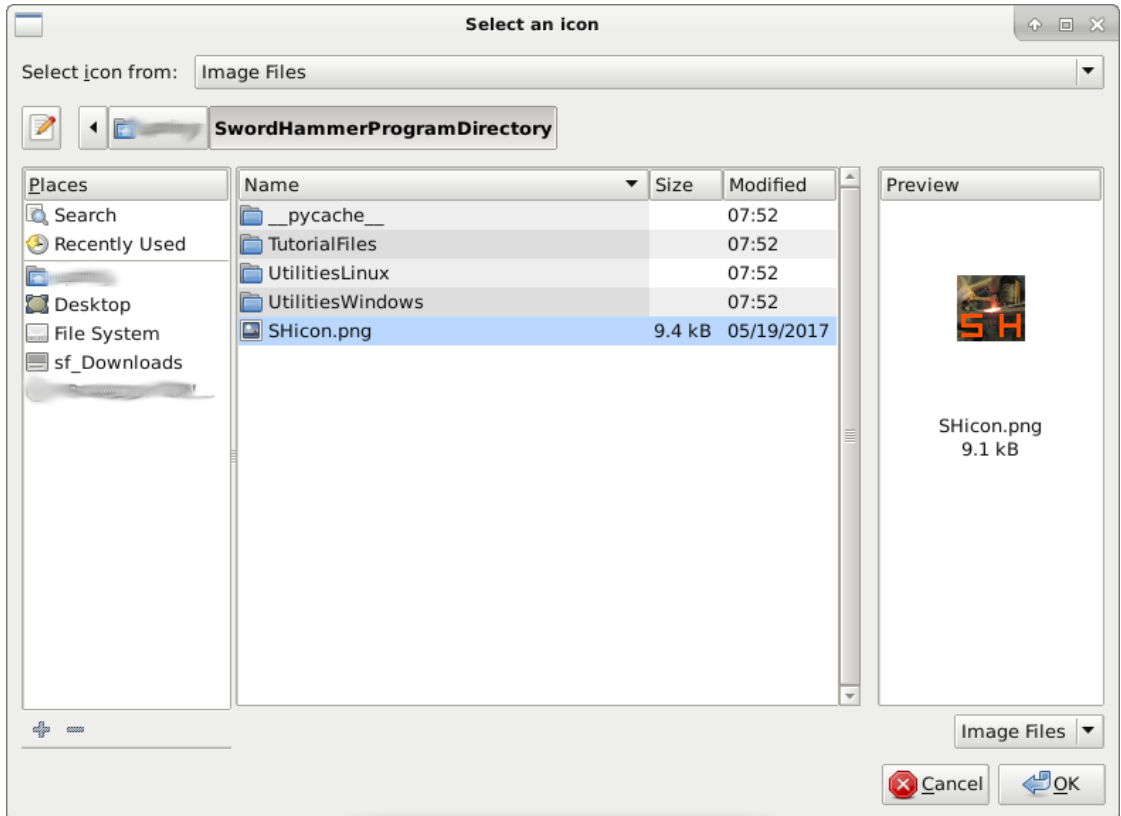
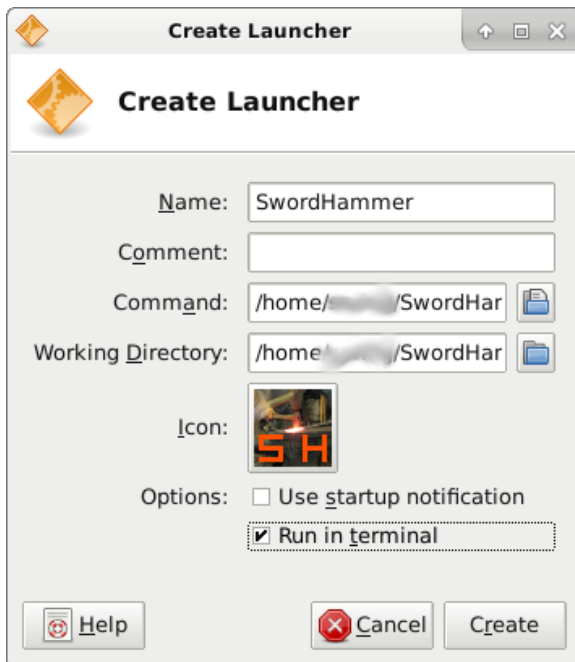
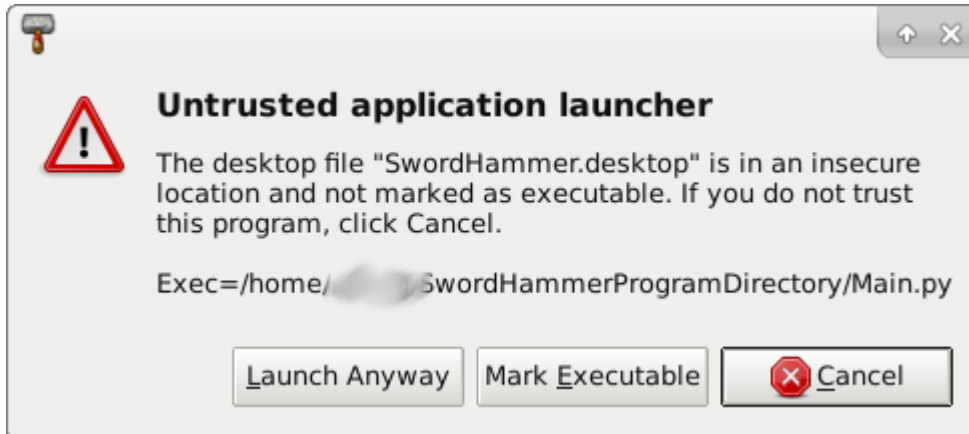


Figure 3.11 – Finished Launcher



Click the Create button, then double-click on your new SwordHammer icon. The first time you do this, you will get a message similar to Figure 3.12.

Figure 3.12 – Executable Warning Message



Click **Mark Executable**, and SwordHammer should launch. You will not see that dialog box again for SwordHammer.

Mac

Sorry, but Macs are fairly closed systems and SwordHammer may or may not work on a Mac. But see the instructions at <http://lxml.de/installation.html>, for starters and may the good and merciful God have mercy on you, for you are in for a bit of research and work that is not for the faint of heart. You will also have to search for and follow instructions to install dateutils, GTK3+, Python 3.4 or higher, and GObject introspection. See the list of required packages above for Linux if you get messages indicating missing libraries, etc. If you successfully install SwordHammer, this author would like to know how it is done for the benefit of other users; he does not own a Mac with which to experiment. ***Although the Mac operating systems were built on Unix, it is very possible that the divergence is so great as to prevent SwordHammer from functioning properly even if it can be installed.***

Windows

SwordHammer will not work on Windows XP or earlier. Windows 7 or above is required because MSYS2 requires Windows 7 or higher.

This author sincerely apologizes for the complexity of the steps below. These steps are not hard, there are just a lot of them. The author is unlikely to write a *universal* Windows installer very soon (but hopes to someday if it proves practical), and these steps are thus needed because:

- The author is unsure of being able to keep up with changes to the third-party software below.
- The author only has Windows 7, and there is now Vista through Windows 10, each in different versions. Professionals pay big money to buy all of these versions for testing.
- The author uses Linux and has therefore developed SwordHammer for Linux as its native environment. Thus, there is some effort required to “live in a foreign country.”

You should also expect minor glitches or cosmetic issues to pop up. Some of these, with workarounds, are listed in Appendix F, as well as below the instructions in this section.

Reminder: Recall that a “directory” is a container for a group of files. Windows calls directories “folders.” (SwordHammer is designed to work on many operating systems, and “directory” is the generic term.)

Note: For whatever reason, Microsoft has decreed that Windows Explorer not show file extensions, and does not display hidden files. The first of these is inexcusable; `program.exe` only shows up as `program` and is thus indistinguishable from `program.cfg`. Hiding hidden files may be convenient for some users, but for your needs, you will need to find the options in Windows Explorer and uncheck **Hide extensions for known file types** and select the **Show hidden files, folders, and drives** radio button. These should be under the **View** tab. After you have installed SwordHammer, you can change it back to hide hidden files.

Some steps that you do them as an administrator, and these steps will pointed out as such. For that matter, on some versions of Windows, the administrator account is “hidden.”

If you do not see the **Administrator** account, you may not be able to easily run programs as Administrator from a normal account, even if the account has elevated privileges. If such is your case, you may want to consider doing the following; however this author cannot vouch for this procedure on all versions of Windows: Click **Start**, right-click **Computer**, and select **Manage**. Under **Local Users and Groups**, click **Users**. Then double-click on **Administrator**. Uncheck **Account is disabled**. Then set a password for the account in the normal manner. Search the web if you need help.

You can then, if you wish, make your own account a Standard User in order to make malicious exploits and viruses less likely to hurt you. On the other hand, you may find that there are some things you are no longer able to do unless you use right-click and **Run as Administrator** when you run a program. Log off, then back on to apply the changes. If you have an Administrator account, then while you are working as a Standard User, Windows will often just let you do something as Administrator so you do not have to log off and on all the time. Right-clicking on a program or shortcut will often display the option to **Run as administrator**.

Windows – The Easy Way

This Easy Way has been tested on Windows 7 Professional, 64 bit. On other versions, it may or may not work or you may have to do some steps manually.

This Easy Way will ONLY work for 64 bit Windows. (Right click on **Computer** and select **Properties** and look at **System type**: to see if you have 64 or 32 bit Windows.)

The download page for SwordHammer is <http://BeForgiven.INFO/SwordHammer>. This URL is case-sensitive. If you have not already done so, create a **SwordHammer Program Directory**. Someplace in **Documents**, such as **SwordHammerProgramDirectory** will work fine.

Then download **SwordHammer Self-Extracting File for Windows**. If you are able to do so, download it into your **SwordHammer Program Directory**.

Important: The self extractor will unpack the files into its own directory. Thus, if you were not able to download directly into the **SwordHammer Program Directory**, copy **SwordHammer.7z.exe** to your new **SwordHammer Program Directory** now, before going further.

Using **Windows Explorer**, navigate to your **SwordHammer Program Directory** and double click on **SwordHammer.7z.exe**.

You can also download **SwordHammer Zip File** and copy the files manually if you wish.

(Because **SwordHammer** is a Python program, and because of how it works, **SwordHammer** is not installed in **Program Files** as is usually done for programs.)

Next, create an empty directory, such as `SwordHammerWorkingDirectory`; someplace such as in `Documents` will be fine here also. This is where you will put your SwordHammer Working Directories. Working Directories are where you put the files for each SwordHammer “project.” Once you are done with the tutorial examples below, you will be able to delete it if you wish; it is not necessary to have all of your SwordHammer Working Directories in the same place, but it can be convenient.

Note: If you are concerned about the authenticity and security of the SwordHammer files, you may, if you like, wish to do the steps in [SwordHammer Source File Security](#) before proceeding with the steps below.

Now you are ready to do the installation. To do so, you will run four scripts, one of them as an administrator. The instructions are in the scripts themselves, so read the information presented carefully. Note carefully that you have to do all of the steps successfully. You are asked if you want to do a particular step **only in case you have already done that step**, but had to quit the script for some reason. You can most easily and safely quit a script by clicking the X at the upper right corner of the window. So let us proceed:

1. Do this as your normal self, not as an administrator. (If you normally do your work on an account with administrator rights, this is unsafe against malware and viruses, but just fine for the installation scripts and SwordHammer itself.) You **definitely** want to do this step using the account you will use to operate SwordHammer. Using Windows Explorer, navigate to the SwordHammer Program Directory (which should be full of files and directories by now) and go to `WindowsInstall`. Double-click on `Install.bat` and follow the instructions. (If you like, it is also permissible to use the Command Prompt for this step.) Take special note of the following:
 - a. Along the way, please do not confuse the `MSYS2` window with a normal Windows Command Prompt window.
 - a. For the step in which you download `MSYS2`, you may wish to refer to Figure 4.1 below.
 - b. When you close Internet Explorer, it may wait for some time before the script can proceed.
 - c. When installing `MSYS2`, UN-check the `Run MSYS2 now` option.
 - d. If you accidentally goof and `MSYS2` is launched, just close it, that is all.
 - e. For the step in which you download Xiphos, you may wish to refer to Figure 4.13 below.
 - f. After you download Xiphos, you will see some messages about having to write down a path that you are given. Please do this just in case. What is happening here is that you must install Xiphos as an administrator in a later step. If you have to log off then log in as an administrator, you will be able to directly see the *administrator* `Downloads` folder, not your own. So the path given you will enable you to navigate to your own `Downloads` folder where the Xiphos installation file is located. (Step2.bat will give you instructions for Xiphos installation.) (If you are able to successfully right-click on a file and select `Run as Administrator`, you will not need the paths.)
 - g. For the same reason given above, you will not be able to see the `Step2.bat` file if you have to log off and then log in as an administrator. So please write down that path also.
 - h. Do not yet use the `Step3 Install` icon. You will use it later.

2. Take heed of the fact that you will be given two paths in the step above. If you have to log out, then log in as an administrator, use that path to execute `Step2.bat` in `WindowsInstall`. In all cases, the file you want to run is `Step2.bat` in `WindowsInstall`.
3. As your normal self, double-click the `SW_step3_Install` icon that should be on your Desktop to run `Step3.bat`. The comments in step 1. above pertaining to normally having administrator rights applies here also. Please note the following:
 - a. Along the way, please do not confuse the `MSYS2` window with a normal Windows Command Prompt window.
 - b. Do not worry about the messages while updating `MSYS2`; just keep answering `y` (and hit `ENTER`).
 - c. When updating `MSYS2`, there is one tricky part as described in the instructions in the script. The update process in `MSYS2` may tell you:
 - i. warning: Terminate `MSYS2` without returning to shell ...
 - ii. warning: for example close ...
 - d. When you see this, do the following:
 - i. Click the `X` in the upper right corner of the window.
 - ii. Wait patiently.
 - iii. When you get a message saying something like `processes are running ...`, click `OK`.
 - iv. When the above message goes away, Click the `X` in the upper right corner of the window again, every half minute or so.
 - v. When you get a message like, `Terminal is not responding ...`, click `Close the Program`. Do not let Microsoft search for a solution. (There is no problem needing a solution.)
 - vi. double-click the `SW_step3_Install` icon again. You probably will have to do this only once, but each time it happens, complete the steps in (c.) above.
4. As noted in the instructions, you should retain the `SW_step3_Install` icon. You can use it to update `MSYS2`; do **only** the step to update `MSSYS2`. You should do this every week or so (or as you please) to keep `MSYS2` up to date.

Windows – The Hard Way

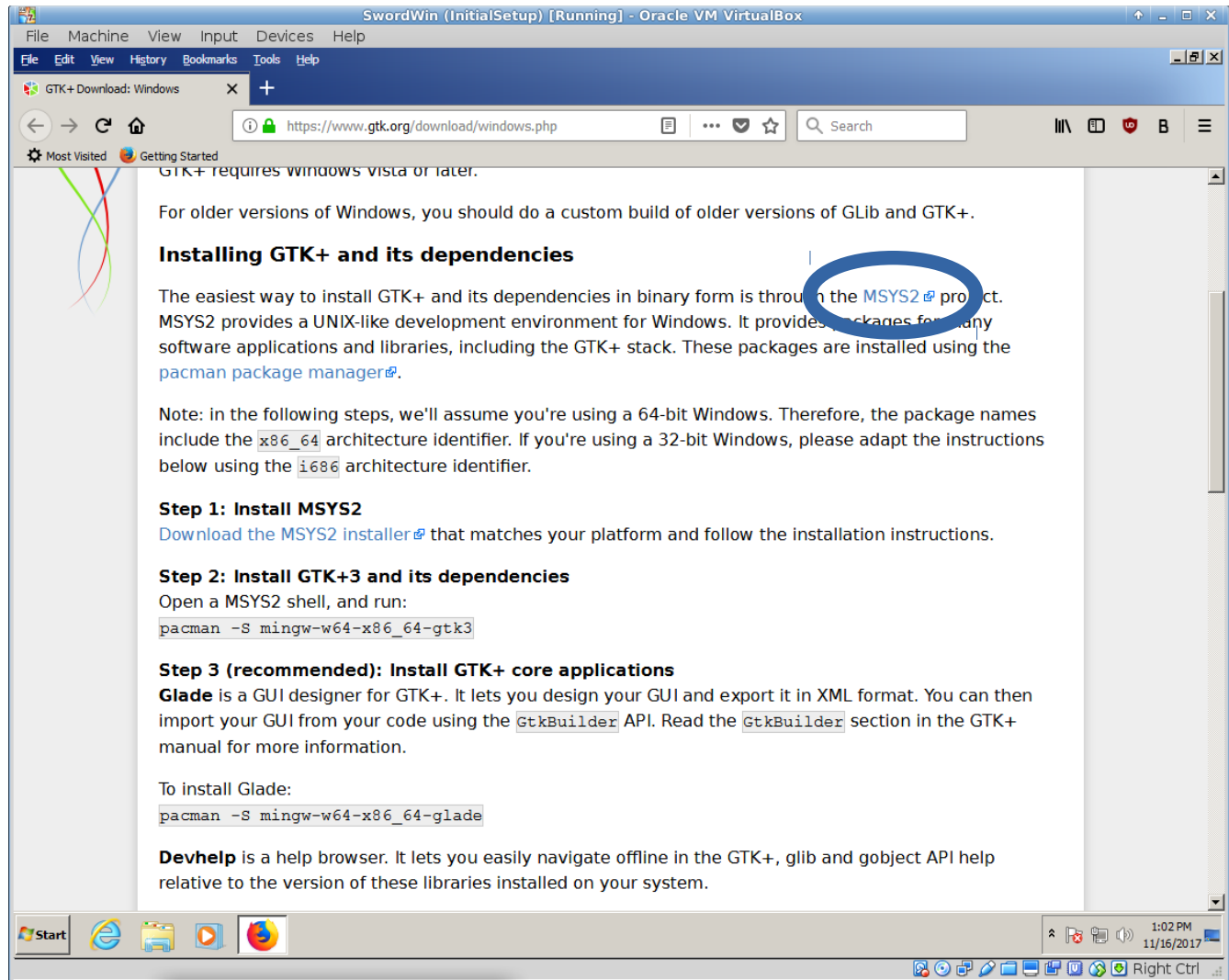
The examples shown are done on Windows 7 Professional, using a Standard User account. Other Windows versions may look different and use different procedures to do the same thing. There are many help sites for Windows on the web, so search if you get stuck.

Note: You may possibly observe that the steps in this Hard Way are not in the same order as in the scripts used in the Easy Way. This is only for convenience in writing the scripts and allowing you to make certain tests; it does not invalidate either way.

First, you need to install GTK3, lxml and a few other things. You will start by installing MSYS2. The web site: <https://www.gtk.org/download/windows.php> will give you plenty of information, but more than you need for this.

So first, go to the gtk.org site (link above) and click on the MSYS2 download link. See Figure 4.1, which circles the appropriate link (as of this writing).

Figure 4.1 – MYSYS2 Download Link



Follow the instructions you see there (scroll down) – there is no point in repeating them here. But please note that in MSYS, names, such as file names, are *case-sensitive* unlike most of Windows. You should accept the defaults offered, and, in the command window, proceed with installation when requested. Also, to restart during upgrading at the message:

warning: terminate MSYS2 without returning to shell and check for updates again

warning: for example close your terminal window instead of calling exit

Click the X at the upper right-hand corner of the window, then when Windows finally gets around to responding, just click the OK button. You may have to use that X again, and click the Close option when it finally asks.

To restart use Start/All Programs/MSYS2 (or MSYS2 64 bit)/MSYS2 MSYS.

If you run into trouble, there is a link to more detailed installation instructions and other resources on the MSYS web site.

NOTE: There is a discrepancy between the screenshot and the `pacman -Su` instruction. Use `pacman -Su`, or whatever is given in the instructions, not the screenshot.

Resume updating and, when finished, leave the MSYS2 window open.

Now go back to the gtk.org website, and follow the instructions for Step 2. You do these steps in the window you have left open – type the text indicated and hit the <enter> key. If you have 32-bit Windows, you need to change the file name suggested by dropping the `x86_64` and substituting `i686`. The need to make that change if you have 32-bit Windows applies in steps below also.

Next, follow the instructions in Step 3. (Ignore the details – just type what it says, changing the `x86_64` if needed.) You do not need to install DevHelp.

Then follow the instructions in Step 4 for Python 3, (not Python 2). Leave the MSYS2 window open.

Now open a Windows Explorer window and use the search function to search for (NOT run) the file `gtk3-demo-application.exe`. Figure 4.2 and 4.3 show an example. When it is found, copy the path, that is, everything but the `\gtk3-demo-application.exe` part. The path will look something like, `c:\msys64\mingw64\bin`. You can put the path text in Notepad or something for now. It can be helpful to right-click the found file and select **Properties**; you can then highlight the **Location**: text to copy and paste.

Figure 4.2 – Finding the Demo Application Path, Part 1

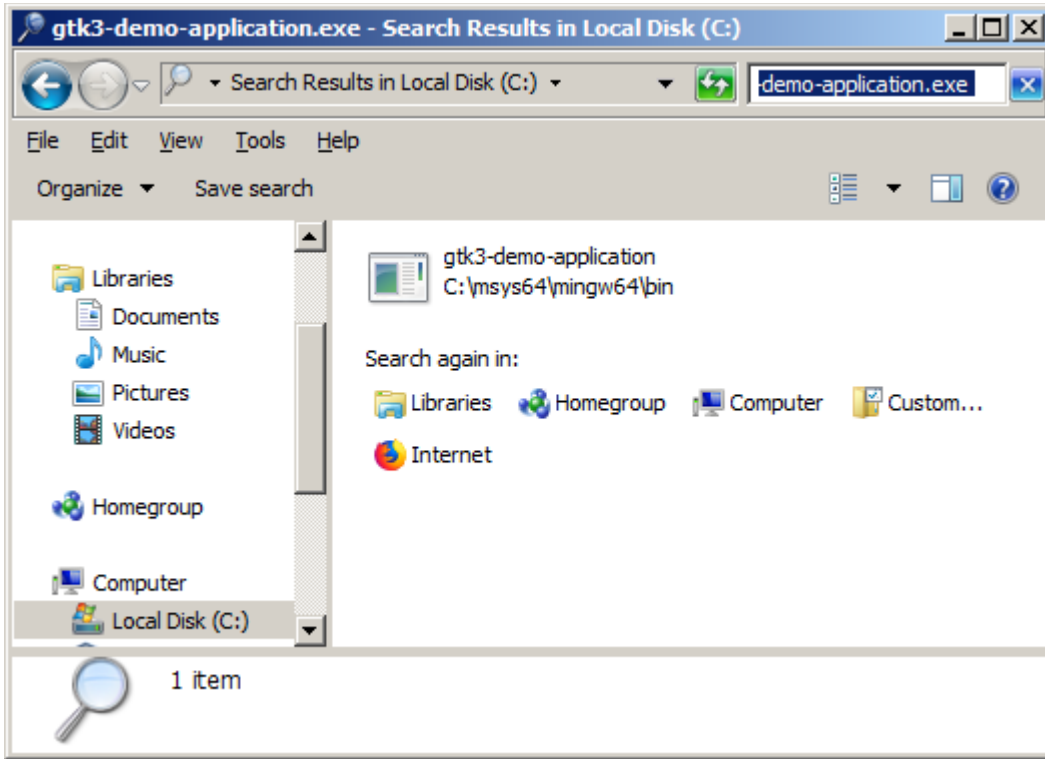
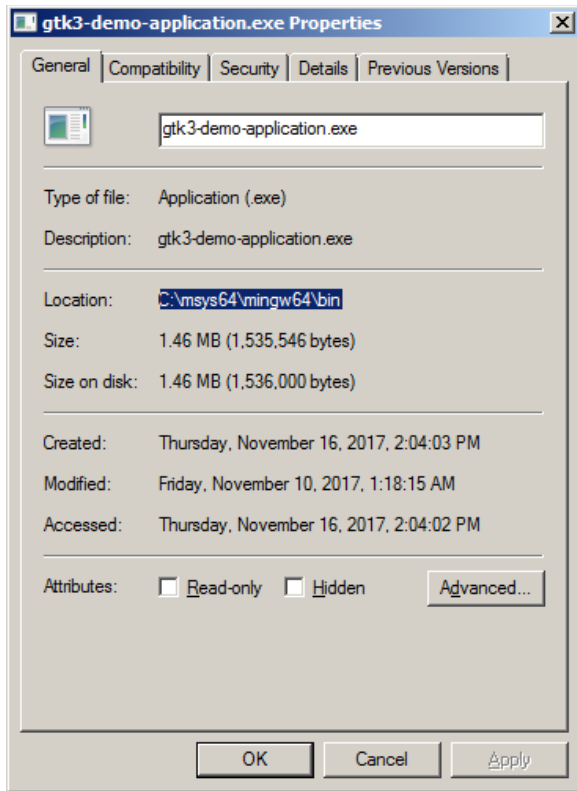


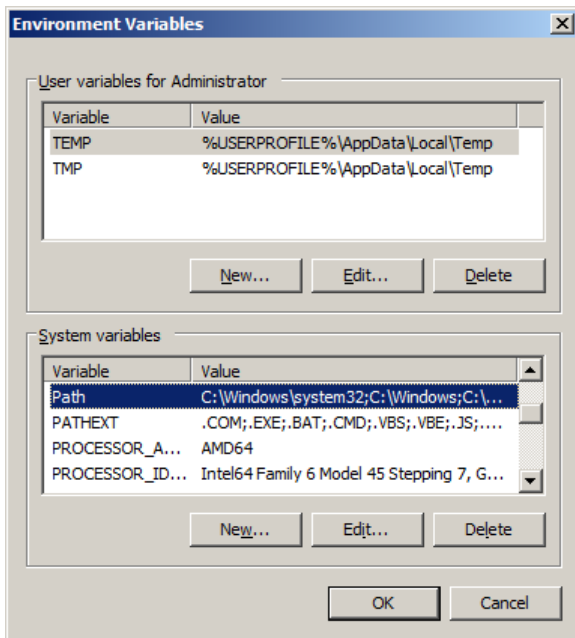
Figure 4.3 – Finding the Demo Application Path, Part 2



You next need to add that path to your Environment Path variable. First try this still logged in as yourself. You may simply get prompted for an Administrator password. If so, you do not need to log out and then log back in as administrator. If you have to log out to work as administrator, save that Notepad file with the path, log out and log in as Administrator. These instructions work for Windows 7. Other versions may be a little different. Searching the web might help you if you need help.

Now right-click on Computer (or My Computer) and select Properties. Then select Advanced System Settings. Next, click the Advanced Tab. Then click the Environment Variables button. You will see a new window pop up similar to Figure 4.4.

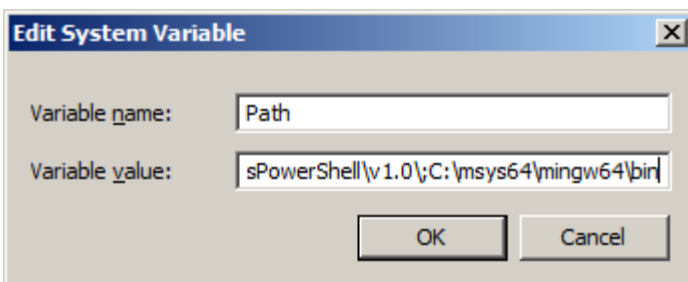
Figure 4.4 – Environment Variables Window



In the bottom list, find Path and highlight it by clicking on it. Then click the Edit button. Use the right arrow key to get to the very end of the text and make sure it is not highlighted any longer. Then type a semicolon, then the path you saved above in Notepad. You can also copy and paste. Then end result will look something like:

```
c:\windows\system32 ... some more stuff;c:\msys64\mingw64\bin
```

Figure 4.5 – Adding to the Path



Now click OK a few times, close the Properties window, and you are done there. Log out of Administrator, then back in as your normal self if needed.

Open a new Command Prompt window (From the Start Menu: Start/All Programs/Accessories/Command Prompt) and type:
`gtk3-demo-application.exe`

Figure 4.6 – Using the Command Prompt to Test

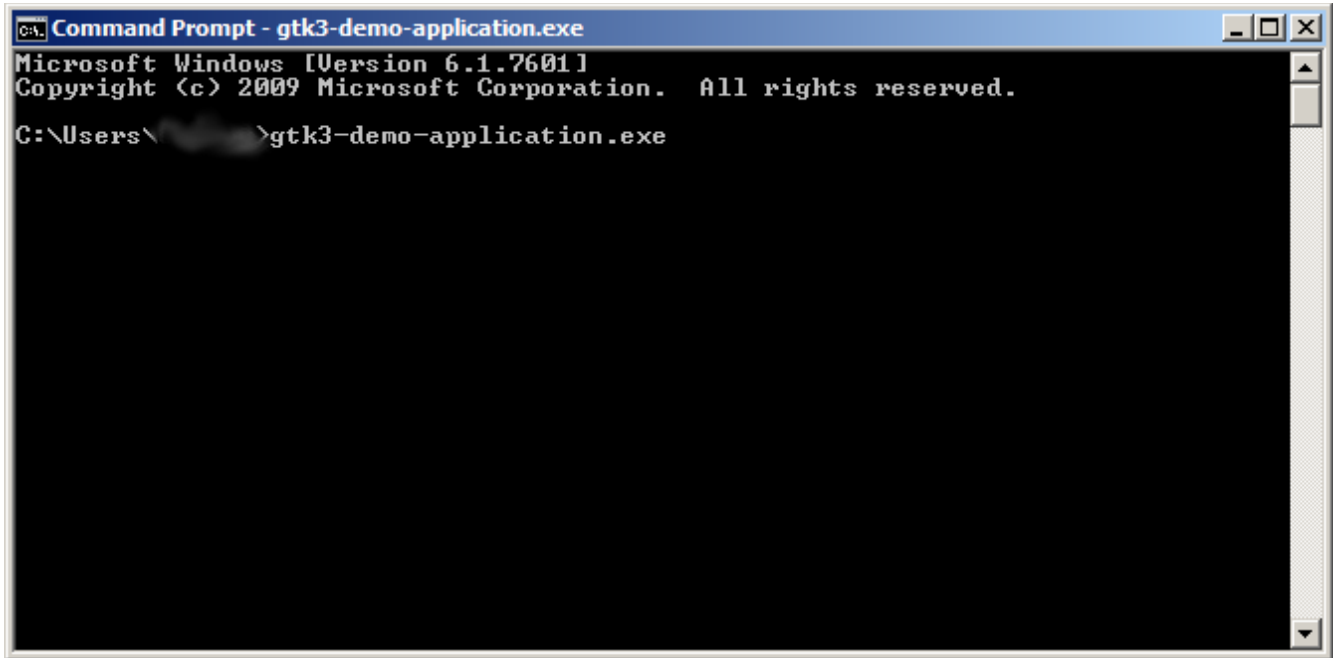
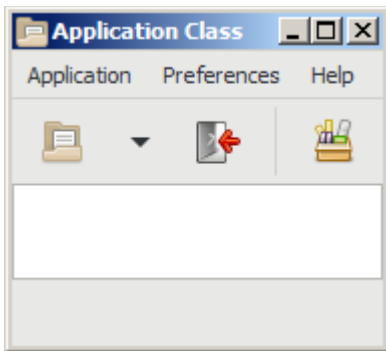


Figure 4.7 – Successful Test



You should see a silly little program window pop up. That is good. Play with it if you want, then close the demo; you should never need it again. You can leave this Command Prompt window open, but please do not confuse it with the MSYS2 window.

Now go back to your MSYS2 window (Start/All Programs/MSYS2/MSYS2 MSYS if you had to log out) and type the following, answering y to questions about proceeding. At each step, you will type your commands when the \$ prompt appears (remember to change the x86_64 for 32 bit Windows), and wait for that step to finish.

```
pacman -S mingw-w64-x86_64-python3-lxml
```

```
pacman -S mingw-w64-x86_64-python3-dateutil
```

```
pacman -S mingw-w64-x86_64-python3-psutil
pacman -S mingw-w64-x86_64-python3-requests
pacman -S mingw-w64-x86_64-python3-certifi
pacman -S mingw-w64-x86_64-python3-pip
c:/msys64/mingw64/bin/python3 -m pip install python-gnupg
```

The download page for SwordHammer is <http://Beforgiven.INFO/SwordHammer>. This URL is case-sensitive. If you have not already done so, create a SwordHammer Program Directory. Someplace in Documents, such as SwordHammerProgramDirectory will work fine.

Then download SwordHammer Self-Extracting File for Windows. If you are able to do so, download it into your SwordHammer Program Directory.

Important: The self extractor will unpack the files into its own directory. Thus, if you were not able to download directly into the SwordHammer Program Directory, copy SwordHammer .7z.exe to your new SwordHammer Program Directory now, before going further.

Using Windows Explorer, navigate to your SwordHammer Program Directory and double click on SwordHammer .7z.exe.

You can also download SwordHammer Zip File and copy the files manually if you wish.

(Because SwordHammer is a Python program, and because of how it works, SwordHammer is not installed in Program Files as is usually done for programs.)

Next, create an empty directory, such as SwordHammerWorkingDirectory,; someplace such as in Documents will be fine here also. This is where you will put your SwordHammer Working Directories. Working Directories are where you put the files for each SwordHammer “project.” Once you are done with the tutorial examples below, you will be able to delete it if you wish; it is not necessary to have all of your SwordHammer Working Directories in the same place, but it can be convenient.

Note: If you are concerned about the authenticity and security of the SwordHammer files, you may, if you like, wish to do the steps in [SwordHammer Source File Security](#) before proceeding with the steps below.

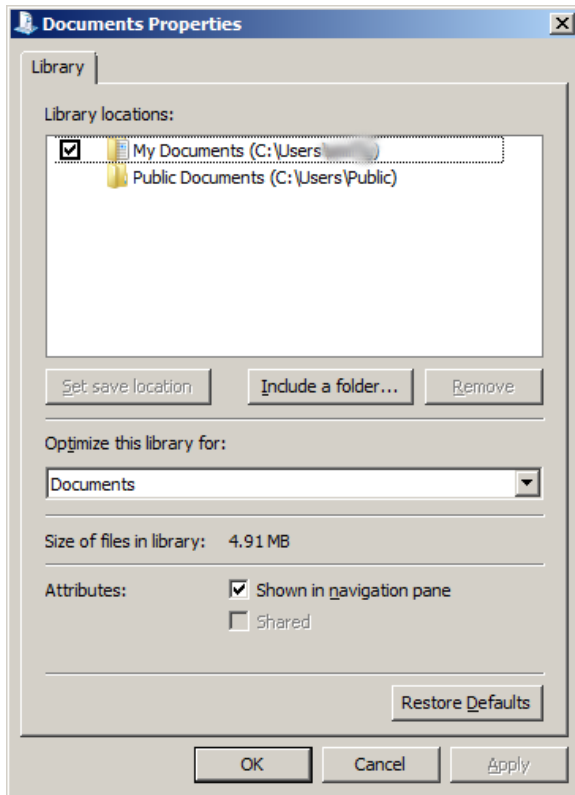
At this point, most of the installation is done, and it is time to test. Open a Command Prompt window, if the one from earlier is not still open, and type (see examples below also):

```
cd yyyy
xxxxx\python3 yyyy\Main.py
```

where xxxxx is the path you saved above when you searched for gtk3-demo-application.exe, and yyyy is your SwordHammer Program Directory into which you saved the SwordHammer program files above.

Hint: If you put your directories in Documents, be aware that Documents is an alias and its real location can be anywhere. To find out its real location, right-click on Documents in Windows Explorer and select Properties. You may then see the actual location, which you will need in the steps below.

Figure 4.8 – Finding where Documents is Actually Located



Here is an **example**:

```
cd "c:\SwordHammer Program" (You need to put quotes around any path that has spaces in it.)
```

```
c:\msys64\mingw64\bin\python3.exe "c:\SwordHammer Program\Main.py"
```

Another **example**, using a location in Documents is:

```
cd c:\users\myname\SwordHammerProgramDirectory
```

```
c:\msys64\mingw64\bin\python3.exe c:\c:\users\myname\SwordHammerProgramDirectory\Main.py
```

You should see SwordHammer come up, similar to Figure 1.1 above. Click on the Quit button to close it for now.

Next, you will want to create a Start Menu item and/or desktop shortcut to save yourself a large amount of typing. Some versions of Windows try to “help” you do this, but not so well. So right-click on the desktop, and give the shortcut a name. Browse to `yyyyy\Main.py` and click Finish. Now right-click on the shortcut, select Properties, and clean things up. The target is:

```
xxxxx\python3.exe yyyyy\Main.py
```

For **example**:

```
c:\msys64\mingw64\bin\python3.exe "c:\SwordHammer Program\Main.py"
```

and the start directory is:

yyyyy

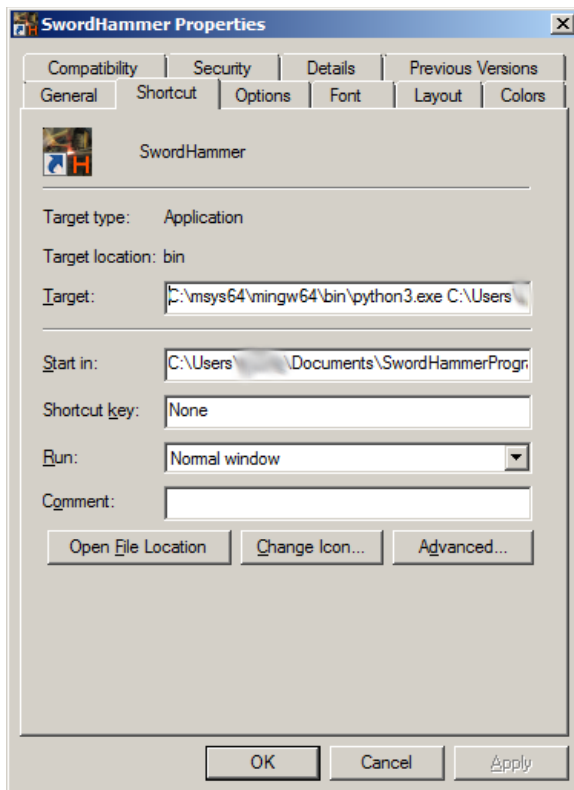
For **example**:

“c:\SwordHammer Program”

Note: Recall that any if any paths or file names have spaces, they must be enclosed in double quotation marks.

If clicking on the shortcut launches SwordHammer, you are almost done. Right-click on the shortcut again, hit the **ICON** button and browse to your SwordHammer Program Directory to change the icon. The results should look something like Figure 4.9.

Figure 4.9 – Completed Shortcut Setting For SwordHammer



In Windows, you can now copy that shortcut from your Desktop to the Start menu or the Taskbar, if you like.

SwordHammer uses some Sword utilities supplied by the Sword Project. Windows users need to download and install these, and some support files from Microsoft. First, go to <http://www.crosswire.org/ftpmirror/pub/sword/utls/win32/> and download the latest sword-utilities-X file by date. Make a directory for it, someplace in DOCUMENTS is best in this case. We will call this the *utilities directory*. Unzip what you have downloaded into that directory you just made. Next, download the latest icudtX file and unzip that into your new directory as well. (It may already exist; just overwrite it.) In the step-by-step below, you will be shown how to tell SwordHammer the location of this directory which contains the OSIS2MOD file, but that is all for now.

Now, you will need to go to use a search site and search for Visual C++ 2010 Redistributable x86. Look at the search results and use the one that takes you to Microsoft's

web site. Download and install it. Then repeat the process for Visual C++ 2012 Redistributable x86. Using a search site (such as Google or Startpage) gets you results quicker without having to wade through all of Microsoft's cruft. Also, you want the 32 bit versions, **even if you have 64 bit Windows**.

Now, you need to test your tools installation. If you have put the Sword utilities some place in Documents, then, in Windows Explorer, right-click on the osis2mod.exe file and select Properties. Open a Command Prompt and type the Location that is shown in Properties. Follow that with \osis2mod.exe and hit <enter>. Figures 4.10 and 4.11 show an example.

Figure 4.10 – Getting The Path

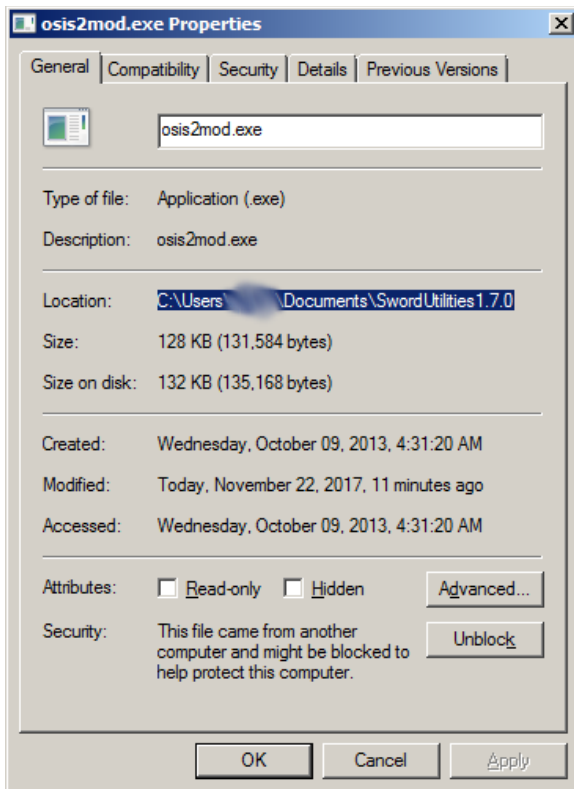
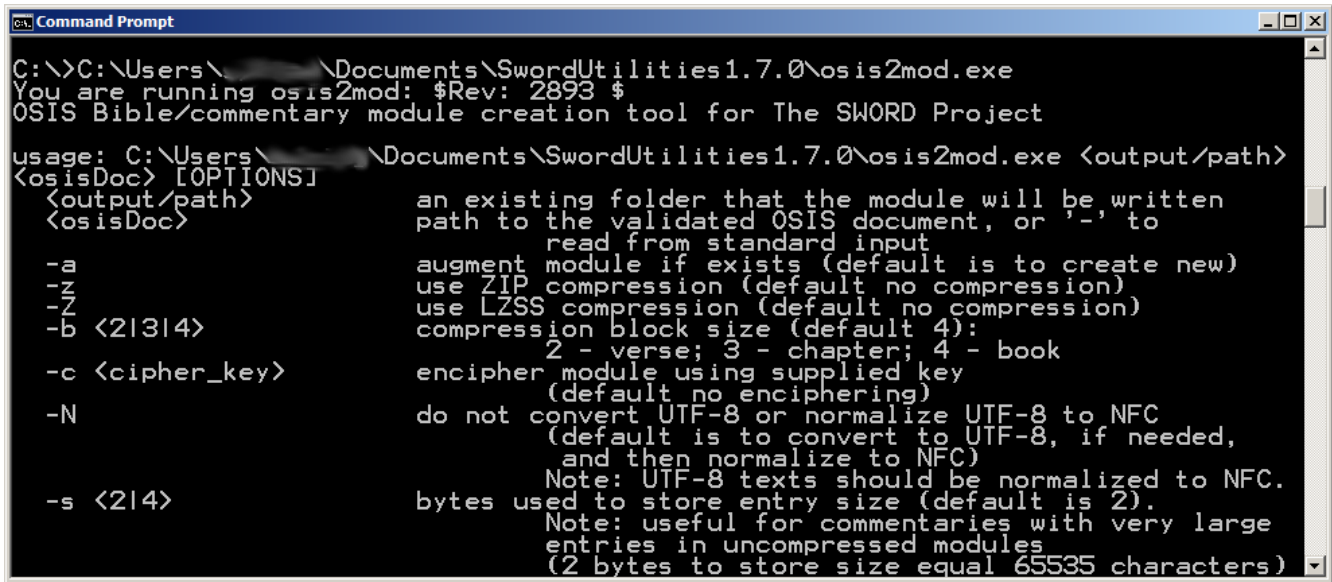


Figure 4.11 – Testing the Utilities Installation for Windows

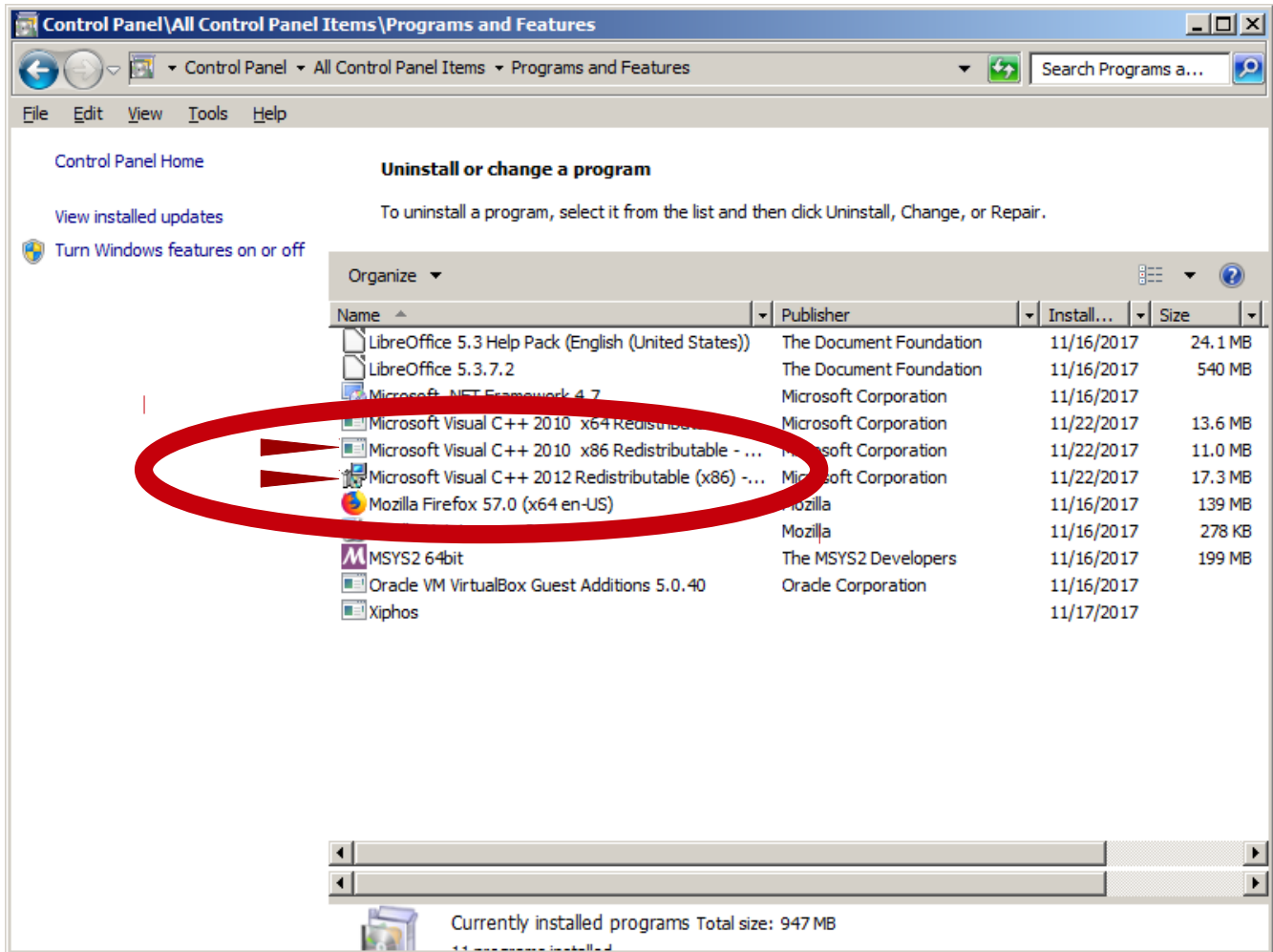


```
C:\>C:\Users\... \Documents\SwordUtilities1.7.0\osis2mod.exe
You are running osis2mod: $Rev: 2893 $
OSIS Bible/commentary module creation tool for The SWORD Project

usage: C:\Users\... \Documents\SwordUtilities1.7.0\osis2mod.exe <output/path>
<osisDoc> [OPTIONS]
  <output/path>      an existing folder that the module will be written
  <osisDoc>          path to the validated OSIS document, or '-' to
                    read from standard input
  -a                augment module if exists (default is to create new)
  -Z                use ZIP compression (default no compression)
  -z                use LZSS compression (default no compression)
  -b <2|3|4>        compression block size (default 4):
                    2 - verse; 3 - chapter; 4 - book
  -c <cipher_key>   encipher module using supplied key
                    (default no enciphering)
  -N                do not convert UTF-8 or normalize UTF-8 to NFC
                    (default is to convert to UTF-8, if needed,
                    and then normalize to NFC)
                    Note: UTF-8 texts should be normalized to NFC.
  -s <2|4>          bytes used to store entry size (default is 2).
                    Note: useful for commentaries with very large
                    entries in uncompressed modules
                    (2 bytes to store size equal 65535 characters)
```

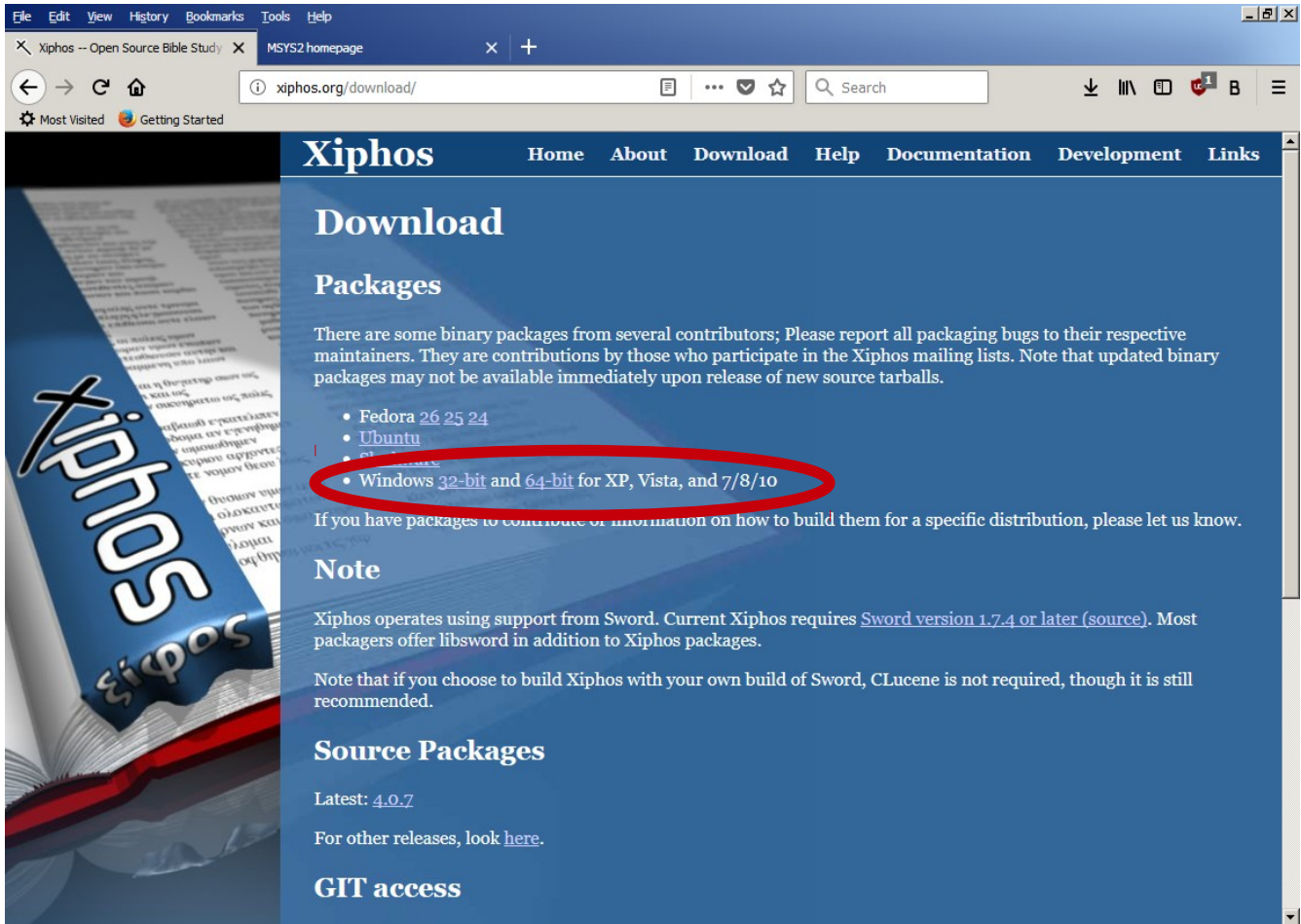
It does not matter what directory you are in when you do the test. Be sure to surround the entire path and file name with quote marks if any of the names contains spaces. You should get something that looks more or less like Figure 4.11 (scroll up if needed). If you do not, you may not have the right C++ redistributables. Make sure you are using the X86 versions, even if you have 64 bit Windows. You can see what you have by going to Control Panel and clicking on Programs and Features. Figure 4.12 shows that the correct files are installed in this example.

Figure 4.12– Correct C++ Redistributable Installation



Next and last, if you have not already done so, you need to download Xiphos, a Bible program. See www.xiphos.org and download and install Xiphos for windows. You should not click the big button on this page, but go to the **Downloads** page, and select the correct download depending on whether you have 32 bit or 64 bit Windows. See Figure 4.13.

Figure 4.13 – Downloading Xiphos for Windows



Windows Quirks and Workarounds

First, do not try to move the General Questions Window. If you do forget, it will freeze up on you. To fix this, just use <alt><tab> to switch to any other window and then switch back.

You probably do not have all of the fonts installed that SwordHammer uses. Thus, in the SwordHammer Command Prompt box that comes up just before SwordHammer itself, you will see messages about fonts; you can safely ignore them. Your SwordHammer windows will also look different than the examples shown below.

All Systems – Download and Install Some Bible Programs

Go to crosswire.org and click on **Software** on the bar at the top. You will want to install at least 2 or 3 Bible programs so you can check your work. Xiphos and Bible Desktop run on two different engines, so having those two (at least) is helpful.

All Systems – Installation Is Just One Time

Here is some good news. As mentioned above, due to the nature of Python, most upgrades and bug fixes will be nothing more than just downloading and copying files to your Program Directory *at worst*. Normally, SwordHammer will securely and safely update itself.

Linux and Windows users should already know how to keep their system up-to-date. Updates to packages will almost never affect the SwordHammer program files, even if the Python 3 interpreter is upgraded.

Windows users should either use the SW Step3 Install icon, if available, or use the web references above to keep their MSYS2 system updated. Be sure to do all updates at once, not just some of them. Updates to packages will almost never affect the SwordHammer program files, even if the Python 3 interpreter is upgraded, but keeping your system up to date is helpful to reduce bugs and improve security. Note that the updating MSYS2 requires only the steps in **III Updating packages**, Option 1. in <https://github.com/msys2/msys2/wiki/MSYS2-installation#iv-general-package-management>.

In addition, SwordHammer itself does not really have any security concerns. Any possible security concerns would be related to the Python 3 interpreter or libraries. Keeping your system up-to-date will address such concerns, and vastly more besides. SwordHammer installs its public key on first install, so SwordHammer updates itself from the Internet securely. Besides updates, SwordHammer never accesses the Internet unless, when giving SwordHammer a file or directory path, you point to a remote machine outside of your own network.

SwordHammer Source File Security – Testing Signatures of Files

Note: The steps in this section are purely for your comfort if you are so inclined to do them. They do not in any way affect the operation of SwordHammer.

SwordHammer, as created, presents almost no security or malware risk. The only possible exception to this would be if you used, for example, a Working Directory or Program Directory on some computer on the Internet. This cannot be recommended unless you know what you are doing.

But there remains another possibility. It is possible, in rare cases, for criminals to break into a server, such as the BeForgiven.INFO server and put malware in place of legitimate SwordHammer files. Or, perhaps, you may just not know who this author is (in spite of the rest of the BeForgiven.INFO site) and are not sure you trust the SwordHammer files.

If either of these possibilities concern you, you can test the signatures of any files you download before you use them. This will also help guard against corruption during downloading, which occasionally happens. Here is what to do:

1. Download the file you want.
2. Also download the file of the same name that ends in `.sig`. This is the signature file; if this signature is valid, you know the (main) file is good.
3. Download the `SwordHammer_Public_Key.asc` file. You only have to do this once. This is the SwordHammer public key.
4. Using any suitable PGP compatible program, install the SwordHammer public key into your keyring.

5. Then test the downloaded (main) file against its signature. Your PGP compatible program will tell you whether the signature is good and whether the (main) file is good, that is, unchanged from when it was originally signed.

Caution: You may copy signature files as you need. But *never* rename them or change their timestamp. If you do, they can become invalid and falsely reject a legitimate file.

Linux Example

Here is an example using the popular Linux program gpg2. If you do not have it, you can easily obtain it as a package for nearly all distributions. For an example of how to obtain packages, please refer to Figures 3.1 and following, but search for gpg2. Observe that all it takes is to type two commands, or three at most if you want to see your filenames. After the first time, you really only need one command.

Figure 5.1 – Example of Verifying the SwordHammer.pdf File with gpg2 on Linux

```
This is an example of a session at a terminal. Note that elevated privileges are not needed. Things you type are in monospace font and things the computer prints are in kerned font like this. Comments are in italics.

$ ls In Linux, this command lists files. You can see the files we are using below.
SwordHammer.pdf SwordHammer.pdf.sig SWpublickey.asc Our files
$ gpg2 --import SWpublickey.asc Import the SwordHammer public key into our keyring
gpg: key B3609FE90FFFD33A: public key "Tom Sullivan info@BeForgiven.INFO The right key
<info@beforgiven.info>" imported Successful import
gpg: Total number processed: 1
gpg:      imported: 1 Remember that you only need to do this the first time.
$ gpg2 --verify SwordHammer.pdf.sig SwordHammer.pdf Test SwordHammer.pdf
gpg: Signature made Fri 01 Dec 2017 09:44:36 AM EST
gpg:      using RSA key FE15EF188F31CA101D5511E8B3609FE90FFFD33A
gpg: Good signature from "Tom Sullivan info@BeForgiven.INFO <info@beforgiven.info>"
[unknown] The SwordHammer.pdf file has not been changed or corrupted since it was signed.
gpg: WARNING: This key is not certified with a trusted signature! These two lines only mean that
gpg:      There is no indication that the signature belongs to the owner. no third party vouched for me.
Primary key fingerprint: FE15 EF18 8F31 CA10 1D55 11E8 B360 9FE9 0FFF D33A

~:/Documents$ ls
SwordHammer.pdf  SwordHammer.pdf.sig  SWpublickey.asc
~:/Documents$ gpg2 --import SWpublickey.asc
gpg: key B3609FE90FFFD33A: public key "Tom Sullivan info@BeForgiven.INFO <info@b
eforgiven.info>" imported
gpg: Total number processed: 1
gpg:      imported: 1
~:/Documents$ gpg2 --verify SwordHammer.pdf.sig SwordHammer.pdf
gpg: Signature made Fri 01 Dec 2017 09:44:36 AM EST
gpg:      using RSA key FE15EF188F31CA101D5511E8B3609FE90FFFD33A
gpg: Good signature from "Tom Sullivan info@BeForgiven.INFO <info@beforgiven.inf
o>" [unknown]
gpg: WARNING: This key is not certified with a trusted signature!
gpg:      There is no indication that the signature belongs to the owner.
Primary key fingerprint: FE15 EF18 8F31 CA10 1D55 11E8 B360 9FE9 0FFF D33A
```

Some things to note: The Warning simply means that no third party has vouched for me that the signature actually was created by yours truly. This is one reason that there is a second place to find my public key if you want to double check. That location is <https://github.com/BeForgiven-Info/SwordHammer>. You can either download the key, `SwordHammer_Public_Key.asc` or copy and paste it as text in a text editor and save it on your computer. A copy and paste is the reason that the name of the public key file above is `Swpublickey.asc`, not `SwordHammer_Public_Key.asc`.

Notice that the `--verify` option always takes the signature file first, then the file being tested.

If you are used to using a graphical user interface and are using Linux, consider the `gpa` program. There are screenshots of the use of `gpa` below in the Windows signature verification instructions.

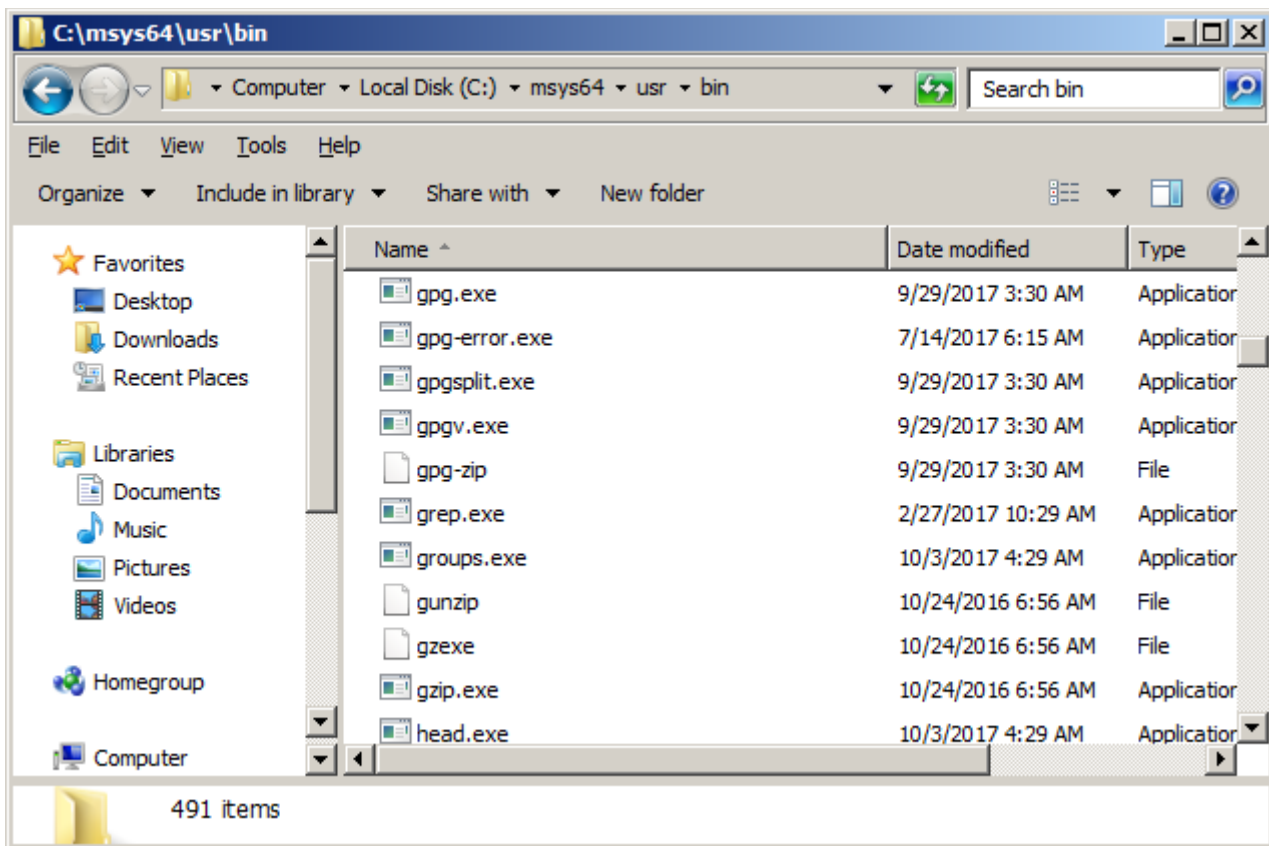
Windows Example

Two examples are shown here. The first does not require you to install new software, but requires a bit more work and typing. The second does require you to install new (and useful) software, but it is easier to use and does not require any typing.

Windows Example – Using Existing Software

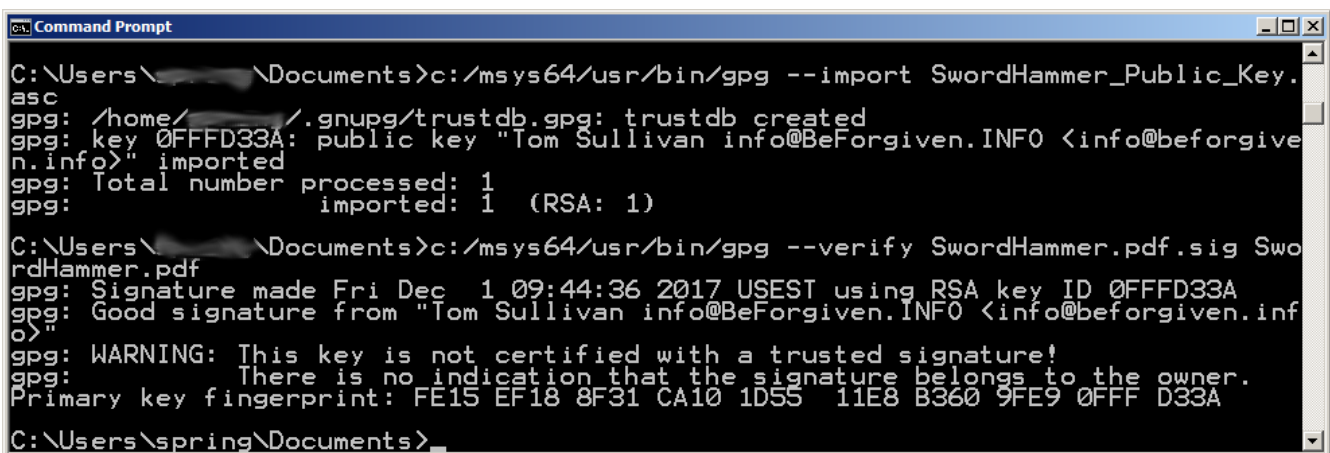
If you refer back to [Figures 4.2 and 4.3](#), you will recall how to find the path to the MSYS2 files. If you made a Desktop shortcut for SwordHammer as instructed, you can also right-click the shortcut, select **Properties**, and look at the first part of the text (scroll left) of the **Target**. Either way, that path will probably start with `C:\`. So now please open a Windows Explorer window, and starting from `C:\`, navigate along the above-mentioned path until you see a directory called `usr` and stop navigating. Double-click on `usr`, then double-click on `bin` and look at the files there. You should see `gpg.exe` in the files at `c:\... \usr\bin`. Figure 5.2 shows an example of a successful search.

Figure 5.2 – Finding gpg.exe



So now open a Command Prompt and type that full path followed by `\gpg --import SwordHammer_Public_Key.asc`. An example is shown in Figure 5.3. If needed, replace `SwordHammer_Public_Key.asc` with whatever name you called it when you copy and pasted it to a local text file if you did it that way. You only have to install the public key once; after the first time you need only do the `--verify` step.

Figure 5.3 – Example of a SwordHammer File Signature Verification in Windows Using MSYS2



Then do the same thing, but with the `--verify` option, followed by the signature file, then the file being tested. All of the italicized remarks inside Figure 5.1 (above) apply here.

Windows Example – Using New Software

1. Download gpg4win at <https://www.gpg4win.org/>. Note that you can click \$0 if you do not wish to donate.
2. Install gpg4win as an Administrator.
 - a. If you do not have the right-click **Install as Administrator** option available on your system, you will have log in as an Administrator to install gpg4win.
 - b. Be sure to check the GPA option in the list presented. See Figure 5.4.
 - c. At the end, uncheck the option to run Kleopatra. If you forget, just close it.
3. Using Start / All Programs /GPA, launch GPA – it is easier to use than Kleopatra and the other programs that come with gpg4win.
4. For now, select **Do It Later** on the small dialog box that (might) pop up regarding key generation.
5. You should see a window called **GNU Privacy Assistant – Key Manager**. If you get another windows, use the main menu option **Windows** to open the Key Manager.
6. Load the SwordHammer public key. You only have to do this once.
 - a. At the top of the Key Manager, click the **Import** button and navigate to the SwordHammer public key, called **SwordHammer_Public_Key.asc** on the SwordHammer web site, and select it. It will then appear in the Key Manager list.
 - b. You should see something like Figure 5.5. Right click on the SwordHammer Public Key and select **Set Owner Trust ...** and choose **Ultimate**. Of course, only our eternal and holy Triune God is ultimately trustworthy, but this setting prevents confusing messages.
7. Test the SwordHammer file you wish to check.
 - a. Use the main menu option **Windows** to open the File Manager.
 - b. Click the **Open** button on the left of the toolbar at the top.
 - c. Navigate to, and select the file you wish to test. You should see something like Figure 5.6.
 - d. Make sure the signature file for the file you wish to test is in the same directory (folder) as the file you are testing.
 - e. Click the **Verify** button on the toolbar at the top.
 - f. You will get a dialog box with a message starting with, **GPA found a file ...** and then your signature file for the file being tested should appear at the bottom of the dialog box. Answer **Yes**.
 - g. If the file being tested is good, you should see a message similar to that of Figure 5.7.

Figure 5.4 – Selecting GPA

Gpg4win Setup

Choose Components
Choose which features of Gpg4win you want to install.

Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.

Select components to install:

- GnuPG
- Kleopatra
- GPA
- GpgOL
- GpgEX

Space required: 94.8MB

Description
Position your mouse over a component to see its description.

Gpg4win-3.0.1

< Back Next > Cancel

Figure 5.5 – Loading the SwordHammer Public Key Result

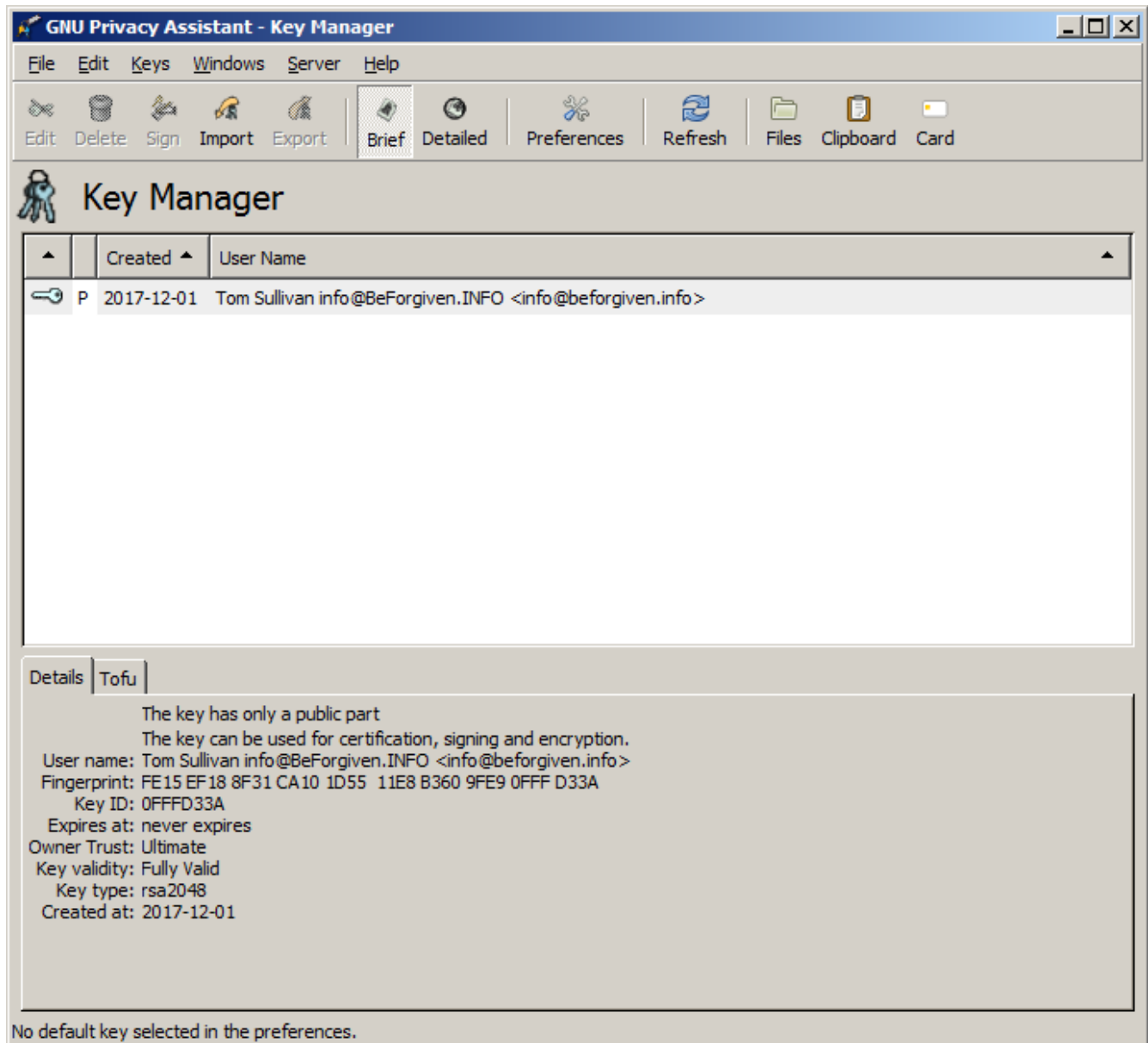


Figure 5.6 – Testing a SwordHammer File

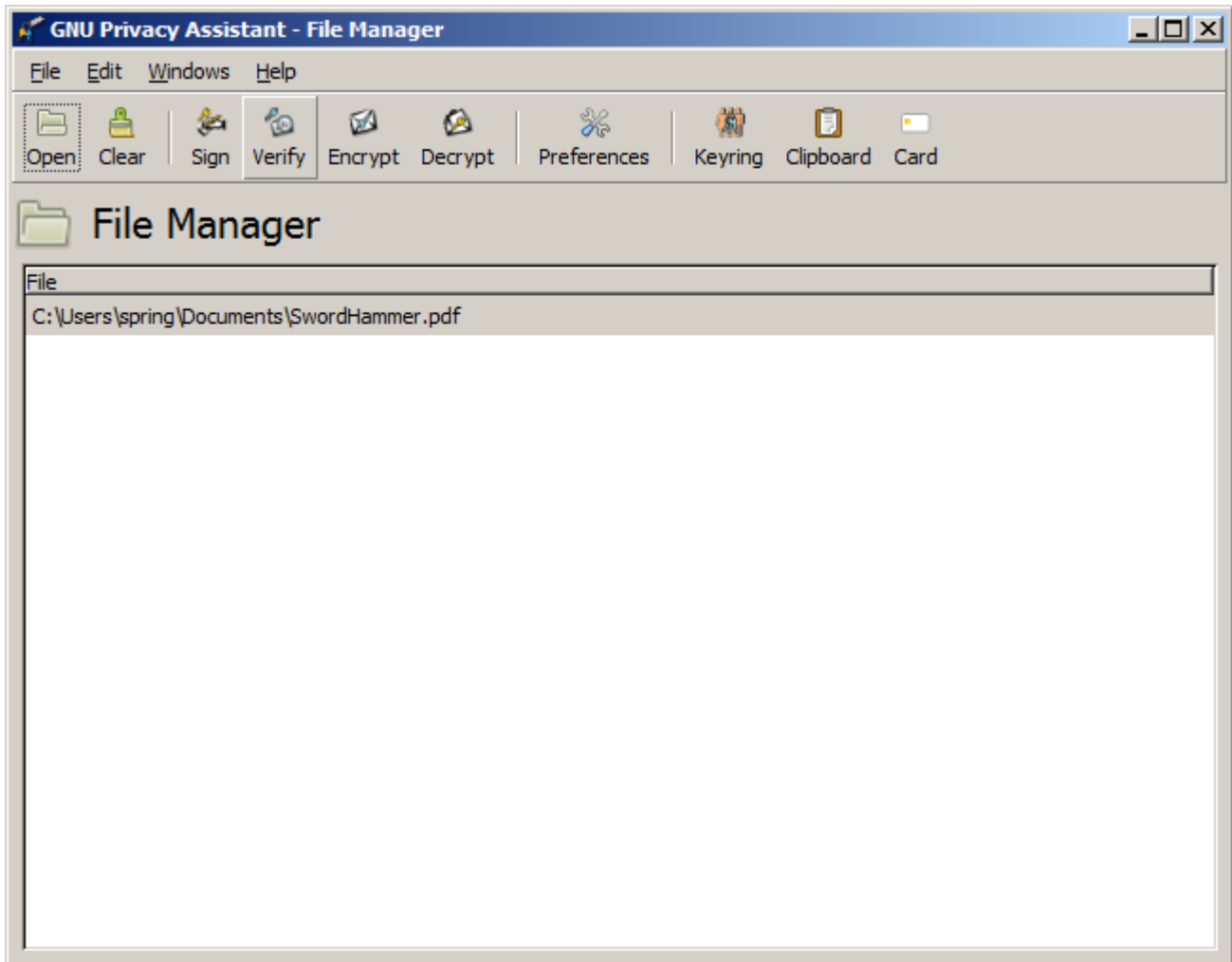
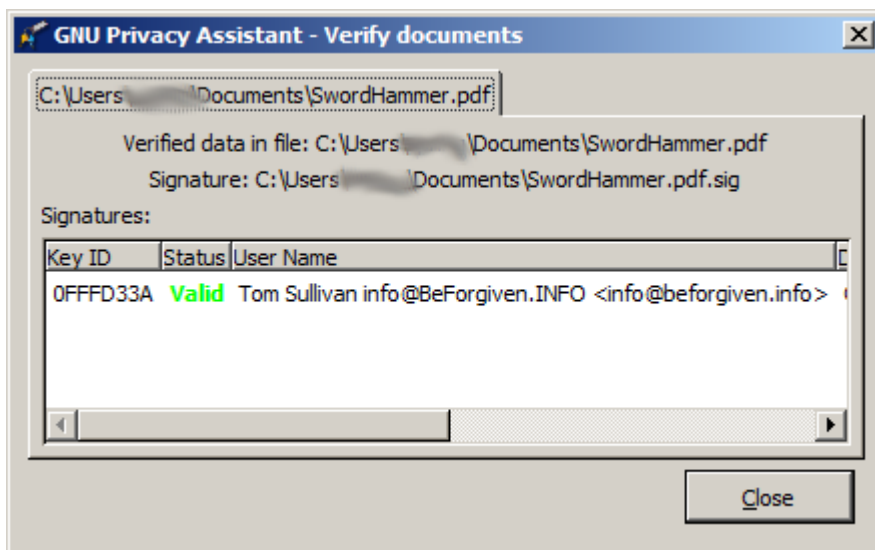


Figure 5.7 – Result of a Good SwordHammer File with a Good SwordHammer Signature



Updating SwordHammer

SwordHammer is able to update itself securely since it stores the SwordHammer Public Key internally. The security process also protects against download corruption. You may manually request an update check, and you can have SwordHammer check for updates every so many days. If SwordHammer finds that an update is available, it will always ask you if you wish to update. These options are available under the **File** menu.

Caution: SwordHammer should not be updated over the Internet if you live in a persecuted country unless you have a secure VPN.

When SwordHammer updates itself, it first downloads an update zip file into the **Updates** directory, then checks it for corruption or tampering. Next, SwordHammer copies itself to **Updates/Backup**, after which the new files are loaded into the main SwordHammer Program Directory. During this process, SwordHammer inspects the installation directory for your particular operating system. If this has changed, you are notified to either run the installation or, if you need to install manually, to check this document for changes to the manual installation procedure and implement such changes. Typically, such changes will include a new or updated dependency which you need to install.

Finally, SwordHammer informs you of the results of the update, and if install files have not changed, restarts itself.

Due to this backup procedure, if an update ever breaks SwordHammer, you can copy the backup files into your main SwordHammer Program Directory and restart SwordHammer.

Especially for the Linux version of the program, much of total file size is due to this very document that you are reading. For this reason, to aid those with limited bandwidth or who have expensive metered Internet connections, there are four methods available to reduce the size of the downloads during an automatic update:

- The need for program updates and documentation updates are separately determined, and neither are downloaded merely because the other is downloaded.
- If there is a minor SwordHammer program update that does not involve significant changes to the documentation, SwordHammer will ask you if you want to skip the download of the revised documentation.
- Only the .pdf version of this document is normally downloaded. The .odt version and the OSIS.pdf documentation of the OSIS structure are available for manual download from the web site.
- For severely bandwidth limited users, one may use the Menu: **File / Set Doc Download Options**. This displays a dialog box asking, “Do you want to use low-bandwidth option for documentation updates? Answer YES if you have a slow Internet connection. This will take more processing time on your computer. You MUST have LibreOffice installed. Also, the first time you use this you will automatically download the full document. BUT if you have a fast Internet connection, it is best and most reliable to answer NO and download full updates.” From the user’s perspective, this question is self-explanatory, but does not describe what happens in the background: When SwordHammer is uploaded, a special directory is created on the web that has all of the individual small parts of SwordHammer.odt. During a low-bandwidth documentation update, only those parts that are newer are uploaded. The parts are then re-assembled and converted to SwordHammer.pdf. One consequence of this is that the first time

you use this option, you have to download all of the parts. A second consequence is that you will find SwordHammer.odt in your Updates directory.

Manual SwordHammer Updates, Possibly Without Local Internet

To manually update SwordHammer, first download the appropriate compressed file from the SwordHammer web site. `SwordHammer.zip` will work for all systems, `SwordHammer.exe` will work on Windows and `SwordHammer.tar.gz` will work on Linux systems. You may wish to [verify the signature](#) of the downloaded file at this time also.

Caution: Do not do the above step if you live in a persecuted country unless you have a secure VPN.

Obviously, the compressed file may have to be smuggled into your country from outside. That would typically be the only justification for using this manual method unless your SwordHammer files become so corrupt that the automatic update system will not work.

You may wish to first back up your existing SwordHammer files.

The next step is to extract (unzip) the compressed file into the SwordHammer Program Directory. That is all there is to it.

Update Considerations

You probably want to update if:

- You are about to begin a new project and want the latest features.
- You want to take advantage of a bug fix or new feature. You can always see the Revision History on the web site to help you decide.

You may not want to update if:

- SwordHammer is working fine for you and you are in the middle of a project. You may not want to take the chance of breaking something.
- Be aware that on occasion, certain changes to the General Questions system may necessitate wiping all of your General Question answers. (The author will try to avoid this if at all possible.)

SwordHammer Concepts

Go ahead and launch SwordHammer. It will help you to look at it while reading this section. You can just click Quit when done. This chapter gives you important background information prior to diving into the step-by-step instructions.

Working Directory

You have already installed SwordHammer into some directory. Recall that a directory is called a *folder* in some systems. We will call this the *Program Directory*. You will rarely need to interact with the program directory. Rather, you will interact with one or more *Working Directories* of your choice. When you create a new working directory, SwordHammer may copy some files from the Program Directory into your Working Directory, and you may modify these copies as you (rarely) have need. A Working Directory contains all of the files for a particular document project, from start to finish.

You should have one, and only one, Working Directory per document project, and only one document project in any one Working Directory. SwordHammer will let you switch easily between Working Directories, hence between projects.

After you create a new Working Directory, you should copy your manuscript (or other input) files into it. After that, you can begin work.

File Management

The author recognizes that as a project progresses, manuscripts and question answers may change over time. For this reason, instead of the practice of many programs which ask you for file names at each step, SwordHammer has separate buttons with which to set file names, and separate buttons with which to initiate operations on those files. By this means, one may change a file, then just click a button. This method is also helpful because some files are used by multiple steps. If you do not want to remember file names when you edit documents, the most recently used feature in Writer or a file manager such as Thunar or Windows Explorer can help you there.

Language and Other Settings

SwordHammer was written in American English. If any kind souls have provided translation files (see Appendix E), the working language may be set using the language drop-down selector and the **Set Language** button. Language files are copied to each Working Directory used. Note that language settings *only* affect text and messages for SwordHammer itself; SwordHammer's document processing is designed to be language-agnostic.

The **Create Language File** button is sometimes useful to update language files when installing a new version of SwordHammer. Unless the language files are supplied by SwordHammer, note that using this button will destroy existing language files in the Working Directory without replacing them. This is because changes to SwordHammer typically introduce new text and messages. Thus, if you have any language files that you have privately created, you should back them up, then when updating SwordHammer, edit your language to match the supplied en-us language file.

Note: If you see MESSAGE ERROR where you would expect meaningful text, the **Create Language File** may fix that.

At the lower right, one may find two buttons and a display with which you may choose colors. The **Quest. Background Color** button sets the background of SwordHammer Questions embedded in question documents. The **Highlight Color** button sets the color used to display important text and warnings in SwordHammer.

We have, obviously, not yet covered any buttons that do work. That will follow soon.

Work Flow

This is an overview. A step-by-step guide will follow. You may wish to glance at Figure 6.1; it is not as intimidating as it may first appear.

Important: The first step in any project is to set its Working Directory. Especially if you work with more than one project at a time, be sure you are in the proper Working Directory or you may make changes to the wrong files. That is why the full path of the Working Directory is prominently displayed.

Figure 35 shows the process of creating a Sword Module from your *input files*. Input files include manuscripts or files derived from existing sources.

Again, the very first step is to make sure you are in the correct Working Directory.

Next, there are a number of what are termed *General Questions*. These questions are asked and answered within a SwordHammer dialog box. The answers given affect different options and methods of processing throughout the entire process of converting input documents into a Sword Module. Hence, these questions need to be answered prior to other SwordHammer operations. To answer or edit the answers, one clicks on the **Answer General Questions** button. The answers given apply only to one project, and are thus stored in a particular Working Directory.

The next step is to load one's input documents into the Working Directory. Then, the first input file is selected with the **Select Input File** button. You will be given an option to also automatically set the Question Document name at this time. You may also set the Question Document name with the **Set Question Doc. Name** button. If this is the first input document, you may also let SwordHammer set the database and OSIS document names as well.

SwordHammer never modifies your input documents.

Figure 6.1 – SwordHammer Work Flow

Then you hit the **Generate Question Doc.** button and let SwordHammer grind for awhile. This process produces two files: the file named via either the **Set Question Doc. Name** button or automatically when setting the input document name, and a backup file in case you accidentally trash or damage the main Question Document file. SwordHammer puts a large amount of information in the database at this time.

The next step is to use LibreOffice to open the Question Document, answer the questions, then save the Question Document.

Finally, you hit the **Process Question Doc.** button to allow SwordHammer to retrieve your answers and check them for obvious errors. This is usually a fast process.

Summary: In terms of work flow, you then repeat the above process for each input document:

1. Set the input document name with the **Select Input File** button.
2. Set the Question Document name either automatically or with the **Set Question Doc. Name** button.
3. Hit the **Generate Question Doc.** button and wait for SwordHammer to finish.
4. Answer the questions.
5. Hit the **Process Question Doc.** button.

However, there are some modifications to this that are useful for testing your input documents that will be described below.

To do the second stage of processing, you use the **Set OSIS File** button to select an OSIS file name if that has not already been done. It should have the extension .xml, for example: `BibleVersion1.xml`.

XML, to speak simply, is a standard language used by computers (and some unfortunate humans) to transfer information from one program to another. OSIS is a standardized form of XML used to generate Sword Modules. It was originally designed to be typed up by humans following a complex set of rules. (See the [mess](#) of text above in the first introductory example using Genesis 1:1-3.) SwordHammer takes care of the complexity and all you need to know is that OSIS files exist and are needed.

The next step is to use the **Set Input Doc. List** button to give SwordHammer a list of your input documents. While in the previous steps, your input documents could be processed in any order, here they must be in the exact order as you wish them to be appended to one another to create the final single OSIS document and Sword Module. Finally, hit the **Generate OSIS File** button. If you have more than one input document, this is the most time-consuming step, taking roughly as much as the total time needed to generate your Question Documents.

The third stage of processing goes very much more quickly with only a few minutes of wait time. If it is not set already, use the **Sword Module Directory** button to set, and if need be, create, a directory to receive the finished Sword Module. Then hit the **Generate Sword Module** button. If you have—you should have—one or more Sword based Bible programs installed on your computer, use the **Set Local Sword Directory** button to tell SwordHammer where the Sword repository is on your computer. Then hit the **Copy Module To Local** button.

Important details about setting your local Sword directory will be found below in the Step-By-Step.

Work Preservation

Backup your work regularly. If you fail to use good backup practices, this author will have no pity for you. *“Go to the ant ...”* Along these lines however, the author recommends the use of a UPS (Uninterruptible Power Supply) on your computer. They are not particularly costly anymore and the long processing times required by SwordHammer for large (whole Bible sized) documents makes the use of a UPS a reasonable investment. At the same time however, SwordHammer is normally able to cleanly recover from crashes and power failures.

Work Flow for Debugging

In certain cases, SwordHammer may have bugs (and this author will help if able), but SwordHammer is not the only source of potential trouble. Input documents, answers to General Questions, answers to Question Documents, quirks in the OSIS specification, and quirks and bugs in Bible programs all may contribute to incorrect output at the Bible program display to the user. Thus this section gives some hints on modifying the formal work flow described above to make your job less frustrating.

First, copy and paste only a representative portion of the first part of your first input document into a temporary document and save it in your Working Directory. Such a portion might be a few Bible chapters from a couple of Bible books, for example. Then run through the entire work flow with just that portion. (Note: In certain cases, the Questions may be different for the portion than for the whole document. This is due to the sensitivity of the SwordHammer analysis, but it does no harm; unused questions are simply ignored.) Make any changes needed to your test input document, and repeat. You may also need to change answers to either General Questions or answers to Question Documents. In

other cases, you may need to work around quirks or bugs in Bible programs. When your test portion produces good results, then do the work flow on just your first input document. When that is good, then do the entire project. You may also wish, if the input documents are widely different from one another, to run the entire work flow for each input document prior to using `Generate OSIS File` and the following steps on the whole set of input documents.

In any case, make sure you generate a Question Document for each input file in the Input Document List and then answer and submit it before attempting to use the `Generate OSIS File` button.

Main Window Overview

Figure 7.1 shows the main SwordHammer window. Specific instructions for some of the buttons and features will follow in the step-by-step or elsewhere. In other cases, full details are given here. We will take each column from left to right, and within each column, from top to bottom.

Commonly Used Buttons and Features

Under some of the buttons will be boxes that may contain status information about the process that the button controls.

At the very top is an admonition to read this document. Please keep going to the end of it; your life will be much easier in the end. Under that, in the Highlight Color (red by default), your current Working Directory is displayed.

In the first column, `General Options`, `Startup`, the first button, `Set Working Directory`, sets your Working Directory as mentioned above. Next are the `Select Input File` and `Set Question Doc. Name` buttons, also mentioned above.

The `Set Database File` button sets your database root file name. It should preferably end in `.shd`, but SwordHammer does not really care what the name is. When entering your input document name for the first time in a particular Work Directory, SwordHammer will ask you if it should set some names automatically, and this is one of them. Once a project is started, unless directed by tech support, never change it. If you change it in the middle of a project, work done by `Generate Question Doc.` and `Process Answer Doc.` will be lost unless you change it back before proceeding. In sum, unless you have good reason to do so, once you have set the database name for a project, **leave it alone**.

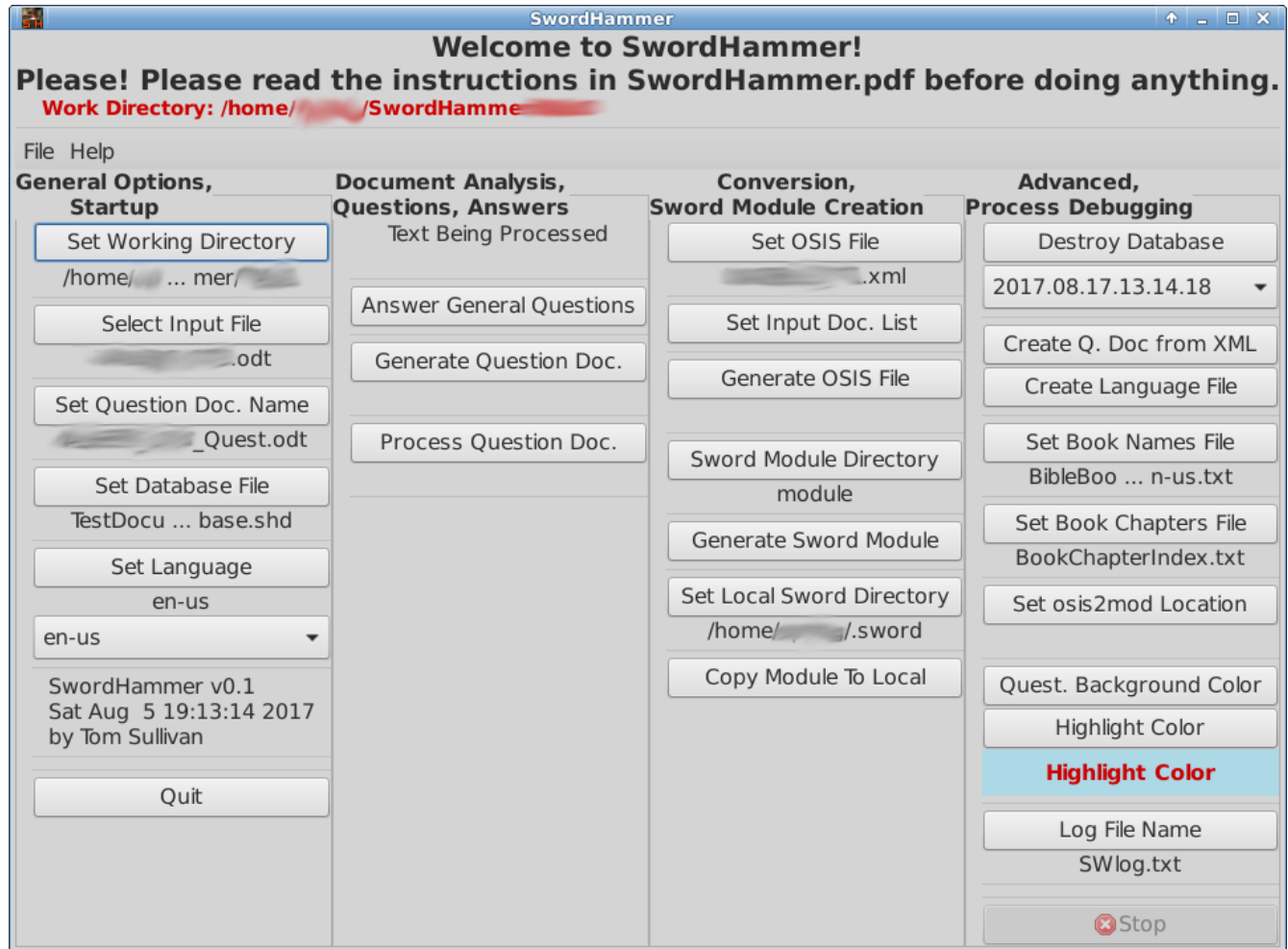
As mentioned above, you *may* be able to set the SwordHammer language to something other than American English if one or more translated language files are available. Use the drop-down selector to select the language, then set it with the `Set Language` button. Recall also, that SwordHammer is designed to process input documents in any language supported by LibreOffice; these settings only apply to the text used within SwordHammer itself.

Next, you will see the present version of SwordHammer, then the `Quit` button. During long operations, the `Quit` button will be grayed out; in such cases, use the `Stop` button to cleanly stop the operation before quitting. (If SwordHammer gets hung up and is totally unresponsive for a period of time, you can use the X at the upper right-hand corner to kill SwordHammer. In that case, there may be a delay before a message appears asking if you really want to quit SwordHammer.

In the next column, `Document Analysis`, `Questions`, `Answers`, all three buttons have been mentioned above. Notice the `Text Being Processed` status box. This box is filled with snippets

from the input document as the text is being processed. To save CPU time, only occasional snippets are shown, and typically, in a document with a lot of notes, the text will appear quite disjointed as note text is processed in-line with main text. A loose percentage is also provided here of how much of the current input document has been done.

Figure 7.1 – Main SwordHammer Window



In the next column, Conversion, Sword Module Creation, the buttons, have all been mentioned above.

The last column, Advanced, Process Debugging has a number of potentially dangerous buttons, but which may be useful from time to time. We will discuss the first one in some detail both due to its danger and potential usefulness in certain sticky situations.

Database Destroy and Its Uses – Handling Database Corruption Problems

The first button and selector are used to destroy database files. Each time a Question Document (using the Generate Question Doc. button) is generated and each time an answered Question Document is processed for answers (using the Process Question Doc. button), a new version of the database is generated and stored. The display under the Destroy Database button gives, from left to right, year, month, day, hour in 24 hour time, minute, and second. This enables the possibility of deleting corrupt database versions in response to certain conditions. Such conditions could include

database corruption due to a bug in SwordHammer. It is also just possible that if the power or the computer fails at exactly the same time as the new database is being written (or shortly thereafter) that the database file could be corrupted. Corruption will *not* occur if the Stop button is used because the database is only written when all other operations are complete. It is also *not necessary* to destroy a database if resubmitting an answered Question Document because only the latest answers are used; old, answers are ignored.

Thus, the Destroy Database button should never be used unless:

- You want to start a project all over again from scratch. In this case delete all of the database versions, then start over.
- You receive specific instructions to do so by tech support.
- You generate a Question Document for an input document foreign to your project by mistake.
 - If you catch the mistake right away when you start to answer the Question Document, you can simply destroy the most recent database version.
 - If you realize your mistake later after you have answered a foreign Question Document answered it, then submitted it, but before doing another input document:
 - Delete database files down to the time of the mistaken input document. and restart work from that time. That is, for each foreign input document, delete a database file for each answered Question document submission, and once for each generated foreign Question Document.
 - If the above step fails, you should first try to simply resubmit all of the correct Question Documents. For each good input document you will first have to set the file name with the `Set Question Doc. Name` button. Then use the `Process Question Doc.` button. This should resolve any problems as new answers override old answers and unused questions are ignored.
 - If the above steps fail, you will either have to restore your Working Directory from backup, or delete all of the database files and restart your project from scratch.
- There are times when after a lot of experimenting, something will go awry with the database. Also, a SwordHammer bug could also mess things up past repair, making the database unusable. The indication that database corruption may have happened is if you generate an OSIS file with the `Generate OSIS File` button, and you get an error message suggesting that you have not answered all questions. Here is what to do:
 - First, note the following. Each time you answer a Question Document, a text file is created with the same name with `.GOOD.txt` appended to it if the no errors were found when analyzing your answers. If errors were found when analyzing your answers, `.ERROR.txt` is appended to the Question Document name.
 - Second, double check that the offending input document has both an associated Question Document, and an associated `.GOOD.txt` file associated with it. Be sure to check that the time-stamp of the `.txt` file is later than that of the Question Document before declaring a mismatch. To do this, open your Work Directory in a file manager such as Windows Explorer, Thunar or PCManFM. If you find a problem, simply fix it and try generating your OSIS file again.

- Third, you may have made changes to your input document about which you forgot, and did not run `Generate Question Doc.` afterwards, along with answering the resultant Question Document and submitting it. Even if you are certain, this step may fix the problem. If, when you open the Question Document, you find just one Question, the one that always appears, [SwordHammer Question \(1\)](#), then you have not corrected the problem, and must continue below.
- Fourth, double check that all Question Documents have been answered and that their answers have been submitted with the `Process Question Doc.` button and that no errors have been returned. So carefully look down the list of files and make sure that each generated Question Document is matched up with a `.txt` file whose name starts with the Question Document name. If you see a mismatch, submit the correctly answered Question Document. If an `.ERROR.txt` is found, resubmit the answered Question Document, read the error message and correct the problems. Then retry `Generate OSIS File`.
- If the above process fails, you will have to either restore your Working Directory from a backup or else start your project from scratch by deleting all database versions and running `Generate Question Doc.` on your input documents all over again, of course submitting the answered Question Documents after each Question Document generation. This can be discouraging, but at least by now you probably have made needed changes to your input documents, so much of your work will be done with just one Question Document per input document.

Some More Infrequently Used Buttons and Features

The `Create Q. Doc from XML` is a *very* advanced feature that will create a new Question Document after changes have been manually made to the internal structure of the Question Document component files. In very rare cases, tech support may suggest or supply such edits for debugging or problem fixes. Absent such good counsel, the button *should* do no harm.

The `Create Language File` button has been mentioned above.

The `Set Book Names File` and `Set Book Chapters File` are to allow users to utilize non-standard Bible versification systems or names of Bible books in languages other than English. Details are given in a chapter below.

The `Set osis2mod Location` allows you to tell SwordHammer where to find the Sword Utilities on your computer. This should be rarely needed, if ever for Linux users (who should find their utilities in `/usr/bin`). More details on this button will be given below in Step By Step.

The color buttons have already been mentioned.

Finally, the user may set the name of the log file with the `Log File Name` button. This might be useful to save various versions of the log for debugging, but is expected to be rarely used. The log file is not intended to be user-readable, but tech support may request that the log file be sent for evaluation.

Step By Step

The information in this section is both for future reference and your present learning. The author strongly encourages you, even if you have already read through this manual, to actually do the exercises below. Doing so will help you learn and give you confidence.

The Input File

In this example, we are going to create a fake Bible using just two Psalms from the NKJV:

Psalm 1

Book One: Psalms 1–41

PSALM 1

The Way of the Righteous and the End of the Ungodly

- ¹ Blessed ^ais the man
Who walks not in the counsel of the ¹ungodly,
Nor stands in the path of sinners,
^bNor sits in the seat of the scornful;
² But ^chis delight *is* in the law of the LORD,
^dAnd in His law he ²meditates day and night.
³ He shall be like a tree
^ePlanted by the ³rivers of water,
That brings forth its fruit in its season,
Whose leaf also shall not wither;
And whatever he does shall ^fprosper.

a cross reference – notes are deleted to comply with copyrights.

1 translator's note

b cross reference

c cross reference

d cross reference

2 translator's note

e cross reference

3 translator's note

f cross reference

- ⁴ The ungodly *are* not so,
But *are* ^glike the chaff which the wind drives away.
- ⁵ Therefore the ungodly shall not stand in the judgment,
Nor sinners in the congregation of the righteous.
- ⁶ For ^hthe LORD knows the way of the righteous,
But the way of the ungodly shall perish.

Psalm 3

PSALM 3

The LORD Helps His Troubled People

A Psalm of David ^aWhen He Fled from Absalom His Son.

- ¹ LORD, how they have increased who trouble me!
Many *are* they who rise up against me.
- ² Many *are* they who say of me,
“*There is no help for him in God.*” Selah
- ³ But You, O LORD, *are* ^ba shield ¹for me,
My glory and ^cthe One who lifts up my head.
- ⁴ I cried to the LORD with my voice,
And ^dHe heard me from His ^eholy hill. Selah
- ⁵ ^fI lay down and slept;
I awoke, for the LORD sustained me.
- ⁶ ^gI will not be afraid of ten thousands of people
Who have set *themselves* against me all around.

g cross reference

h cross reference

a cross reference

b cross reference

1 translator’s note

c cross reference

d cross reference

e cross reference

f cross reference

g cross reference

- 7 Arise, O LORD;
Save me, O my God!
^hFor You have struck all my enemies on the cheekbone;
You have broken the teeth of the ungodly.
- 8 ⁱSalvation *belongs* to the LORD.
Your blessing *is* upon Your people. Selah

Note: The poetry is also enclosed in sections, but these are not visible above.

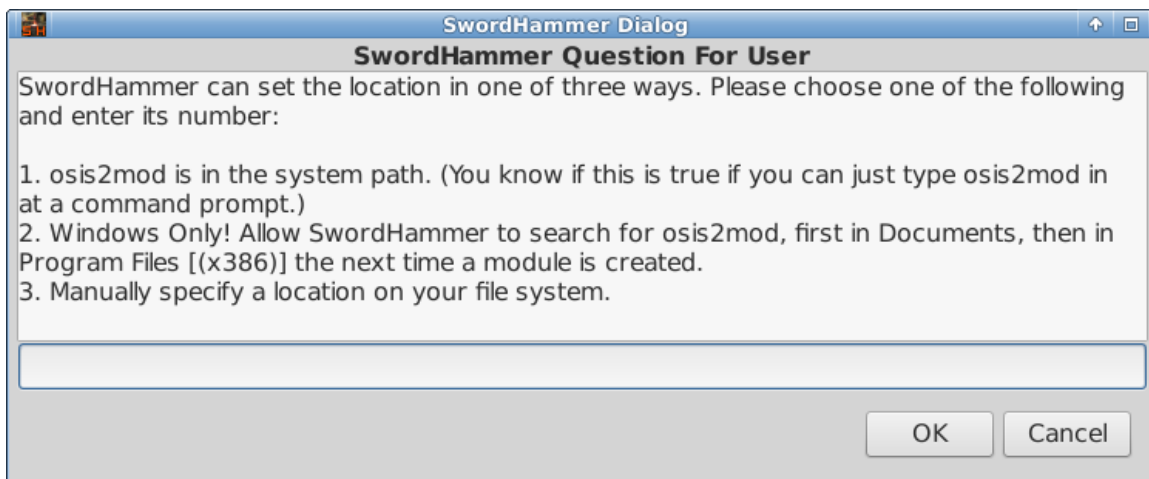
For your practice enjoyment, *TwoPsalms.odt* is in your Program Directory under the TutorialFiles directory.

Setting the osis2mod Directory IF Needed

OK, let us get started. Launch SwordHammer. This section is the heart of the user manual and the author's intent, having given you the background and basic ideas of SwordHammer, is to take you step by step through SwordHammer and do three projects from start to finish. Please do the steps given yourself for practice as it will help you learn and gain confidence with SwordHammer. The projects are short and simple and will not take a lot of your time.

Note: The screenshots are from Debian Linux using XFCE which allows a great deal of customization of the appearance of windows; yours may look different, but should function similarly.

Figure 8.1 – Setting the osis2mod Directory, Part 1



To begin with, click the `Set osis2mod Location` button; the dialog of Figure 8.1 appears. Here are the options:

1. Most Linux users, and perhaps a few Windows users, will find that they can just type `osis2mod` at a command prompt and see a help screen, and that this is true in a directory other

^h cross reference

ⁱ cross reference

than the one in which `osis2mod` resides. For those users, 1 is the best choice unless a need is found to use a custom-installed version of the utilities set.

2. Windows users can have a hard time finding `osis2mod`. Users who do not need to use a custom-installed version of the utilities set can simply let SwordHammer find `osis2mod`. This search is only done once until this option is chosen again. The search is not done at this time, but the first time you create a Sword Module. The search space is limited to the following directories and they are searched in the order below:
 - i. Documents – This is usually displayed prominently, and may be actually located anywhere. Thus SwordHammer queries Windows to get this actual location.
 - ii. Program Files – This is also sometimes moved, and SwordHammer will find it.
 - iii. Program Files (x86) – This is also sometimes moved, and SwordHammer will find it.
3. You can set a custom directory. A dialog similar to Figure 8.2 will appear to allow you to select the directory containing `osis2mod`.

Note that the `osis2mod` location is stored in the Working Directory, so you are thus able to make different choices for different input documents if needed. Whatever you set most recently becomes the default for new Working Directories

Figure 8.2 – Setting the `osis2mod` Directory, Part 2

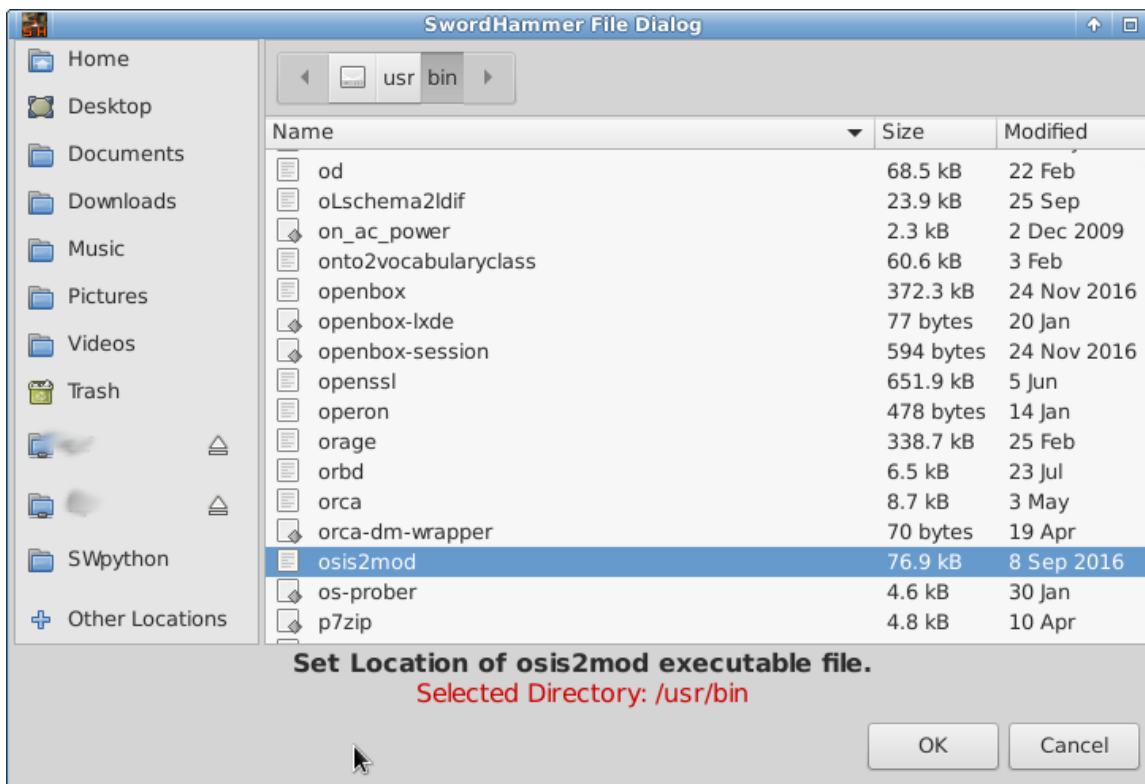
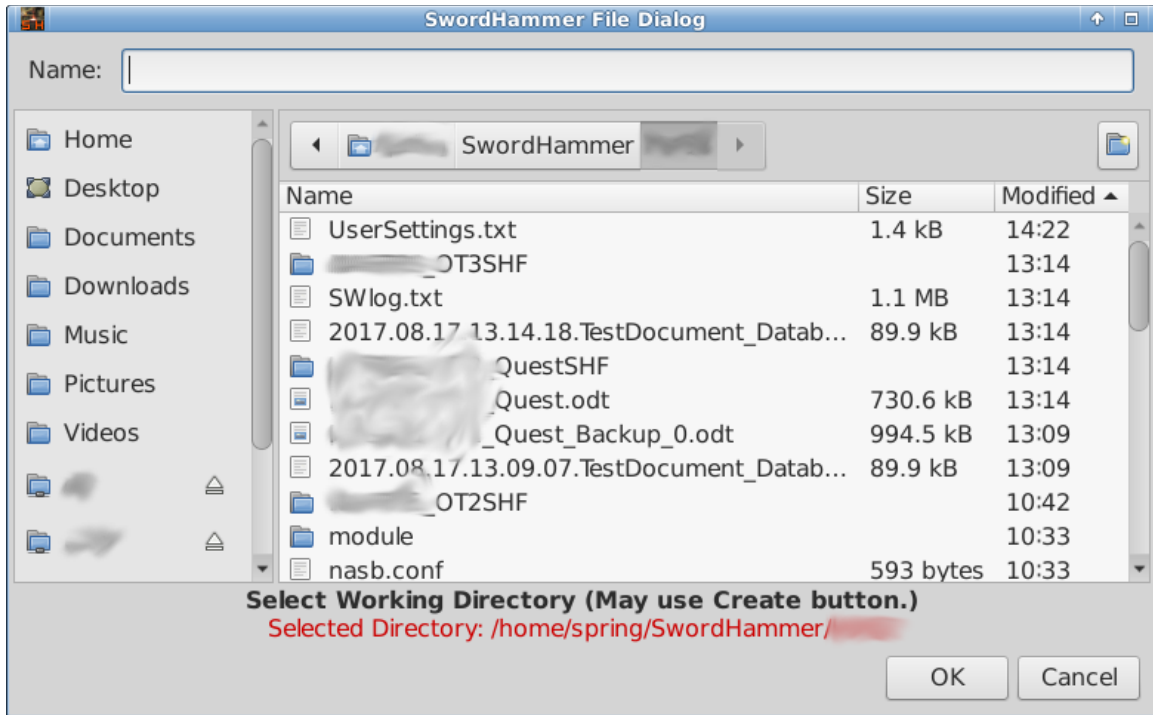


Figure 8.2 shows the results of a successful use of option 3. Note that the `osis2mod` file is visible, and importantly, the red text shows the selected directory. This red text is important to avoid errors when selecting directories. Depending on your operating system, you may actually have to enter the chosen directory to select it.

Setting the Working Directory

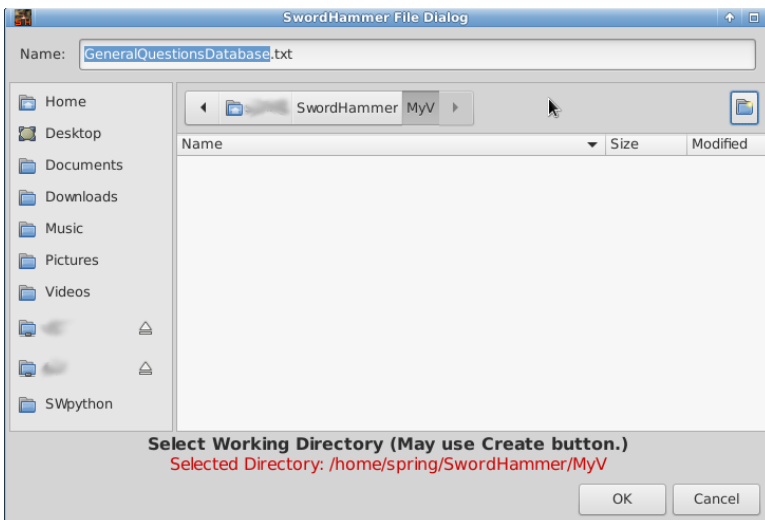
Figure 8.3 – Set Working Directory Window



First, set the Working Directory by clicking the Set Working Directory button. Figure 8.3 shows an example of the resulting dialog.

Note the red text at the bottom. This indicates the results of your selection. To select an existing directory, double click on the directory. (Different operating systems may work somewhat differently to select a directory.) You can also specify a new directory, and that is what we want to do now. Let us do that by using the Create New Directory button in the upper right hand corner. Figure 8.4 shows the result. You can simply ignore any file name shown. What matters is what is in Red. Our new directory is MyV.

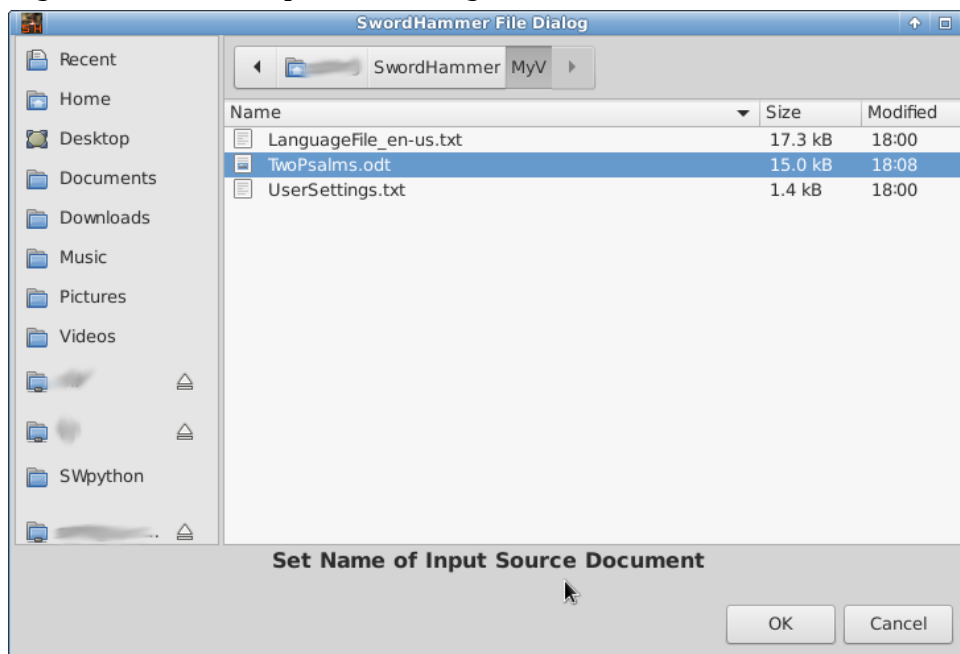
Figure 8.4 – Create New Directory Result



Selecting the Input File

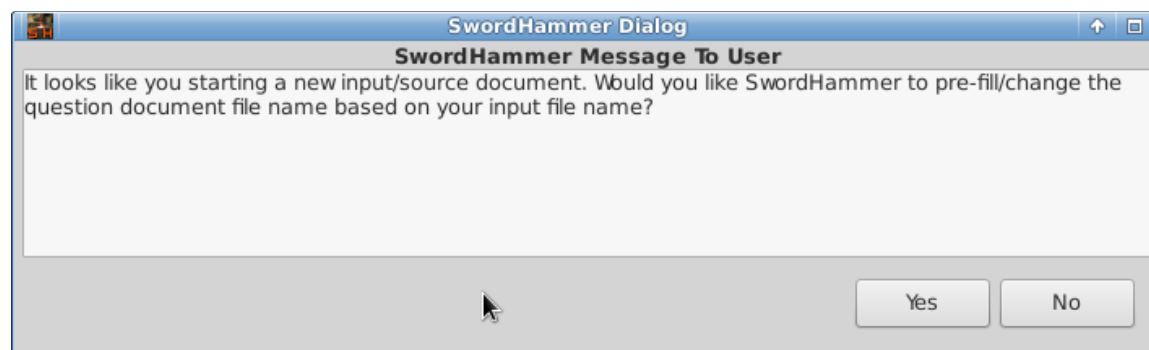
Next, we will work with two Psalms from the NKJV, Ps 1 and 3, as our example. After clicking on the Select Input File Button, the dialog of Figure 8.5 pops up. Notice that, a language file and settings file have already been created. (If you do not see `TwoPsalms.odt`, please copy them out of `TutorialFiles`, which is located in your Program Directory, into your Working Directory.)

Figure 8.5 – Select Input File Dialog Box



After clicking OK, the dialog of Figure 8.6 pops up.

Figure 8.6 – A Question From SwordHammer



Normally, to make things easier, you should click Yes, but this is not mandatory as you may use the Set Question Doc. Name and Set OSIS File buttons to enter your own names. By convention, the Question Document is now set to `TwoPsalms_Quest.odt` and the OSIS file is set to `TwoPsalms.xml`.

General Questions

You must answer the General Questions before doing anything else with your input document(s), other than telling SwordHammer where they are (Select Input File button).

We now come to one of the more tedious and a bit difficult parts of using SwordHammer. This difficulty is largely a direct result of the OSIS specification and the specifications for making Sword Modules. It is also a result of quirks and limitations in many Bible programs. Of course, it also sets many SwordHammer options to give you greater flexibility. So we will take it step-by-step with explanations. Figure 9.1 shows the result of clicking on the Answer General Questions button. You will see five columns. They are:

1. **Index** is used to refer to other questions in the question text. These are also used in this manual.
2. **Multiple Entries Allowed** is either Yes or No. If a Yes is present, then each time you enter an answer, another answer box pops up below for another answer. To remove an answer, simply delete all of the text. In a few cases of multiple answer questions, it is necessary to enter a hyphen (-) by itself to indicate that no entry is given. Such cases are indicated in the question text.
3. **Required** is also either Yes or No. Unanswered required questions display the Yes in red.
4. **Question** is a bit of a misnomer as there are not only questions, but explanations. Some explanations do not require a user response.
5. **Answer** is where you put your answer. The boxes may be too short for some answers, but text can be bigger than the box. Use the arrow keys to move within the box. There are also a few multi-line boxes; in these, hitting the <enter> key starts a new line. Such boxes are larger than the normal answer box and are marked in the question with MULTILINE : .

CAUTION: All characters entered in these answers must be printing characters.

When you are done, you can either use **Cancel** to exit the General Questions without making any changes to your previous answers (if any), or you can use **OK** to have SwordHammer accept your answers.

Now we take them one at a time. Reminder: Do these as you read this document and be sure to read the text of each question. The suggested answers are shown in the Figures.

Question 1: Answer **n** since interlinear Bibles are not yet supported. All tables (see below) found will be converted to tables in your output document.

Question 2: If your document is a Bible, a dense commentary, or something organized verse-by-verse, answer **y**, otherwise answer **n**. The key here is that you answer **y** if, like a Bible, your document is indexed and organized by book, chapter, and verse. Note that missing verses are not a problem for any document, although it is possible to see warnings, and if desired, get a list of missing verses. You could write, for example a more or less verse-by-verse commentary on Ephesians. In this case, you would answer **y**. But if you write, for example, an essay on Ephesians and refer more occasionally to the text or to passages that are not in the same order as the passages in Ephesians, then you would answer **n**. In the latter case, your document would be organized by headings, sub-headings, and so on.

Question 3: A *note marker*¹ is a numeric, alphabetic, special character (such as §), or Roman numeral used to indicate the presence of a note in the text, such as the superscripted **1** above. Notes are usually superscripted. It is possible to let SwordHammer distinguish between alphabetic note markers and Roman numerals. In order to do this, the letters **i**, **v**, **x**, and **l** must be reserved for Roman numerals. This allows Roman numerals from 1 to 89. Obviously, alphabetic markers can go contiguously from **a** to **h**, but must skip the four reserved Roman numeral markers. If you answer **y** to this question,

¹ That superscript 1 is called the *note marker*. The 1 to the left down here is not a note marker.

SwordHammer can distinguish between yet one more class of notes besides those using letters, numerals, and special characters.

Figure 9.1 – General Questions, Part 1

Index	Multiple Entries Allowed	Required	Question	Answer
These next questions pertain to your source documents.				
1	No	Yes	Is this an interlinear Bible? (y/n = yes/no) An interlinear Bible will have, at a minimum, the original language text on one line, followed by the modern language (e.g., English) on the next line. There may also be morphology on the next line, the lemma or stem on the next, or something similar. The source document will present these as tables to SwordHammer.	n
2	No	Yes	Is this a Bible or something closely organized in the same manner as a Bible, such as a paraphrase or dense commentary? If either of these is the case, answer y, else answer n. (y = yes, n = no) If you answer y, SwordHammer will look for book/chapter/verse designations as is common in all Bibles.	y
3	No	Yes	In note markers (typically superscripts), do you want to reserve i, v, x, and l as designators that make up Roman numerals? If you do this, you can use Roman numerals from i to lxxxix (1 to 89). But also, alphabetic markers can only go from a to h because the next letter is i, or you can skip i, l, v, and x in your sequence. You may use both upper and lower case Roman numerals. (y/n = yes/no)	n
4	No	Yes	In general, are the notes (footnotes, endnotes, etc.) part of the original text of this document? (y/n = yes/no) For example, notes in a Bible are always never (so answer n) part of the original text. But for a book being published to electronic form, the author's original notes are part of the original text (so answer y). But an editor's notes are not part of the original text, so if most notes are from an editor, answer n.	n
5	No	Yes	A note marker is, for example, the superscript numeral commonly used to mark footnotes and endnotes. It is possible and often good to be able to identify to software exactly what the text is to which the note refers. This may be done at anytime with a particular text format associated with the cw answer. But it is also possible to, in the absence of any explicit designation, automatically choose the single word that appears just prior to the note marker as the text to which the note refers. Do you want to enable this single word option? (y/n = yes/no)	y

Question 4: This question relates to whether most notes are part of the original text of your input document. If you read the question, you should understand the meaning of what is being asked. Here, it should be noted that SwordHammer has, as just indicated above methods of distinguishing different types of notes from one another. Not only may notes be distinguished by kind (alphabetic, numeric, special character, and maybe, Roman numeral), but by the font (size, italic, bold, or not, and so on) of the marker. By this means, it is perfectly possible, with a little ingenuity to mix both canonical and non-canonical notes. This is also a service to the reader of a print document to allow the reader to distinguish, for example, between an author's notes and an editor's or translator's notes.

Question 5: (See Figure 9.1) The original OSIS specification has a concept of *catchwords*. The idea is that the in a note, not only does the marker of a note point internally to the note (for example to make a footnote), but that the note itself contains hidden information to point back to exactly which text the note addresses. This text would typically be the word just before the note marker, but might be more than one word. The problem is that this is not supported by most Bible programs. Still, SwordHammer gives you the ability to include this hidden back trace for just the one word preceding the note marker.

The rationale is that the reader is still pointed to the correct place if anybody does use this feature in the future. By selecting y to this question, you get most of the benefit without having to manually mark all of your notes. However, you can answer n to just forget about or to manually mark all of your notes by giving the Question Document answer CW (96) within the note text itself.

Question 44: We now come to the first example of a question designed to accommodate quirks in Bible programs. When SwordHammer detects a book title, it will put that book name, e.g., Lamentations, into the internal data to tell Bible programs that the current book is Lamentations. This question concerns whether SwordHammer also sends the text of the title, such as, “Lamentations” or “The Gospel According to Matthew” to the Bible program as well. Generally, you should answer y, but you have the choice to omit the book titles by answering n.

Figure 9.2 – General Questions, Part 2

Index	Multiple Entries Allowed	Required	Question	Answer
6	No	Yes	When a title for a new book of the Bible appears, this title text typically contains the name of the book (e.g., John) and possibly other text (e.g., The Gospel According to John). Do you want this title to print in Bible programs? (y/n = yes/no). (y is recommended.)	y
7	No	Yes	Most Bible programs in the Sword system provide their own chapter headings. Thus the chapter headings in the source text which contain the chapter number (e.g., 2 or Chapter 2) are redundant and will usually detract from the display to the user. Do you want to print such chapter information anyway? (y/n = yes/no) (y is recommended.)	y
8	No	Yes	Most Bible programs in the Sword system provide their own verse numbers. Thus the verse numbers which appear in the source text are redundant and will usually detract from the display to the user. Do you want to print these verse numbers anyway? (y/n = yes/no) (n is recommended.)	n
9	No	Yes	SwordHammer can generate an index of Bible passage references. If the user clicks on an entry in the index, the user is taken to the place where that passage reference appears. This index then appears at the end of the OSIS document (unless there is an alphabetical index). A clickable link appears for each place the passage in question appears. This index is generally not appropriate for a Bible and some commentaries. For some commentaries and many general books, a Scripture index can be very helpful. Do you wish to include a Scripture passage index? (y/n = yes/no)	n
10	No	Yes	SwordHammer can generate an alphabetical index. This index is composed of user-chosen words or phrases. If the user clicks on an entry in the index, the user is taken to the place where that word appears. There are two sources of index words, and they may be both used if desired. First, LibreOffice and some other word processing programs have	n

Question 7: This question is very similar to question 6, but it concerns chapter numbers. A y answer is recommended to make all Bible programs display the chapter number at least once.

Question 8: This question is very similar to questions 6 and 7, but it is recommended that you answer n, to allow Bible programs to insert and display their own verse numbers.

Question 9: If you have read much Christian literature, you will have noticed that some books have an index of Scripture references in the back. These are not at all applicable for Bibles or dense commentaries, but can be very useful for Generic Books and some commentaries. Now is a good time to distinguish between the Sword Module classifications of *Bibles*, *Commentaries*, and *Generic Books*. A Bible is a portion of God’s Word, or a translation thereof. A Commentary, for our present purposes, is a document mainly organized by book, chapter, and verse like a Bible. A Generic Book is organized, like most books, by chapters, sub-chapters, and so on. As a side note, only Generic Books that have many Scripture references should be Sword Modules. For example, a chemistry textbook would make a poor Sword Module and would be better off published in some other format than as a Sword Module, such as PDF. A *dense* commentary is one that speaks to each verse or group of verses in the book(s) within its scope. The *Treasury of Scripture Knowledge* or Matthew Henry’s *Complete Commentaries* are examples of dense commentaries. No index is needed for these, because you only need to go to the commentary itself since the Scriptures are addressed in their biblical sequence. On the other hand, if a work is topical, say on the subject of the person and nature of the Lord Jesus Christ, the author will refer to passages all over the Bible in an order driven by the needs of the discussion. In such works, a Scripture index can be quite helpful. Such a document would be best implemented as a Generic Book. In our example, since this is a Bible, we will answer n.

Figure 9.3 – General Questions, Part 3

Index	Multiple Entries Allowed	Required	Question	Answer
10	No	Yes	SwordHammer can generate an alphabetical index. This index is composed of user-chosen words or phrases. If the user clicks on an entry in the index, the user is taken to the place where that word appears. There are two sources of index words, and they may be both used if desired. First, LibreOffice and some other word processing programs have a provision to create an alphabetical index. This index is ignored, but the marked words that would appear in the index may be used to create the alphabetical index for the OSIS document. The other source of words and phrases is a user-supplied file. The index appears at the end of the OSIS document. Do you wish to use these marked words as a source for creating an alphabetical index? (y/n = yes/no)	n
11	No	No	See above question pertaining to an alphabetical index. If you enter the name of a file here that is a file in your work directory, this file will be used to create an alphabetical index, possibly in conjunction with marked words.	
12	No	No	In indexes, a particular word, phrase, or Bible passage may appear in more than one place. Clicking on the text entry in the index will take the user to the first place where the referenced item appears. Subsequent links are marked with a simple character string. The default combination is "(*)" (without the quotes), but you can change this by putting your own string as an answer to this question.	
13	No	No	Bible programs using Sword modules handle quote marks in their own way. It is thus necessary to specify the quote marks used in your document and language. If you cannot type a mark on your keyboard, simply copy and paste from your document. By "level" in these questions, is meant the nesting level of the quotes. For example: Alice said, "Bob said, "You are pretty." " In this example, what Alice said is level 1 and Bob, level 2. Levels greater than two use level one quotes and so forth. So please enter here the level one	"

Question 10: SwordHammer can also produce an alphabetical index. This would be most appropriate for commentaries or Generic Books, but if used in a Bible, it will effectively create a concordance. SwordHammer has two ways of picking up which words to index. First, Writer has an indexing capability. To Define Index Entries in Writer:

1. Click in a word, or select the words in your document that you want to use as an index entry.
2. Choose **Insert – Table of Contents and Index – Index Entry**, and do the following:
 - a) To change the text that appears in the index, type the text that you want in the **Entry** box. The text that you type here does not replace the selected text in the document.
 - b) To add an index mark to similar words in your document, select **Apply to all similar texts**.

Note that the above procedure is the current method as of this writing. Please consult the help for Writer for full information. You do **not** have to actually insert your index anywhere in your document as SwordHammer will pick up the entries without an actual index. If you need a printed index, please delete it from any copies of your document used by SwordHammer to avoid duplication.

Second, SwordHammer can use a list of words you submit. In some cases, this can be easier for an author. Both methods can be used simultaneously if desired. The list is simply a text file (**not** a word processor file), such as may be created by *Notepad*, *Pluma*, *Leafpad*, or any another text editor. Simply put each word or phrase you wish to index on a line by itself. The next word or phrase goes on the next line and so on. We will answer n for this exercise.

Question 11: If you use a list of words and phrases, put that file in your Working Directory and put its name as the answer for Question 11.

Question 12: Since Bible programs have no concept of pagination due to variable screen and window sizes, indexes can only use hyperlinks. In an index, the first location of a word or phrase uses the word or phrase itself for the hyperlink. Subsequent locations of this same word or phrase use (*) for the hyperlink as a default to save space. You can change this by putting your own hyperlink character(s) in as the answer to this question.

Figure 9.4 – General Questions, Part 4

Index	Multiple Entries Allowed	Required	Question	Answer
13	No	No	Bible programs using Sword modules handle quote marks in their own way. It is thus necessary to specify the quote marks used in your document and language. If you cannot type a mark on your keyboard, simply copy and paste from your document. By "level" in these questions, is meant the nesting level of the quotes. For example: Alice said, "Bob said, 'You are pretty.'" In this example, what Alice said is level 1 and Bob, level 2. Levels greater than two use level one quotes and so forth. So please enter here the level one opening quote mark. (If your document does not use quote marks, just leave blank by entering a single - here and below.) NOTE: SwordHammer can do a better job of handling quotes if the starting and ending quote marks are different (e.g., smart quotes instead of straight quotes).	"
14	No	No	Enter the level one closing quote mark. (It is permitted to be the same as the opening mark.)	"
15	No	No	Enter the level two opening quote mark.	'
16	No	No	Enter the level two closing quote mark. (It is permitted to be the same as the opening mark.)	'
17	No	No	As of this writing, some Bible programs do not correctly handle an apostrophe if it is any character other than a simple ' (ASCII 0x27, UTF-8 U+0027). Also, SwordHammer must be able to distinguish between the when the single quote is used as an apostrophe and when it is used as a quote. So: If your document uses "smart quotes" or another character as an apostrophe, please enter that character here (copy and paste suggested). If your document uses the straight apostrophe ('), then put that character here.	'

Question 13: We now come to one of the more problematic areas of creating Sword Modules. The OSIS specification includes a complex system for handling quotations; quotations are *supposed* to be indicated with special OSIS syntax. It is this author’s opinion that this is completely unnecessary. Nevertheless, we all have to take things as we find them.

A second problem is that some Bible programs will not print certain characters that do not appear in the ASCII character set such as “curly” quotes, en-dashes and em-dashes (“” ‘ ’ — —). It is to properly convert quotes used in documents to something usable by Bible programs that creates the need for this and following questions.

For grammar review, consider the following: Alice said to Carol, “Bill said, ‘Carol is pretty.’ ” What Alice said is a first level quote. What Bill said is a second level quote. You can have as many of these nested levels as you like until the reader is hopelessly confused. Different languages have different characters for quotation marks and different rules for their use. Note that we are using “curly” quotes here, so the starting and ending quote marks are different.

We deal with these two interrelated issues in two ways. First, not all languages use the same characters for quotation marks, and not all authors use the same exact characters. Thus, it is necessary to tell

SwordHammer what characters are used for opening and closing quotation marks for both of the alternating levels.

We deal the problem of non-ASCII characters in an input document by allowing SwordHammer to make necessary substitutions. For example, SwordHammer can replace a curly quotation mark with a straight one.

So, to begin untangling things, put the starting level one quote mark that your document uses for the answer to this question. But, if you would like SwordHammer to just send the quote marks to the Bible program verbatim, then leave this answer blank, as well as for the next three questions. Bible programs *ought* to handle this OK, and some do and some do not. All Bible programs will handle straight quotes.

Question 14: Put the ending level one quote mark here, or leave blank. It may also be that same as used for Question 13. However, if you wish SwordHammer to check your use of quote marks, SwordHammer can do a better job if the ending and starting marks are different. If Question 13 is blank, this needs to be blank also.

Question 15: Put the starting level two quote mark here, or leave blank. If Question 13 is blank, this needs to be blank also.

Question 16: Put the ending level two quote mark here, or leave blank. It may also be that same as used for Question 15. However, if you wish SwordHammer to check your use of quote marks, SwordHammer can do a better job if the ending and starting marks are different. If Question 13 or Question 15 are blank, this needs to be blank also.

Figure 9.5 – General Questions, Part 5

Index	Multiple Entries Allowed	Required	Question	Answer
17	No	No	<p>(the same as the opening mark.)</p> <p>In order to properly handle quotations, SwordHammer must be able to distinguish between the when the single quote is used as an apostrophe and when it is used as a single quote.</p> <p>So: If your document uses "a smart quotes apostrophe" or any another character as an apostrophe, please enter that character here (copy and paste suggested). If your document uses the straight apostrophe ('), then put that character here.</p> <p>SwordHammer uses rules of English grammar to consider the apostrophe to NOT be a single quote if it is surrounded by letters or has a preceding S and following space. This rule covers contractions and possessives and is only used if the single closing quote and the apostrophe are the same character.</p> <p>For languages other than English, you may wish to leave this blank. You may also need to put in character substitutions in the following questions.</p>	'
18	No	No	<p>Do you wish to see warning messages about mis-use of quote marks? (y/n = yes/no). The warning messages are based on American English, and are not always accurate due to the complexity of the rules and exceptions, especially with the use of the apostrophe (same as right single quote) in possessives. You should answer y only if you are using American English and wish to catch quote mark usage errors, bearing in mind that the warnings are often inaccurate. The warnings do not count as errors in error counts, in any case.</p>	n

Question 17: If you want SwordHammer to check your use of quote marks, there is a problem since SwordHammer is not all that smart. Consider: Alice said, "Bill said, 'That is Carol's coat over there.'"

Note that the apostrophe and closing level two quote are the same. SwordHammer needs to know that it needs to try to recognize the apostrophe and not view it as a closing quote. Please read the question for more information. Note carefully that if you need to substitute a straight apostrophe for a curly apostrophe, you need to also put in in the lists of Questions 19 and 20.

Question 18: Answer y if you want SwordHammer to give you warning messages about possible quote mark misuse, such as, "Alice said, 'Bill said, 'Carol is pretty.'" These are only warnings and do not increase error counts. SwordHammer may well be wrong in some cases as the rules are complex and difficult for even experienced editors to follow. In tests against commercial Bibles, the author has found many errors, both in the Bibles and in SwordHammer's analysis. So take the warnings with a grain of salt. Use this feature only if you are using American English or a language with the same rules about quotation marks and possessive apostrophes and contractions.

Figure 9.6 – General Questions, Part 6

Index	Multiple Entries Allowed	Required	Question	Answer
19	Yes	No	counts, in any case. Some Bible programs do not handle characters not in the standard ASCII or another character set. For example, an em-dash (—) will not be printed. To solve this, if needed, the "bad" characters as the answer to this question, one character per answer, and then in the question below, put their substitutes. In particular, smart (curly) quotes and apostrophes may need to have straight quote substitutes.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
20	Yes	No	See question above. Put the substitute characters here. Both of these questions must have the same number of answers.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
21	Yes	No	It is possible to use specific words to trigger specific formatting features. To do that, put the specific word or phrase in this question, then put the answer code to be	<input type="text"/>

Questions 19 and 20: These two questions must have the same number of answers. For each pair of answers, SwordHammer substitutes the character in Question 20 for the character in Question 19. For example, SwordHammer will output a straight quote whenever it finds a starting or ending curly quote. En-dashes and em-dashes are both replaced with a hyphen. Such substitutions allow Bible programs that only support the traditional ASCII character set to print a substitute character instead of ignoring the input character.

Generally, it is easiest to copy and paste hard-to-type characters, but there is an alternative entry method for hard-to-type characters and, especially, non-printing characters. To use this method, you must know the hexadecimal value of your Unicode character. Deep down, computers do not know what characters are; they only understand numbers. So Unicode is a way of converting characters to numbers. See <https://unicode.org/charts/>. To use these charts, find your character, then note the number below the character. For example, the Latin letter C has the number 0043. A chart of various spaces is at <http://jcorpela.fi/chars/spaces.html>. Note that hexadecimal numbers are base-16 and use the characters 0 through 9 and a through f to give 16 possible values per digit.

CAUTION: All characters entered in these answers must be printing characters, that is able to be viewed or printed. A space, for example, is non-printing.

So, enter a hexadecimal character, either printing or non-printing, find your hexadecimal number, then use one of the following formats. You may use any version in which your number fits, and either lower-case or upper-case letters. (Not all hexadecimal numbers have letters.)

General Format	\xNN	\uNNNN	\UNNNNNNNNN
Number of Significant Digits	2	4	8
Example for hex a0 = decimal 160 (This is the commonly used non-breaking space.)	\xa0	\u00a0	\U000000a0
Example for hex 1a0 = decimal 416	Cannot use	\u01a0	\U000001a0

Figure 9.7 – General Questions, Part 7

Index	Multiple Entries Allowed	Required	Question	Answer	
21	Yes	No	It is possible to use specific words to trigger specific formatting features. To do that, put the specific word or phrase in this question, then put the answer code to be triggered by that specific word or phrase in the question below. For example, you might put "Selah" as a trigger word here and "selah" or "102" as the corresponding answer in the question below.	<input type="text"/>	
22	Yes	No	See above question. The answers corresponding to trigger words or phrases go here. Both of these questions must have the same number of answers.	<input type="text"/>	
23	Yes	No	List all single-chapter books, one book per answer, using the exact same names that appear in your Bible. If this is not a Bible, leave blank. In the English Bible, these books are: Obadiah, Philemon, 2 John, 3 John, Jude. These answers will eliminate errors caused by 'missing' chapter identifiers.	<input type="text" value="Obadiah"/> <input type="text" value="Philemon"/> <input type="text" value="2 John"/> <input type="text" value="3 John"/> <input type="text" value="Jude"/>	
24	No	No	Some Bibles put the words of Christ in red ink. Some Bible programs support this feature. If you answer this question y (for yes), then if you used the wcr answer code for red letters, this feature will be active. You can still use the wcr answer code and put n (for no) for this question to disable this feature even if you have used wcr.	<input type="text"/>	
25	No	No	Do you wish to see warning messages about missing Bible verses? (y/n = yes/no)	<input type="text" value="y"/>	
26	Yes	No	SwordHammer typically uses the formatting and arrangement of text in a document to pick out meaningful	<input type="text"/>	

Question 21 and Question 22: It is possible to have one or more specific words apply question answers to themselves. For example, one might put `Se1ah` in Question 21 and `se1ah` (or `102`) in Question 22. This would apply the answer `se1ah` to each occurrence of the word `Selah`. (Warning: Do not do

this example unless the Psalms in which this word appears are designated as poetry. In fact, it is likely better to apply poetic line breaks manually in such cases.) Another possibility would be to make the word *Yaweh* (bless His Holy Name) always have the *dn* (divine name) answer applied. Or one might force a certain phrase to always be in italics.

Question 23: This question is actually mandatory for Bibles, commentaries, and any document using or referencing any single-chapter books. The reason for this question is two-fold. First, the answers are specific to your document in how you reference books, both with respect to your language and with respect to your choice of abbreviations. For example, if you use both *John* and *Jn*, then you will need to put in both 2 *Jn* and 2 *John*, and so on. Second, if a book is in this list, *SwordHammer* knows that the next number is a verse number, not a chapter number.

Question 24: *SwordHammer* supports Bibles which put the words of the Lord Jesus Christ in red. While this author will contend that the *entire* Bible is the Word of our Lord Jesus Christ, *SwordHammer* supports this feature. To have the words of our Lord Jesus Christ appear in red, these words have a distinctive format (e.g., red font), this distinctive format must have an answer of *wcr* (or 106), and this question must be answered *y*. To produce a version without this feature even if *wcr* is used, simply change this answer to *n*.

Question 25: If you wish to see warning messages about missing verses, answer *y*, else *n*. Answering *y* is recommended for Bibles since formatting errors in your document may cause verse, chapter, or even book designations to be missed. If there is at least one verse in a chapter, the missing verses of the chapter are listed. If there is at least one chapter in a book, the missing chapters of the book are listed. Entirely missing books are also listed. Missing verses are not considered to be errors. By default, the KJV versification scheme is used, as it is the most standard. However, this is not intended to pass judgment on textual critics who make other decisions. In such cases, you may either simply note the differences or else modify the *BookChapterIndex.txt* file to match your text-critical decisions.

Figure 9.8 – General Questions, Part 8

SwordHammer General Questions				
Index	Multiple Entries Allowed	Required	Question	Answer
26	Yes	No	<p>verses? (y/n = yes/no)</p> <p>SwordHammer typically uses the formatting and arrangement of text in a document to pick out meaningful items. But SwordHammer can also look for particular text strings and use them as well. You may use as many of these as you wish, or none at all. This is a tricky feature, but carefully used, it can solve some difficult problems.</p> <p>For example, you may put for an answer to this question:</p> <p>strong:X =X=47</p> <p>In this example, whenever SwordHammer finds "strong:" then something then a space, it will treat the something as having the same meaning as if it had appeared in the document as a SwordHammer Question, and you had answered it with a code of 47. The "X" can actually be any character. You pick this character by putting it between two = signs. SwordHammer looks from the right, finds an = to get the code, then looks for the next = to get the substitution character. If there is just one substitution character, then the something can be of any length. If there are multiple substitution characters, like "XXXX", then the "something" must have that many characters or it will not be recognized. This is a good idea if the something is always the same number of characters. Four more examples and pay particular attention to the last one:</p> <p>xyz28???=abc=?=mycode means look for "xyz28", then a three-character something, then "=abc" (note that the first = is not a problem here) and give it a meaning of code mycode.</p> <p>*;34=*=104 means look for something that has whitespace (spaces, paragraph marks, tabs, etc.) before it, followed by ";34" and give it a meaning of code 104.</p> <p>passage=8=8=44 means look for "passage=" then something, then whitespace and give it a meaning of code 44. 8 is the substitution character.</p> <p>passage=*.=*==44 Note the extra = which means to look for "passage=" then something, then a . and give it a meaning of code 44 - THEN delete the "passage=" and the ".", leaving behind the something alone.</p> <p>passage=*.====44 Note the extra == which means to look for "passage=" then something, then a . and give it a meaning of code 44 - THEN delete the whole thing, leaving no text behind.</p> <p>This next set of questions are used by OSIS, a standard for</p>	

Question 26: If you can at all avoid using this feature by judicious use of formatting in your document, you should do so. At the same time, it does have its uses on occasion when nothing else will work. This is especially true for existing documents created prior to your knowledge of SwordHammer. First, let

us examine the general format of these answers in a more expanded form than is given in the Question. Each answer is of the form:

$aXb=X=Y$, where:

a is any character string you choose. It may be omitted to indicate whitespace. Whitespace is spaces, tabs, non-breaking spaces, paragraph starts and ends, and defined line breaks. A defined line break is placed in a Writer document using **Insert/Manual Break/Line break**; it does not mean where a line within a paragraph wraps to the next line because the text hit the right margin.

X is any single character you chose. It is significant for the Question answer only and indicates any arbitrary string of characters in your document.

b is any character string you choose. It may be omitted to indicate whitespace.

= is part of the answer and may not be any other character.

Y is an answer mnemonic or number.

Here is an example:

Chapter X -=X=cn

This tells SwordHammer that if it ever finds **Chapter** followed by a space, then some text, then a space followed by a hyphen, to apply the answer **cn** to the text found. So if SwordHammer encounters:

... Chapter 13 - A Day ...

SwordHammer will apply the answer **cn** (chapter number) to the 13. Here is the correspondence:

Question 26 Answer:	Chapter X -=X=cn
Relevant Input Text:	Chapter 13 - A Day
General Answer Format as Applied:	aaaaaaaaXXbb = cn

Note that the end of a paragraph or other format is also considered to be whitespace. As you look at the examples in the question, note the following:

- You may actually use an equal sign in either the **a** or **b** search strings.
- If the substitution character between the **a** and **b** search strings is doubled or more, then there must be exactly that many characters between the **a** and **b** search strings for a hit.
- If the last equal sign is doubled, then do not print either the **a** or **b** search strings, printing only the found text.
- If the last equal sign is tripled, then print nothing (but still apply the answer code).

We now come to a set of questions that are more or less mandated by the OSIS specification. Recall that OSIS is a language used to create computer Bibles. OSIS files are then used to create Sword Modules. Only some of these questions are mandatory, but some of the optional questions may be helpful to your readers. If you think that some these questions are more detailed and nit-picky than needed, this author is not inclined to disagree with you. Nonetheless, many of these answers, especially the required answers, are intended to meet the needs of Bible programs, readers of Bible programs, and those selecting from lists of Sword Modules to find Sword Modules that may be of interest to them. Other answers help tell Bible programs how to display and process your converted document. In any case, all mandatory questions affect the operation of SwordHammer, Bible programs, and how your document is interpreted by Bible programs.

Caution: The characters < and > are **not** permitted in any of the following answers.

Figure 9.9 – General Questions, Part 9

Index	Multiple Entries Allowed	Required	Question	Answer
			This next set of questions are used by OSIS, a standard for creating electronic Bibles. Not all entries are required, but you should enter as much of the requested information as you have as a service to users and prospective users. WARNING: The following characters are not permitted in any answer: < > "	
27	No	Yes	Short name, e.g., KJV, thisWork, it is a reference to the overall work. No periods, hyphens, spaces, or colons are allowed in short names.	MyV
28	No	Yes	Reference or versification scheme, usually KJV, also may be KJV, LXX, NA27 see list on p17 of OSIS manual, may also be 'defaultReferenceScheme'. For a General book, enter book.	KJV
29	No	Yes	language, in ISO639 or IANA format or x- followed by some other designator, e.g., en, en-us, en-uk	en-us
30	Yes	Yes	Responsible person for this revision. NOTE: This and the next 2 questions must have the same number of answers since they group together. At least one revision entry is required.	Me
31	Yes	Yes	Date or Date Time	2017
32	Yes	Yes	Brief narrative of changes since last issued. Note: SwordHammer does not remember history. Please refer to an earlier version and copy-paste the info. Order should be most recent to oldest.	Original
			This next group of questions all refer to the main document itself. The information is of the same nature that might appear on a title page. (There will be an opportunity later to deal with embedded other material such as might be referenced or credited with footnotes.)	
33	No	Yes	Title of work	

Question 27: It is common in Bible programs to have list of available resources in a small space. To make this possible, it is necessary to have, for each SM (Sword Module), a really short name.

Examples:

KJV	King James Version
WCF	Westminster Confession of Faith
TSK	Treasury of Scripture Knowledge
TofDavid	Treasury of David (by Spurgeon)

So for this question, pick a really short name. It must not contain spaces, periods, hyphens, or colons. In our example, we use MyV. It must not be the name of any existing name either, so choose carefully.

Question 28: For a Bible or commentary, you almost certainly want to enter KJV unless you know that you need another system. For a Generic Book, enter book. There are other versification schemes out there for expert use. See the document OSIS . pdf in the Program Directory, page 17.

Question 29: If you have downloaded and installed programs and paid any attention to the names, you have probably seen language codes embedded in their names from time to time. Some Bible programs

sort their source material by language, so this is an important question. This author recommends the system used by IANA (Internet Assigned Numbers Authority), ISO639 available at http://www.loc.gov/standards/iso639-2/php/English_list.php. This site will give you the language code. The two letter code is most commonly used. If applicable, a hyphen, then a region or country code should follow. This last part is especially important when a language has regional dialects, such as is the case for English. See <https://www.iso.org/obp/ui/#search>. Again, the two-letter codes are most commonly used. For example, for American English, the code is en-us.

Questions 30, 31, and 32: These three questions **must** have the same number of answers. The idea of these three questions is to provide a revision history of the document. Revisions are not only changes to the source (input) document, but changes to any of the General Question answers or other changes that affect the final output. These should be in reverse chronological order. You can create a new answers at the bottom of each list and then copy and paste your way from bottom to top, then put your new text at the top. Note that the responsible person is not always the author.

Figure 9.10 – General Questions, Part 10

Index	Multiple Entries Allowed	Required	Question	Answer
			This next group of questions all refer to the main document itself. The information is of the same nature that might appear on a title page. (There will be an opportunity later to deal with embedded other material such as might be referenced or credited with footnotes.)	
33	No	Yes	Title of work	MyV, a Tutorial Version
34	No	No	Title Placement - may be any of the following (not all programs will use this): leftHead centerHead rightHead insideHead outsideHead leftFoot centerFoot rightFoot insideFoot outsideFoot	
35	No	Yes	Name of author, translator, editor, etc. (Enter the role of this person below)	Me
36	No	Yes	Use one of the following 3-letter abbreviations: ann Annotator: Use for a person who writes manuscript annotations on a printed item. art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art. aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility. cwf Commentator for written text: Use for a person or	trl

This next set of questions is similar to another set to follow. Note carefully that this set of questions refers to the main document in your work. Here is what is meant by *main document*: Suppose you create an anthology. You are the editor of the main work which has its own information. But there are authors and contributors of each included work. You would put the information about the anthology as

a whole in this set of questions, then the information about the included works in a following set of very similar questions.

Question 33: This is the full (long) title of your work.

Question 34: You have probably seen documents with the title on every page. If a Bible program does this, this question specifies where to put the title.

Question 35: Every book has a somebody who is mainly responsible for it. That somebody is often the author, but may be a general editor, translator, and so on. Put that somebody's name here. It may be one or more names, the name of a committee, and so on.

Figure 9.11 – General Questions, Part 11

Index	Multiple Entries Allowed	Required	Question	Answer
36	No	Yes	<p>Use one of the following 3-letter abbreviations:</p> <p>ann Annotator: Use for a person who writes manuscript annotations on a printed item.</p> <p>art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art.</p> <p>aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility.</p> <p>cwt Commentator for written text: Use for a person or corporate body responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator.</p> <p>com Compiler: Use for a person who produces a work or publication by selecting and putting together material from the works of various persons or bodies.</p> <p>ctb Contributor: Use for one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works. Do not use for someone whose sole function in relation to a work is as author, editor, compiler or translator.</p> <p>cre Creator: Use for a person or corporate body responsible for the intellectual or artistic content of a work.</p> <p>edt Editor: Use for a person who prepares for publication a work not primarily his/her own, such as by elucidating text, adding introductory or other critical matter, or technically directing an editorial staff.</p> <p>ill Illustrator: Use for the person who conceives, and perhaps also implements, a design or illustration, usually to accompany a written text.</p> <p>pbl Publisher</p> <p>trl Translator: Use for a person who renders a text from one language into another, or from an older form of a language into the modern form.</p>	trl

Question 36: Pick one of the given three-letter (lower case) abbreviations according to the role of the somebody from above and use it to answer the question.

Figure 9.12 – General Questions, Part 12

Index	Multiple Entries Allowed	Required	Question	Answer
37	Yes	No	form of a language into the modern form. Name of contributing author, translator, editor, etc. (Enter the role of this person below.) NOTE: This and the next question must have the same number of answers.	<input type="text"/>
38	Yes	No	Use one of the following 3-letter abbreviations: ann Annotator: Use for a person who writes manuscript annotations on a printed item. art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art. aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility. cwt Commentator for written text: Use for a person or corporate body responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator. com Compiler: Use for a person who produces a work or publication by selecting and putting together material from the works of various persons or bodies. ctb Contributor: Use for one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works. Do not use for someone whose sole function in relation to a work is as author, editor, compiler or translator. cre Creator: Use for a person or corporate body responsible for the intellectual or artistic content of a work. edt Editor: Use for a person who prepares for publication a work not primarily his/her own, such as by elucidating text, adding introductory or other critical matter, or technically directing an editorial staff. ill Illustrator: Use for the person who conceives, and perhaps also implements, a design or illustration, usually to accompany a written text. pbl Publisher trl Translator: Use for a person who renders a text from one language into another, or from an older form of a language into the modern form.	<input type="text"/>

Questions 37 and 38: These optional questions must have the same number of answers. You can use these in a manner similar to Questions 35 and 36 to credit other contributors to the work.

Figure 9.13 – General Questions, Part 13

Index	Multiple Entries Allowed	Required	Question	Answer
39	No	No	Original publication date	<input type="text"/>
40	No	Yes	Date of this edition	2017
41	Yes	No	Publisher(s) information - may include name, address, etc., as needed.	<input type="text"/>
42	No	Yes	Code for the language used substantially in this work (from one of the code sources in the next question)	en
43	No	Yes	Now, enter the source of the language code entered above from the list: IANA IETF ISO-639-1 ISO-639-2 ISO-639-2-B ISO-639-2-T LINGUIST SIL OTHER If you don't know what these mean, look up "ISO-639" and "IANA language codes" on the web and use one of those. In the rare case that none of these is sufficient, a prose description should be inserted in the element (above) and this one set to OTHER.	ISO-639-1
44	No	Yes	For what purpose is this language being used? Pick one of (and make your best guess if need be): base (most common choice, the main language of the document itself) didactic interlinear original quotation source target translation	base

Question 39: This is the date of the original publication of the work, not the date it was converted to a Sword Module. These dates should at least contain the year.

Question 40: This is the date of the present edition of the work, not the date it was converted to a Sword Module.

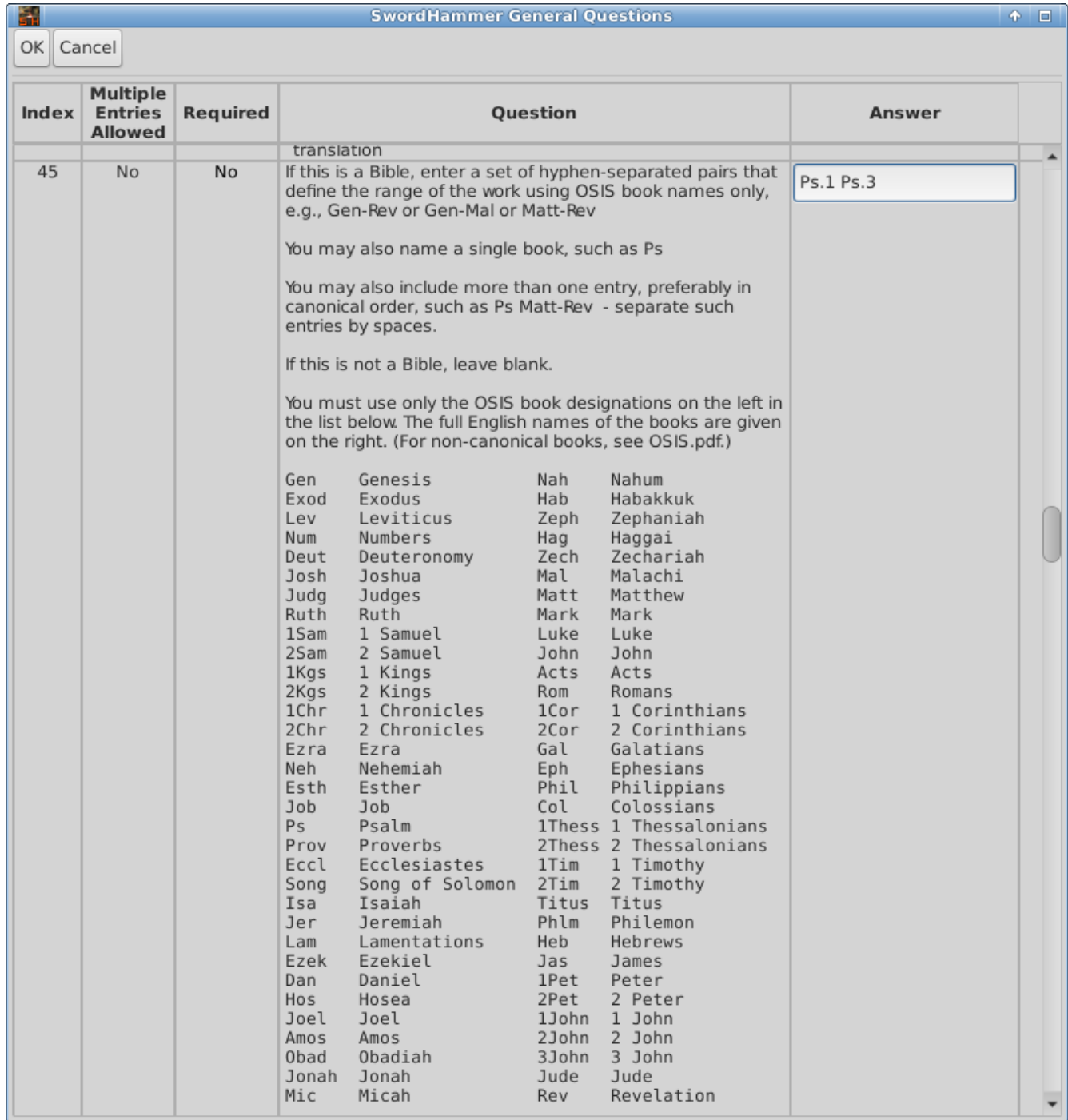
Question 41: Any desired information about the publisher may go here. This can be a long line, within reason, giving name, address, web site URI, etc.

Question 42: We have encountered language codes before, so put just the language code here without a region code. This should be the language of the target audience of the document.

Question 43: Normally one would put ISO-639-1 or ISO-639-2 here, but sometimes other choices may be needed for more obscure languages.

Question 44: This author recommends **base**, as the above language specification should be the language of the target audience. The fact that the document may contain Greek or Hebrew, for example, or teach Latin for example, does not change this.

Figure 9.14 – General Questions, Part 14



Question 45: This question pertains to Bibles only, so leave it blank if the work is not a Bible. Its purpose is to tell Bible programs how much of the Bible your document covers. The answer must be in standard osisRef format, as described [above](#). There is not room in the question to get into details, but as you can see from the answer in Figure 9.14, the osisRef format allows you to be more specific than just the book. The answer to this question can help a Bible program know what passages are available. From the answer, note that multiple passages may be referenced, separated by spaces. Ranges are most commonly specified, using hyphens, such as `Mat t -Rev`, for a New Testament.

Figure 9.15 – General Questions, Part 15

Index	Multiple Entries Allowed	Required	Question	Answer
46	No	No	If this is a Bible, then put "Bible" here (without the quotes). You may also use "Bible.XXX" where XXX is something like KJV or ESV. Otherwise leave it blank. See OSIS manual for more advanced options (rarely needed).	Bible.MyV
			Sometimes a book will either reference or contain other works within them. An example might be an anthology. A study Bible might contain maps by other authors, or use cross references from the TSK (Treasury of Scripture Knowledge). A general book will likely use Bible references. This next section allows you to properly credit such contents in a manner similar to footnotes or end notes or special title page credits. IMPORTANT: This is a long list, and each answered question must have the same number of answers. (This means you may leave a question blank.) There is difference between this next set and some of the questions above: in the present case, for each work, each question may have only one entry. That is, each question must be either blank, or contain the same number of entries as works being cited here. So, for example, while the main work may have multiple publishers, here you should separate two publishers with a comma in the same entry. The questions are all marked as not required, since you may not have any embedded works to cite. If these requirements compel you to answer a question that is not applicable, simply answer the question with a single hyphen (dash, -). Questions with REQUIRED in them indicate that it is mandatory to answer that question for each work that you choose to enter (if any), and that a - will not be accepted.	
47	Yes	No	Short names for the work. These short names are only used locally in the document. No periods, hyphens, spaces, or colons are allowed in short names. REQUIRED	

Question 46: This question is simple. If your work is a Bible, put **Bible** in the answer, otherwise leave it blank. Also, as in the example, you can put a period followed by a very short abbreviation.

Below Question 46 is the introduction to this next section. This next set of questions is similar to [Question 33 and following](#). Note carefully that this set of questions refers to embedded works within your work. Here is what is meant by *embedded works*: Suppose you create an anthology. You are the editor of the main work which has its own information. But there are authors and contributors of each included work embedded within your main work. You would put the information about the anthology as a whole in [Question 33 and following](#), then the information about the included works in **this** set of very similar questions.

SwordHammer is already set up to accept multiple answers to questions, users are used to this feature by now, and it is not known how many embedded works are to be given. Thus, SwordHammer uses a somewhat “odd” method of accepting answers about embedded works: Each successive answer for a particular Question here pertains to the next embedded work. When you go to the next Question, you answer about the same set of embedded works in the same order, but you are answering a different Question about each of them. Let us illustrate with a set of three questions about boxes. We have four boxes, so:

Question	Answer
What color is the box?	brown
	red
	white
	brown
Of what Material is the box made?	corrugated cardboard
	redwood
	thin, solid cardboard
	corrugated cardboard
How big is the box?	big
	small
	medium
	really big

These answers mean that the first box is a brown, corrugated cardboard, big box. The second box is a red box made of redwood, and it is small. The third box is a white box made of thin cardboard, and it is medium sized. The last box is also a brown, corrugated cardboard box, but unlike the first, it is really big. So this illustrates how Questions 47 through 64 work.

This method of answering however, does impose a couple of additional rules:

- Again, all of the questions must have the same number of answers.
- You may choose to answer none of these questions if there are no embedded works
- Since all questions must have the same number of answers, there is a special way to leave an answer blank: put a single hyphen (-) as the sole character in the answer.
- The above choice of using a hyphen to not answer a question is not available if the Question is marked as **REQUIRED**.

Some of the following explanations will be short because these questions are similar to those encountered above.

Figure 9.16 – General Questions, Part 16

Index	Multiple Entries Allowed	Required	Question	Answer
47	Yes	No	Short names for the work. These short names are only used locally in the document. No periods, hyphens, spaces, or colons are allowed in short names. REQUIRED	test
48	Yes	No	Title of work	test long
49	Yes	No	Title Placement - may be any of the following (not all programs will use this): leftHead centerHead rightHead insideHead outsideHead leftFoot centerFoot rightFoot insideFoot outsideFoot	centerFoot
50	Yes	No	Name of author, translator, editor, etc. (Enter the role of this person below.)	tester
51	Yes	No	Use one of the following 3-letter abbreviations: ann Annotator: Use for a person who writes manuscript annotations on a printed item. art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art. aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work. copyrighted text. This term may also	com

Question 47: **REQUIRED** – Give your embedded work some short name. This will never be seen by the user. Later SwordHammer features may use this short name to allow embedded works to reference one another. **Note:** Question 47 is **not** required if none of the questions in this group is answered.

Question 48: A long title for the embedded work.

Question 49: Where you want the long title to appear if a Bible program puts it on every page.

Question 50: Name of the author, etc., of the embedded work.

Figure 9.17 – General Questions, Part 17.

Index	Multiple Entries Allowed	Required	Question	Answer
51	Yes	No	<p>Use one of the following 3-letter abbreviations:</p> <p>ann Annotator: Use for a person who writes manuscript annotations on a printed item.</p> <p>art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art.</p> <p>aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility.</p> <p>cwt Commentator for written text: Use for a person or corporate body responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator.</p> <p>com Compiler: Use for a person who produces a work or publication by selecting and putting together material from the works of various persons or bodies.</p> <p>ctb Contributor: Use for one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works. Do not use for someone whose sole function in relation to a work is as author, editor, compiler or translator.</p> <p>cre Creator: Use for a person or corporate body responsible for the intellectual or artistic content of a work.</p> <p>edt Editor: Use for a person who prepares for publication a work not primarily his/her own, such as by elucidating text, adding introductory or other critical matter, or technically directing an editorial staff.</p> <p>ill Illustrator: Use for the person who conceives, and perhaps also implements, a design or illustration, usually to accompany a written text.</p> <p>pbl Publisher</p> <p>trl Translator: Use for a person who renders a text from one language into another, or from an older form of a language into the modern form.</p>	<input type="text" value="com"/> <input type="text"/>

Question 51: The role of the author, editor, etc., of the embedded work.

Figure 9.18 – General Questions, Part 18

Index	Multiple Entries Allowed	Required	Question	Answer
52	Yes	No	Name of contributing author, translator, editor, etc. (Enter the role of this person below.) NOTE: This and the next question must have the same number of answers.	-
53	Yes	No	Use one of the following 3-letter abbreviations: ann Annotator: Use for a person who writes manuscript annotations on a printed item. art Artist: Use for a person (e.g., a painter) who conceives, and perhaps also implements, an original graphic design or work of art. aut Author: Use for a person or corporate body chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility. cwt Commentator for written text: Use for a person or corporate body responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator. com Compiler: Use for a person who produces a work or publication by selecting and putting together material from the works of various persons or bodies. ctb Contributor: Use for one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works. Do not use for someone whose sole function in relation to a work is as author, editor, compiler or translator. cre Creator: Use for a person or corporate body responsible for the intellectual or artistic content of a work. edt Editor: Use for a person who prepares for publication a work not primarily his/her own, such as by elucidating text, adding introductory or other critical matter, or technically directing an editorial staff. ill Illustrator: Use for the person who conceives, and perhaps also implements, a design or illustration, usually to accompany a written text. pbl Publisher trl Translator: Use for a person who renders a text from one language into another, or from an older form of a language into the modern form.	-

Question 52: Name of a contributing editor, etc. Notice that this question and Question 53 are both shown in Figure 9.18 with single hyphens to indicate that the questions are not being answered. (At another level, the hyphens answer the questions, so all of them have the same number of answers.) One limitation that exists for embedded works is that there is space for only a single contributing author, editor, etc., but nothing prevents you from putting as many names as you like in a single answer for Question 52 and so on.

Question 53: This is the role of the people listed in Question 52. Use one of the three-letter abbreviations given in the question.

Figure 9.19 – General Questions, Part 19

Index	Multiple Entries Allowed	Required	Question	Answer
54	Yes	No	Original publication date	-
55	Yes	No	Date of this edition	2017
56	Yes	No	Publisher information - may include name, address, etc., as needed.	Just me
57	Yes	No	Code for the language used substantially in this work (from one of the code sources in the next question)	en
58	Yes	No	Now, enter the source of the language code entered above from the list: IANA IETF ISO-639-1 ISO-639-2 ISO-639-2-B ISO-639-2-T LINGUIST SIL OTHER If you don't know what these mean, look up "ISO-639" and "IANA language codes" on the web and use one of those. In the rare case that none of these is sufficient, a prose description should be inserted in the element (above) and this one set to OTHER.	IANA

Question 54: Date of publication of first edition. Note the use of a hyphen here to indicate no answer given. (This would usually be unrealistic except for reprints of very old works.)

Question 55: Date of the present edition.

Question 56: Publisher information can be as long as reasonably desired, to include name, address, web URI, and so on, all on one line.

Question 57 and 58: As seen before elsewhere, enter a language code and the source of the code.

Figure 9.20 – General Questions, Part 20

Index	Multiple Entries Allowed	Required	Question	Answer
59	Yes	No	For what purpose is this language being used? Pick one of (and make your best guess if need be): base (most common choice, the main language of the document itself) didactic interlinear original quotation source target translation	base
60	Yes	No	Copyright information and similar intellectual property rights information or declarations. Can include declarations that the work is in the public domain, restrictions on use, licensing information, voluntary contributions to an author or organization, GPL information, etc. REQUIRED	Copycat
61	Yes	No	Typically, the subject will contain keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme. This question and the one below must have the same number of answers.	-
62	Yes	No	If the answer above is from a formal classification scheme, then you should answer this question also. Enter one of the following (in all capitals) or, if not listed below, make up your own starting with x-: ATLA American Theological Libraries Association BILDI Bibelwissenschaftliche Literaturdokumentation Innsbruck DBC Dutch Basic Classification DDC Dewey Decimal Classification EUT Estonian Universal Thesaurus FGT Finnish General Thesaurus LCC Library of Congress Classification LCSH Library of Congress Subject Heading MeSH Medical Subject Headings NLSH National Library Subject Headings (National Library of Poland) RSWK Regeln für den Schlagwortkatalog SEARS Sears List of Subject Headings SOG Soggettario SWD_RSWK Swiss National Library UDC Universal Decimal Classification VAT Vatican Library	-

Question 59: You will almost certainly wish to enter **base** here.

Question 60: **REQUIRED** – Enter copyright information for the embedded work. (This is not required if all of the questions in this section go unanswered.)

Question 61 and 62: If the subject matter of these questions means something to you, then you may wish to make appropriate entries. Otherwise leave them blank; specialized knowledge is required to answer them correctly.

Figure 9.21 – General Questions, Part 21

Index	Multiple Entries Allowed	Required	Question	Answer																																																																																																																																				
63	Yes	No	<p>If this is a Bible, enter a set of hyphen-separated pairs that define the range of the work using OSIS book names only, e.g., Gen-Rev or Gen-Mal or Matt-Rev</p> <p>You may also name a single book, such as Ps</p> <p>You may also include more than one entry, preferably in canonical order, such as Ps Matt-Rev - separate such entries by spaces.</p> <p>If this is not a Bible, leave blank.</p> <p>You must use only the OSIS book designations on the left in the list below. The full English names of the books are given on the right. (For non-canonical books, see OSIS.pdf.)</p> <table border="0"> <tr><td>Gen</td><td>Genesis</td><td>Nah</td><td>Nahum</td></tr> <tr><td>Exod</td><td>Exodus</td><td>Hab</td><td>Habakkuk</td></tr> <tr><td>Lev</td><td>Leviticus</td><td>Zeph</td><td>Zephaniah</td></tr> <tr><td>Num</td><td>Numbers</td><td>Hag</td><td>Haggai</td></tr> <tr><td>Deut</td><td>Deuteronomy</td><td>Zech</td><td>Zechariah</td></tr> <tr><td>Josh</td><td>Joshua</td><td>Mal</td><td>Malachi</td></tr> <tr><td>Judg</td><td>Judges</td><td>Matt</td><td>Matthew</td></tr> <tr><td>Ruth</td><td>Ruth</td><td>Mark</td><td>Mark</td></tr> <tr><td>1Sam</td><td>1 Samuel</td><td>Luke</td><td>Luke</td></tr> <tr><td>2Sam</td><td>2 Samuel</td><td>John</td><td>John</td></tr> <tr><td>1Kgs</td><td>1 Kings</td><td>Acts</td><td>Acts</td></tr> <tr><td>2Kgs</td><td>2 Kings</td><td>Rom</td><td>Romans</td></tr> <tr><td>1Chr</td><td>1 Chronicles</td><td>1Cor</td><td>1 Corinthians</td></tr> <tr><td>2Chr</td><td>2 Chronicles</td><td>2Cor</td><td>2 Corinthians</td></tr> <tr><td>Ezra</td><td>Ezra</td><td>Gal</td><td>Galatians</td></tr> <tr><td>Neh</td><td>Nehemiah</td><td>Eph</td><td>Ephesians</td></tr> <tr><td>Esth</td><td>Esther</td><td>Phil</td><td>Philippians</td></tr> <tr><td>Job</td><td>Job</td><td>Col</td><td>Colossians</td></tr> <tr><td>Ps</td><td>Psalms</td><td>1Thess</td><td>1 Thessalonians</td></tr> <tr><td>Prov</td><td>Proverbs</td><td>2Thess</td><td>2 Thessalonians</td></tr> <tr><td>Eccl</td><td>Ecclesiastes</td><td>1Tim</td><td>1 Timothy</td></tr> <tr><td>Song</td><td>Song of Solomon</td><td>2Tim</td><td>2 Timothy</td></tr> <tr><td>Isa</td><td>Isaiah</td><td>Titus</td><td>Titus</td></tr> <tr><td>Jer</td><td>Jeremiah</td><td>Phlm</td><td>Philemon</td></tr> <tr><td>Lam</td><td>Lamentations</td><td>Heb</td><td>Hebrews</td></tr> <tr><td>Ezek</td><td>Ezekiel</td><td>Jas</td><td>James</td></tr> <tr><td>Dan</td><td>Daniel</td><td>1Pet</td><td>Peter</td></tr> <tr><td>Hos</td><td>Hosea</td><td>2Pet</td><td>2 Peter</td></tr> <tr><td>Joel</td><td>Joel</td><td>1John</td><td>1 John</td></tr> <tr><td>Amos</td><td>Amos</td><td>2John</td><td>2 John</td></tr> <tr><td>Obad</td><td>Obadiah</td><td>3John</td><td>3 John</td></tr> <tr><td>Jonah</td><td>Jonah</td><td>Jude</td><td>Jude</td></tr> <tr><td>Mic</td><td>Micah</td><td>Rev</td><td>Revelation</td></tr> </table>	Gen	Genesis	Nah	Nahum	Exod	Exodus	Hab	Habakkuk	Lev	Leviticus	Zeph	Zephaniah	Num	Numbers	Hag	Haggai	Deut	Deuteronomy	Zech	Zechariah	Josh	Joshua	Mal	Malachi	Judg	Judges	Matt	Matthew	Ruth	Ruth	Mark	Mark	1Sam	1 Samuel	Luke	Luke	2Sam	2 Samuel	John	John	1Kgs	1 Kings	Acts	Acts	2Kgs	2 Kings	Rom	Romans	1Chr	1 Chronicles	1Cor	1 Corinthians	2Chr	2 Chronicles	2Cor	2 Corinthians	Ezra	Ezra	Gal	Galatians	Neh	Nehemiah	Eph	Ephesians	Esth	Esther	Phil	Philippians	Job	Job	Col	Colossians	Ps	Psalms	1Thess	1 Thessalonians	Prov	Proverbs	2Thess	2 Thessalonians	Eccl	Ecclesiastes	1Tim	1 Timothy	Song	Song of Solomon	2Tim	2 Timothy	Isa	Isaiah	Titus	Titus	Jer	Jeremiah	Phlm	Philemon	Lam	Lamentations	Heb	Hebrews	Ezek	Ezekiel	Jas	James	Dan	Daniel	1Pet	Peter	Hos	Hosea	2Pet	2 Peter	Joel	Joel	1John	1 John	Amos	Amos	2John	2 John	Obad	Obadiah	3John	3 John	Jonah	Jonah	Jude	Jude	Mic	Micah	Rev	Revelation	<input type="text" value="-"/> <input type="text"/>
Gen	Genesis	Nah	Nahum																																																																																																																																					
Exod	Exodus	Hab	Habakkuk																																																																																																																																					
Lev	Leviticus	Zeph	Zephaniah																																																																																																																																					
Num	Numbers	Hag	Haggai																																																																																																																																					
Deut	Deuteronomy	Zech	Zechariah																																																																																																																																					
Josh	Joshua	Mal	Malachi																																																																																																																																					
Judg	Judges	Matt	Matthew																																																																																																																																					
Ruth	Ruth	Mark	Mark																																																																																																																																					
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2Sam	2 Samuel	John	John																																																																																																																																					
1Kgs	1 Kings	Acts	Acts																																																																																																																																					
2Kgs	2 Kings	Rom	Romans																																																																																																																																					
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2Chr	2 Chronicles	2Cor	2 Corinthians																																																																																																																																					
Ezra	Ezra	Gal	Galatians																																																																																																																																					
Neh	Nehemiah	Eph	Ephesians																																																																																																																																					
Esth	Esther	Phil	Philippians																																																																																																																																					
Job	Job	Col	Colossians																																																																																																																																					
Ps	Psalms	1Thess	1 Thessalonians																																																																																																																																					
Prov	Proverbs	2Thess	2 Thessalonians																																																																																																																																					
Eccl	Ecclesiastes	1Tim	1 Timothy																																																																																																																																					
Song	Song of Solomon	2Tim	2 Timothy																																																																																																																																					
Isa	Isaiah	Titus	Titus																																																																																																																																					
Jer	Jeremiah	Phlm	Philemon																																																																																																																																					
Lam	Lamentations	Heb	Hebrews																																																																																																																																					
Ezek	Ezekiel	Jas	James																																																																																																																																					
Dan	Daniel	1Pet	Peter																																																																																																																																					
Hos	Hosea	2Pet	2 Peter																																																																																																																																					
Joel	Joel	1John	1 John																																																																																																																																					
Amos	Amos	2John	2 John																																																																																																																																					
Obad	Obadiah	3John	3 John																																																																																																																																					
Jonah	Jonah	Jude	Jude																																																																																																																																					
Mic	Micah	Rev	Revelation																																																																																																																																					

Question 63: Reminder – this only applies to embedded works, not your main work. This question is just like the one above. This question pertains to Bibles only, so leave it blank if the work is not a Bible. Its purpose is to tell Bible programs how much of the Bible your document covers. The answer must be in standard osisRef format, as described [above](#).

Figure 9.22 – General Questions, Part 22

Index	Multiple Entries Allowed	Required	Question	Answer
64	Yes	No	If this is a Bible, then put "Bible" here (without the quotes). You may also use "Bible.XXX" where XXX is something like KJV or ESV. Otherwise leave it blank. See OSIS manual for more advanced options (rarely needed).	-
			This is the end of the auxiliary works questions. It is a long list, so please check that you have the same number of answers for each question that you chose to answer.	
			The questions below pertain to converting the document to a Sword Module. Some of the questions seem (and are) repetitious, but the answers are used for somewhat different purposes than the questions above. Specifically, these answers will help Bible programs correctly use your document and provide a good user experience. IMPORTANT: If entries allow more than one choice, put only ONE choice per entry and repeat the entry as often as needed.	
65	No	Yes	Name of module. Must have only _ (underscore), A to Z, a to z, and 0 to 9 with NO spaces or special characters. IMPORTANT: Please make sure this is not the same as an existing module available at CrossWire or the Sword Project.	MYV
66	No	Yes	Short description of the Sword Module, one line, less than 80 characters. Displayed during module browsing.	My Version for Testing
67	No	Yes	Enter one of the following words (it is important to get this right!): texts comments lexdict genbook personal devotional glossary totheweb	texts

Question 64: If this embedded work is a Bible, put **Bible** in the answer, otherwise leave it blank. You may also add a period followed by a short designator.

That question is the **end** of this special section. You will do well if you answer these questions to double check that all of them have the same number of answers.

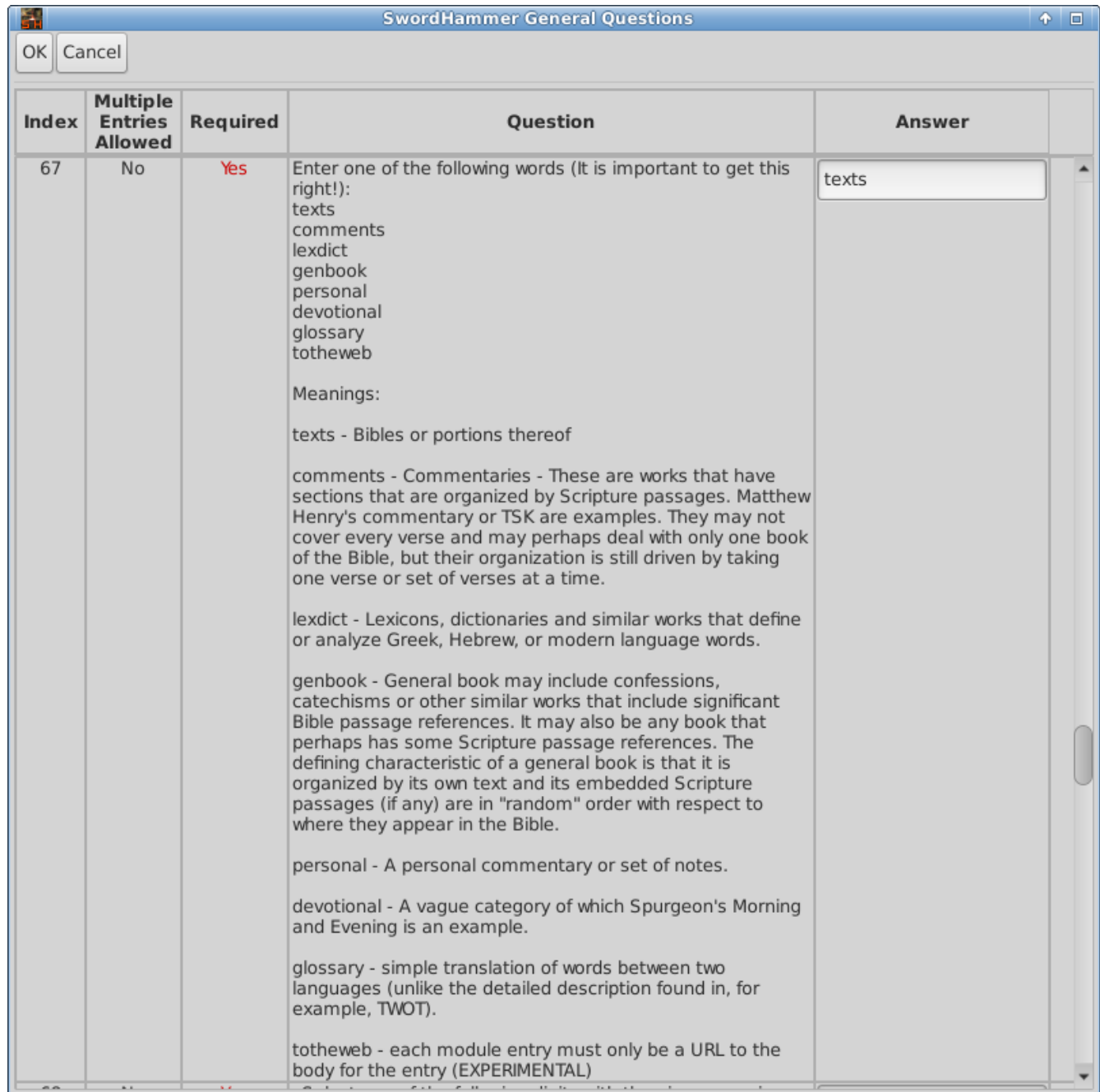
We now embark on the final set of questions. These pertain to the making of Sword Modules. Unlike the questions above, SwordHammer does not directly use these answers, but instead feeds them to the utilities that create Sword Modules. Hence there is some unavoidable repetition due to slight nuances in format and meaning of answers.

Question 65: Enter a reasonably short name for you module, as short as possible. If as directed above, you installed at least one Bible program, you can go to that program's module manager and explore the names of modules available for download to be sure you have no conflicts. You will want to do this even if you do not intend to submit the module to the Sword Project. Observe carefully the character restrictions in the question.

Question 66: This answer is intended to be informational to those browsing for new modules. Thus, try to make it both attractive, meaningful, and accurately descriptive. There is an 80 character limit. Hint:

Compose your title in a word processor and use its tools to give you the character count. Spaces count also.

Figure 9.23 – General Questions, Part 23



Question 67: A correct answer to this question is important because it tells SwordHammer, module utilities, and Bible programs what to do with your document. So pick one of the options from the list and enter it exactly as shown in the answer. The explanations follow the list. If you are in doubt, texts, comments, and genbook are likely to be the least problematic unless your work clearly fits one of the other categories.

Figure 9.24 – General Questions, Part 24

Index	Multiple Entries Allowed	Required	Question	Answer
68	No	Yes	body for the entry (EXPERIMENTAL) Select one of the following digits with the given meanings: 1 = Uncompressed text - Results in large files, not recommended except for very small works. 2 = Uncompressed text with any entries greater than 64 KiB (about 17 pages). 3 = Compressed text - General good option 4 = Compressed text with any entries greater than 64 KiB (about 17 pages). An "entry" is a single block of text that is a distinct entity such as a verse or chapter or large introductory or commentary section.	3
69	No	Yes	Versification Scheme - Use one of the following: (Unless you know that you have a special reason to do otherwise, enter KJV.) Catholic Catholic2 German KJV KJVA LXX Leningrad Luther MT NRSV NRSVA Orthodox Synodal SynodalProt Vulg	KJV
70	No	Yes	You probably want to set this entry to "none" (without the quotes) to indicate that you are not encrypting your module. But if you want to be able to lock out your module for	none

Question 68: Almost certainly you want to enter 3 for this answer. If you have a chapter in your work that is longer than about 10 pages, to be safe, you should break it up by means of sub-headings rather than selecting a different option here. However, you could also safely use option 4. The author does not recommend ever using options 1 or 2; they are provided for completeness just in case they may be needed in an odd situation.

Question 69: Almost certainly you will wish to enter KJV here unless you know for certain that you are using a different versification scheme. Bear in mind that this does not imply that all of the verses present in your translation appear in the KJV or vice versa; this question concerns the overall versification scheme.

Figure 9.25 – General Questions, Part 25

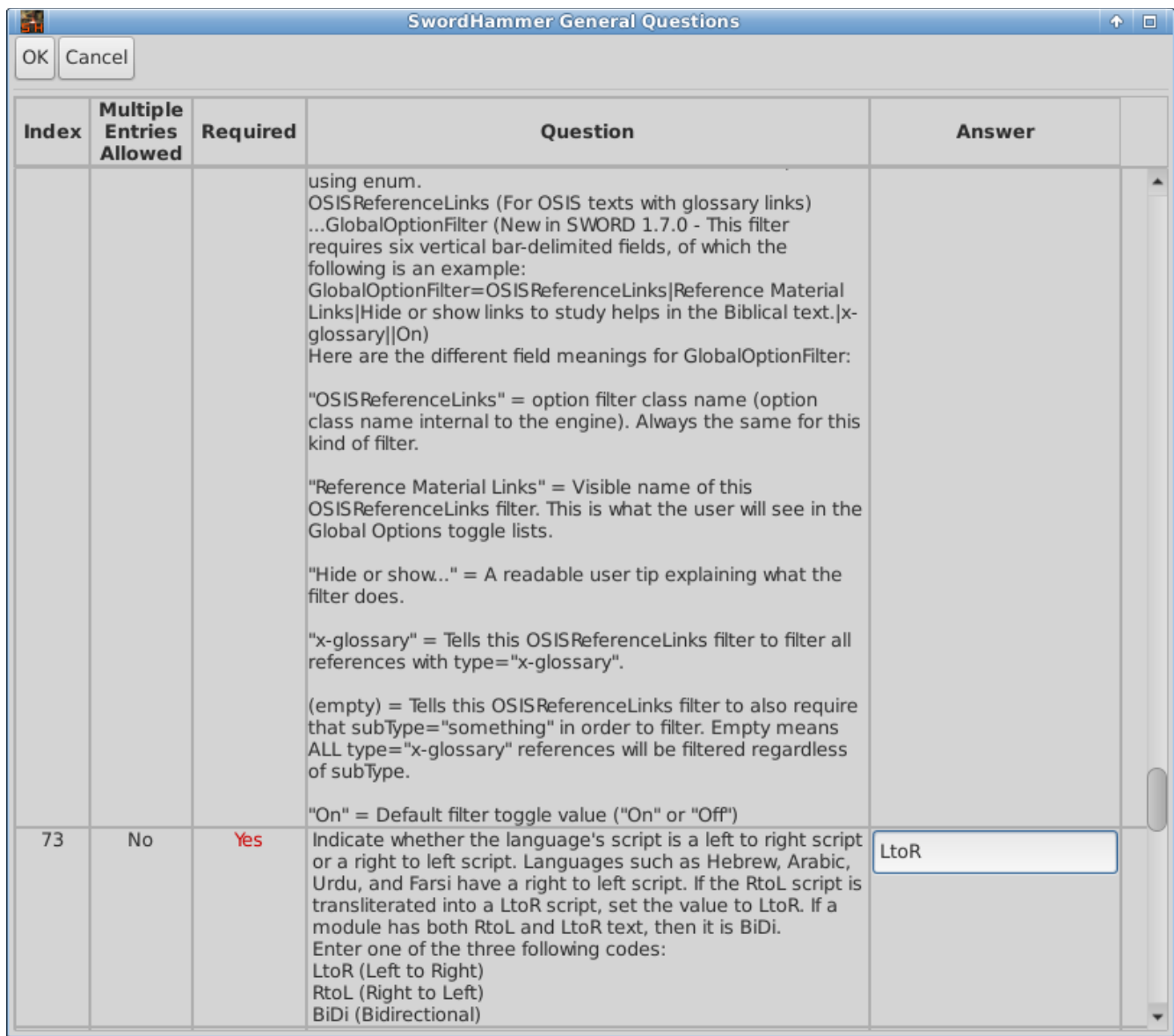
Index	Multiple Entries Allowed	Required	Question	Answer
70	No	Yes	<p>You probably want to set this entry to "none" (without the quotes) to indicate that you are not encrypting your module.</p> <p>But if you want to be able to lock out your module for copyright protection and then unlock it after the sale of a license, you can include this entry and leave it blank. After the sale, the user needs to change the .conf file to put in the key, or you can supply a new .conf file. See below.</p> <p>Indicates that a module is enciphered and that the module is (un)locked. When the key has no value ("CipherKey=") the module is locked. When it has a value, the module is unlocked.</p> <p>A good key is something that is hard to guess. Typically in a format matching the pattern: /[0-9]{4}[A-Za-z]{4}[0-9]{4}[A-Za-z]{4}/. Internally the key can be any byte sequence from 1 to 255 bytes in length. But it needs to be readable, plain text, without leading or trailing spaces.</p>	none
71	No	Yes	Enter "true" or "false" (without the quotes). Use false unless you are using a dictionary that has case-sensitive entries.	false
72	Yes	No	<p>Enter zero or more of the following keywords (see https://crosswire.org/wiki/DevTools:confFiles for more information):</p> <p>UTF8Cantillation (For Hebrew texts having cantillation marks) ...https://en.wikipedia.org/wiki/Cantillation UTF8GreekAccents (For Greek texts having accents) ...For detailed background, see https://en.wikipedia.org/wiki/Greek_diacritics ...This filter can have undesirable side-effects when applied to non-Greek text! UTF8HebrewPoints (For Hebrew texts having vowel points) ...See https://en.wikipedia.org/wiki/Niqqud</p>	

Question 70: This is a rather advanced feature if you give any answer other than none. (And, it must be lower case as shown.) If you want to apply copy protection to your module, then put a key in this box. This is called the *CypherKey*. Before you ship out your module, you will need to edit the .conf file and set the *CypherKey*= line to have nothing following the =. That will lock out the module. Some Bible programs will kindly notice that a blank *CypherKey*= line is present, ask the user for the *CypherKey*, and then modify the .conf file for the user. Users of other programs may have to manually put in the key by editing the .conf file themselves. A better method would be to provide the user with the updated .conf file with the key in it so the user can simply replace the file. You could also direct the user to a Bible program that will make the necessary change so they can download and install that program. That way, the key can be provided to the user upon payment for the module. A .conf file is part of a Sword module's structure. SwordHammer normally takes care of such details for you, but you will have to do some manual work here. .conf files start with the short name of the module, and may be found in your Working Directory. After copying to your local Sword directory, they will appear in the mods.d directory therein. See https://crosswire.org/wiki/DevTools:conf_Files for more information.

Question 71: You almost certainly want to enter `false` for this question. But if you are writing a dictionary that uses case-sensitive entries, enter `true`.

Figure 9.26 – General Questions, Part 26 (Top and Bottom of Question 72)

Index	Multiple Entries Allowed	Required	Question	Answer
72	Yes	No	<p>Enter zero or more of the following keywords (see https://crosswire.org/wiki/DevTools:confFiles for more information):</p> <p>UTF8Cantillation (For Hebrew texts having cantillation marks) ...https://en.wikipedia.org/wiki/Cantillation UTF8GreekAccents (For Greek texts having accents) ...For detailed background, see https://en.wikipedia.org/wiki/Greek_diacritics ...This filter can have undesirable side-effects when applied to non-Greek text! UTF8HebrewPoints (For Hebrew texts having vowel points) ...See https://en.wikipedia.org/wiki/Niqqud UTF8ArabicPoints (For Arabic texts having vowel points) ...See https://en.wikipedia.org/wiki/Arabic_diacritics OSISLemma (For OSIS texts having lemmas) ...Must precede OSISStrong's (below). OSISMorphSegmentation (For OSIS texts having morphological segmentation elements) OSISStrong's (For OSIS texts having Strong's Numbers) ...See https://en.wikipedia.org/wiki/Strong%27s_Concordance#Strong.27s_numbers OSISFootnotes (For OSIS texts having informational notes) OSISScipref (For OSIS texts having cross reference type notes) OSISMorph (For OSIS texts having morphology information) OSISHeadings (For OSIS texts having non-canonical headings) OSISVariants (For OSIS texts having variant readings) OSISRedLetterWords (For OSIS texts marking the Words of Christ) ...See https://en.wikipedia.org/wiki/Red_letter_edition OSISGlosses (For OSIS texts with glosses) OSISXlit (For OSIS texts that include transliterated forms) ...The Samaritan Pentateuch module SP is an example of using xlit. OSISEnum (For OSIS texts with enumerated words) ...The Samaritan Pentateuch module SP is an example of using enum.</p>	<input type="text" value="OSISFootnotes"/> <input type="text" value="OSISScipref"/> <input type="text"/>



Question 72: (Figure 9.26 is so long that it is shown above in two separate parts.) Enter one or more of the keywords as answers to this question. The meanings of the keywords appear in parentheses. This question pertains mostly to some advanced features. However, for those writing in a modern language, the following are most likely to be of interest: OSISFootnotes, OSISScriperef, OSISHeadings, OSISRedLetterWords. Readers wishing to use any of the advanced features will probably need to research the usefulness of the other choices. Bear in mind that SwordHammer may not support some of these advanced options, and not all Bible programs will support some of these advanced options. SwordHammer simply passes these answers to the module generation tools and has no control over how these options work. Note that since we have both footnotes and cross references, we have included the first two in the list above. **Warning:** Do not include OSISHeadings unless you want *all* headings to be considered non-canonical, including Psalm titles; use of this option is not recommended.

Question 73: Enter one of the three choices at the bottom. The answers are case sensitive. The meanings of the choices are in parentheses. This question applies to the main language. This author has found that embedded Hebrew words in notes and commentaries display correctly in those Bible

programs that support Hebrew display, even though LtOR is given here, but UTF8HebrewPoints should be given to the question above if Hebrew is used. Another possible option would be UTF8GreekAccents if you use accents in your Greek text. To not use accents in Greek words is helpful to most readers in this author's opinion; we do not know how the ancients pronounced any language and accent marks clutter the text.

Figure 9.27 – General Questions, Part 27

Index	Multiple Entries Allowed	Required	Question	Answer
74	Yes	No	<p>BiDi (Bidirectional)</p> <p>Enter zero or more of the following keywords: (see https://crosswire.org/wiki/DevTools:confFiles for more information):</p> <p>StrongNumbers (for modules that include Strong's numbers)</p> <p>GreekDef (for dictionary modules with Strong's number encoded Greek definitions)</p> <p>HebrewDef (for dictionary modules with Strong's number encoded Hebrew definitions)</p> <p>GreekParse (for modules with Greek morphology expansions)</p> <p>HebrewParse (for modules with Hebrew morphology expansions)</p> <p>DailyDevotion (for daily devotionals using one of the LD (dictionary) drivers and keyed with MM.DD) - applicable to dictionaries only.</p> <p>Glossary (for collections of glosses using one of the LD (dictionary) drivers) - applicable to dictionaries only</p> <p>Images (for modules that contain images of any type)</p>	<input type="text"/>
75	No	No	<p>Enter a valid language identifier for the language FROM which your glossary is translating. If this work is not a glossary, leave blank.</p> <p>For most common languages, it is really quite simple: Go to: http://www-01.sil.org/iso639-3/codes.asp</p> <p>Pick the first letter of the name of the language, which may be in English or a transliteration of the language's own name and find the language. Then:</p> <ol style="list-style-type: none"> 1. If there is an entry in the 639-1 column, use it. If not ... 2. If there is an entry in the 639-2 column, use it. If not ... 3. If there is an entry in the 639-3 column, use it. If not ... 4. You will have to look at the site at: https://crosswire.org/wiki/DevTools:confFiles#Elements_required_for_proper_rendering <p>You are using an obscure language and probably have access to specialized linguistic resources and more expertise than this author has, so do as you think best.</p> <p>NOTE: This information is applicable to some of the entires below as well.</p>	<input type="text"/>

Question 74: This is another advanced question. Readers wishing to use any of the advanced features will probably need to research the usefulness of the other choices. Bear in mind that SwordHammer may not support some of these advanced options, and not all Bible programs may not support some of these advanced options. SwordHammer simply passes these answers to the module generation tools and has no control over how these options work. For most users, only Images may be necessary if images are included in your work, especially in a Generic Book.

Figure 9.28 – General Questions, Part 28

Index	Multiple Entries Allowed	Required	Question	Answer
75	No	No	<p>Enter a valid language identifier for the language FROM which your glossary is translating. If this work is not a glossary, leave blank.</p> <p>For most common languages, it is really quite simple: Go to: http://www-01.sil.org/iso639-3/codes.asp Pick the first letter of the name of the language, which may be in English or a transliteration of the language's own name and find the language. Then:</p> <ol style="list-style-type: none"> 1. If there is an entry in the 639-1 column, use it. If not ... 2. If there is an entry in the 639-2 column, use it. If not ... 3. If there is an entry in the 639-3 column, use it. If not ... 4. You will have to look at the site at: https://crosswire.org/wiki/DevTools:confFiles#Elements_required_for_proper_rendering <p>You are using an obscure language and probably have access to specialized linguistic resources and more expertise than this author has, so do as you think best. NOTE: This information is applicable to some of the entires below as well.</p>	<input type="text"/>
76	No	No	<p>Enter a valid language identifier for the language TO which your glossary is translating. If this work is not a glossary, leave blank.</p>	<input type="text"/>
77	No	No	<p>You probably want to leave this entry blank. But if the instructions below make sense for your language AND your work is a lexicon, dictionary, or glossary, you may enter either "true" or "false" (without the quotes).</p> <p>Intended for use with Lexicon/Dictionary & Glossary modules. This field will make the order of the keys based upon the mixed case keys, but the index is still sorted by byte order of those keys. There are some scripts that don't have upper/lower case (e.g. Arabic) and some languages where a naïve toLower() will result in the wrong character</p>	<input type="text"/>

Questions 75 and 76: These questions are used only for a glossary and either both must be answered or neither. The comments on language identifiers given above apply here as well.

Figure 9.29 – General Questions, Part 29

Index	Multiple Entries Allowed	Required	Question	Answer
77	No	No	<p>You probably want to leave this entry blank. But if the instructions below make sense for your language AND your work is a lexicon, dictionary, or glossary, you may enter either "true" or "false" (without the quotes).</p> <p>Intended for use with Lexicon/Dictionary & Glossary modules. This field will make the order of the keys based upon the mixed case keys, but the index is still sorted by byte order of those keys. There are some scripts that don't have upper/lower case (e.g. Arabic) and some languages where a naïve toUpper() will result in the wrong character (e.g. Turkish/Azeri lowercase dotted i and capital dotted İ).</p>	<input type="text"/>
78	No	No	<p>You probably want to leave this entry blank. But if the instructions below make sense for your language AND your work is a lexicon, dictionary, or glossary, you may enter a string of characters as in the example below.</p> <p>It is fine to use toUpper() for internal normalization, but having keys in all caps when showing to a user is annoying. The problem is that the display order needs to follow something that makes sense to a user when the dictionary is presented as a list.</p> <p>xulsword has a different solution involving a configuration item not yet used by SWORD master.</p> <p>LangSortOrder=AaBbCcDdEe...</p> <p>This is used by xulsword to sort the keys of a dictionary/ glossary in original alphabetical order. Here's an actual example for module TKLDICT which has Lang=tk-Latn (i.e. Türkmençe):</p> <p>LangSortOrder=AaBbCcÇç ... YyÝyZzŽž</p> <p>This method would need to be modified in order to support alphabets (such as Welsh) that include any digraphs.</p>	<input type="text"/>

Figure 9.30 – General Questions, Part 30

Index	Multiple Entries Allowed	Required	Question	Answer
79	No	Yes	<p>You probably want to set this entry to "false" (without the quotes). But if the instructions below make sense for your particular work AND your work is a lexicon, dictionary, or glossary, you may enter "true"(without the quotes).</p> <p>At the heart of our lexicon/dictionary drivers, we have some old logic which tries to detect if a key value is a Strong's number, and if so, then pad it with leading zeros accordingly. To support this logic, this entry has been added for lexicon/dictionary modules.</p> <p>So as not to break everything, this currently defaults to true if it is not present.</p> <p>It can be set to false if you are building a lexdict module which has entries which may be misconstrued as Strong's numbers.</p>	<input type="text" value="false"/>
80	Yes	No	<p>This entry is very advanced. You probably want to leave it blank. (see https://crosswire.org/wiki/DevTools:confFiles#Elements_required_for_proper_rendering for more information).</p>	<input type="text"/>
81	No	Yes	<p>MULTILINE: This is a more lengthy description of your module and can contain whatever you see fit to tell users and prospective users about what your work is. You can put copyrights, credits, source information, and whatever you deem appropriate in here. This is an important entry that helps prospective users select modules.</p>	<input type="text" value="This is a multi-line text box. Use the Enter key to go to the next line."/>
82	No	Yes	<p>Date this module was last changed in yyyy-mm-dd format (using leading zeroes if needed).</p>	<input type="text" value="2017-11-03"/>
83	No	Yes	<p>Gives the module's revision number. Incrementing it when changes are made alerts users of the SWORD Installers to the presence of updated modules. Please start with version 1.0 and increment by 0.1 for minor updates and by larger values for more major updates such as a new text source. Changes to this conf file should also increment the version number. Do not use non-numbers, such as 1.4a.</p>	<input type="text" value="1.0"/>

Question 79: Be sure to answer Question 79 with **false**, unless you know that you have good reason to do otherwise.

Questions 77, 78, and 80: For expert linguists only. All others should leave these blank.

Question 81: This question is unique so far in that you may answer it with as many lines as you need. Basically, the answer to this question will inform potential readers about your document. So if you want your Sword Module to get used, do a good job here, giving clear and concise information.

Question 82: Enter the date this module was last changed. Note carefully the yyyy-mm-dd format and the need to use leading zeros where needed. This format may look odd to some American readers, but it is not uncommon elsewhere.

Question 83: Enter the module's revision number. This works similarly to software version numbers. However, there are a couple of special rules: The number must not have any letters, and must be of the form X.Y, where X is the major revision number and the Y is the minor revision number. Be sure to start with 1.0 unless you are producing a beta version of your document for internal use only.

Figure 9.31 – General Questions, Part 31

Index	Multiple Entries Allowed	Required	Question	Answer
84	Yes	No	<p>number. Do not use non-numbers, such as 1.4a.</p> <p>Indicates what has changed between different versions. Each time a version is incremented a history line with that version number should explain the change. You must prefix each line with the version number as in the question just above, then a space, then your description. Just use the form x.x, not x.x.x. For example: 1.2 Added new feature to ...</p> <p>It is recommended that each explanation be suffixed by the corresponding SwordVersionDate value. This is the date you entered two questions above and is in the same exact format.</p> <p>SwordHammer does NOT keep track of this history, so you have to do it manually. However, if you have saved your files, then you can just add a line after already existing lines.</p>	<input type="text" value="1.0 First edition"/> <input type="text"/>
85	No	Yes	<p>This is used by installers to further categorize the modules. Enter one of the following text strings verbatim (before the space-parenthesis): Biblical Texts (for Bibles) Commentaries Lexicons / Dictionaries Glossaries (for modules with Feature=Glossary) Daily Devotional (for modules with Feature=DailyDevotion) Generic Books (for anything else....) Maps (for modules that primarily consist of maps) Images (for modules that primarily consist of images) Cults / Unorthodox / Questionable Material Essays (for essays, a subcategory of Generic Books)</p>	<input type="text" value="Biblical Texts"/>
86	No	Yes	<p>Enter the Library of Congress Subject Heading. You should go to: http://id.loc.gov/authorities/subjects.html and search using such terms as "bible" or "creed" or if you get close, click on the entry for suggested alternatives. When you find what you want, click on the entry to see if there are any General Notes or rules. Then enter the Label (not the identifier number, etc.).</p>	<input type="text" value="Bible. English."/>

Question 84: Note that this is a multi-answer question. If you like, you can just add new entries by adding new answers just like it says in the question. A more tedious method, but which is clearer to readers is to start a new answer by copying the last old answer to the new answer, then copy your way up to the top, then replace the top entry with your new information; this gives a reverse chronological history. This question helps users know what to expect when migrating to a new version of your module, and whether to even bother doing so.

Question 85: **Have care to enter one of the provided answers exactly as shown.** This information is important to allow Bible programs to properly store and present your document. The meaning of each option is in parentheses. SwordHammer has been tested to support **Biblical Texts**, **Commentaries**, and **Generic Books**. The rest are at your own risk.

Question 86: This question basically asks for an official Library of Congress classification of your document. To get this go to <http://id.loc.gov/authorities/subjects.html> and you should see a screen somewhat like shown in Figure 9.31.1. If the link above is invalid, you should use a search engine (e.g.

DuckDuckGo) try to find something similar to Figure 9.31.1. This figure shows that we are searching for Bible.

Figure 9.31.1 – Library of Congress Web Site Search for Bible

The screenshot shows the Library of Congress website's search interface. At the top, there is a navigation bar with the Library of Congress logo and buttons for 'ASK A LIBRARIAN', 'DIGITAL COLLECTIONS', and 'LIBRARY CATALOGS'. A search bar is located on the right, containing the text 'Search Loc.gov' and a 'GO' button. Below the navigation bar, a breadcrumb trail reads 'The Library of Congress > Linked Data Service'. The main heading is 'Library of Congress Subject Headings'. A search box contains the word 'bible'. A dropdown menu is open, listing search options: 'All', 'LC Subject Headings', 'LC Name Authority File', 'LC Classification', 'LC Children's Subject Headings', and 'LC Genre/Form Terms'. To the right of the search box, a note states: '**Please Note: LC Classification entries are not included in general search results. You must explicitly select LC Classification in order to search the scheme. This is temporary while the impact of adding LCC to the current system is better understood.' Below the search box are 'Search' and 'Reset' buttons. At the bottom, there are tabs for 'Details' and 'Visualization'. The 'Details' tab is active, showing a section titled 'Library of Congress Subject Headings' with a paragraph of text explaining the service and its history. A footnote at the bottom explains validation strings.

In Figure 9.31.2, we can see that we have a number of results that include the word Bible. The first result looks promising.


Figure 9.31.2 – Library of Congress Search Results

	Label	Vocabulary	Concept Type	Subdivision Type	Identifier
1.	Bible	LC Subject Headings	Title		sh85013576
2.	Minerals in the Bible	LC Subject Headings	Topic		sh85085600
	Gems in the Bible ; Precious stones in the Bible				
3.	Military history in the Bible	LC Subject Headings	Topic		sh85085217
	Battles in the Bible ; Wars in the Bible				
4.	Bible stories, Greek (Modern)	LC Subject Headings	Topic		sh2003009328
	Greek Bible stories, Modern ; Modern Greek Bible stories				
5.	Music in the Bible	LC Subject Headings	Topic		sh85088927
	Bible. Psalms--Music ; Musical instruments in the Bible				
6.	Bible and spiritualism	LC Subject Headings	Topic		sh85013805
	Bible--Spiritualistic interpretations ; Spiritualism in the Bible				
7.	Bible colleges	LC Subject Headings	Topic		sh85013813
	Bible institutes (Colleges) ; Bible schools				
8.	Children in the Bible	LC Subject Headings	Topic		sh85023538
	Boys in the Bible ; Girls in the Bible				
9.	Bible plays	LC Subject Headings	Topic		sh85013819
	Bible--Drama ; Bible--History of Biblical events--Drama ; Plays, Bible				
10.	Politics in the Bible	LC Subject Headings	Topic		sh85104476
	Political science--Biblical teaching ; Political science in the Bible ; Politics, Practical--Biblical teaching				
11.	Great Commission (Bible)	LC Subject Headings	Topic		sh85056975

In Figure 9.31.3, after clicking the first link, we can see that there is no particularly significant information that would make us change our choice. We do see however that there is a recommended subcategory for the language. We thus enter **Bible . English .** as our answer.

Figure 9.31.3 – Library of Congress Details on the Bible Subject Heading

Details Visualization Suggest Terminology

 **Bible**

Works that discuss the Bible in a particular language are entered under the heading [Bible] with the name of the language as subheading, e.g. [Bible. English.]

URI(s)

- > <http://id.loc.gov/authorities/subjects/sh85013576>
- > <info:lc/authorities/sh85013576>
- > <http://id.loc.gov/authorities/sh85013576#concept>

Instance Of

- > [MADS/RDF Title](#)
- > [MADS/RDF Authority](#)
- > [SKOS Concept](#)

Scheme Membership(s)

- > [Library of Congress Subject Headings](#)

Collection Membership(s)

- > [LCSH Collection - Authorized Headings](#)
- > [LCSH Collection - General Collection](#)
- > [Names Collection - FRBR Work](#)

General Notes

- > Works that discuss the Bible in a particular language are entered under the heading [Bible] with the name of the language as subheading, e.g. [Bible. English.]

Editorial Notes

- > headings of the type [topic] in the Bible, e.g., [Animals in the Bible:] [place]--In the Bible, e.g., [Iran--In the Bible:] and [person]--In the Bible, e.g., [Cyrus, the Great, King of Persia, -530 B.C. or 529 B.C.--In the Bible]

Example Notes

- > Example under [Sacred books]

Change Notes

- > 2000-10-31: new
- > 2014-07-15: revised

Figure 9.32 – General Questions, Part 32

Index	Multiple Entries Allowed	Required	Question	Answer
87	No	Yes	Enter the code for the main language of the work. See above for rules for entering language codes	en
88	Yes	No	Enter the name of a module that is made obsolete by this module. The name is in the same format as Question 65 above.	
89	No	No	Specifies companion module(s) that should be opened together, e.g. When Bible and Commentary and/or Glossary modules are distributed together. Enter names of modules in the same format as in Question 65 above, separated by commas if there is more than one.	
90	No	No	MULTILINE: Contains the copyright notice for the work, including the year of copyright and the owner of the copyright.	Copyright Another multiline box showing scroll bars so you can put in as
91	No	No	Contains the name of the copyright holder.	Me
92	No	No	Date of copyright in yyyy format for the year.	2017
93	No	No	MULTILINE: Additional copyright information such as general permissions for limited number of verses, etc.	Copy this all you like.
94	No	No	MULTILINE: Name of copyright holder	Me Who else?
95	No	No	MULTILINE: General notes	

Question 87: We have encountered language codes before, so simply put the code here for your main language. No country/region codes are needed.

Question 88: This question would be only very rarely need to be answered. Note that you do *not* need to use this question if you are making a new revision of an existing module; the new revision will have the same name. Obsoleting an existing module via this question could possibly be justified if an existing module were seriously in error. Some users may be aware that the NASB Bible was updated to NASB95. Even in an example case like this, since the original NASB was not bad, and since users may want to compare changes, such an example case would justify creating a new module, but not necessarily obsoleting the old version via this question.

Question 89: This is another advanced feature. Suppose you write a Bible translation, and provide a set of study notes to go with it. You decide that, unlike some study Bibles, that you want to limit the Bible text to God's Word, and put your notes in the form of a commentary. You would put the name of that commentary here. That way, when a user opens your Bible, your commentary is also opened in the Bible program. This author is unsure of which Bible programs use this feature.

Question 90: As this question is self-explanatory, the author chose to demonstrate that you can get plenty of text in multi-line text boxes.

Questions 91 through 94: Put in any copyright related information here as you wish.

Figure 9.33, General Questions, Part 33

Index	Multiple Entries Allowed	Required	Question	Answer
95	No	No	MULTILINE: General notes	
96	No	No	MULTILINE: Postal address of copyright holder	
97	No	No	Email address of copyright holder, preferably in name@something.tld form.	<input type="text"/>
98	No	No	A link to the home page for the module, perhaps with an encouragement to visit the site.	<input type="text"/>
99	No	No	Optional shortened version of copyright information.	<input type="text"/>
100	No	Yes	Use one of the following strings verbatim: Public Domain Copyrighted Copyrighted; Permission to distribute granted to CrossWire [1] Copyrighted; Free non-commercial distribution Copyrighted; Freely distributable Copyrighted; Permission granted to distribute non-commercially in SWORD format GFDL GPL Creative Commons: by-nc-nd Creative Commons: by-nc-sa Creative Commons: by-nc Creative Commons: by-nd	<input type="text"/>

Question 95: Here is a place for information that does not fit anywhere else.

Questions 96 through 99: More places for optional information. In Question 97, note that a tld (top level domain) is something like .com or .org.

Figure 9.34, General Questions, Part 34

Index	Multiple Entries Allowed	Required	Question	Answer
100	No	Yes	<p>Use one of the following strings verbatim:</p> <p>Public Domain Copyrighted Copyrighted; Permission to distribute granted to CrossWire [1] Copyrighted; Free non-commercial distribution Copyrighted; Freely distributable Copyrighted; Permission granted to distribute non-commercially in SWORD format GFDL GPL Creative Commons: by-nc-nd Creative Commons: by-nc-sa Creative Commons: by-nc Creative Commons: by-nd Creative Commons: by-sa Creative Commons: by Creative Commons: CC0</p> <p>Here is some more information: The actual copyright and/or license information is held in other elements. The last six licenses are Creative Commons licenses.</p> <p>GFDL (https://www.gnu.org/copyleft/fdl.html) GPL (https://www.gnu.org/copyleft/gpl.html) Creative Commons: by-nc-nd (Free to share, Must attribute, Non-Commercial only, No derivatives allowed. https://creativecommons.org/licenses/by-nd-nc/1.0/) Creative Commons: by-nc-sa (Free to share, must attribute, Non-Commercial only, redistributions and derivatives must be under this same license. https://creativecommons.org/licenses/by-nc-sa/4.0/) Creative Commons: by-nc (Free to share and change. Must attribute and indicate if changes made. Non-Commercial https://creativecommons.org/licenses/by-nc/4.0/) Creative Commons: by-nd (Free to share, Must attribute, May not distribute changed material. https://creativecommons.org/licenses/by-nd/4.0/) Creative Commons: by-sa (Free to share and change, Must attribute and indicate changes, Must redistribute under this same license. https://creativecommons.org/licenses/by-sa/4.0/) Creative Commons: by (Free to share and change. Must attribute and indicate if changes made. https://creativecommons.org/licenses/by/4.0/) Creative Commons: CC0 (Released to public domain https://creativecommons.org/publicdomain/zero/1.0/)</p>	GPL

Question 100: This question is required and you must use one of the provided strings verbatim. These available strings are case-sensitive. The answer to the question, unlike some of the others, is intended to be machine readable. What the various strings mean is given in parentheses below the list. For more information, observe that some web sites are given. Note that for legal purposes, the human-readable information you entered in questions above is what is important if you need to defend a copyright. If you go to one of the indicated web sites, you will find that they will usually give specific and helpful

instructions on how to use various copyright options, the exact text of the license, and how to declare your copyright. It may be helpful to know that:

- The English word Copyright is internationally recognized and must not be translated.
- In nearly all jurisdictions, you do not need to get official permission to get a copyright. You just declare it. You should research the matter in your own jurisdiction if needed.

Figure 9.35 – General Questions, Part 35

Index	Multiple Entries Allowed	Required	Question	Answer
			<p>Non-Commercial only, redistributions and derivatives must be under this same license. https://creativecommons.org/licenses/by-nc-sa/4.0/)</p> <p>Creative Commons: by-nc (Free to share and change. Must attribute and indicate if changes made. Non-Commercial https://creativecommons.org/licenses/by-nc/4.0/)</p> <p>Creative Commons: by-nd (Free to share, Must attribute, May not distribute changed material. https://creativecommons.org/licenses/by-nd/4.0/)</p> <p>Creative Commons: by-sa (Free to share and change, Must attribute and indicate changes, Must redistribute under this same license. https://creativecommons.org/licenses/by-sa/4.0/)</p> <p>Creative Commons: by (Free to share and change. Must attribute and indicate if changes made. https://creativecommons.org/licenses/by/4.0/)</p> <p>Creative Commons: CC0 (Released to public domain https://creativecommons.org/publicdomain/zero/1.0/)</p>	
101	No	No	MULTILINE: Any additional notes about distribution of the module.	
102	No	Yes	MULTILINE: Indicates, either in prose (such as "CELE") or as a URL of the source of the text.	Example text copied from p
103	No	No	Contains the URL (a bare URL, not a HTML <a> link) of a web page for unlocking instructions/payment. Example: store.xyz.com/bibles	<input type="text"/>
			This is the end of the Sword Module related questions.	

Question 101: If you want to be more specific about rights to distribute your document, you can put that information here. For example, you might want to make it free to all missionaries in the field.

Question 102: Either give a website URI (also called URL) or state in prose the source of the text in your module. You could, for example, simply state that you are the author if such is the case. Note that in the example, the text exceeds the boundaries of the box; this is not a problem.

Question 103: Recall the discussion above about CryptoKey. Here, you can provide a link to a site from which that key may be purchased. If you are not encrypting your SM, leave this blank.

Whew! That seems like a lot of questions, and it is, but answering them is way less painful than creating OSIS format files, [such as this mess](#) for just three verses. Take heart, dear reader, while in the examples below, you will see around 30 questions per Question Document, it is the author's experience

that whole Bibles with a normal complement of notes will tend to total around 100 Question Document questions. So your question answering work is about half done at this point.

You can, in some cases, cut your labor somewhat by copying the `GeneralQuestionsDatabase.txt` file from an existing project Word Directory into the Working Directory of a new project. **But**, be careful to carefully examine each answer. It is the author's experience that many errors can come from copied text, code, or whatnot due to inattention. This is especially important if you have upgraded SwordHammer since you used the older `GeneralQuestionsDatabase.txt`. Also, carefully note the special procedure with which to do this below.

Generate the Question Document

Now we are ready to deal with the document itself. So go ahead and click on the `Generate Question Doc.` button. You should see the screen of Figure 10.1, briefly.

Figure 10.1 – Question Document Generation in Progress

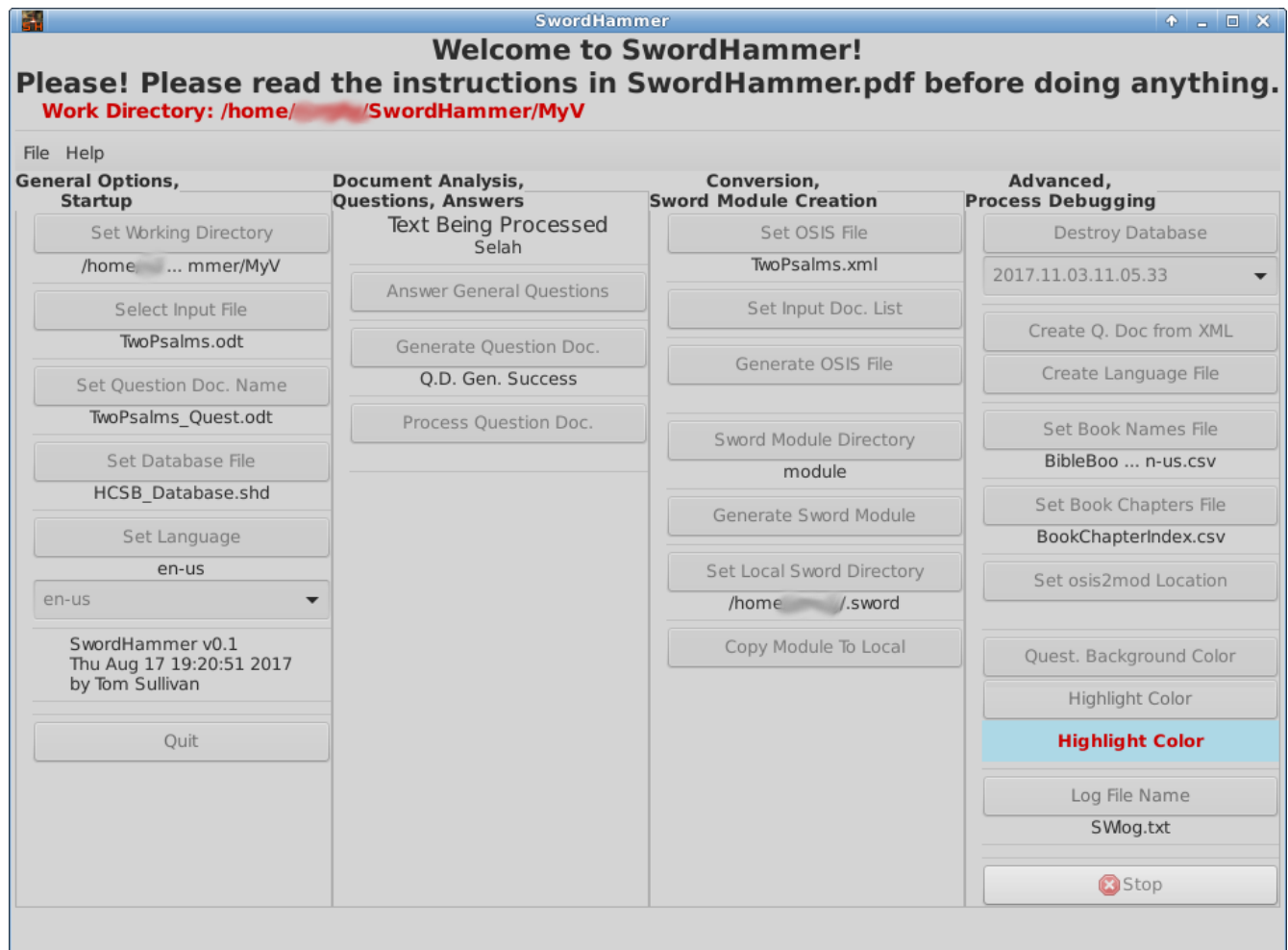


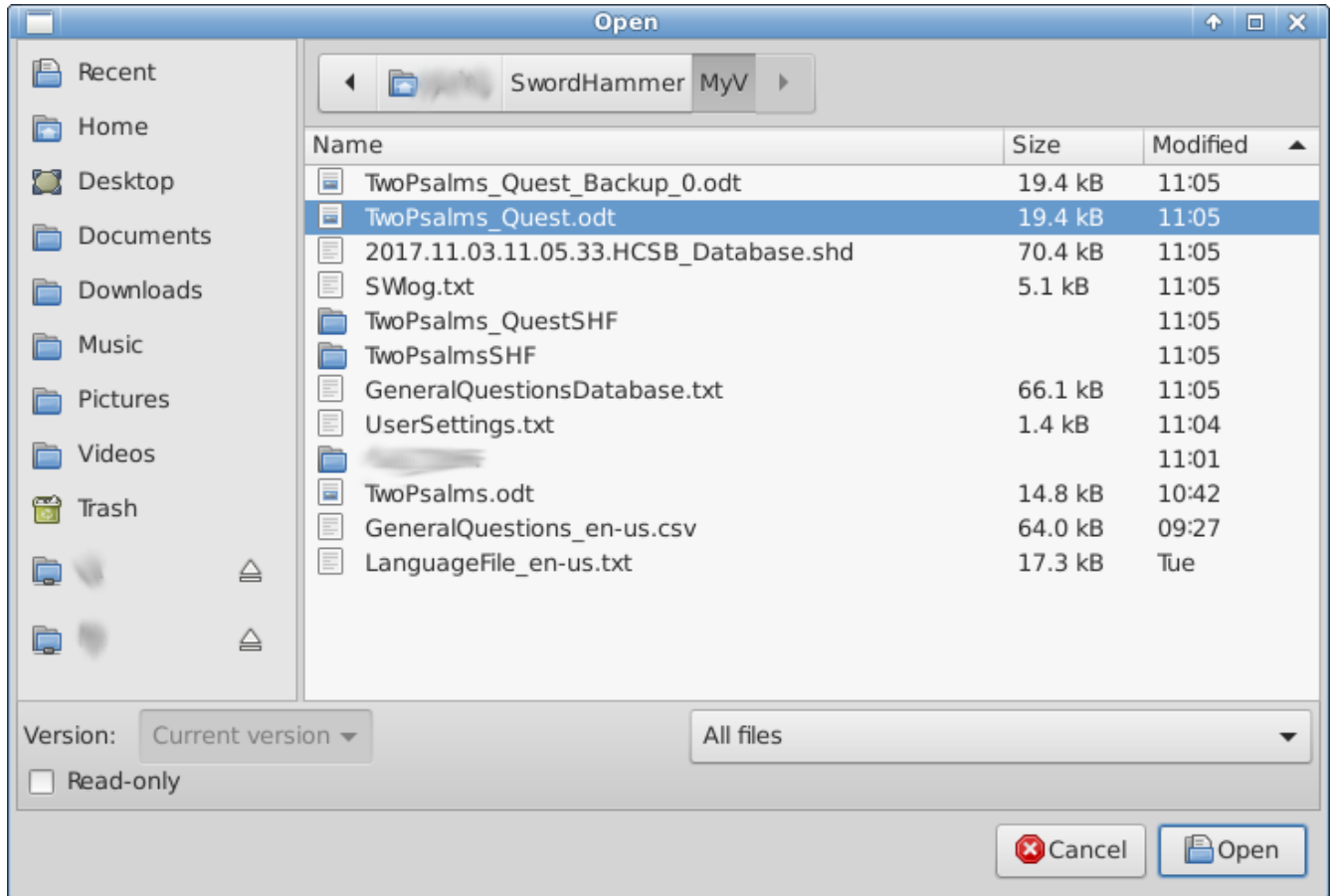
Figure 10.1 shows some noteworthy features. First, note the text below the `Text Being Processed` label. In our example, because `TwoPsalms.odt` is so short, it is already finished, and it is already at the final word. SwordHammer takes occasional snippets of the input document and

displays them here. (Not all the text is displayed so as not to slow down the computer.) Since most documents will have notes and other features, this text can be rather disjointed at times; such is not related to any defect in the input document. Also, SwordHammer displays the estimated percentage done in the same place; these percentages can sometimes be off some due to the nature of the complex Writer document structure. Also note that when an OSIS file is being generated (**Generate OSIS File** button), the percentage refers to the input document currently being processed, not the whole job unless there is only one input document.

Second, notice how most buttons are grayed out; only the **Stop** button is available. This prevents you from accidentally starting a new task on top of one already in process. It also cleanly exits whatever is in progress. If you stop a process before it ends, it will do no harm; the results are only saved at the very end. So if you suddenly realize that you started something in error, or you need to make some changes, go ahead and hit **Stop** without fear. On rare occasion, if SwordHammer crashes or something, you will want to exit SwordHammer even though the **Quit** button is disabled. In this case, just use the **X** in the upper right corner. In some such cases, you may have to wait until the computer decides to ask you if you really want to quit.

Finally, the screenshot caught things right between the last message and re-enabling all of the buttons. You can see the message **Q . D . Gen . Success** which indicates a successful Question Document generation. You may also notice that the most current database information has been updated near the upper right. So let us answer the Questions. Open Writer and find your Question Document and open it. If you are unsure as to its name, simply point Writer to your Working Directory. The first part of the name of your input document will usually be the first part of the name of the Question Document. As you can see in Figure 10.2, the Question Document is highlighted. (The files are sorted by date.) Above the Question Document is a backup copy of your Question Document. Be sure to not edit this – SwordHammer will not see your answers in it; it is provided in case you (or Writer) mess up the Question Document.

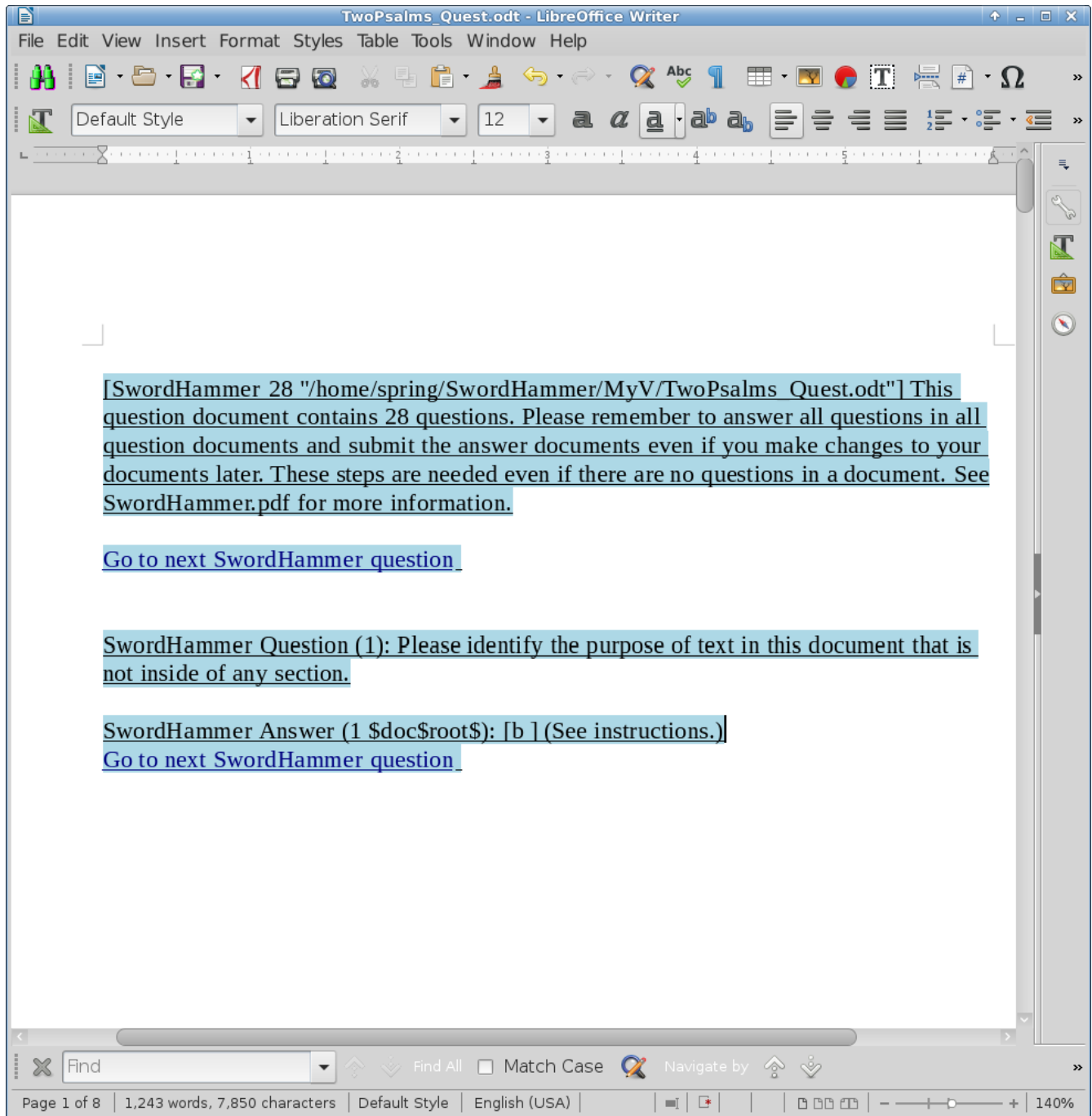
Figure 10.2 – Finding Your Question Document



You will also notice two new directories marked with folder icons. These are automatically generated by SwordHammer and contain intermediate results. After a project is satisfactorily complete, deleting them does no harm and does not preclude restarting the project. The only reason you may want any of the files inside these folders is if requested by tech support for troubleshooting purposes.

As you work through these tutorials, you may forget answer codes that you were expected to remember, say after a weekend out of the office. If that happens, you can go to [the main codes list](#). This is a list of the answer codes that SwordHammer officially supports. The answers there are divided into general categories. This author recommends that you use the mnemonics when they are available.

Figure 11.1 – The Question Document, Part 1



In Figure 11.1, we see an introduction, then the first question. Below the introduction and all questions are hyperlinks that take you to the next question. This feature becomes important as questions become sparse in the Question Document.

Cautions:

- **Never change any highlighted question text, except to put your answer(s) between the square brackets.**

- **Do not bother to change any other text. These changes will not affect the output text (at best) and may cause problems (at worst).**

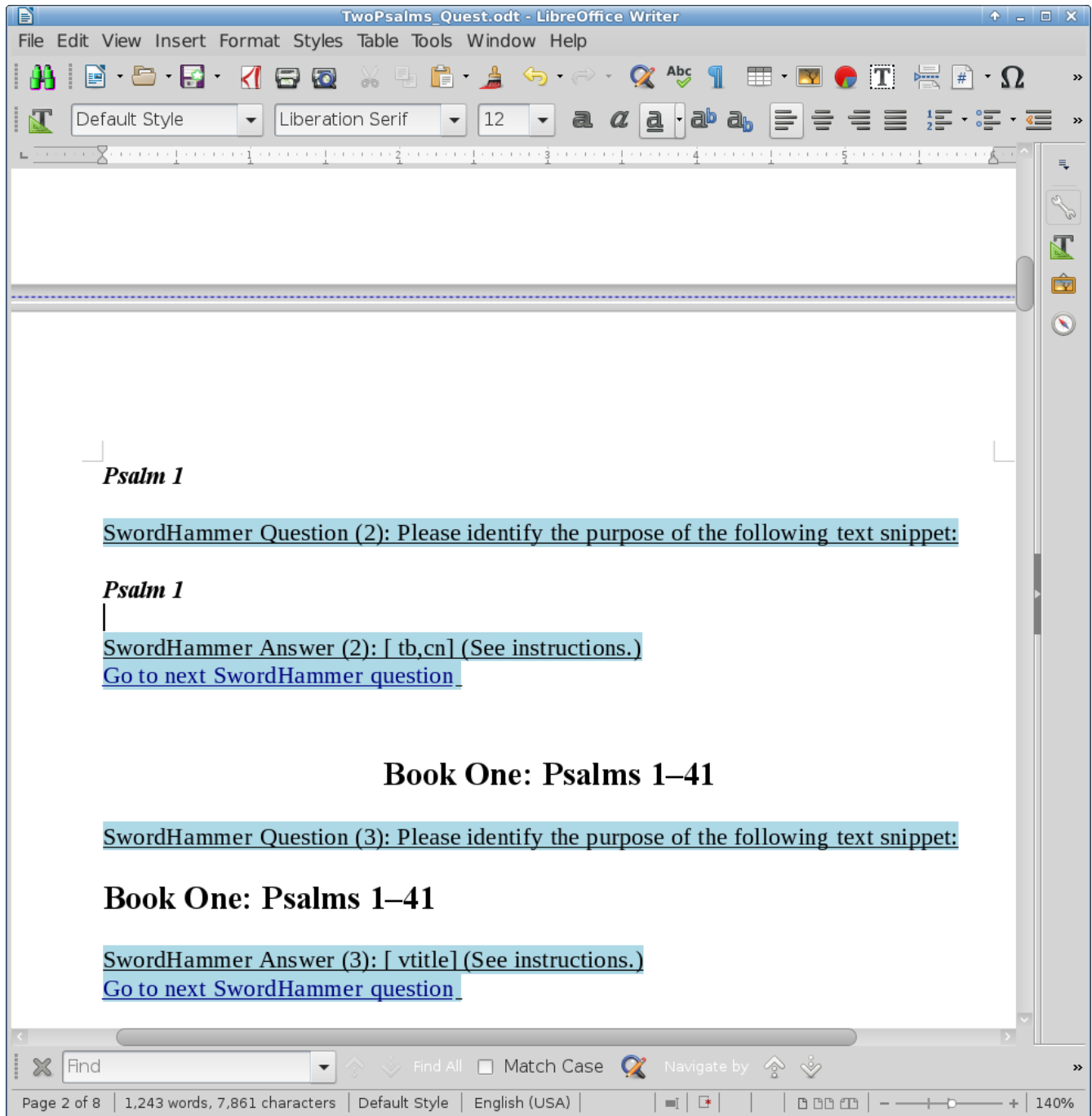
Notice that SwordHammer includes the name of the Question Document and the number of questions in the introduction. It will cross check this information later, so if you ever need to use the backup Question Document, please copy it to a new file of the same name as the original Question Document.

The first question always appears. The question asks for the purpose of of any text that is not inside of any section. Recall that sub-sections inherit from their parent sections. In this case, the whole document is the parent section. Unless you have reason to do otherwise, you should generally enter **b** for the answer here to indicate that this is a book. This does not mean a book of the Bible, but the whole document. More advanced options will be discussed later (e.g., you will use **SS** for Generic Books).

You can put other answers in here as well; such answers will apply to the whole document. For example, you could include **noref** in your answers to this first Question to disable picking up Scripture references by default.

A question may have more than one answer. In that case, simply put all of the answers between the square brackets, separated by commas. Spaces around answers or commas are ignored.

Figure 11.2 – The Question Document, Part 2



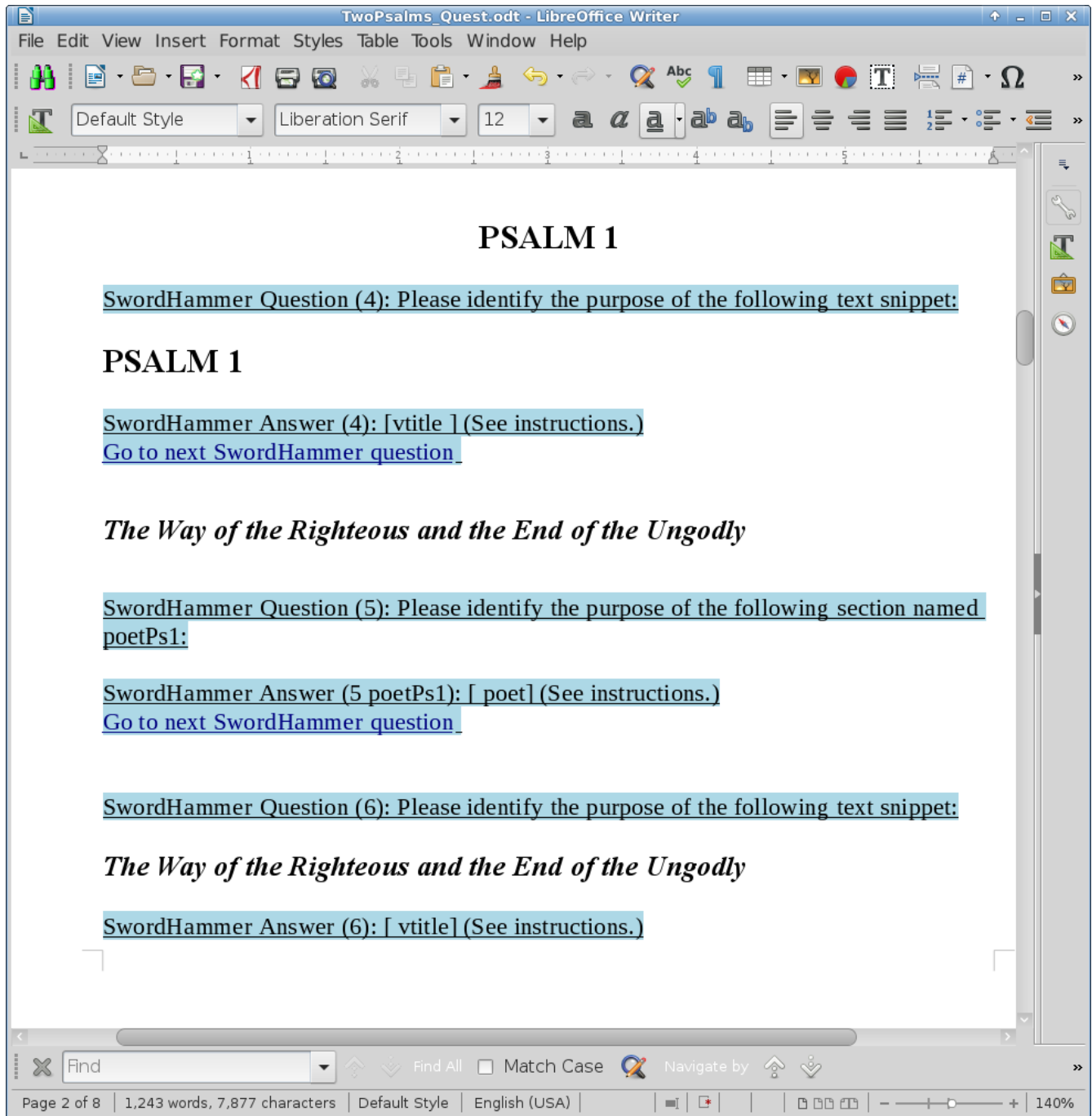
Question 2 shows the format of most questions. First there is a request for an answer with the question number in parentheses. Notice that the question repeats the text in question. In this example, you can see that the original text appears above the first highlighted question line. After the text snippet, we see two more highlighted lines. The first of these two highlighted lines is the answer line. Again, the question number is in parentheses to help you keep things straight. You put your answer(s) between the square brackets. If there is more than one answer, separate the answers by commas. Spaces are ignored.

In question 2, we have two answers. The first (tb) tells SwordHammer that the text contains a book title. SwordHammer will search the standard Bible book names as they appear in `BibleBookAbbreviations_en-us.csv`. This means that other text is ignored. That is why the chapter number answer (cn) can also be included. SwordHammer also looks in the text and returns the first number found as the chapter number. So, titles like: **The Book of Job, Chapter 1 – Setting the Stage, Part 1** would work just fine.

The last highlighted line is a hyperlink to the next question. In Writer, hold down the control key and click on the hyperlink to jump to the next question. We do not need this now, but in longer documents, the questions can get very sparse; this hyperlink can save your mouse scrolling finger a lot of work.

We choose to treat the snippet of Questions 3 and 4 as generic verse titles. They are not canonical text and SwordHammer knows that all titles in a Bible, except Psalm titles, are non-canonical text.

Figure 11.3 – The Question Document, Part 3



We have already seen the format of the introduction with its first question, and the usual question format. Question 5 shows another possible question format, the format of questions pertaining to sections; there is no snippet of text in the middle. Please peek ahead to Figure 11.4 and notice the box around the poetic part of Psalm 1. (This did not reproduce in the copied text of our [input document](#).) The box shows the boundaries of the section called poetPs1.

Special Feature Reminder: You should start the names of all of your poetry sections with poet (in lower case only) as the first four letters of your section name. If you do this, you will not get new

section-caused questions for poet sections past the first one. For more details, see the [previous discussion above](#).

In the case of our Question 5, we need only apply the answer poet, for poetry.

Figures 11.3.1 and 11.3.2 show the difference that marking poetry makes in a Bible program. In Figure 11.3.1, the lines of the poem are together. In Figure 11.3.2, the lines of the poem are treated as separate paragraphs. (Figure 11.3.2 was generated by removing the poetry section from Psalm 3 in a test copy of our input document.)

Question 6 is also answered vtitle since we choose to treat these entries as verse titles also.

Figure 11.3.1 – The Results of Not Marking Poetry – Poetry Marked for Psalm 1 (Notes obscured to comply with copyright.)

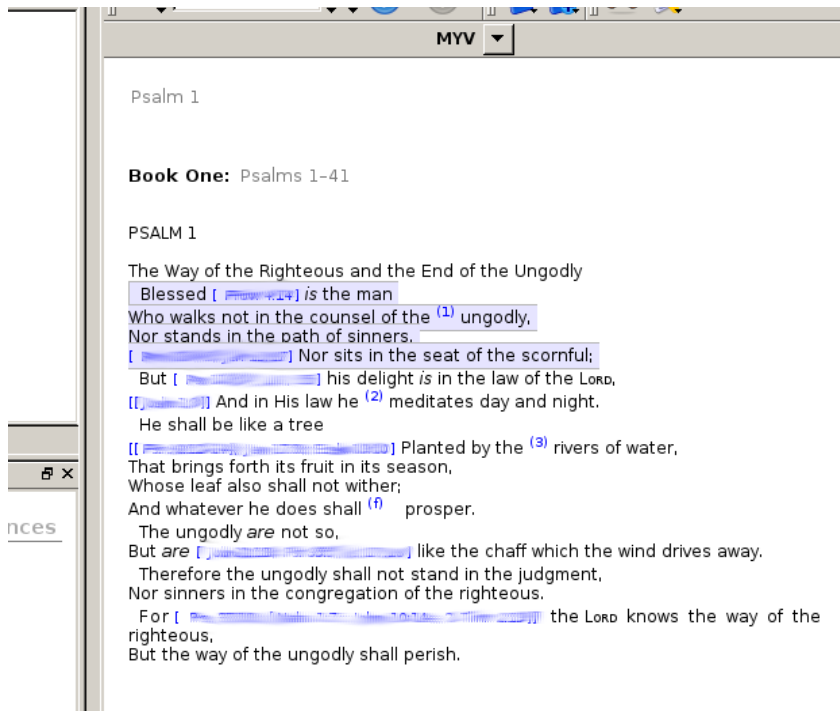


Figure 11.3.2 – The Results of Not Marking Poetry – Poetry **Not** Marked for Psalm 3

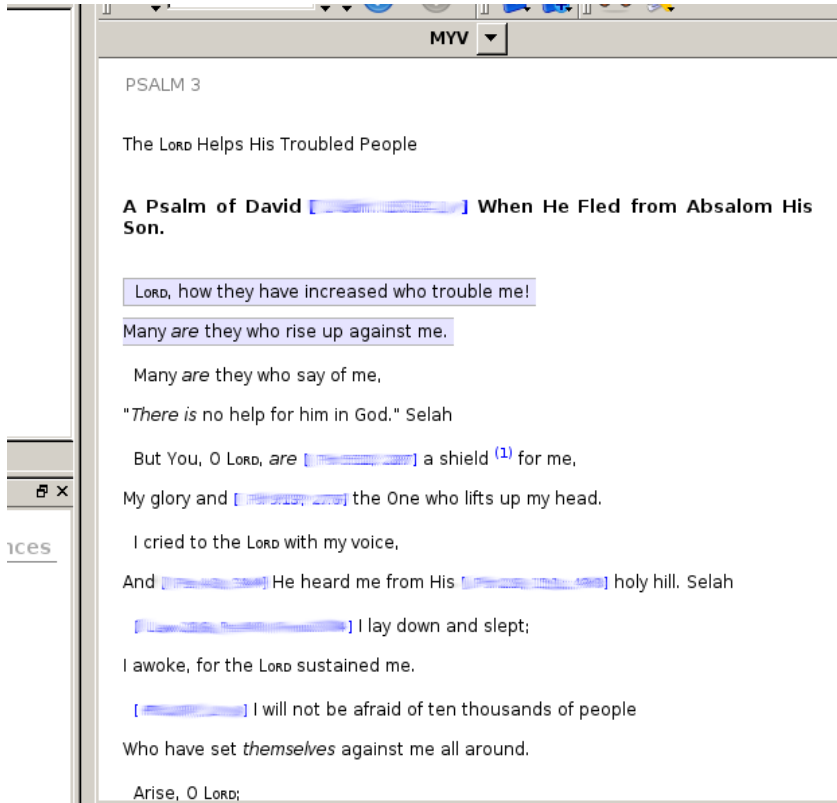
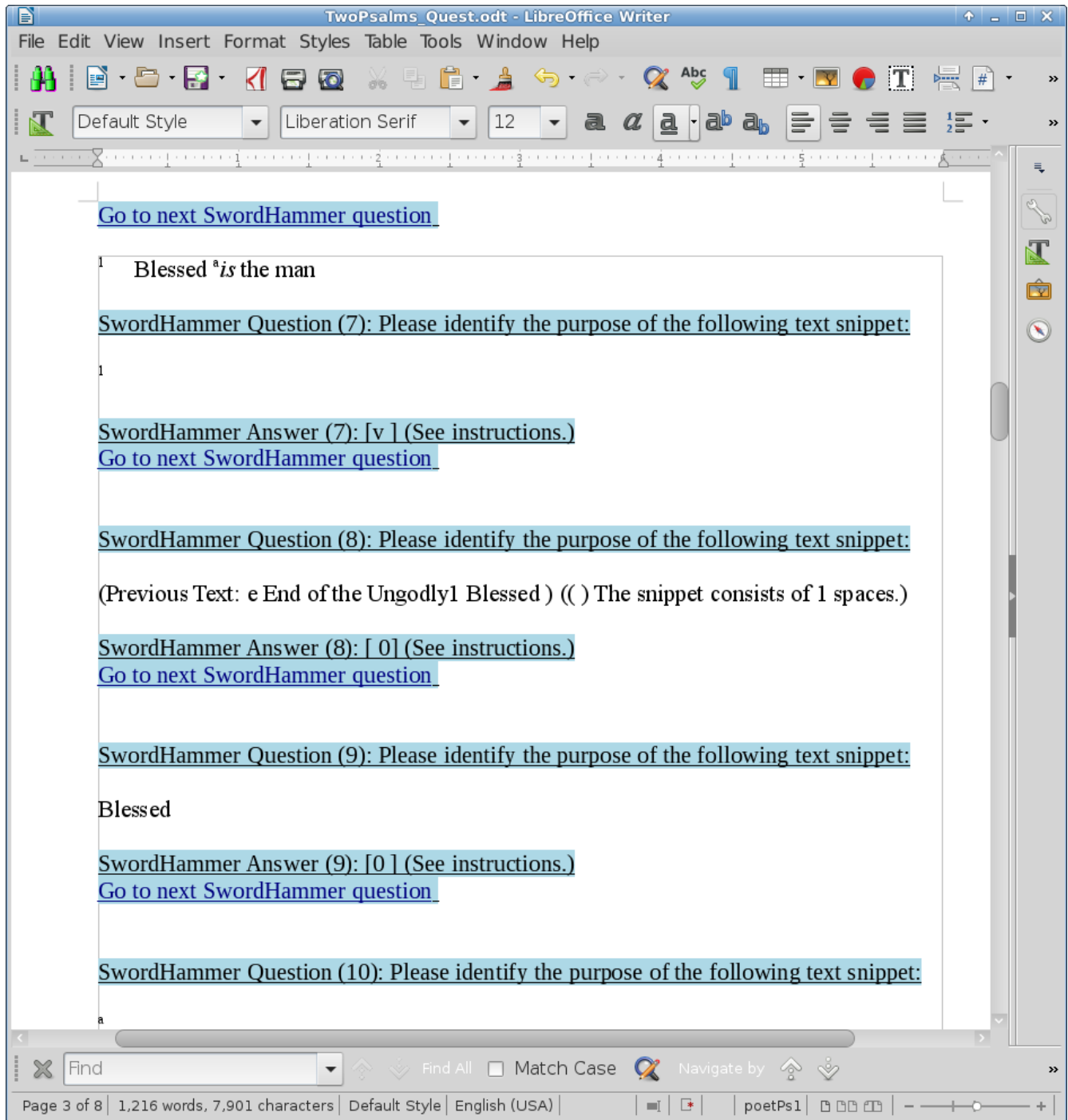


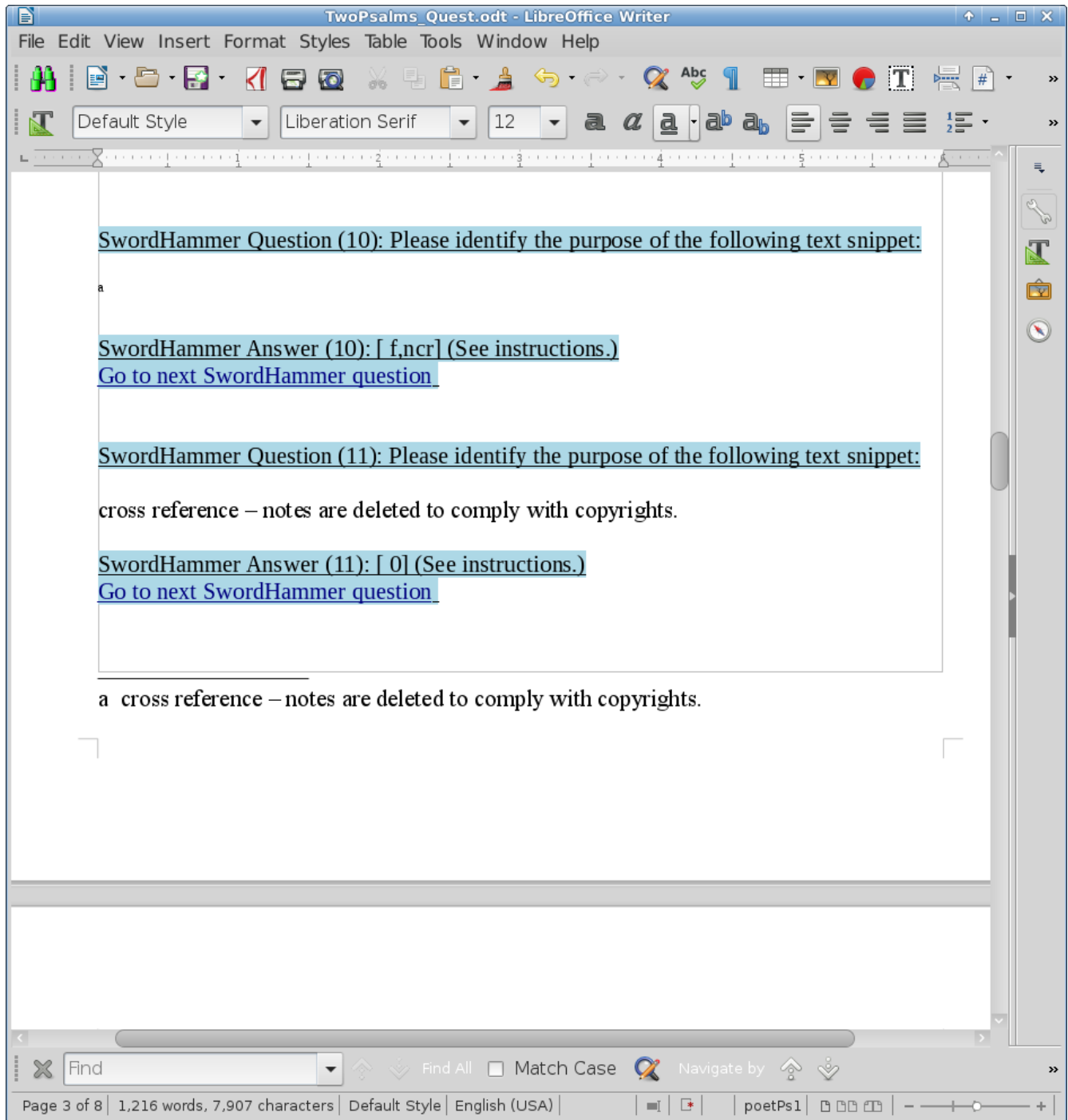
Figure 11.4 – The Question Document, Part 4



We next get a bunch of questions in rapid succession caused by the first line of Psalm 1. Question 7 displays a superscripted 1. We answer with v, indicating that it is a verse number.

Question 8 has extra text to explain that a space was found, since, obviously, you cannot see the space itself. For both Question 8 and Question 9, we answer 0, because these text formats have no special meaning. An answer of 0 (zero) simply means that the text is fed verbatim to the Bible program without any instructions to do anything special with it.

Figure 11.5 – The Question Document, Part 5

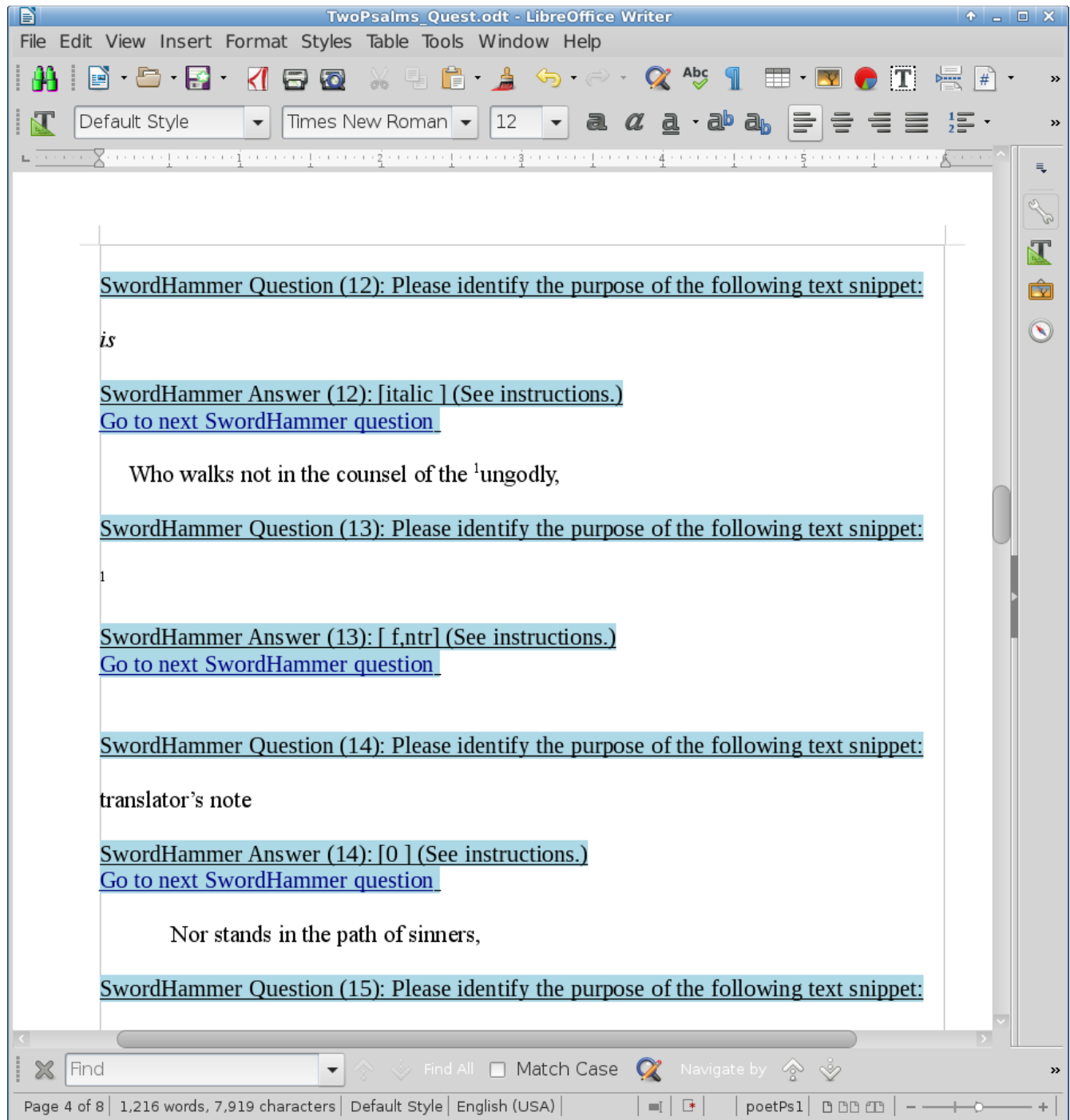


We answer Question 10 with `f, ncr` because, first, we want to treat it as a footnote. We are not required to do so. We could have used `e, ncr` to treat the note as an endnote. Second, we use `ncr` to tell SwordHammer that this is a cross reference. Many Bible programs do not distinguish between footnotes and endnotes.

Notice that we answer Question 11 `0`, even though the snippet is the text of the footnote. If you think carefully, you probably have already guessed why. The superscripted `a` is picked up by SwordHammer as a note marker and that the marker is a letter with a certain font, size, and so on. On the other hand,

the text of the note has no distinguishing characteristics, but SwordHammer already knows that it is the text of the note.

Figure 11.6 – The Question Document, Part 6

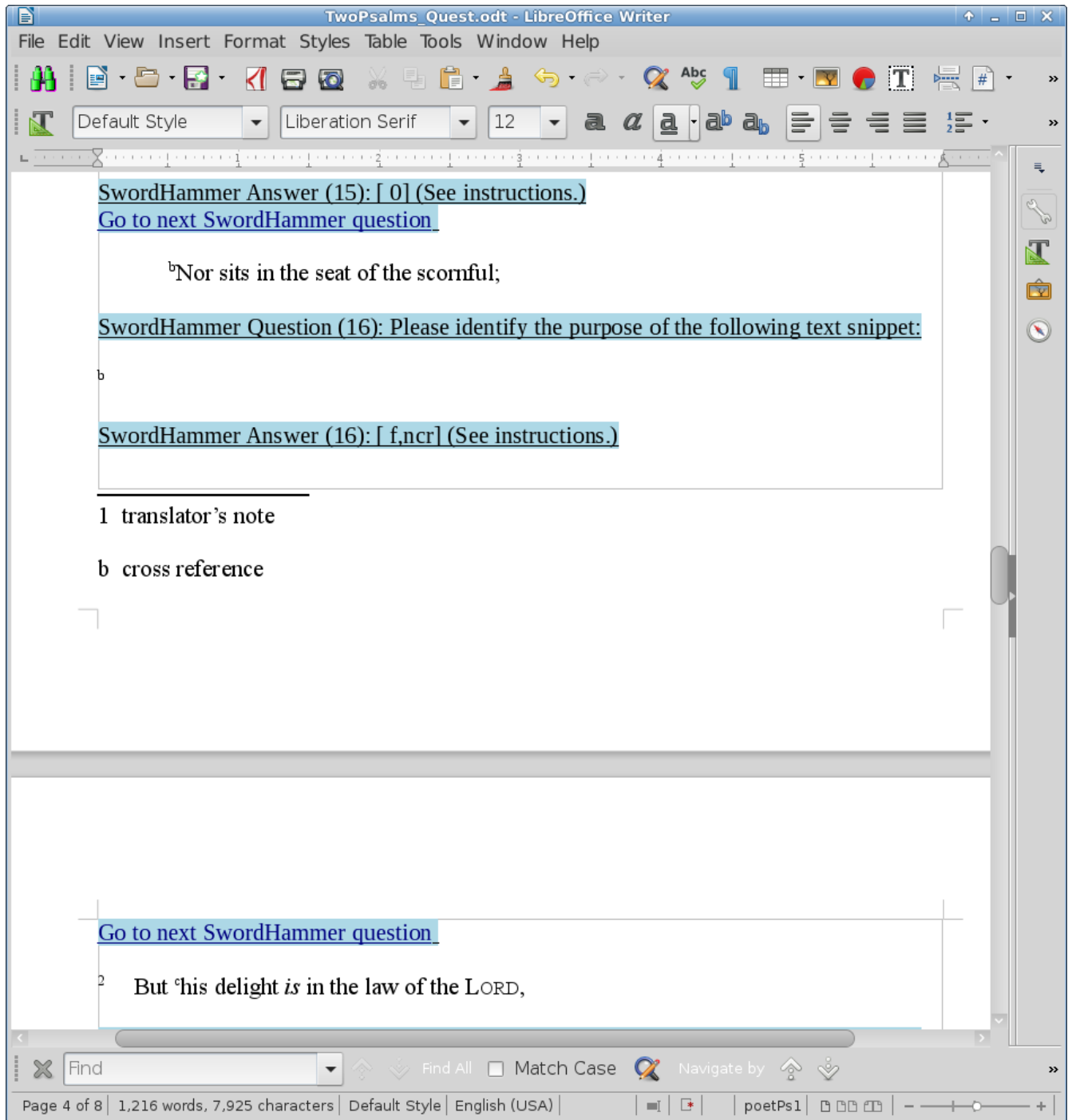


This version of the NJKV uses italics to indicate an implied word not in the original language. So we give *italic* to Question 12 to reproduce this feature. Note that the output of SwordHammer is not at all constrained by the use of italics in the original document. We could have used \emptyset to ignore the italics or **bold** to convert italics to bold, and so on.

Question 13 shows a superscript 1 as its snippet. This version of the NKJV uses superscripted numerals to indicate translator's notes, so we answer f, ntr.

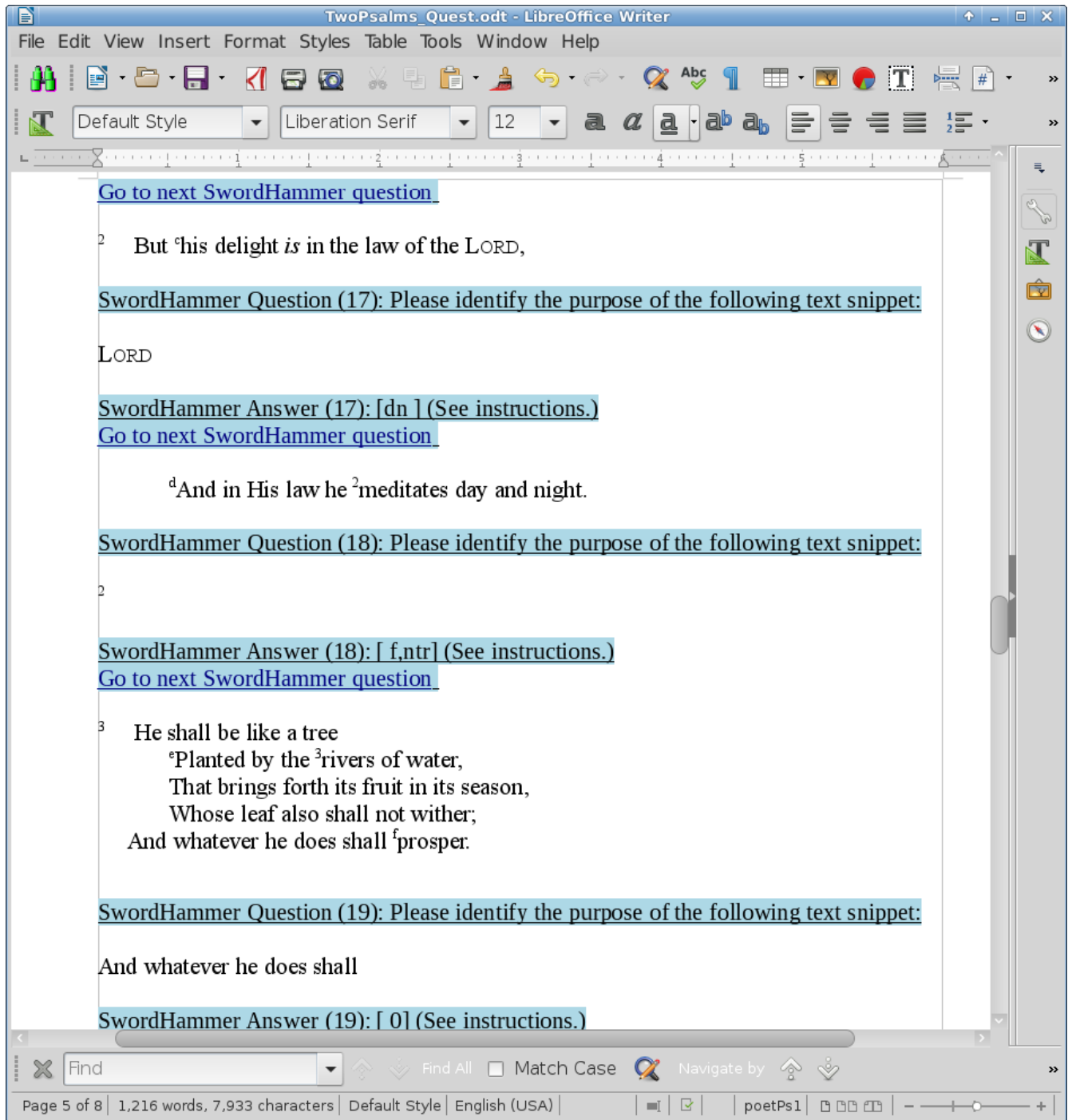
Question 14 shows another case of where the text format has no special meaning. But why did we get an apparently repeat question. We already gave an answer about this kind of plain text in Question 11. It is because a numeral, not a letter for the note marker makes this a different *kind* of footnote. A similar question will apply to Question 15. If you refer back to the [input document](#), you will notice that this line of text is indented differently than the text in Question 9. This author made the conscious SwordHammer design decision that it is better to make you answer "extra" questions than to deny you the flexibility to use such things as text and paragraph properties to help distinguish between text items. This ability can be especially helpful if you are using input documents that you obtained from an existing source.

Figure 11.7 – The Question Document, Part 7



Question 16 is a “repeat” for the same reason as for Question 15.

Figure 11.8 – The Question Document, Part 8



Many Bible programs prefer to deal with the *Divine Name* in their own way. Hence, uses of the divine name should be marked as such with dn, as in the example given by Question 17.

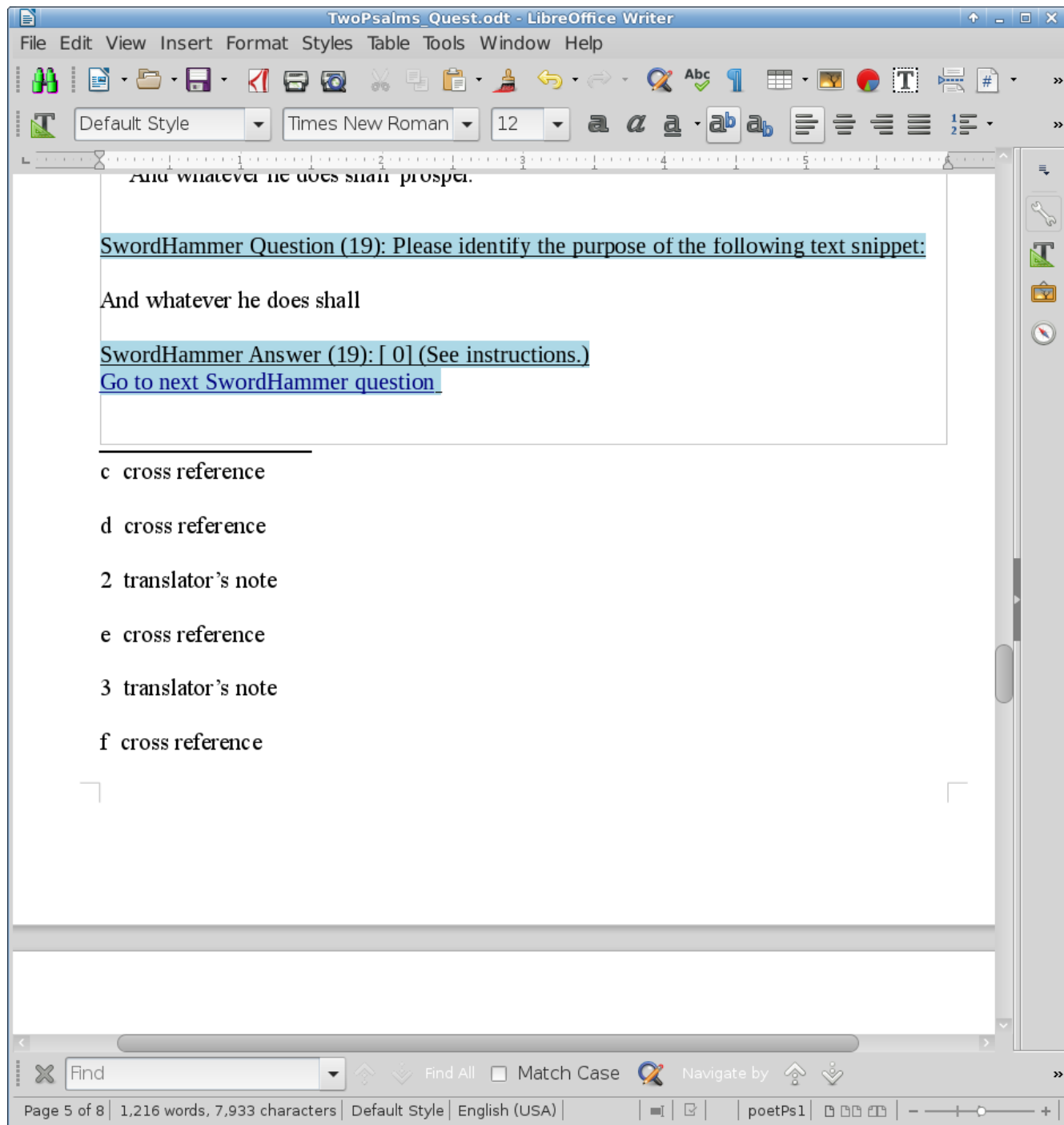
A word of explanation may be helpful to some readers. The Hebrew word יהוה is the holy and Triune God's personal name, generally transliterated into English as "Yahweh", or "Jehovah." For historical reasons outside of the scope of this manual, many translators have chosen to translate it as "LORD" using the small capitals to differentiate God's personal name from one of His common titles, אֱלֹהִים,

(stem shown) generally transliterated into English as “Adonai,” and translated “lord” or “Lord” depending on whether the subject is human or divine. However, not all display systems are able to render text in small capitals, so sometimes a program must indicate that the divine name is being used in some other way and the program must be given that information by SwordHammer.

The author must beg the indulgence of the reader to raise a theological point here: If God Himself gave us His personal name, why not use His personal name, His gift, to us? We need only not use His holy name in vain. For a direct, accurate translation such as “Yahweh,” this author sees no reason to tag it with the `divine` name answer, but you may choose to do so if you wish.

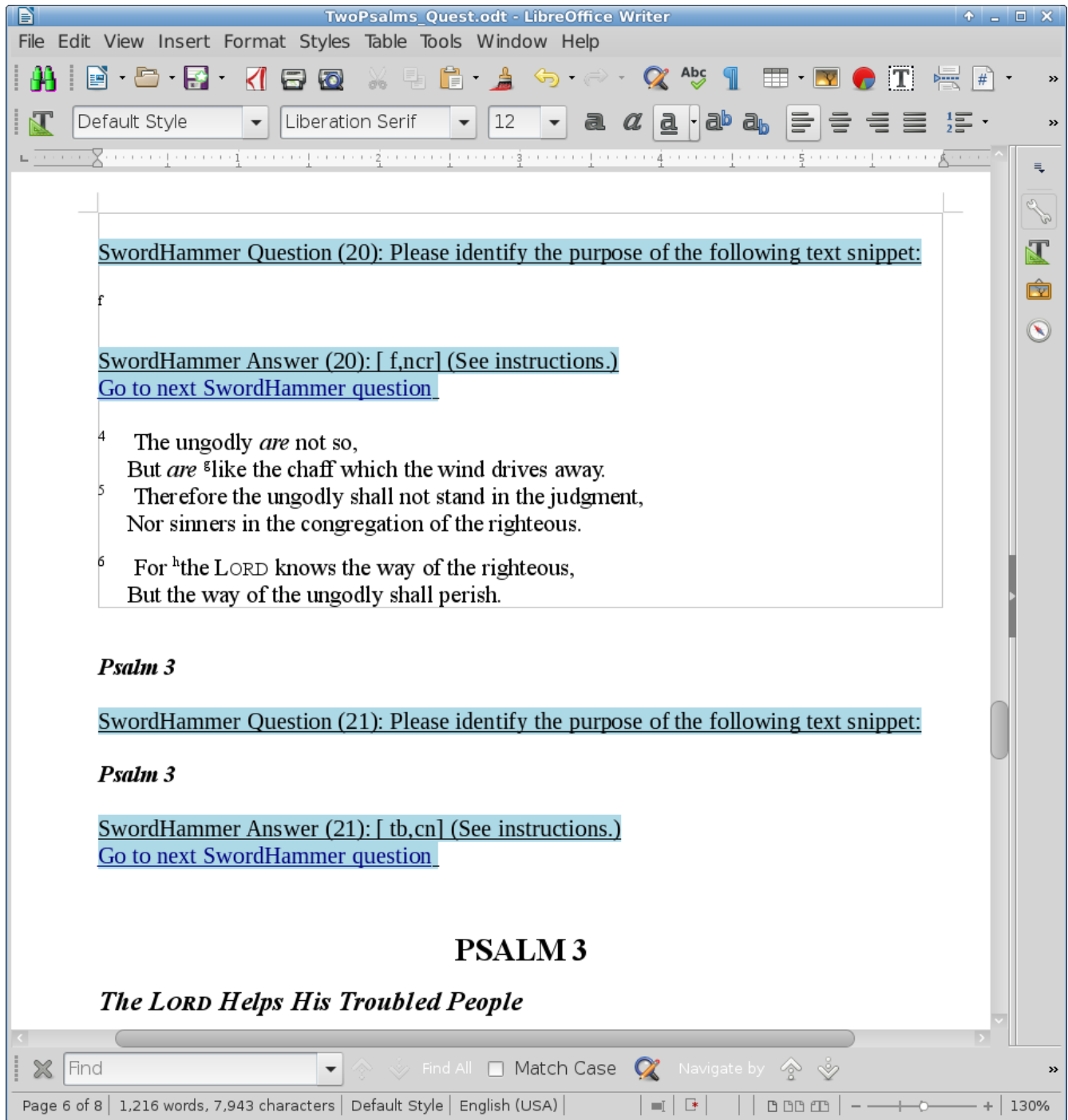
Question 18 is another “repeat” and a translator’s note.

Figure 11.9 – The Question Document, Part 9



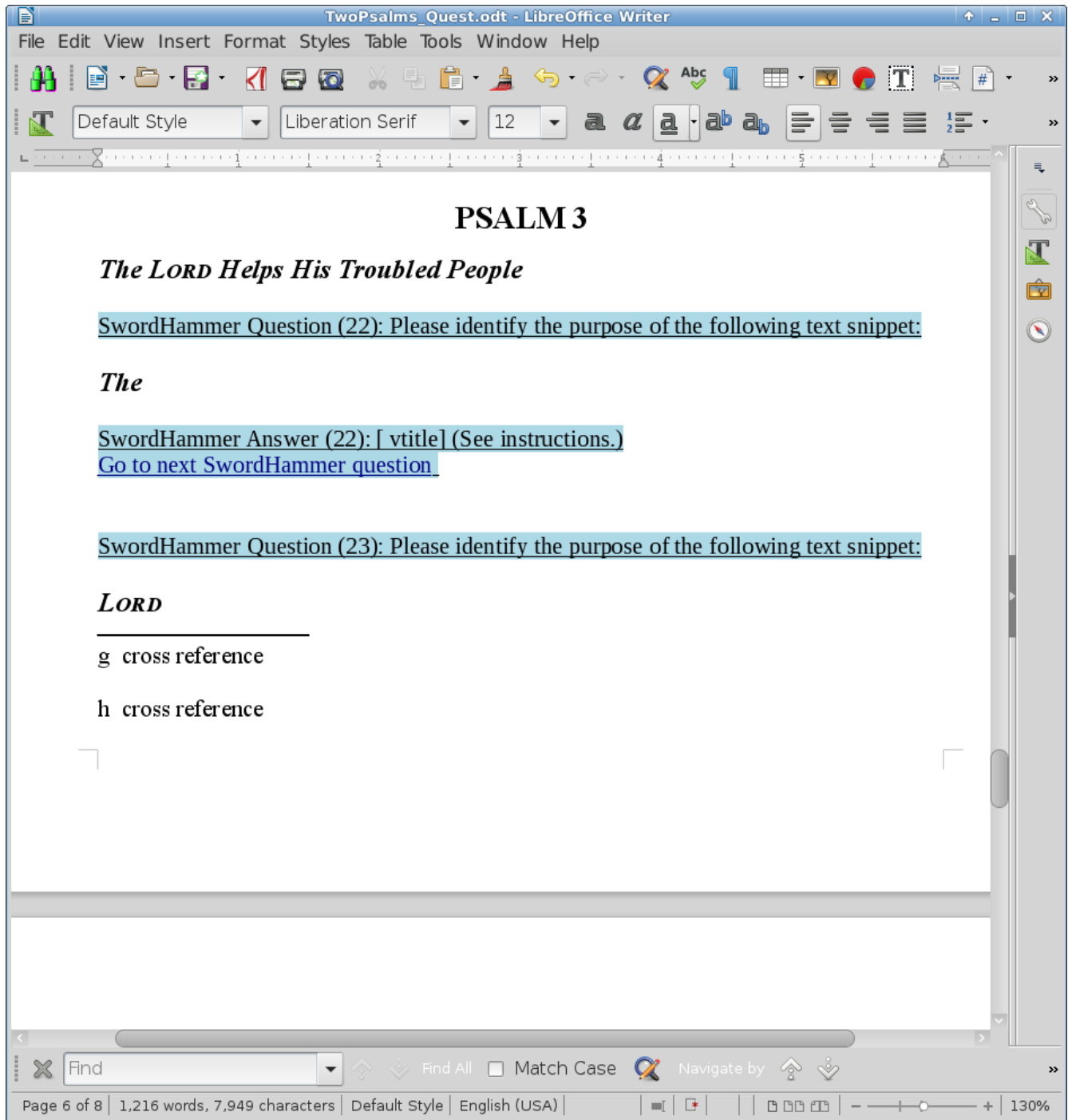
Question 19 also shows text with no special meaning, so it is answered 0.

Figure 11.10 – The Question Document, Part 10



Questions 20 and 21 are similar to what we have seen before.

Figure 11.11 – The Question Document, Part 11



Questions 22 and 23 are a verse title. But if you look at Question 23 (below) carefully, you will note that we combine `vtitle` and `dn` because both apply. The snippet of text is, indeed a divine name, so we give `dn`, but notice that it is *still part of the verse title*. Hence we also give it `vtitle`. You should have a care to recognize this situation and always be sure to apply *all* applicable answers in such cases.

Figure 11.12 – The Question Document, Part 12

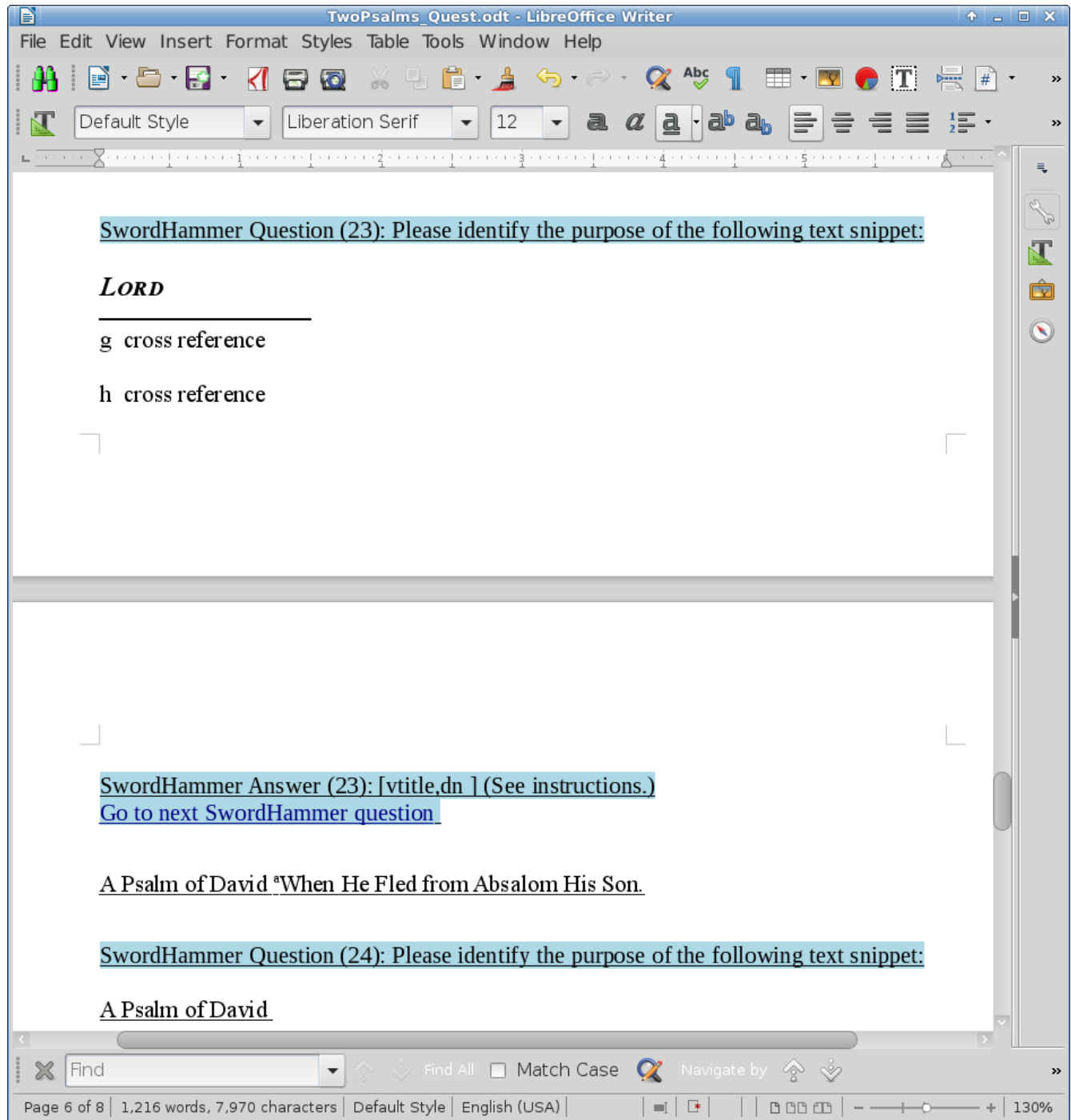
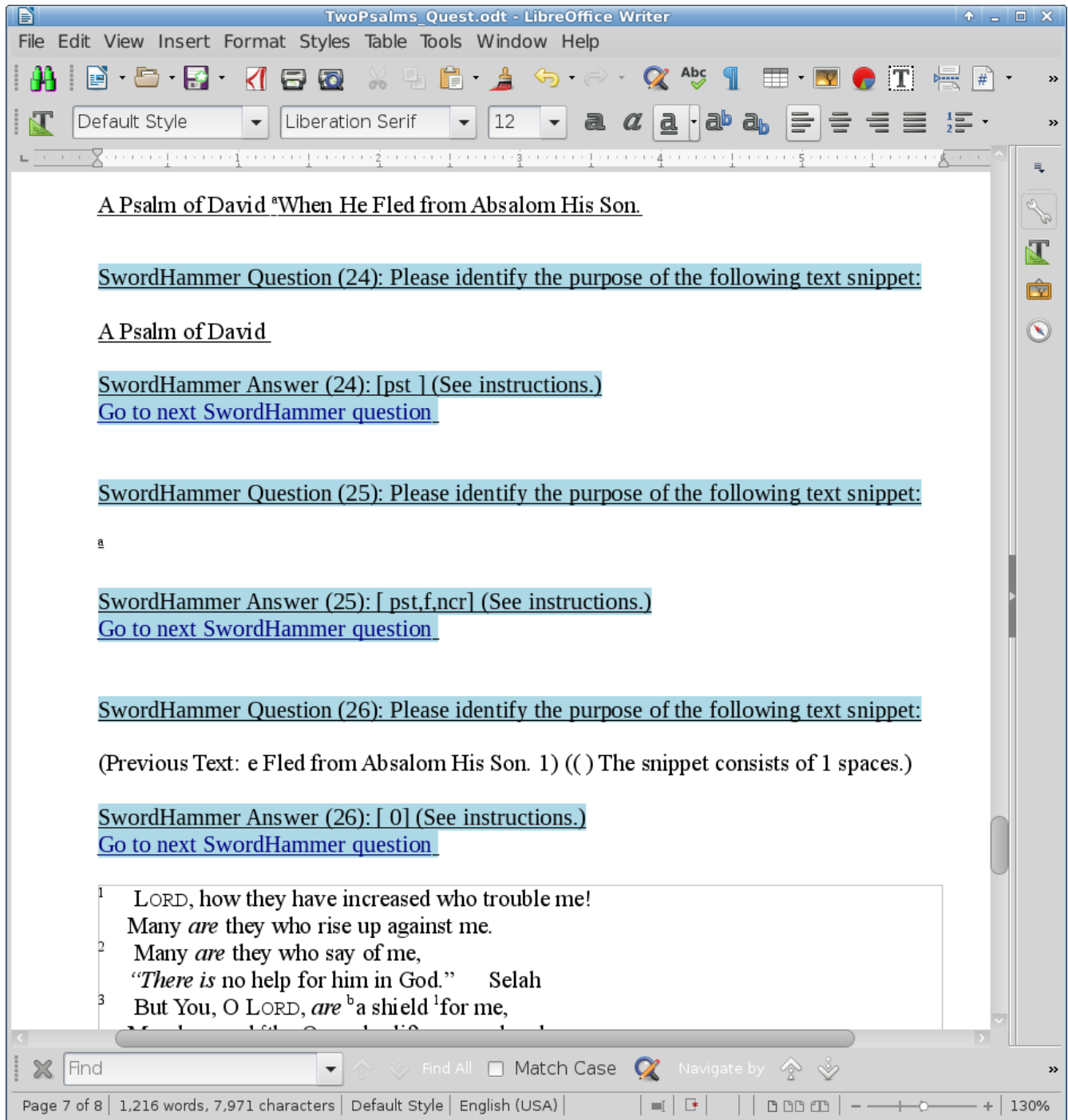


Figure 11.13 – The Question Document, Part 13

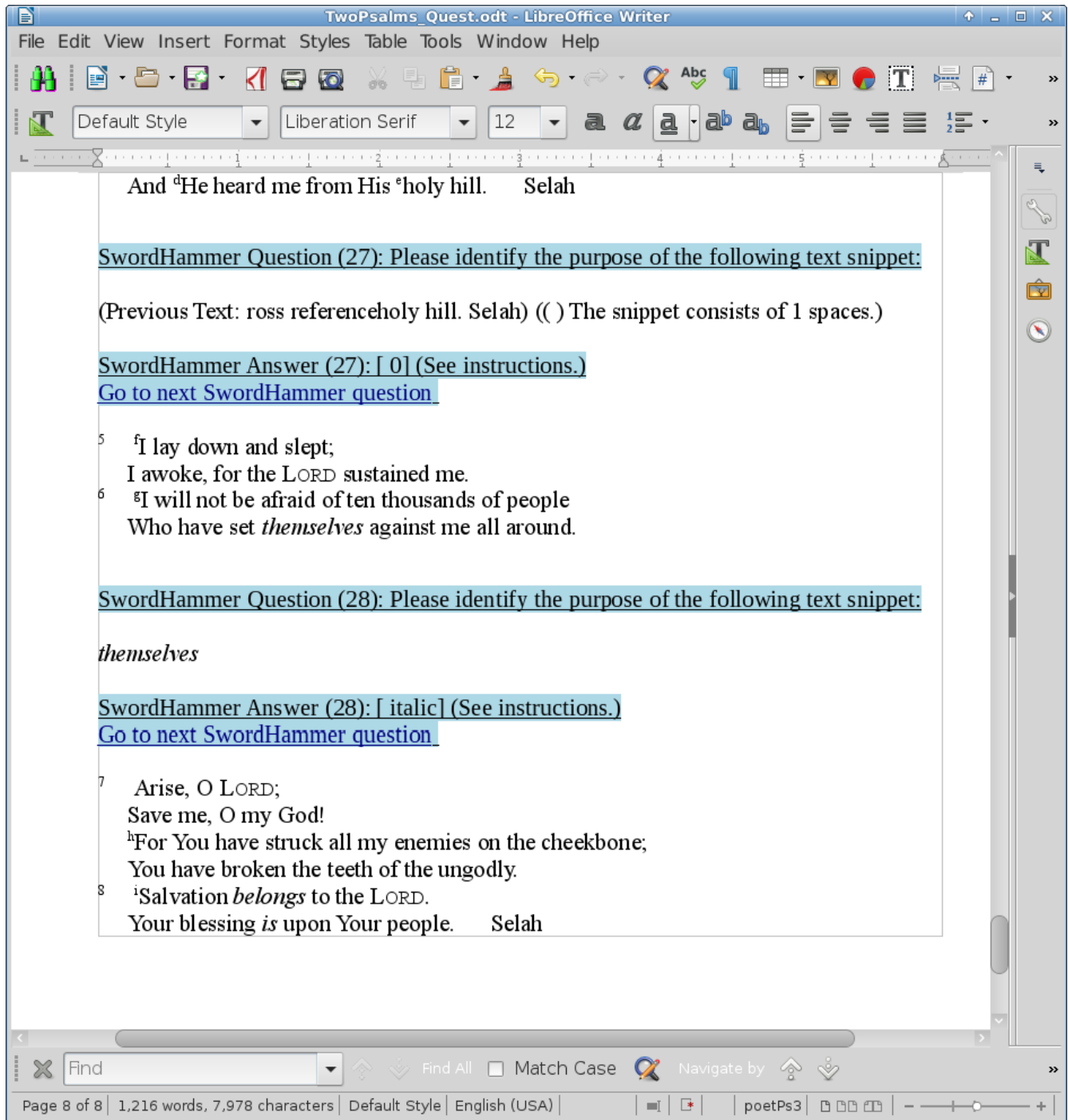


Question 24 is answered as `pst` since it is a canonical Psalm title.

Question 25 is another case where we are careful to give all necessary answers. In this case, SwordHammer know that the footnote itself is not canonical since this is a Bible.

Question 26 shows a space, which has no particular meaning.

Figure 11.14 – The Question Document, Part 14

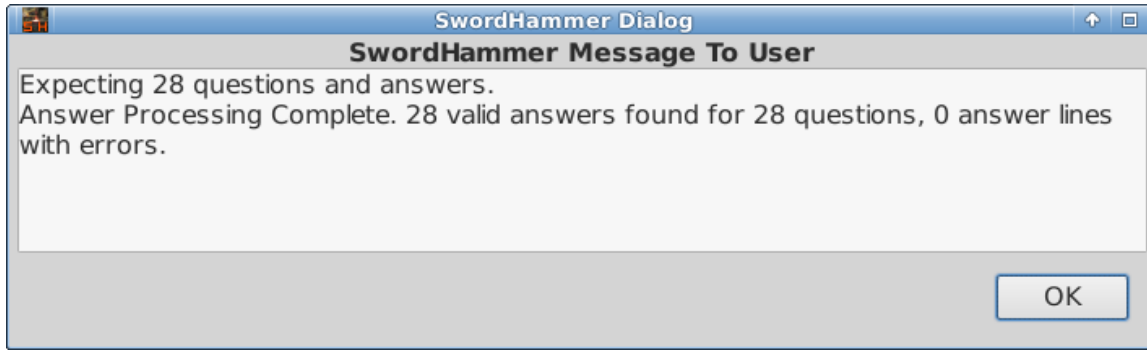


The remaining questions are also “repeats.” If you were to click on the hyperlink in the last question, you would find that you will jump up to the top to indicate that you are done.

This seems to be a lot of questions for such a short passage. But if we were to do a longer passage, we would find that the questions would become sparser over time since the number of new variations in formatting and attributes would decrease as the document proceeds.

After saving your Question Document, hit the **Process Question Doc.** button. You will get a SwordHammer dialog box similar to Figure 12.1.

Figure 12.1 – Process Question Document Message



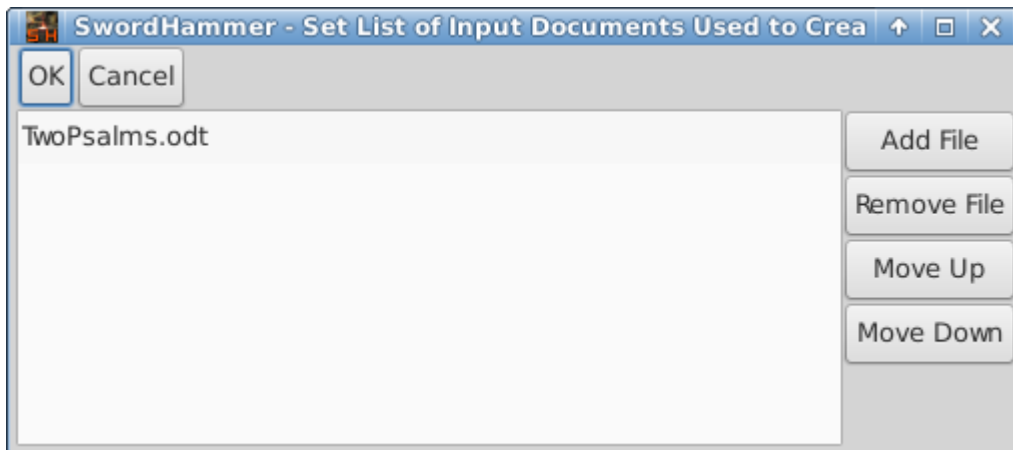
This message shows that all questions were answered and that all answers were in correct form. It does not, of course, mean that your answers were correct. If any answers are missing or in unreadable form, this same dialog will inform you of the fact.

Preparing to Generate the OSIS File

First, make sure you (or SwordHammer) have set a valid name for your OSIS file. The name should end in .xml.

Next, give SwordHammer a list of your input documents by clicking the **Set Input Doc. List** button. This will bring up the dialog of Figure 12.2.

Figure 12.2 – Input Documents List Window



The **Move Up** and **Move Down** buttons allow you to re-order your list in case you added them in the wrong order. All of the listed files will be combined into one output document, the OSIS File. In the present case, we have only one input document. Recall that, for large documents, it is usually good practice to test each input document by itself so errors do not require re-running a complete set each time you have a problem. Then when all is well, you can run your entire input document set.

There are a couple of other tasks we may as well do now also. First, create a new directory in your Working Directory to receive your new Sword Module when you generate it. Then click the **Sword Module Directory** button and select that directory. You can also use the button in the upper right to create the directory from within the dialog box.

Second, SwordHammer needs to know where to put your new Sword Module. Use the **Set Local Sword Directory** button to tell SwordHammer this directory location. Figure 12.3 shows the dialog box that pops up when you hit the **Set Local Sword Directory** button.

Figure 12.3 – Dialog for Setting Local Sword Directory

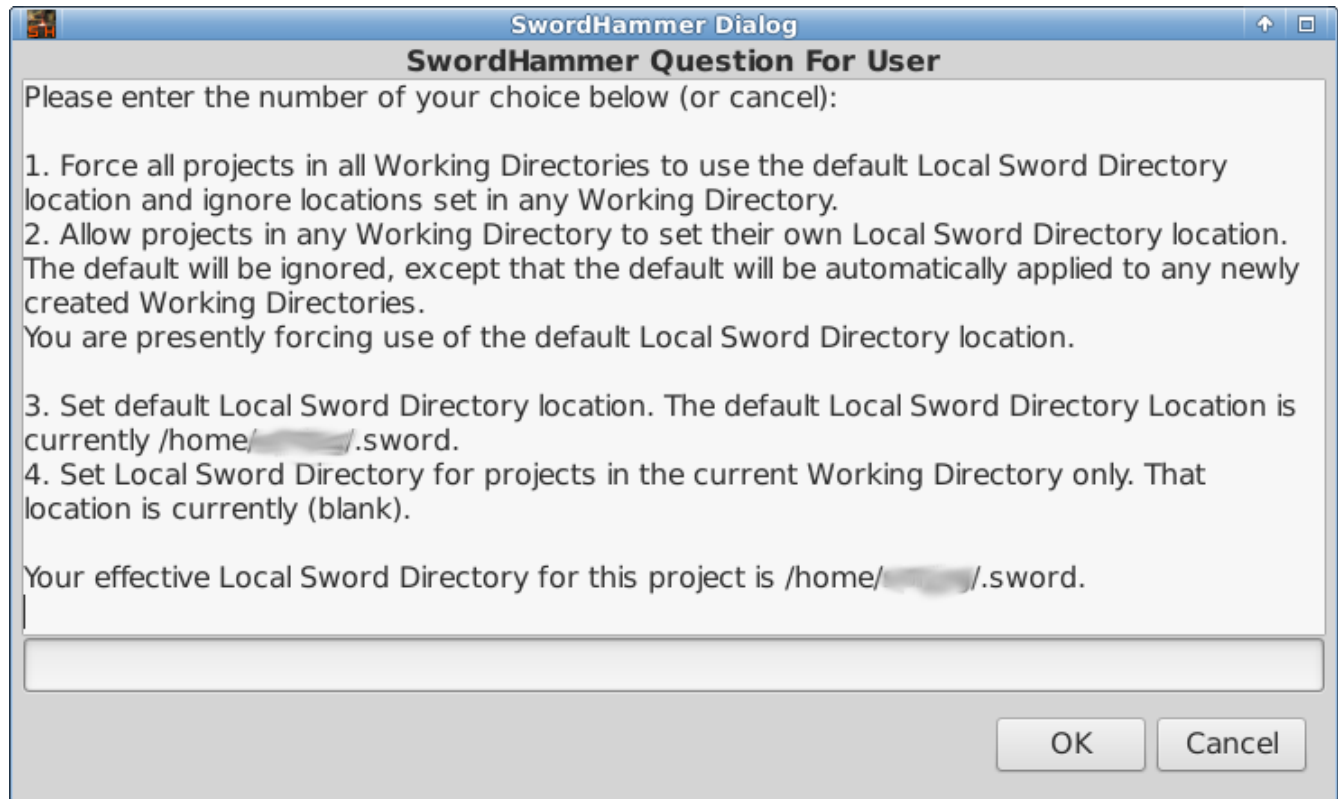


Figure 12.3 is expanded from the default dialog box size so all of the text may be seen. First, a word of explanation is in order. In almost all cases, you will only use one location on your computer to save your Sword Modules. But sometimes, you may wish to do experiments and use a different location. Note that if you use more than one location, you will have to tell your Bible programs about the new location that is other than the default location used by the Bible program. So here are the two basic options:

1. You can use just one location for all Sword Modules. SwordHammer will always use this location and this will be true for all of your Working Directories. This one location is called the **default** Local Sword Directory.
2. You can use multiple locations for your Sword Modules. The location used by any project in any given Working Directory will be set local to that Working Directory and not affect the settings in other Working Directories. These locations are called **Working Directory** Local Sword Directories.

Options 1 and 2 allow you to choose between these two options. Your current setting is shown below options 1 and 2. Again, you most probably want to use option 1.

Option 3 allows you to set the default Sword Module location. You should **always** set this location to your primary (or only) Sword Module Location. When you do this, when you create a new Working

Directory, that new Working Directory will have its Sword Module Location set to the default location automatically. This is true whether you use option 1 or 2 above.

Option 4 allows you to set the Sword Module location for the present Working Directory only. This option only takes effect if you have used option 2.

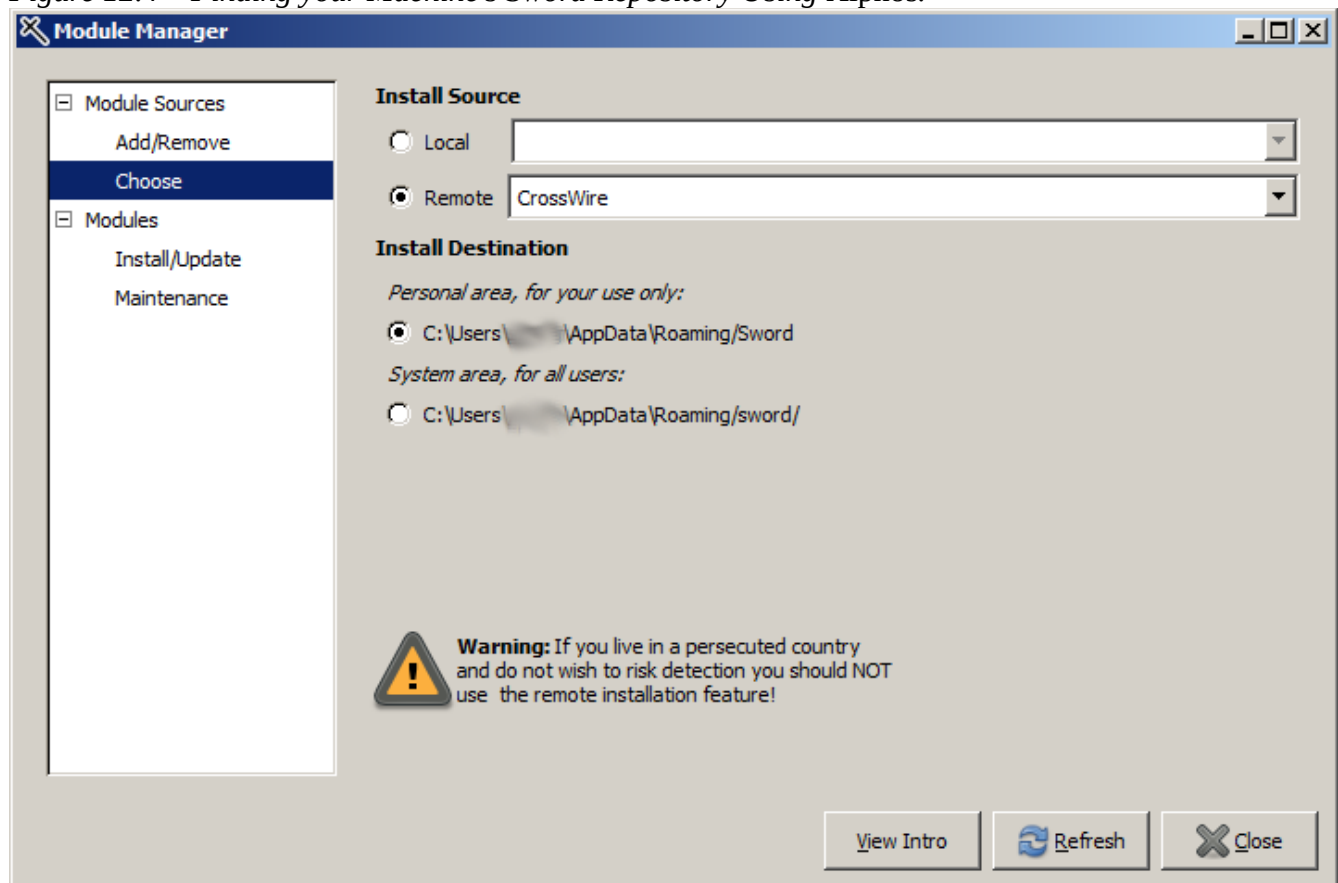
Thus: Most users should simply set option 1, then option 3. That is all. Do not worry about the rest if this confuses you.

Both options 3 and 4 ask you for a directory and you just use the directory chooser in the usual manner.

If you have, as asked above, installed a couple of Bible Programs, that Sword directory is somewhere. In Linux, it is probably in `~/ . sword`.

On Windows machines and some Linux machines, the Sword repository may be anywhere. But, if you have installed *Xiphos* as instructed above, open *Xiphos* and use the **Edit** menu item, select **Module Manager**, then under **Module Sources**, click on **Choose**. You should see something like Figure 12.4.

Figure 12.4 – Finding your Machine’s Sword Repository Using Xiphos.



Look at the **Install Destination** – that is where your Sword Modules are. So hit that **Sword Module Directory** button, navigate to the **Install Destination**, and select it.

BibleTime shows the SM location under **Settings / Bookshelf Manager**. Bible Desktop shows the SM location under **Tools / Options / Sword Books**.

Note also that not all Sword based Bible programs will use a common repository. Unfortunately, in such a case, it may be necessary to use the features in each Bible program to retrieve the Sword Module from the directory that is specified in SwordHammer.

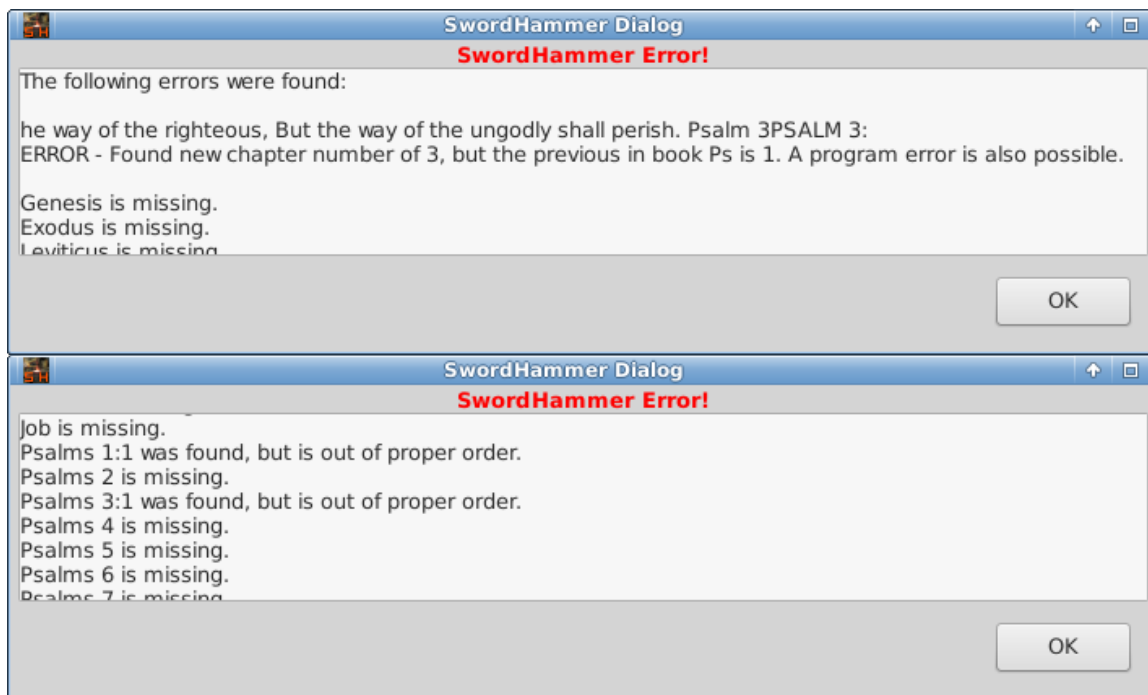
If, for some reason you have to search for the Sword directory, you know you have the right directory when you see `mods.d` and `modules` in the directory.

Generate the OSIS File

When you hit the **Generate OSIS File** button, you will see activity very similar to that which happens when you use the **Generate Question Doc.** button. Snippets of text will appear under **Text Being Processed**, the buttons will be grayed out, and the **Stop** button will be available. Under the **Generate OSIS File** button, the text **Starting Pass 1**, then after some time, **Starting Pass 2** will appear.

You may get an error message dialog. The one of Figure 12.5 has two errors in it. First, SwordHammer expected to find Psalm 2 after Psalm 3. Second, some books and Psalms are missing. We expected this, so just click **OK**.

Figure 12.5 – Error Message From OSIS File Generation



When all is finished, the message **Generate OSIS Done.** will appear under the **Generate OSIS File** button. If there are more than 200 errors, OSIS generation will halt prematurely.

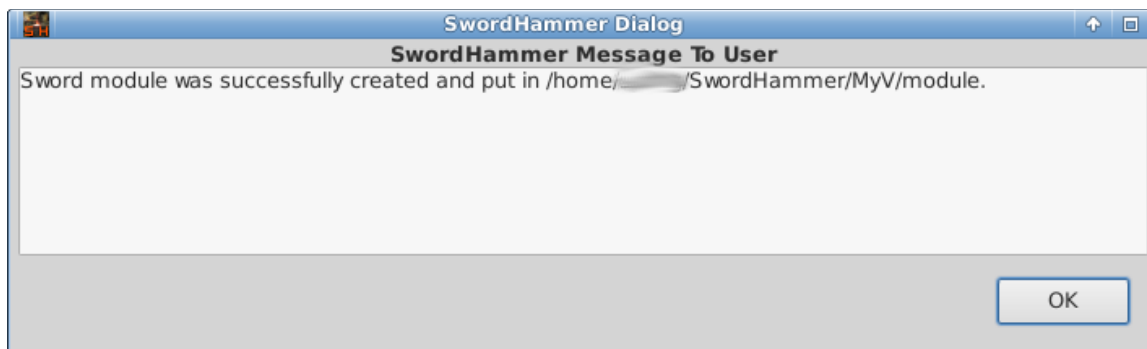
Some other possible errors follow:

- You may be warned about text with no attributes and a suggestion that you should resubmit a document to **Generate Question Doc**. First, make sure you have submitted all of your question documents using the **Process Question Doc** button. If that was the problem, you can try again. Otherwise, run **Generate Question Doc** again on the input document about which SwordHammer has complained, answer the new questions, submit the Question Document and try again.
- As above, you may see messages about missing verses. This is for your information only. If you find verses missing that you expected to be there, check your Question Document answers and your input document for such things as bad formatting for book, chapter, or verse indications.
- You may see messages about improperly formed or wrongly ordered use of quotation marks. This is also for your information only. Be aware that irregularities in American English grammar and can trip up SwordHammer's evaluation. The rules for quotations extending across paragraphs trip up many writers.
- You may see a message about a bad input document. This happens if a document in your Input Document List is missing or not a valid input document in .odt format.
- You may see messages about malformed XML or other XML related messages. Sometimes these are SwordHammer bugs, but you can also search your input document for the given text snippet and look for any errors in that vicinity. Something odd, such as an image within a table or other unsupported feature could cause this. Contact tech support if needed.
- Another cause of malformed XML or related error messages is invalid answers to General Questions. This is because some of these answers are fed directly into the OSIS file.
- If the reason for other messages is unclear, you may wish to contact tech support if needed.

Sword Module Generation

We are now quickly moving to a finish. Compared with generating the Question Document and the OSIS file, these next steps run quickly. First, hit the **Generate Sword Module** button. You should see a dialog similar to Figure 12.6.

Figure 12.6 – Sword Module Generation Message



You may also get an error message. By scanning through the message content, you might possibly see a snippet of text from one of your documents and then be able to look for anomalies at or near that location. In some cases, errors in your General Questions may cause a problem. This is because many of the General Question answers are fed directly into the OSIS file or the module. Errors in either can cause problems in module generation. You can contact tech support if needed. Most likely, tech support

will want the `SWlog.txt` file, your OSIS `.xml` file, and the `ModuleGenResults.txt` file. That last file is created only if there are module generation errors. Occasionally, file corruption in the OSIS file may cause strange errors in the module generation process. You can try re-creating the OSIS file, then try making the module again.

Last, hit the `Copy Module to Local` button. You should see the dialog of Figure 12.7.

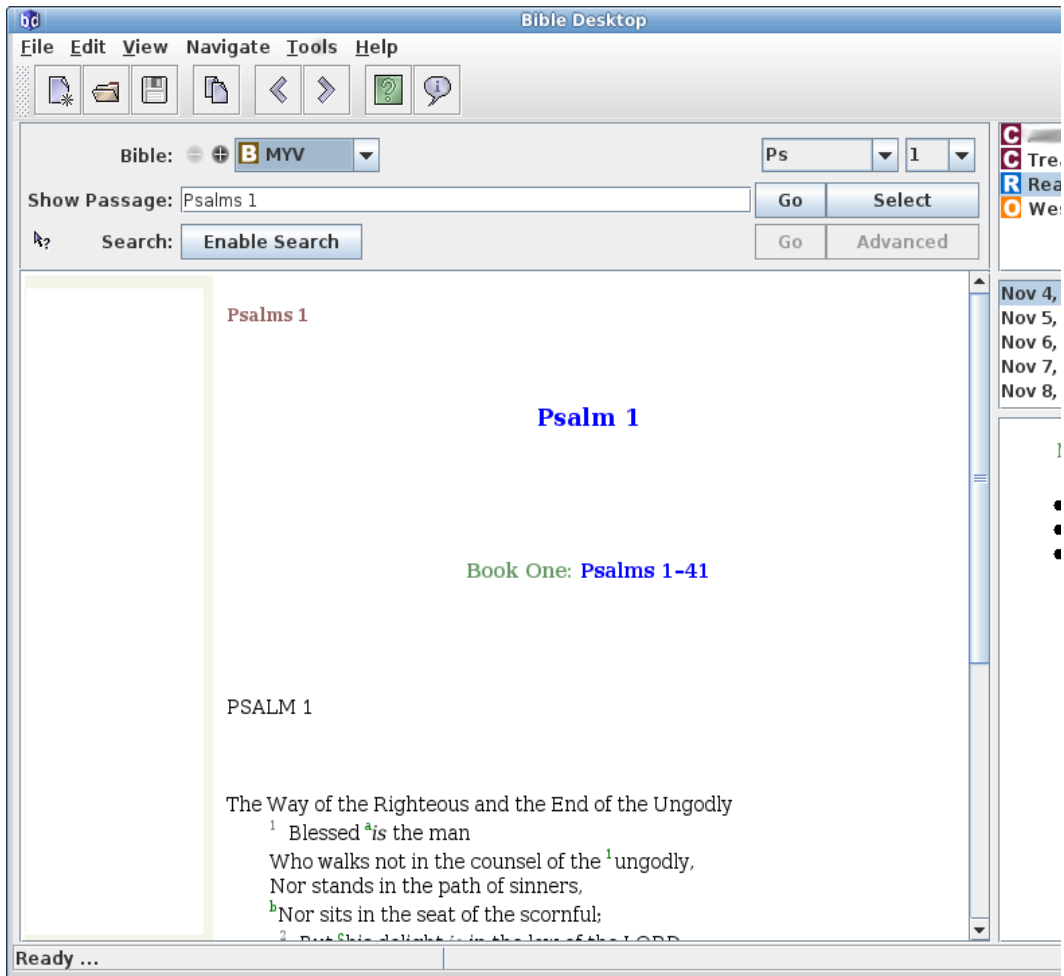
Figure 12.7 – Sword Module Copy Message



You are done. You can open one of your Sword Module based Bible programs and view your results. Bear in mind that sometime errors are a result of a bug in the Bible program, not in SwordHammer or your work, so if needed try a different program. Figure 12.8 shows an example output.

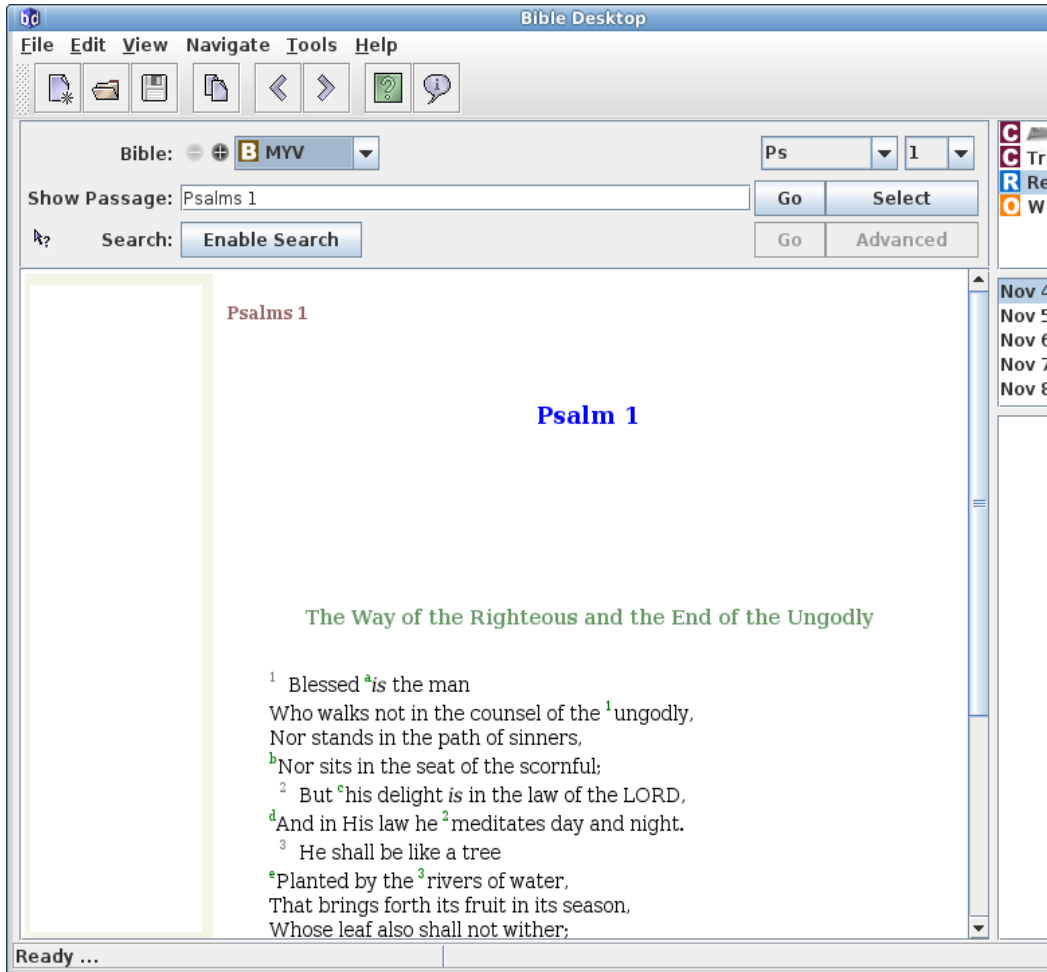
General permissions to all authors do not allow the inclusion of notes. The notes in this example will therefore not work in some Bible programs. You may ignore those errors because “cross reference” is not a valid Scripture reference.

Figure 12.8 – Bible Program Using Our Just Created Sword Module



Looking at the output shown in Figure 12.8, we can see that we goofed. We do not really want those big, space-consuming titles after all. So let us fix that problem by editing our existing Question Document, changing the answers to Questions 3 and 4 to np for do not print. Save the Question Document and hit the **Process Question Doc.** button. When it is finished, repeat the remaining steps with the **Generate OSIS File**, **Generate Sword Module**, and **Copy Module to Local** buttons in that order. To see the changes, close the Bible program and then re-open it. Figure 12.9 shows the much better results.

Figure 12.9 – A Better Result Without Excess Titles



These last steps show, in a simple manner, the process of iteratively working until you obtain the desired output.

Step by Step – A Commentary

For this exercise, we will use a snippet from the public domain Treasury of Scriptural Knowledge. You will find the exercise file `PsalmSTSK.doc` in your Program Directory in the `TutorialFiles` directory. First, use the `Set Working Directory` button to create and set your Working Directory to `MyTSK`. Then put the exercise file `PsalmSTSK.doc` in your new Working Directory.

Now open `PsalmSTSK.doc` with a word processor and take a look at it. This is an example of a dense commentary. It is not a Bible, but it is organized by book, chapter and verse just like a Bible. The different features use clearly defined formats, so this should be easy.

The next step will be to answer General Questions, but let us cheat a bit since this project will be so similar to the last and, since this is an exercise, we do not care about names, addresses, copyrights and so forth:

1. Open `SwordHammer` and click the `Answer General Questions` button.
2. Just click the `OK` button – do not enter anything.

3. Copy the `GeneralQuestionsDatabase.txt` file from the MyV Working Directory to the new MyTSK directory.
4. Now click the `Answer General Questions` button again. You should see your old answers from the MyV Working Directory.

Caution: When you use this trick, look over all of your answers carefully. This trick can be helpful when publishing similar material or have much of the same copyright information for the new work, and so on. But especially if a new SwordHammer version was installed since the last update to your source `GeneralQuestionsDatabase.txt`, you may find some strange answers because things got moved around. Also, this author has found that such copying, whether it be program code, written documents, or what not, tends to be error prone because one is so badly tempted to just skim over the material and not notice that which is no longer correct or is now inapplicable.

Changing the General Questions

You already know how to do this, so these steps will simply call out the questions to be changed by number and a short reference to the question.

Take a look at Question 2. You will see that we can keep this `y` since a commentary is organized in similar fashion to a Bible. (You need make no changes.)

Question 8: We do want verse numbers to show up, so change it to `y`.

Question 25: We do not want a missing verse list; commentaries are not required to address each and every verse, so change this to `n`.

Question 27: Change the short name from `MyV` to `MyTSK`. (So far, we have used the same names for both the Work Directories and Sword Module names, but this is not required.)

Question 33: Change the long name from `MyV, a Tutorial Version` to `MyTSK, a Tutorial Version`.

Question 36: Change `trl` to `aut`, since writers will translate a Bible, but author a commentary.

Question 46: This is not a Bible, so delete `Bible` from the answer, (leaving it blank).

Question 65: Change `MYV` to `MyTSK`. Whatever you do, do not put `TSK` since the real `TSK` module does exist already in the `CrossWire` library.

Question 67: Change `texts` to `comments` since this is now a commentary.

We do not have any footnotes in our commentary, but it does no harm to leave Question 72 as is. We do have a ton of references.

Question 85: Change `Biblical Texts` to `Commentaries`.

Question 86: Searching the Library of Congress site suggests `Bible - - Commentaries`, so put that in.

For the purposes of this tutorial, we choose to not bother changing any of the other entries. So click `OK`.

The Question Document

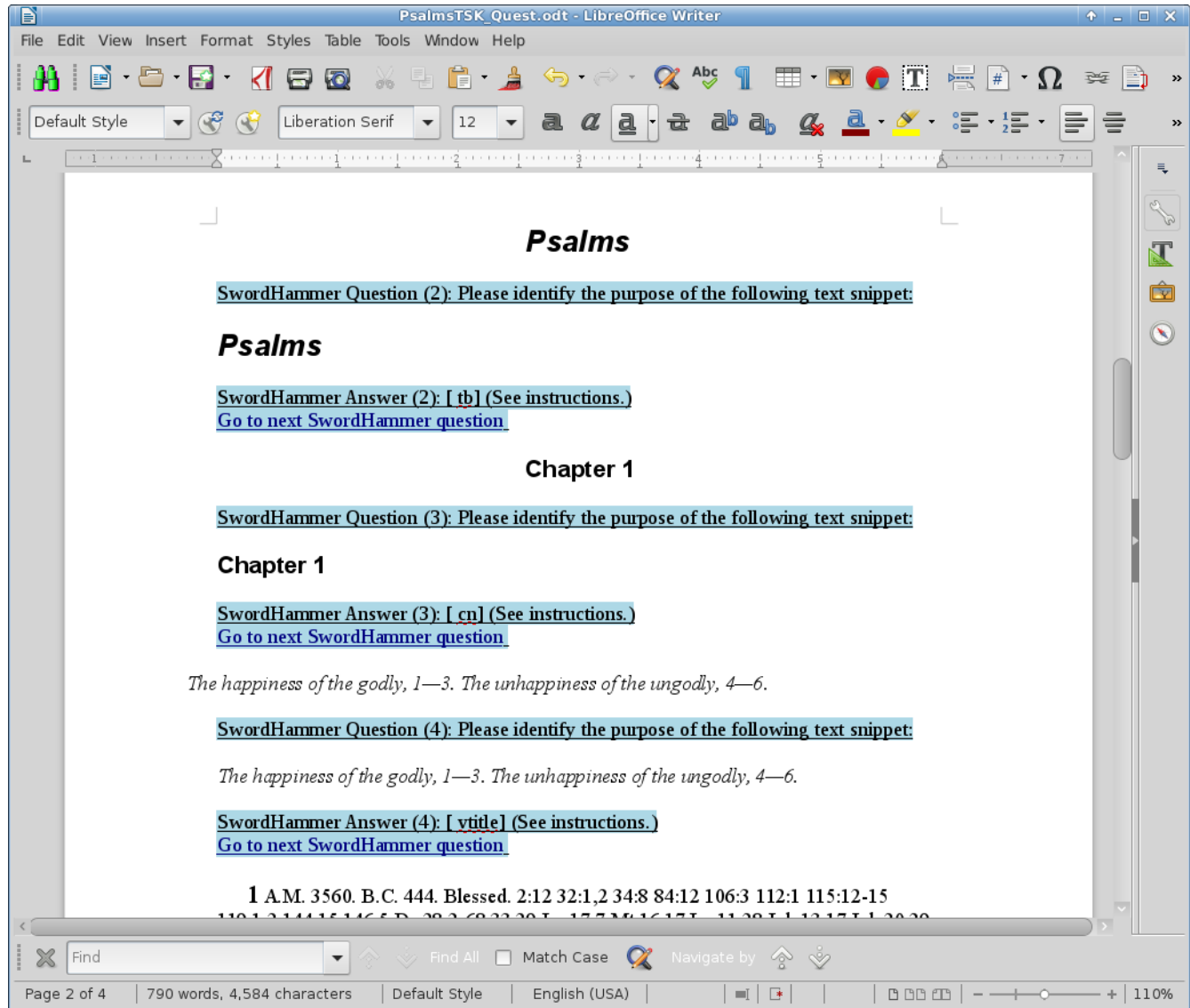
First, use the Select Input File button to select the PsalmSTSK.odt file as your input document.

Hit the Generate Question Doc. button.

When it finishes, open PsalmSTSK_Quest.odt.

As before, answer the first question with b (not shown in any of the figures).

Figure 13.1 – The Commentary Question Document, Part 1

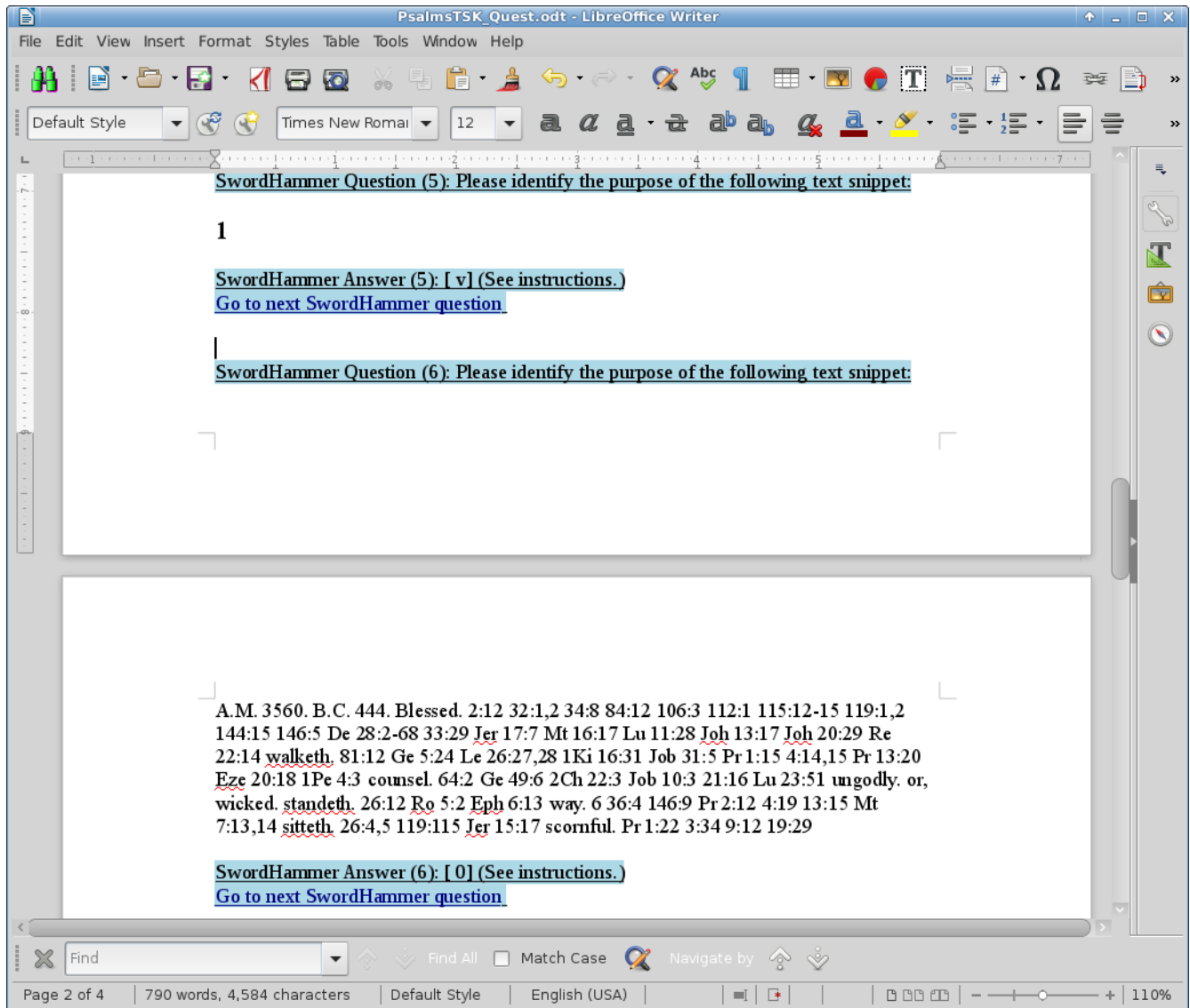


We answer Question 2 with `tb` since it is the title for the book of Psalms. Of course, this is a commentary on Psalms, not the Bible book of Psalms, but we do this because the commentary is organized just like a Bible.

We answer Question 3 with `cn`, since it contains the chapter number.

The TSK puts in titles that are similar to verse titles in Bibles, so we answer Question 4 with `vtitle`.

Figure 13.2 – Commentary Question Document, Part 2



Question 5 is answered v since the numeral is the verse number.

Questions 6 and 7 are just regular text, so we answer them with 0.

So now save the Question Document and then hit the Process Question Doc. button.

Preparing for OSIS Generation

First, you should change the name of the OSIS file to something like MyTSK.xml using the Set OSIS File button. It really does not matter all that much, since any TwoPsalms.xml file in the MyTSK Working Directory is distinct from the one in the MyV Working Directory, but little things like that can help us keep things straight in our minds.

You will definitely need to use the Set Input Doc. List button to put the Psalmstsk.odt in the list (as the only file in the list).

Generate the OSIS File

Hit the Generate OSIS File button. If all goes well you should have no errors dialog box; commentaries are not expected to include every verse or chapter, so messages for skipped chapters are not given. You may, if you wish however, turn on the missing verses list via General Question 25 if you do write a commentary and comment on each and every verse.

Finish Up the Commentary

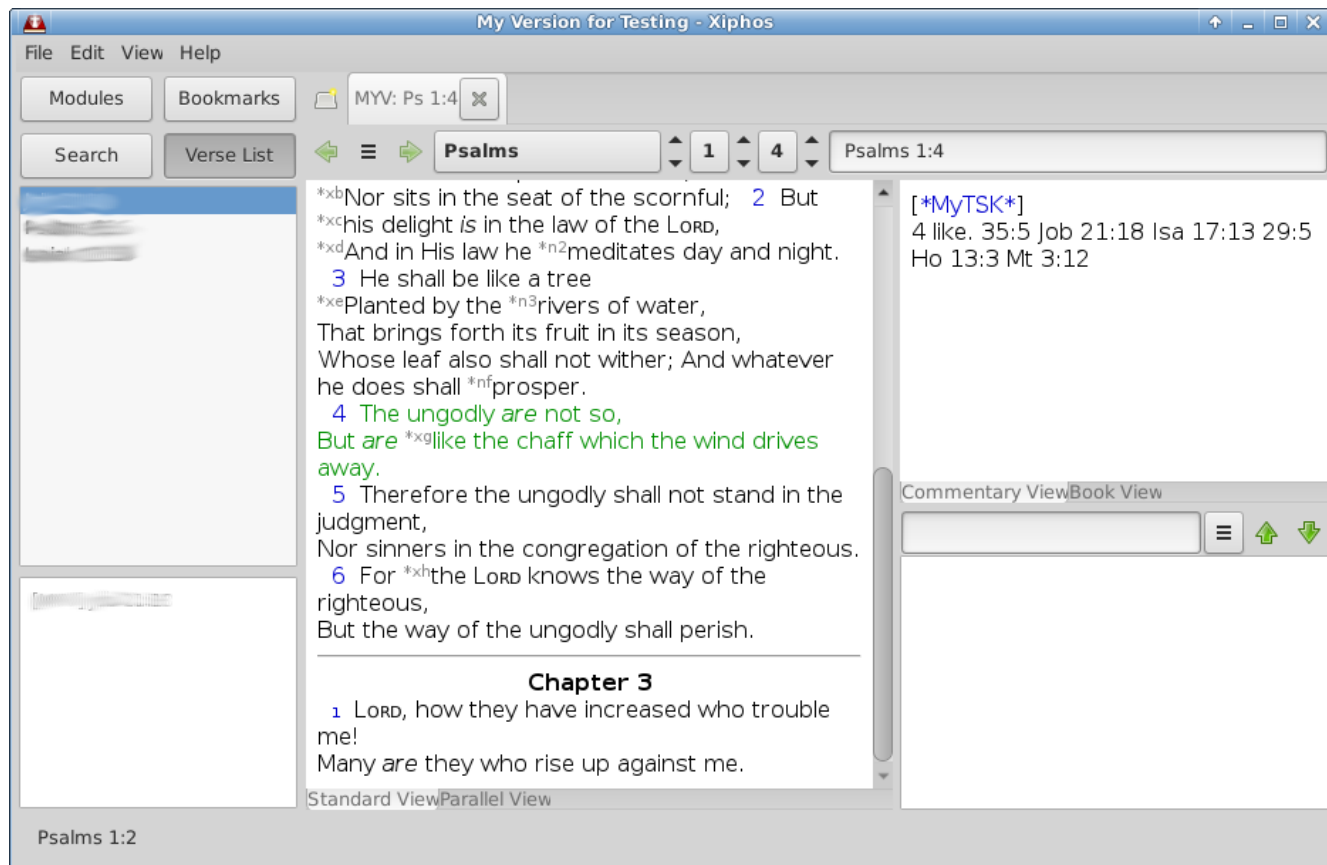
First, use the Sword Module Directory button to create a directory for your module.

Then hit the Generate Sword Module button.

If there are no errors, hit the Copy Module To Local button.

The Finished Commentary

Figure 13.3 – The Psalm and TSK Modules Together



In Figure 13.3, you can see that this Bible Program, Xiphos, has Psalm 1:4 selected. The Psalm verse is colored in green, and verse 4 of the MyTSK is displayed. (In Xiphos, the author first selected the MyV from Bibles, English, then the MyTSK from Commentaries, English.) Clicking the bottom-right down arrow will cause both panes to move to verse 5, and so on.

Generic Book

This time, we will do something new, since you are already familiar with most of the concepts; in addition to the usual step-by-step, we will demonstrate some troubleshooting.

The file `MyWSC.odt` is in your Program Directory in the `TutorialFiles` directory. You already know how to do the following, and you can refer back to the step by step instructions for either Bibles or commentaries above if you need to refresh your memory. Please do the following:

1. Create a new Working Directory called `MyWSC`, making that your new Working Directory
2. Copy the file `MyWSC.odt` to your new Working Directory. (It is a subset of an existing work by this author, available at <http://www.BeForgiven.INFO>, with some demonstration material added.)
3. Set your input file to `MyWSC.odt` using `Select Input File`. Let `SwordHammer` set the Question Document name to `MyWSC_Quest.odt`.
4. Using the `Input Doc. List.` button, set `MyWSC.odt` as the only input file.
5. Set `MyWSC.xml` as your OSIS file.
6. Hit `Answer General Questions`, then close the resultant window without making any changes using the `OK` button.
7. Copy your `GeneralQuestionsDatabase.txt` file from either `MyV` or `MyTSK` to your `MyWSC` Working Directory.
8. Take a quick look at `MyWSC.odt` to see the input document that we will be converting into a General Book.

General Questions Changes

After hitting `Answer General Questions`, you should see a familiar set of questions and answers. Here are the changes we need to make:

Question 2: Change to `n`.

Question 8: Answer `y`.

Question 9: Answer `y`. A Scripture index would be quite helpful in a document like this.

Question 10: Answer `y`. Likewise an alphabetical index could be helpful to some readers.

Question 11: Answer `WSCindex.txt` since we will use a simple text file to create our index. While you are here, copy that file from the `TutorialFiles` directory in your Program Directory to your Working Directory. It just has 5 entries in it: `God`, `man`, `sin`, `righteousness`, `redeemer`.

Question 25: `SwordHammer` does not check for missing verses in Generic Books, but setting this to `n` is the sort of little detail that can prevent confusion later.

Question 27: Enter `MyWSC`.

Question 28: Enter `book`, just like the question instructs.

Question 33: Change the title to `MyWSC, a Tutorial Version`.

Question 35: Change the author to `Tom Sullivan` – your role in this case is that of a module creator since you are using an existing work by someone else.

Question 36: Change the role to `aut` for author.

Questions 45 and 46: Blank these answers by selecting all of the text (hint: Hit <ctl>A) and then hitting <Delete>. If you favor the mouse, you can right-click, select **Select All**, then right-click again and select **Cut**.

Question 65: As before, change this to **MyWSC**.

Question 67: You must answer this question exactly as **genbook**.

Question 72: You should have two answers here: **OSISFootnotes** and **OSISScripref**.

Question 74: By any chance did you notice the author's email address in **MyWSC.odt**? If you look closely, you can see that it is an image; this is done to thwart spammers from harvesting the address. So you must enter **Images** as the (only) answer to this question.

Question 85: This question is important to get right. Enter **Generic Books** for the answer. (The Sword Module generation system and its documentation will use "Generic Books" and "General Books" interchangeably.)

Question 86: If you go to the Library of Congress site, and enter **catechism**, you will see the note:

General Notes

Use as a topical subdivision under individual religions and Christian denominations for works about catechisms of those religions or denominations.

If we then search for Christian catechism, we find the following suggestion:

Here are entered general works on catechisms.
Catechisms in a specific language are entered under
Catechisms qualified by language, e.g. [Catechisms,
English.]

Editorial Notes

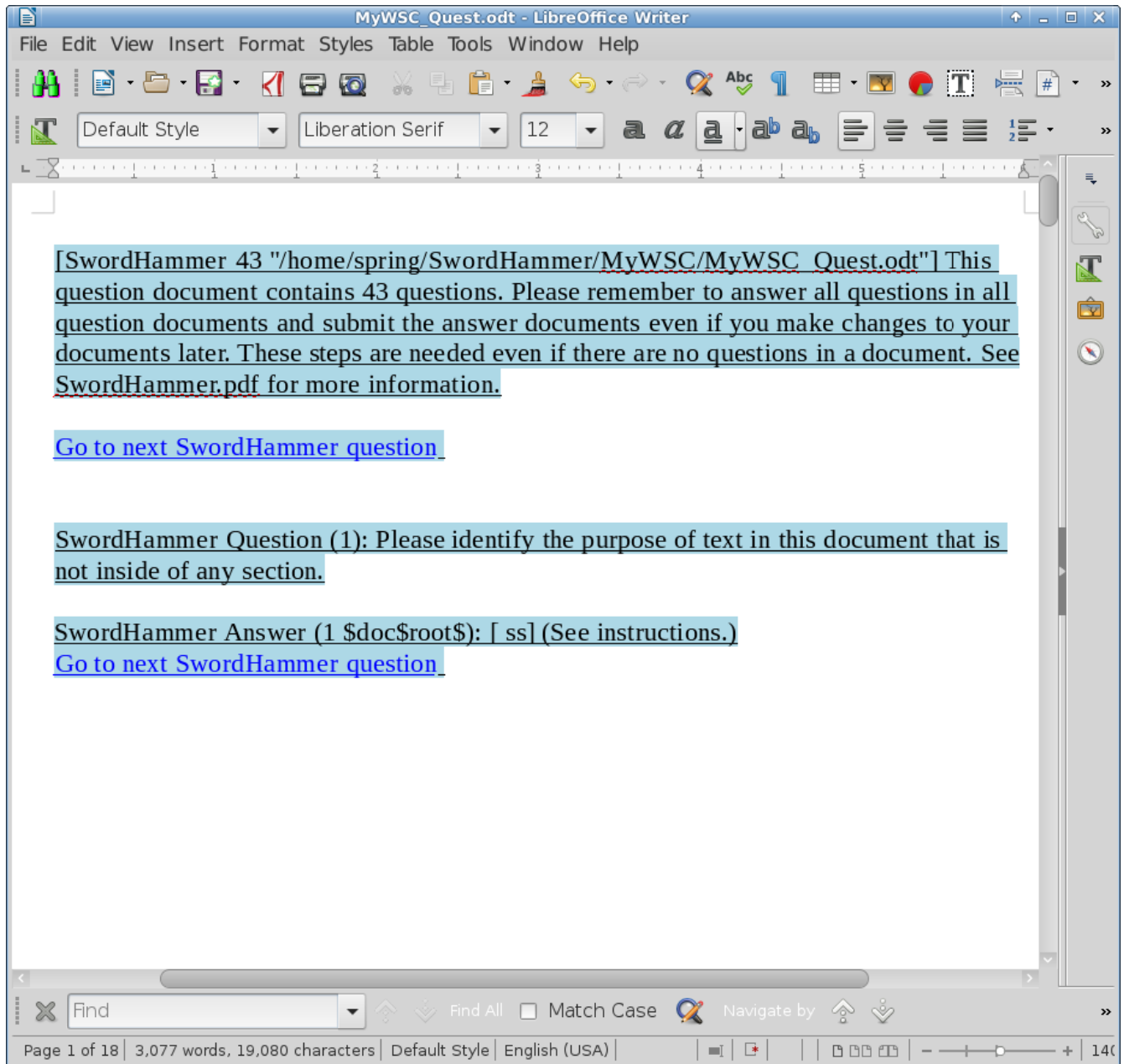
subdivision [Catechisms] under individual religions and denominations, e.g. [Buddhism--Catechisms; Catholic Church--Catechisms]

This suggests: **Christianity--Catechisms--English**

The Question Document

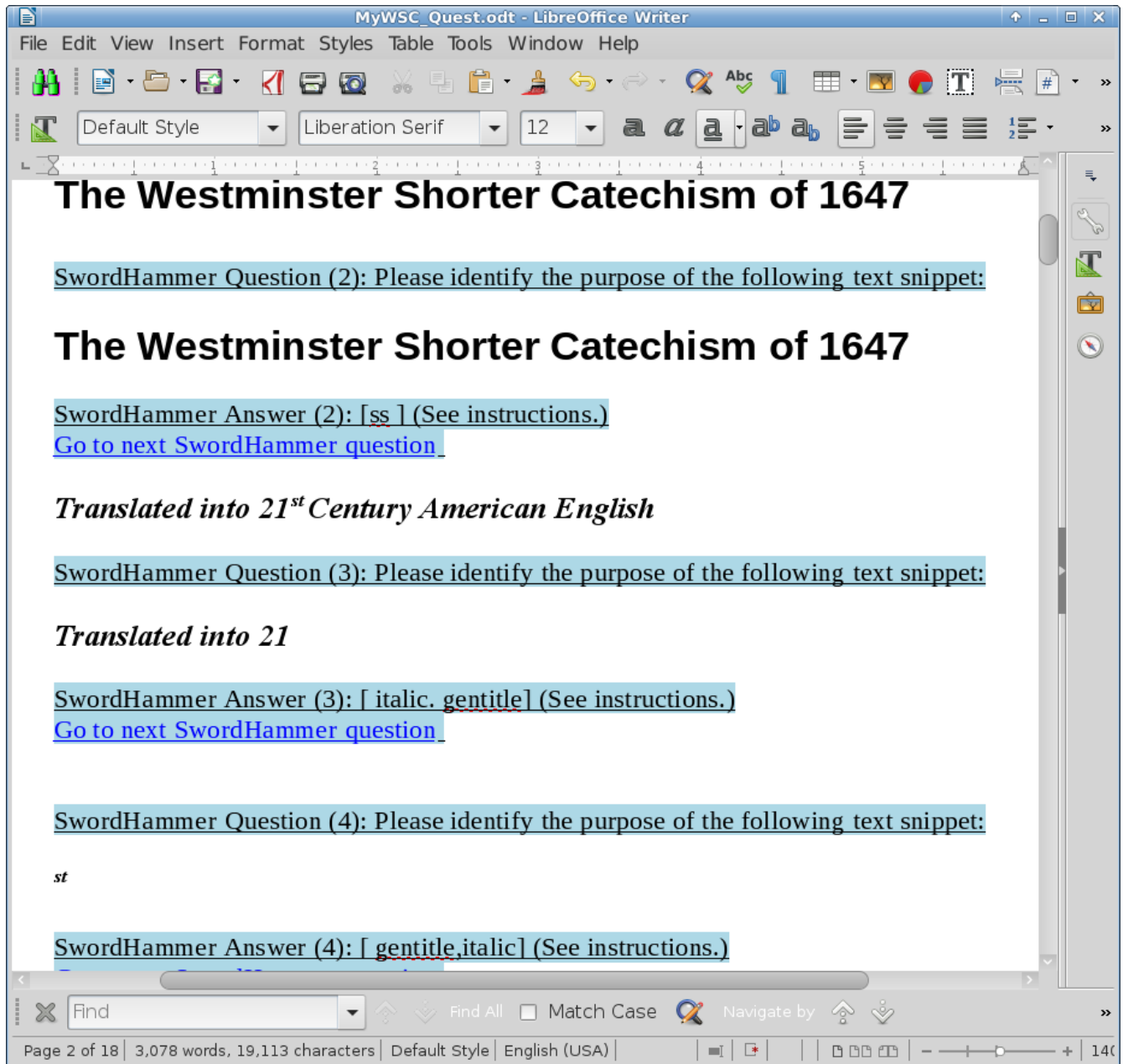
Hit the **Generate Question Doc.** button, and when it finishes, open the Question Document.

Figure 14.1 – Generic Book Question Document, Part 1



Right away, we see a difference. Recall that Generic Books are organized by chapters and sub-chapters. While OSIS provides for various levels of *sections* which correspond to chapters, we really only need one kind: sections, and the mnemonic for sections is SS. So our root of our document is answered with SS, and so are all subsections.

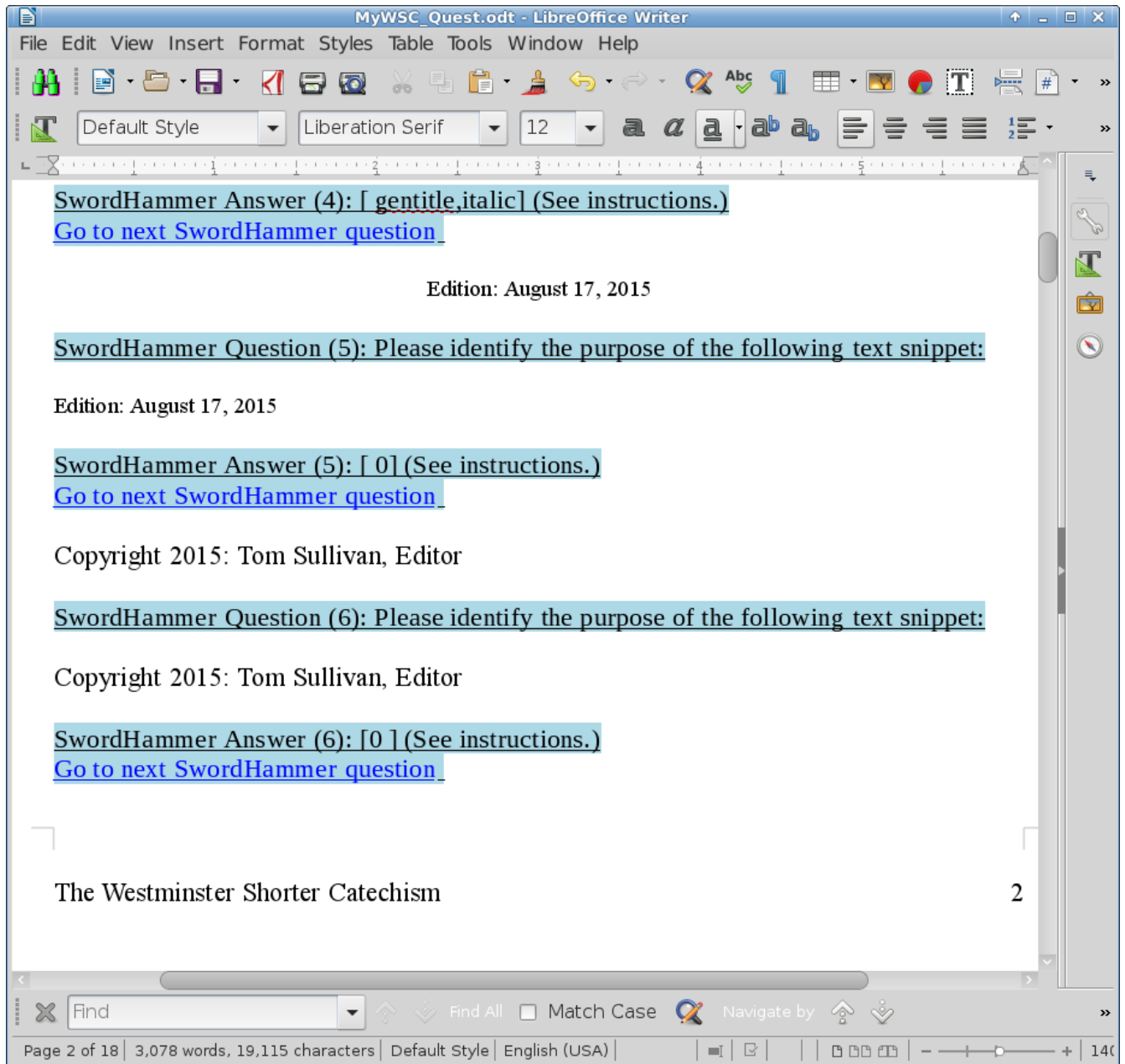
Figure 14.2 – Generic Book Question Document, Part 2



The title of our Generic Book is also a section, so we answer `ss` here as well. Note carefully: There are, indeed, Title and Subtitle styles available in Writer, but we do not use them because they do not carry level information like Headings do. Therefore, the title of our document is a Heading 1. Also note that our subtitle is simply formatted as italics, not as a lower level, Heading 2.

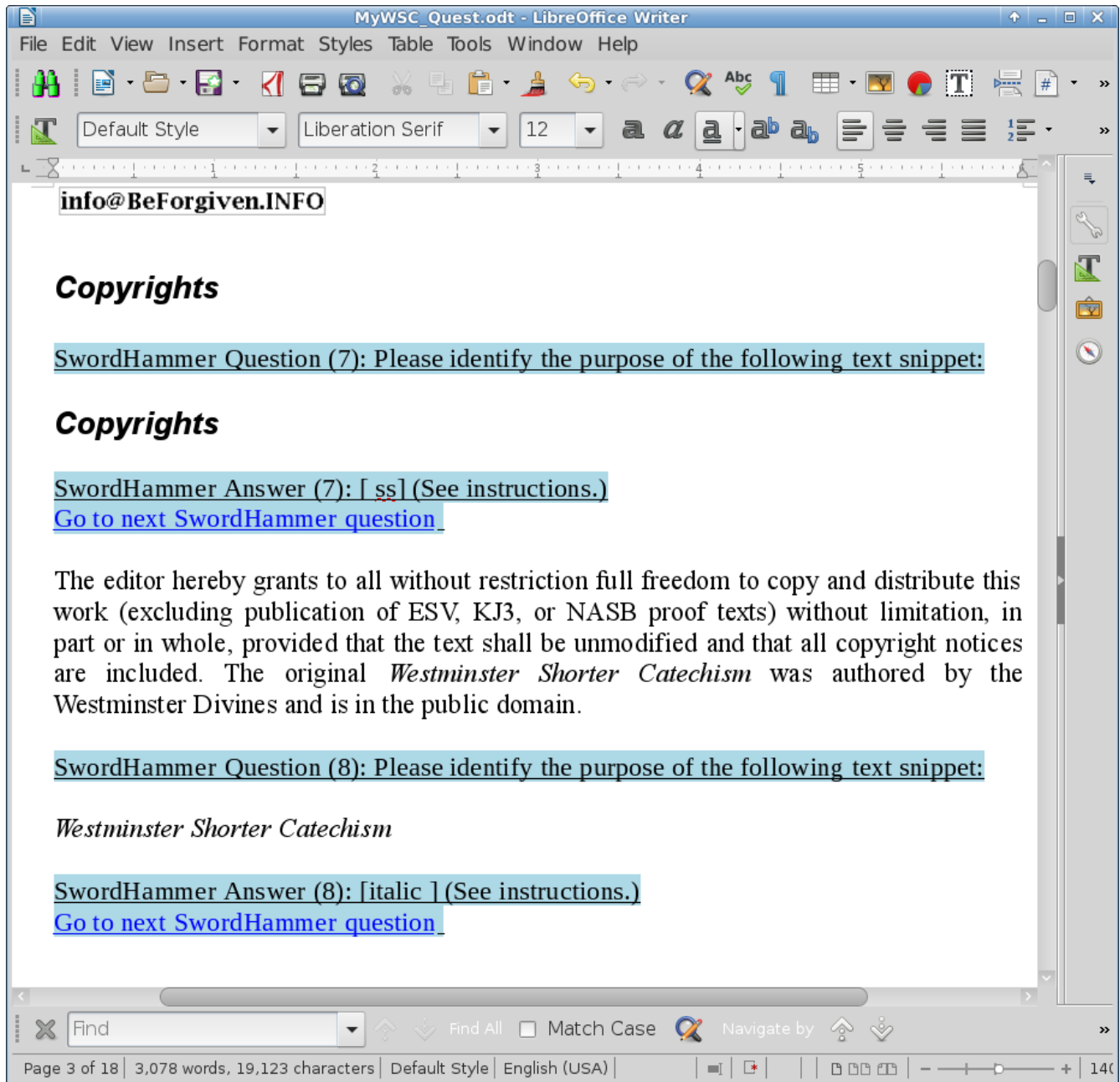
We answer Questions 3 and 4 with `gentile`, for General Title, and `italic`, since they are not part of our nested heading structure. (The superscripted “st” is part of the General Title.) If all were well, we would also add `super` to the answers, but, as we will see later, all is not well with superscripts.

Figure 14.3 – Generic Book Question Document, Part 3



We answer 0 to Questions 5 and 6 because there is really little to be gained by fancy formatting in most Bible software; these will be normal text.

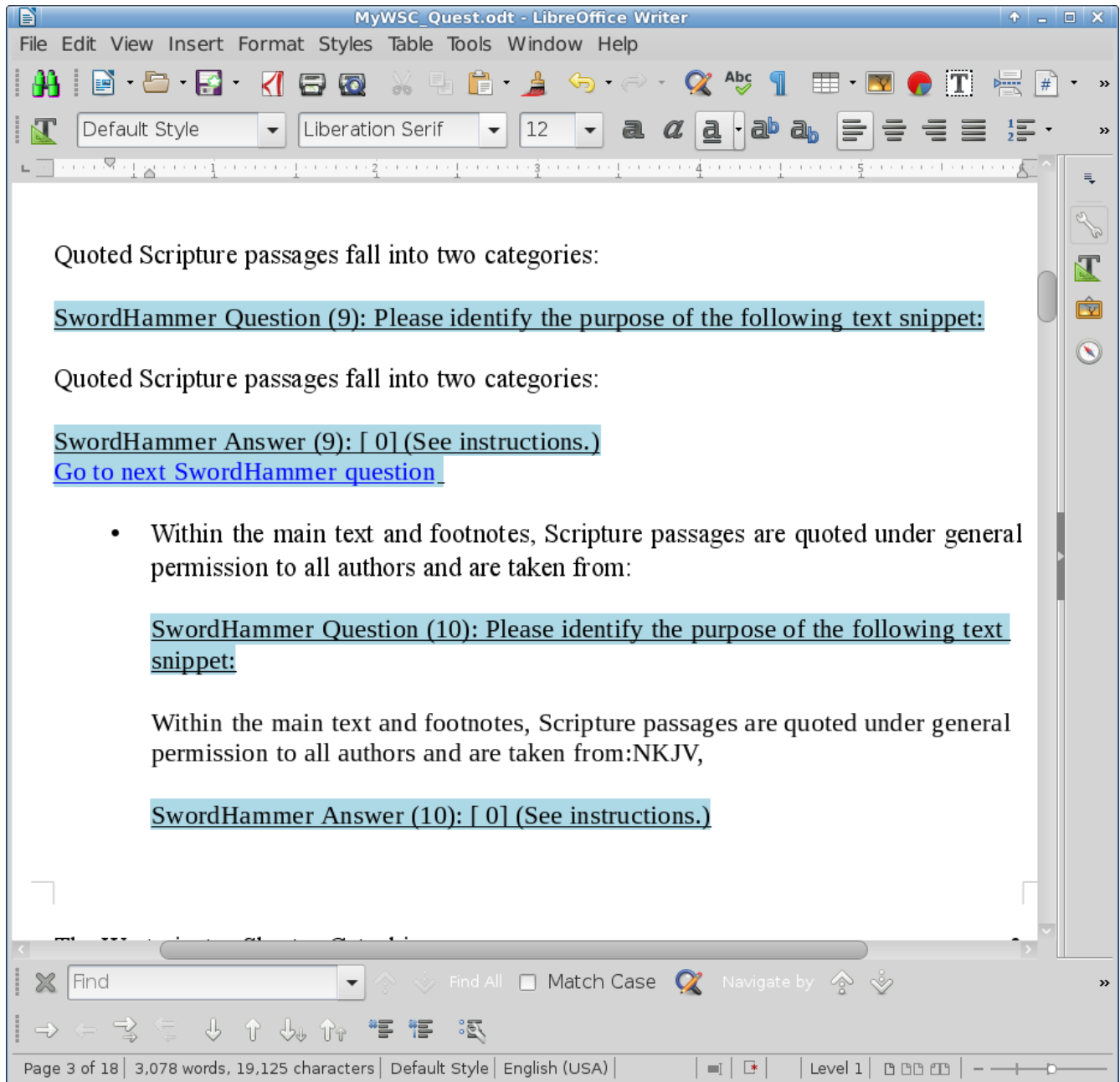
Figure 14.4 – Generic Book Question Document, Part 4



The **Copyrights** header is a level 2 header in the document. (Recall that the title is level 1.) Since levels are determined by the input document's hierarchy of headings, we need only answer SS here, as well as all other headings of various levels. SwordHammer knows the levels, so you do not have to remember that detail.

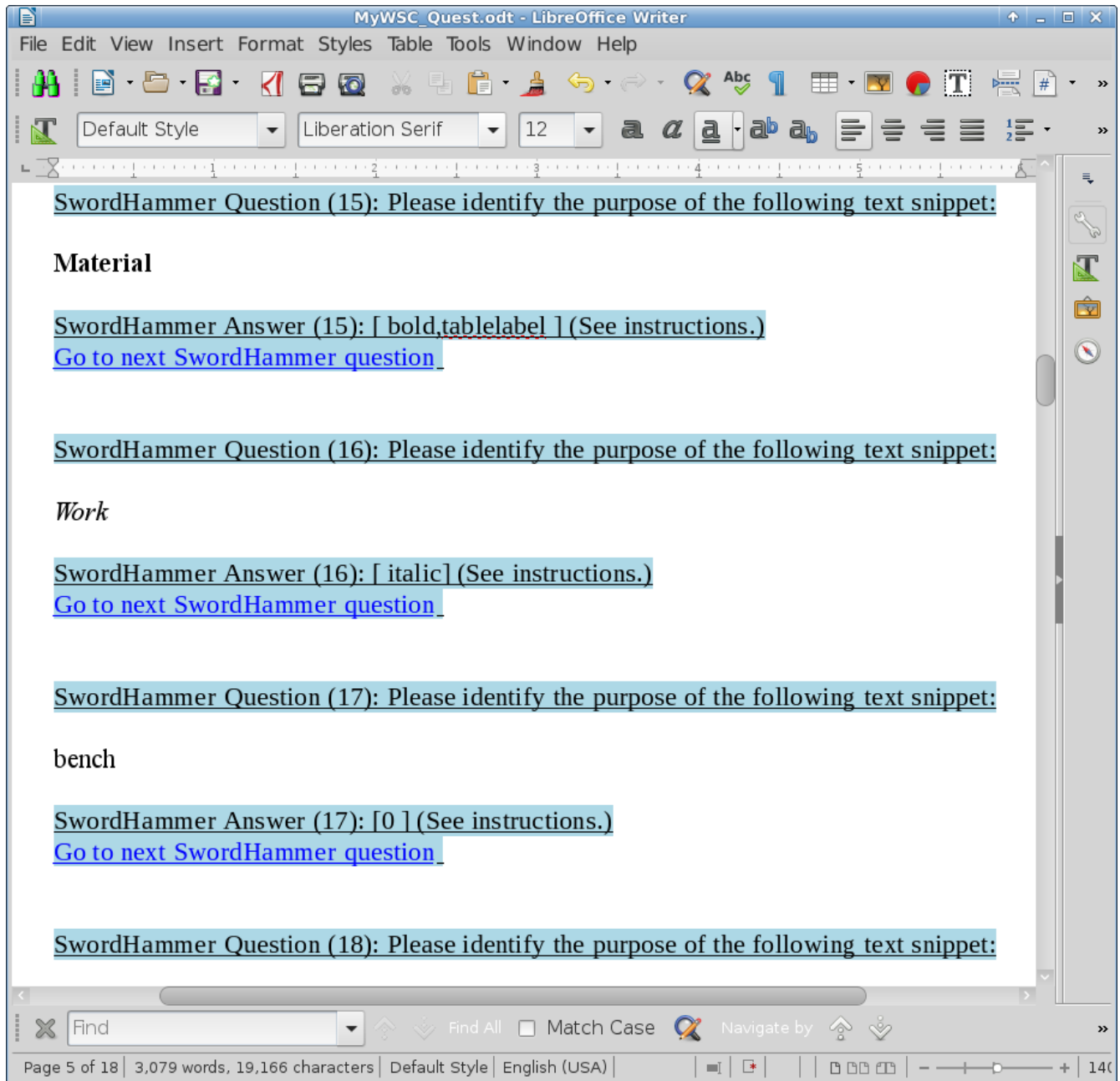
Question 8: We just want to transfer the use of italics. In Generic books, simple transfer of the author's use of bold and italic would be warranted in most cases.

Figure 14.5 – Generic Book Question Document, Part 5



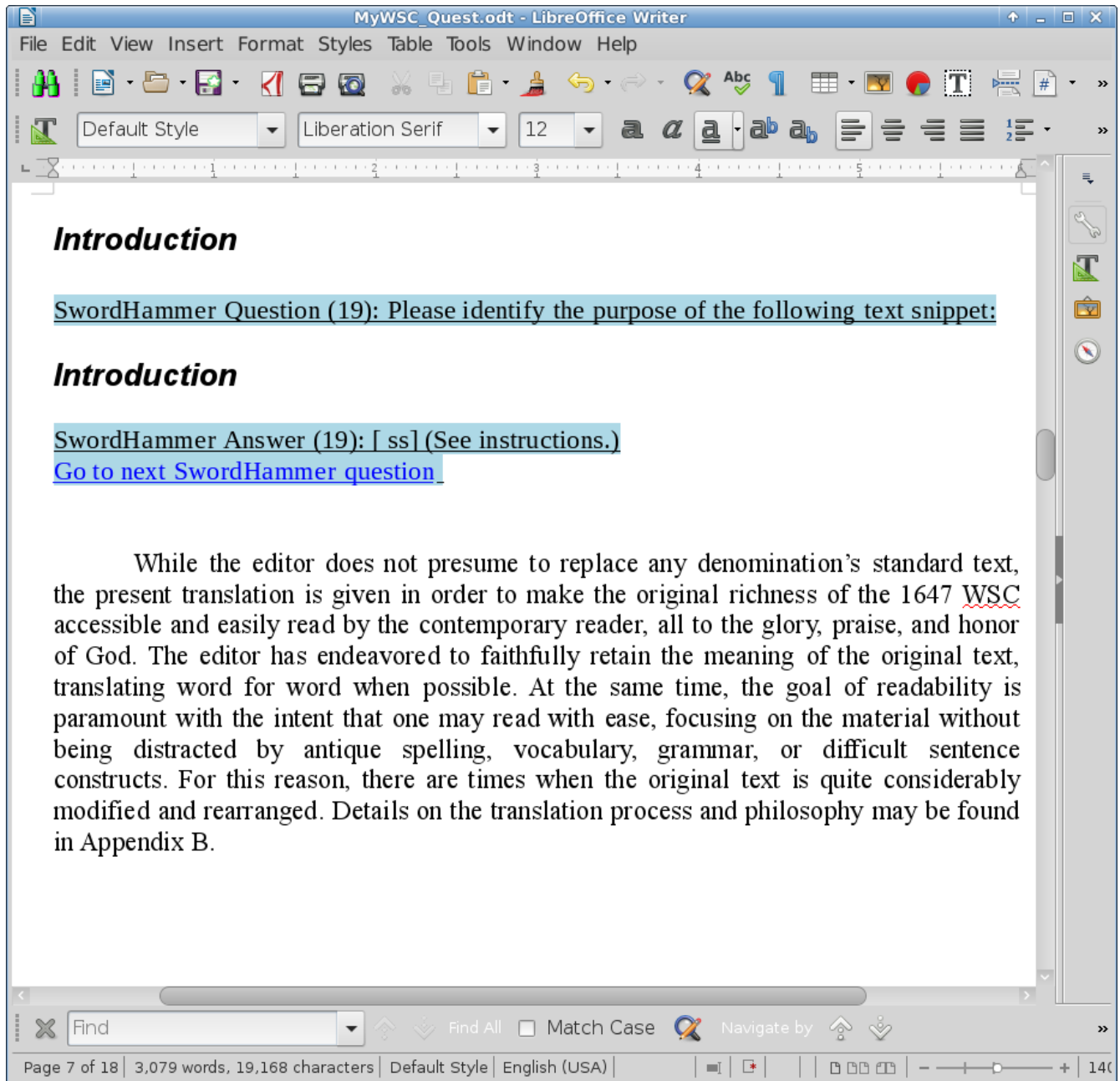
Starting in Question 9, we are getting into a list. But SwordHammer knows that from the input document information, so we can just answer questions 9 through 13 with 0.

Figure 14.7 – Generic Book Question Document, Part 7



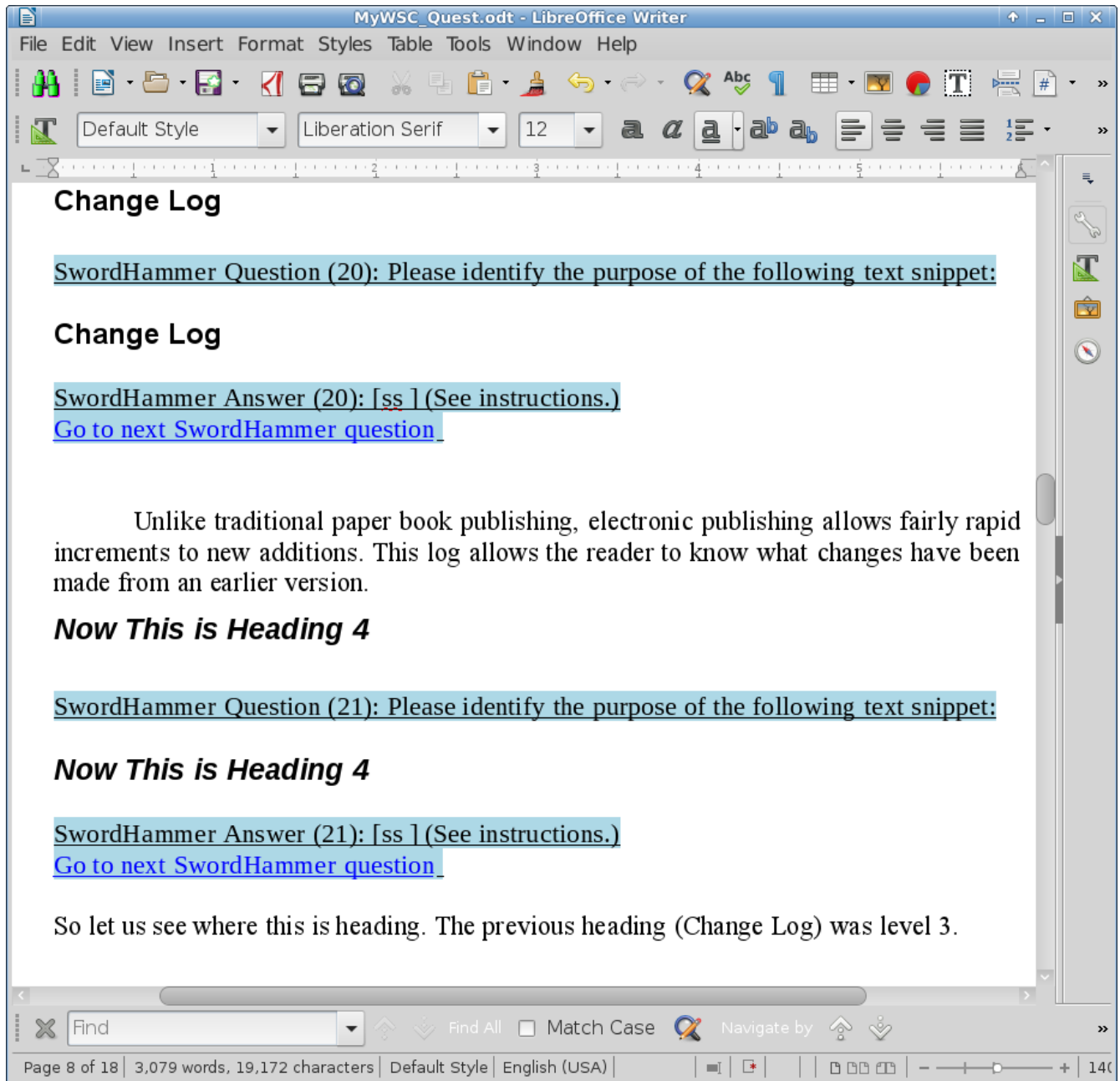
Question 15 is similar to Question 14, and Questions 16 and 17 simply follow the input document formatting. The silly formatting and inclusion of inapplicable Scripture references is just for demonstration purposes.

Figure 14.8 – Generic Book Question Document, Part 8



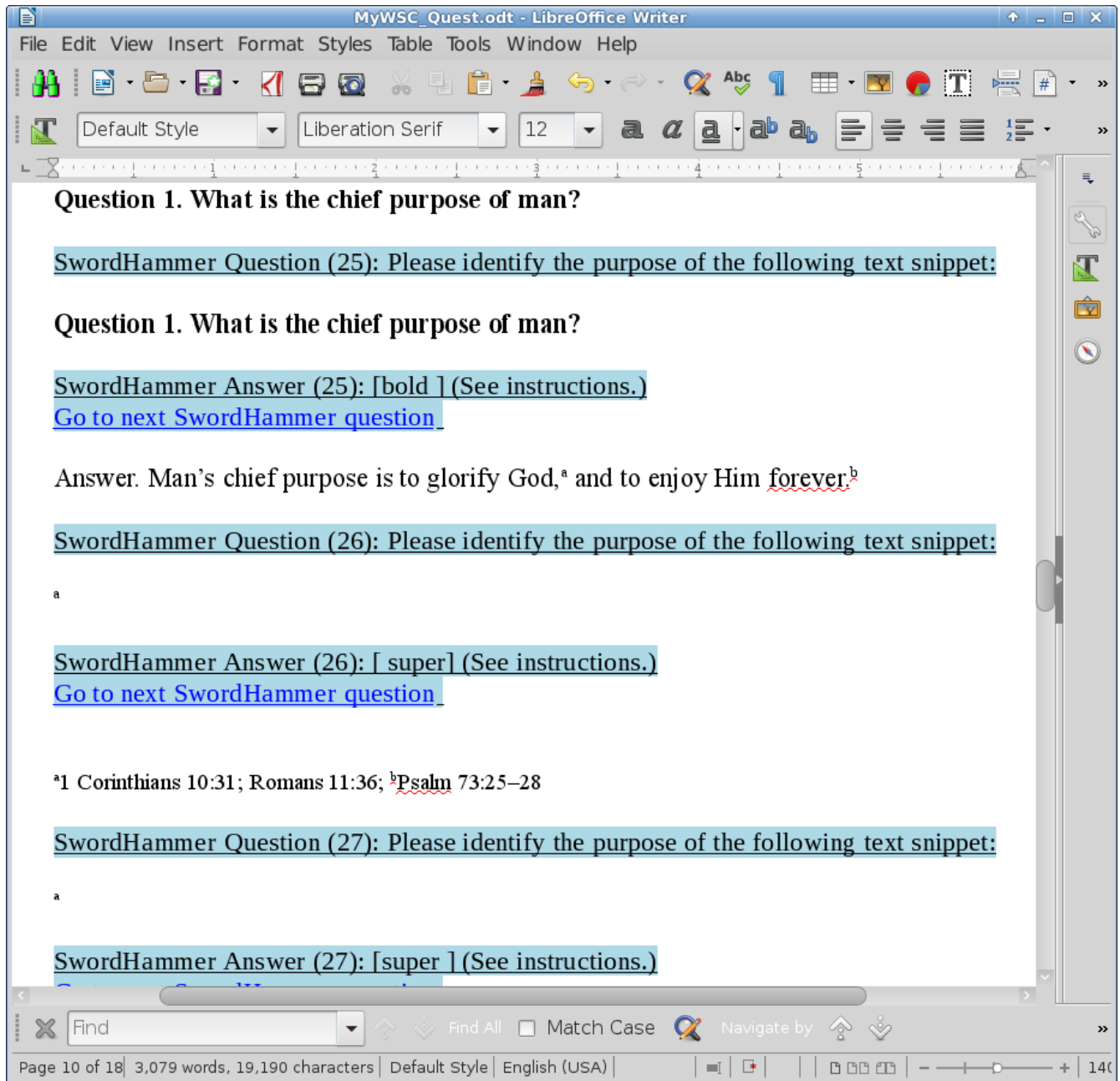
Question 19 also pertains to a level 2 header.

Figure 14.9 – Generic Book Question Document, Part 9



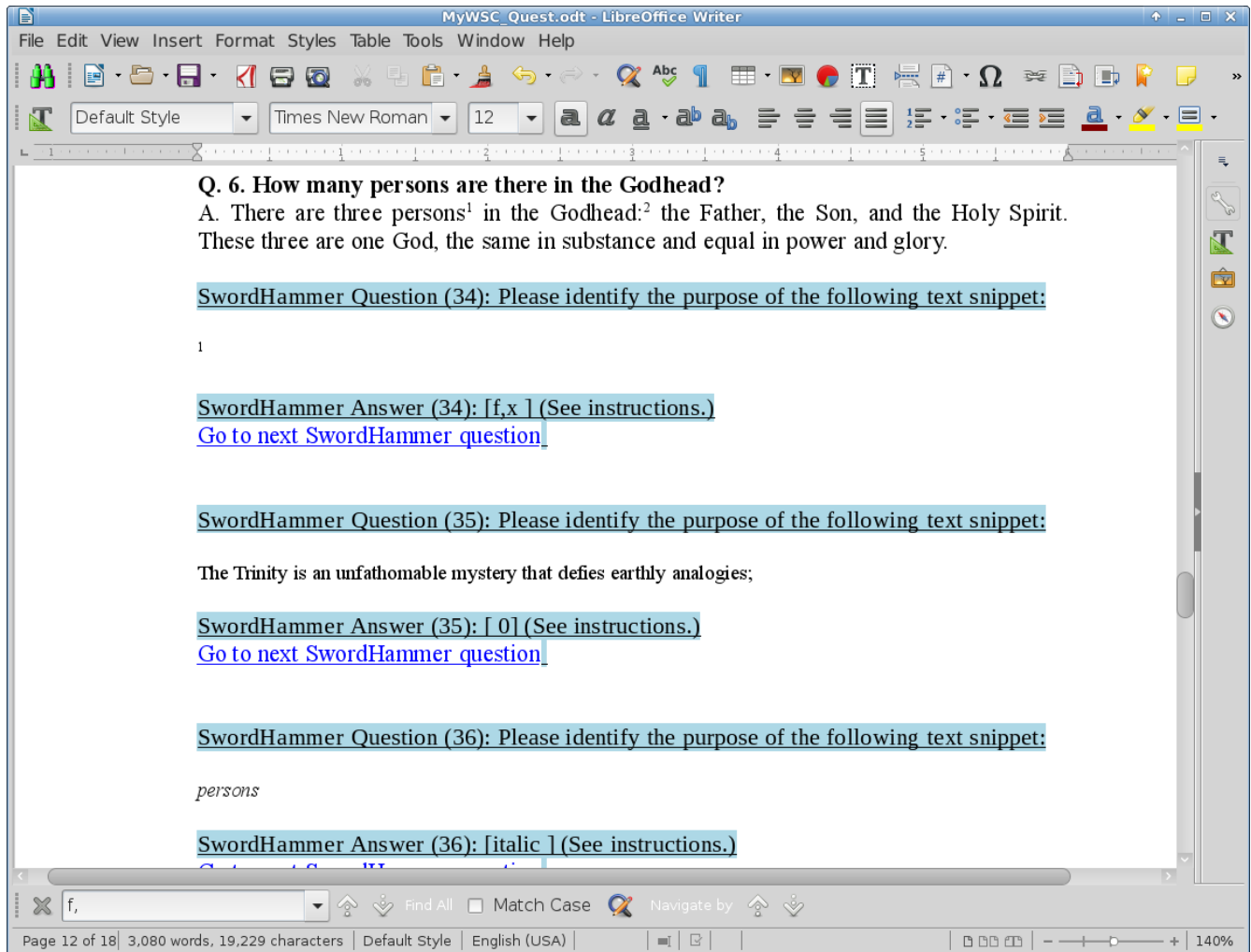
Question 23 pertains to a level 3 header. Questions 21 through 24 pertain to a demonstration of nested headers. This demonstration will be revisited later. You should be able to easily answer these Questions either 0 or SS with no difficulty.

Figure 14.10 – Generic Book Question Document, Part 10



Question 25 is simple bold text. But note how Questions 26 and 27 are simply answered ^{super}. This is because these superscripts are simple markers and do not pertain to footnotes. Go ahead and answer the questions down through Question 33.

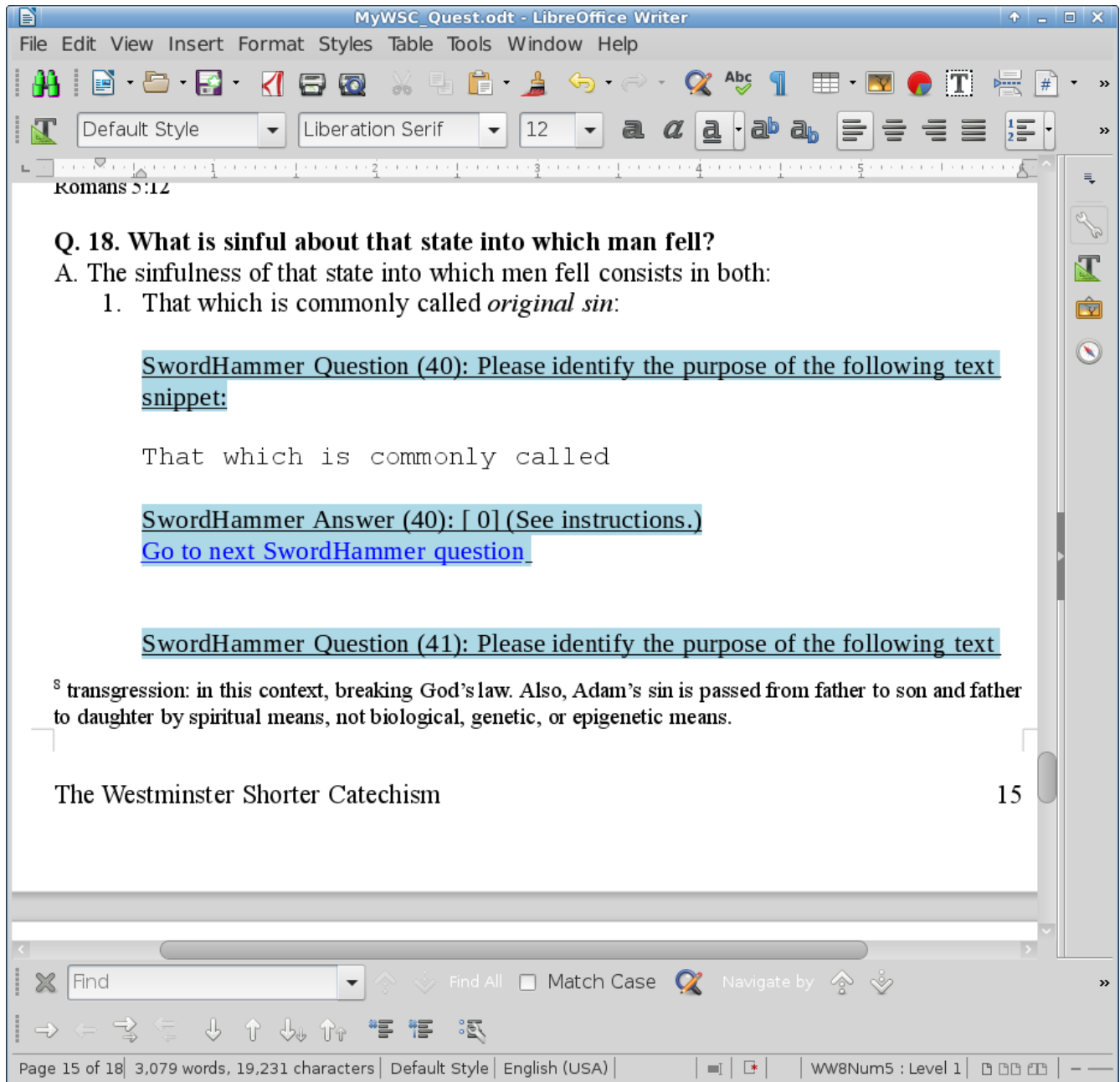
Figure 14.11 – Generic Book Question Document, Part 11



Question 34: In contrast to the letter superscripts, the numeric superscripts are note markers, so we answer **f**, **x**, meaning a Generic Book footnote. **All footnotes and endnotes in a Generic Book must use f, x or e, x.** Recall that SwordHammer identifies notes from the input document data, so it knows the difference between note markers and other superscripts.

Question 35: The principle of answering **0** for footnote text generally applies to Generic Books also.

Figure 14.12 – Generic Book Question Document, Part 12

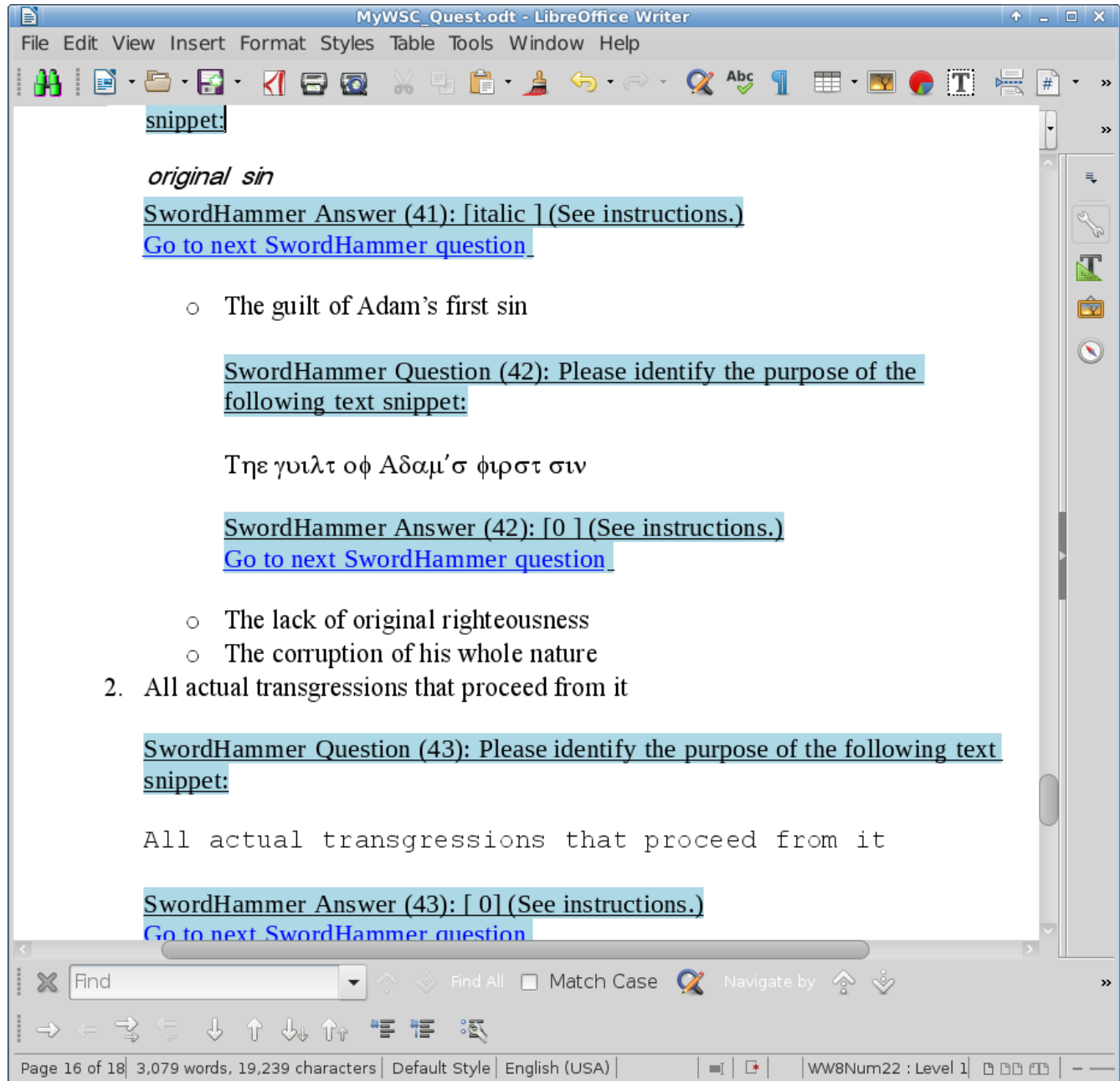


Now we get into some fun. Recall the author's discussion about [bugs in programs](#) above. Some strange interaction between a list, fonts, and SwordHammer's manipulations to insert the questions has produced some interesting output. It does not help that, in the original input document, the author went through some gymnastics to produce the list, making it an unusual list.

However, recall that the font of the Bible program's output is not determined by input document fonts. In fact, OSIS has no way to communicate font choices to the Bible program. So we simply ignore the matter, answer 0 to question 40 and proceed. (Do not forget to answer the intervening questions prior to Question 40, and be sure to use f, x for Question 37.)

Now look carefully above at Question 41 in Figure 14.12. The footnote shown is **not** the snippet of text to which Question 41 refers. You can see the snippet in Figure 14.13 below. Watch out for this potentially confusing situation; footnotes will commonly be interposed within SwordHammer Questions just like any other document will have footnote sections interspersed with its text.

Figure 14.13 – Generic Book Question Document, Part 13

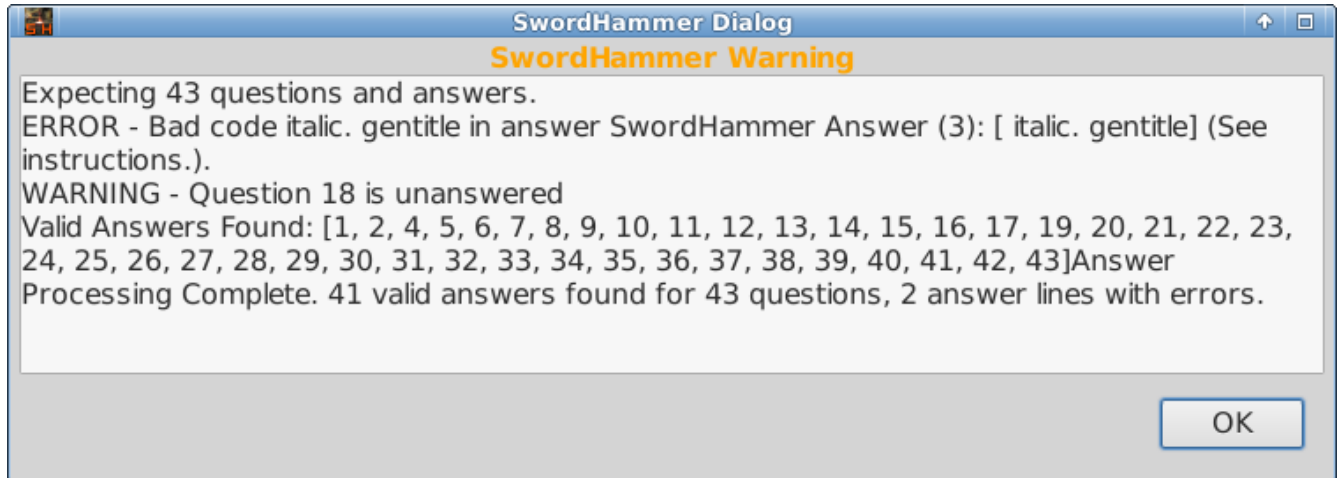


Even though the snippet of Question 41 is in a strange font, we can still see that it is in italics, so we answer it accordingly.

Similarly, we ignore the strangeness and answer Questions 42 and 43, as 0. If you know Greek, you will instantly realize that the Greek text is a simple font substitution. To prove this to your self, simply highlight the Greek text and select a Latin font, such as Liberation Serif, or Times New Roman.

So go ahead and save the Question Document and then hit the Process Answer Doc button. If you slavishly followed the Figures above, you will get the following error message:

Figure 15.1 – Bad Question Document Answer

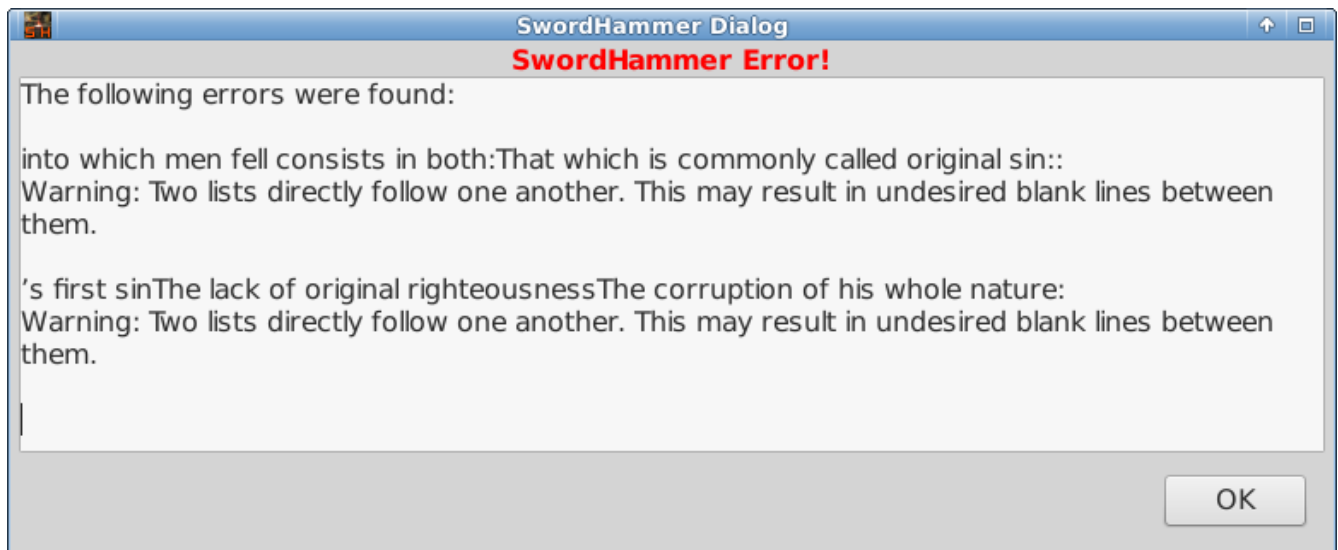


After changing a period to a comma in the Question 3 answer and answering Question 18 as bold, italic, all will be well.

Generate the OSIS File and Module and Finish Up

After hitting the Generate OSIS File button, the following error will pop up.

Figure 15.2 – A List is Listing to Port



We see snippets of text to help us find the area of the errors; both are in the list in WSC Question 18 concerning original sin. We will return to this matter in a bit.

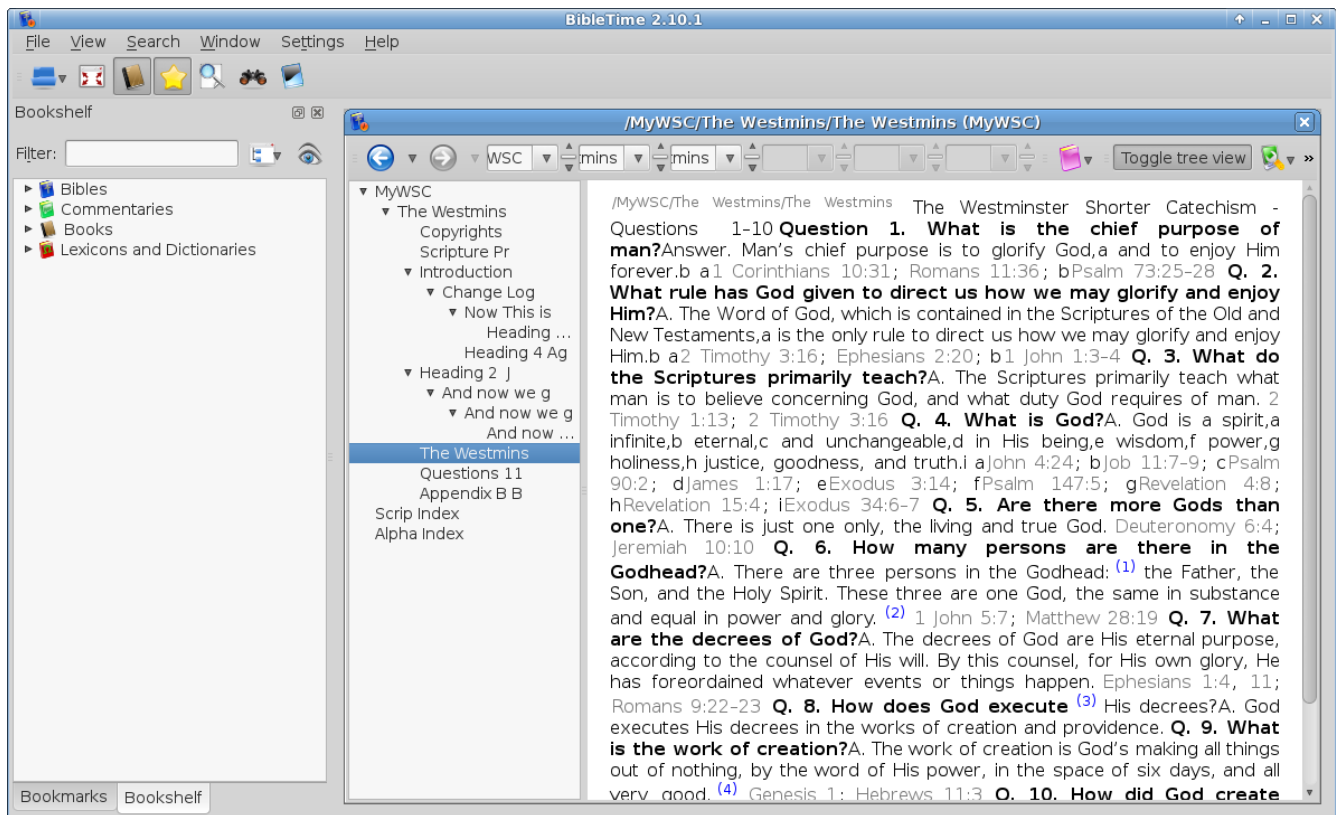
The next step is to generate the Sword Module, then copy it to our local repository. So go ahead and do that.

Examination of Results and Debugging

Note: The problems examined here are based upon the state of released software versions as of this writing. This section is not at all intended to be a disparagement of any software. Both the software and the underlying backend Sword systems, of which there are two variants (sword and jsword) are done by unpaid volunteers, who, considering the resources available relative to commercial outfits, have truly done, and continue to do, an outstanding job.

First, we open BibleTime and look at our work.

Figure 15.3 – Our Generic Book, as Presented by BibleTime, Part 1

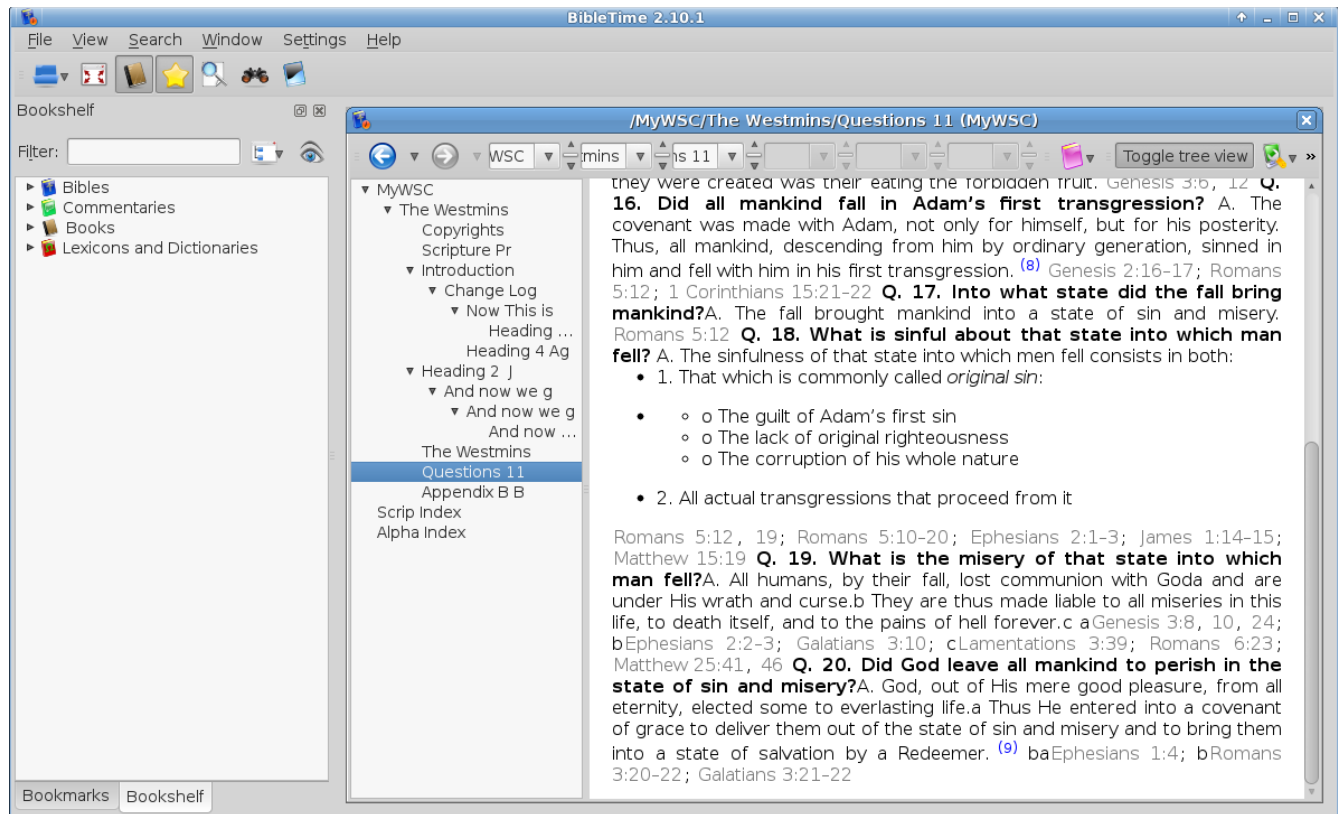


The author chose BibleTime because, although it has its own set of bugs, it can give a nice view of the hierarchy of our sections. Let us start with that. If you look at the highlighted text, you will see that what appears in the tree is the first twelve characters of the full title, *The Westminster Shorter Catechism – Questions 1–10*. Notice that BibleTime shows the current place in the sections hierarchy at the top of the right-hand pane, followed by the title, followed by the text of the section. Two things are noticeable here: first, paragraphs are not recognized, and second, the superscripts are just like the rest of the text.

Returning to the tree, SwordHammer is responsible for using just the first twelve characters as internal designators for the sections. This is the default. You would do well to bear this in mind when writing headings. You also use an alternative method to select your own internal designators. Just put a | between what you wish to use as the internal designator and your “real” title. The | will not show up, and the text to the left of the | will be the internal designator and will show in Bible Programs’ navigation apparatus. The text to the right of the | will be your document’s actual title.

Also regarding headings, if you look carefully at the tree, you will see that to go up multiple heading levels works fine. But if you try to go down multiple levels at once, say, from Heading 2 to Heading 4, (And now we g) the heading is repeated, one level at a time, until the desired level is reached. This is a little ugly and could confuse the reader, so please do not do that. Writer does not have a problem with this, but Generic Books must use nested levels without skipping levels. That is why the text And now we g is repeated by SwordHammer.

Figure 15.4 – Our Generic Book, as Presented by BibleTime, Part 2



In Figure 15.4, we see that the error message of Figure 15.2 was correct. When the author examined the internal structure of the input document, he found that it is indeed 3 separate lists, even though the document presents it as one list. This was most likely due to the gymnastics the author used to create the circle characters. The solution to this kind of problem is to highlight the list(s) and remove all list formatting using either toolbar buttons or the menu. Then you can re-create the list structure. For example, you can right click the selection, select **bullets and numbering ...**, and select the markers for each level.

Figure 15.4 shows another problem as well: Bible program put their own markers in, irrespective of what markers you put in your input document. SwordHammer deals with this by ignoring bullet markers, but displaying numbers, letters, or custom-designated special characters (such as the circles above). This effect can be seen better in Figure 15.5. The result is unavoidable ugly, but does communicate clearly to the reader.

Figure 15.5 – Our Generic Book, as Presented by BibleTime, Part 3

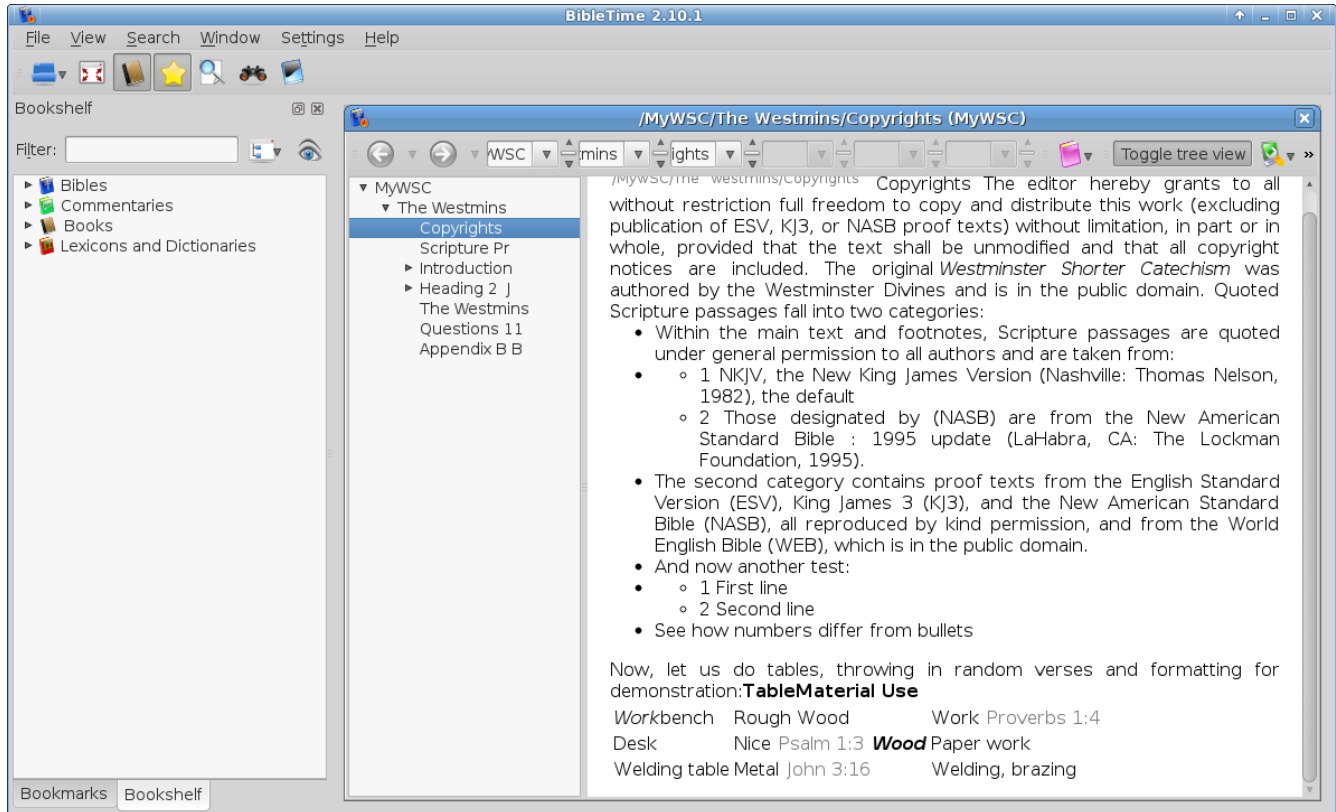


Figure 15.5 also shows that for nested lists, multiple bullet characters appear at the first line. This is due to the underlying *Sword* software that *Sword* based Bible programs use, and *SwordHammer* cannot control this either.

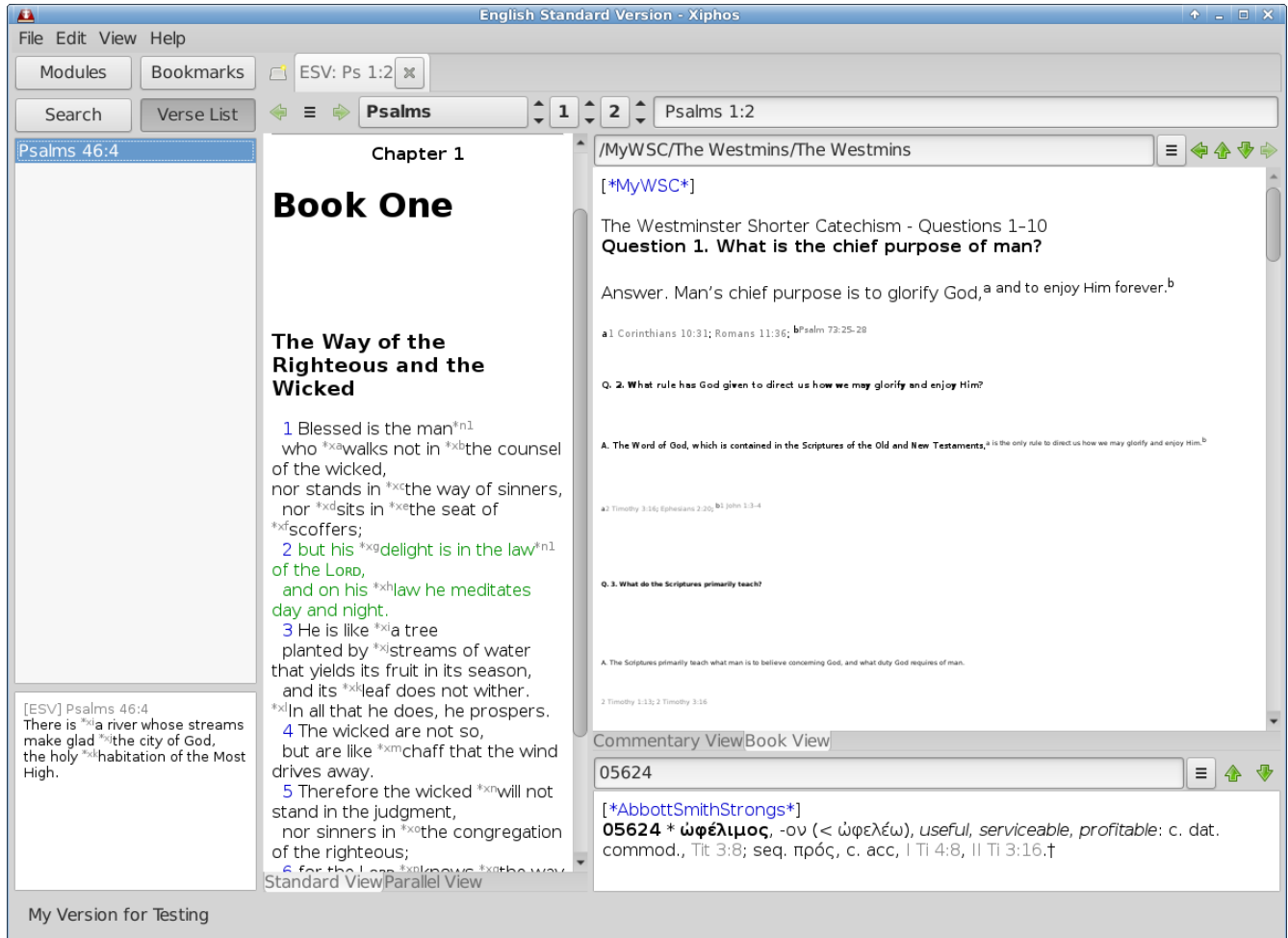
Also, in Figure 15.5, we can see that our table is rather messed up. It turns out that many Bible programs do not handle tables correctly.

Now, if you look carefully at Figure 15.5, you may be able to see that in the third main bullet point, the text **JAMES 3**, part of the name, “King James 3,” is grey (the difference does not reproduce well in Figure 15.5). *SwordHammer* picked it up as a reference to the third chapter of the book of James.

Finally, if you look at either the Scripture Index or the Alphabetical Index, you will see that hyperlinks do not work. This seems to be true for all Bible programs.

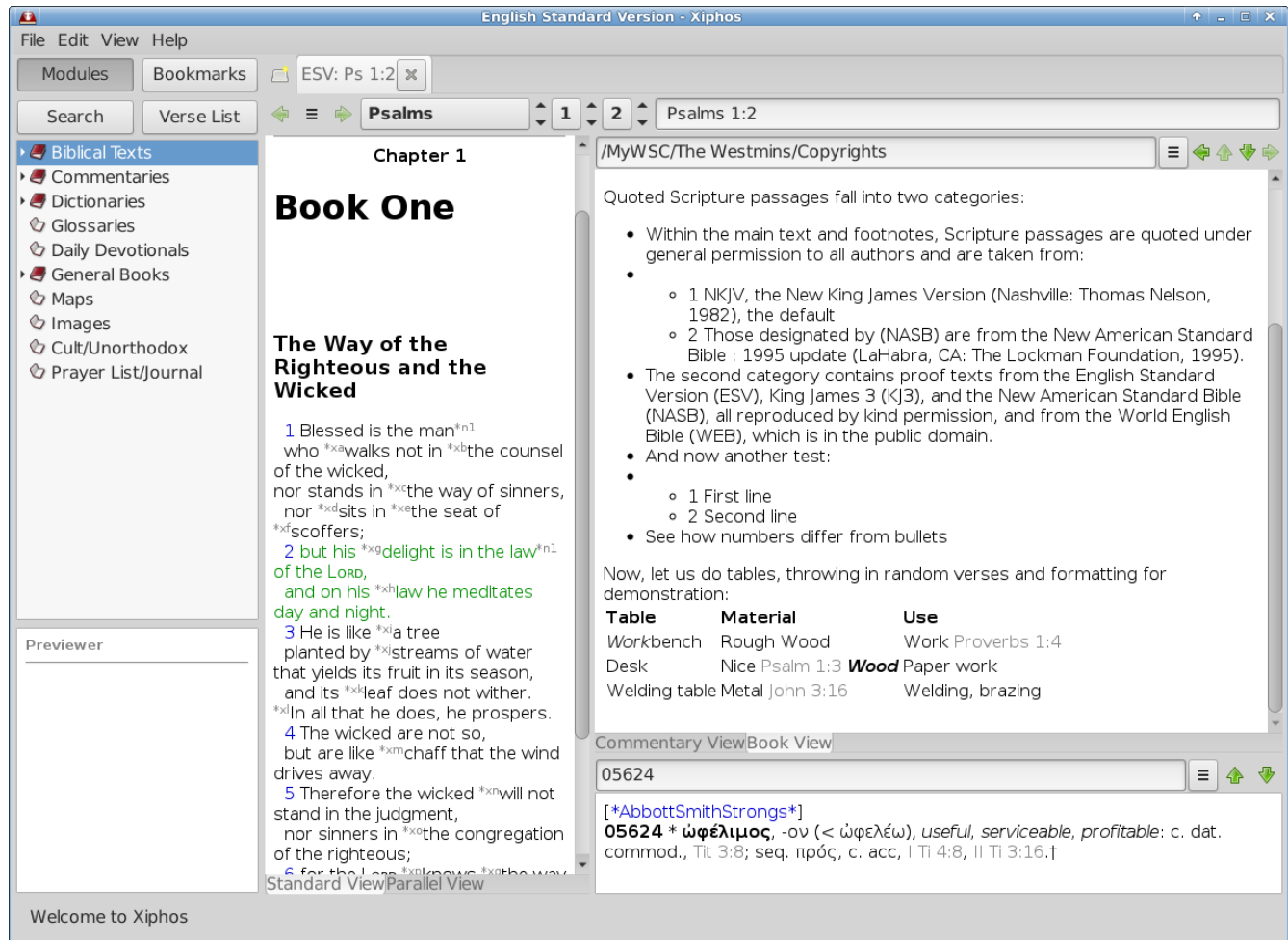
Let us look at a couple of other Bible programs. We next look at *Xiphos*.

Figure 15.6 – Our Generic Book as Presented by Xiphos, Part 1



Here we have a strange problem. It turns out that there is a Sword bug which causes Xiphos to not notice when superscripts end, so each superscript makes the text smaller. This also suggests that BibleTime ignores superscripts for this reason. At least, unlike BibleTime, Xiphos seems to recognize paragraphs.

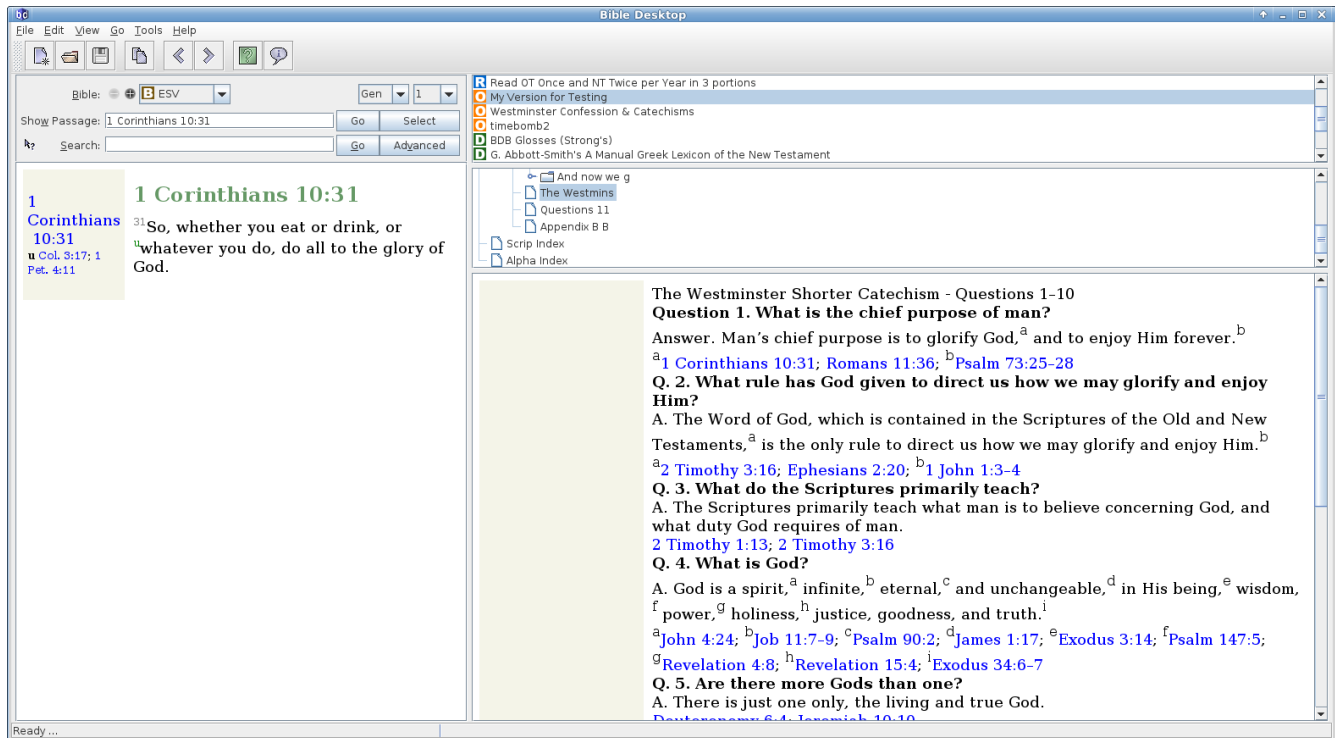
Figure 15.7 – Our Generic Book as Presented by Xiphos, Part 2



We can see in Figure 15.7 that Xiphos also doubles bullet points, but in a different manner than BibleTime.

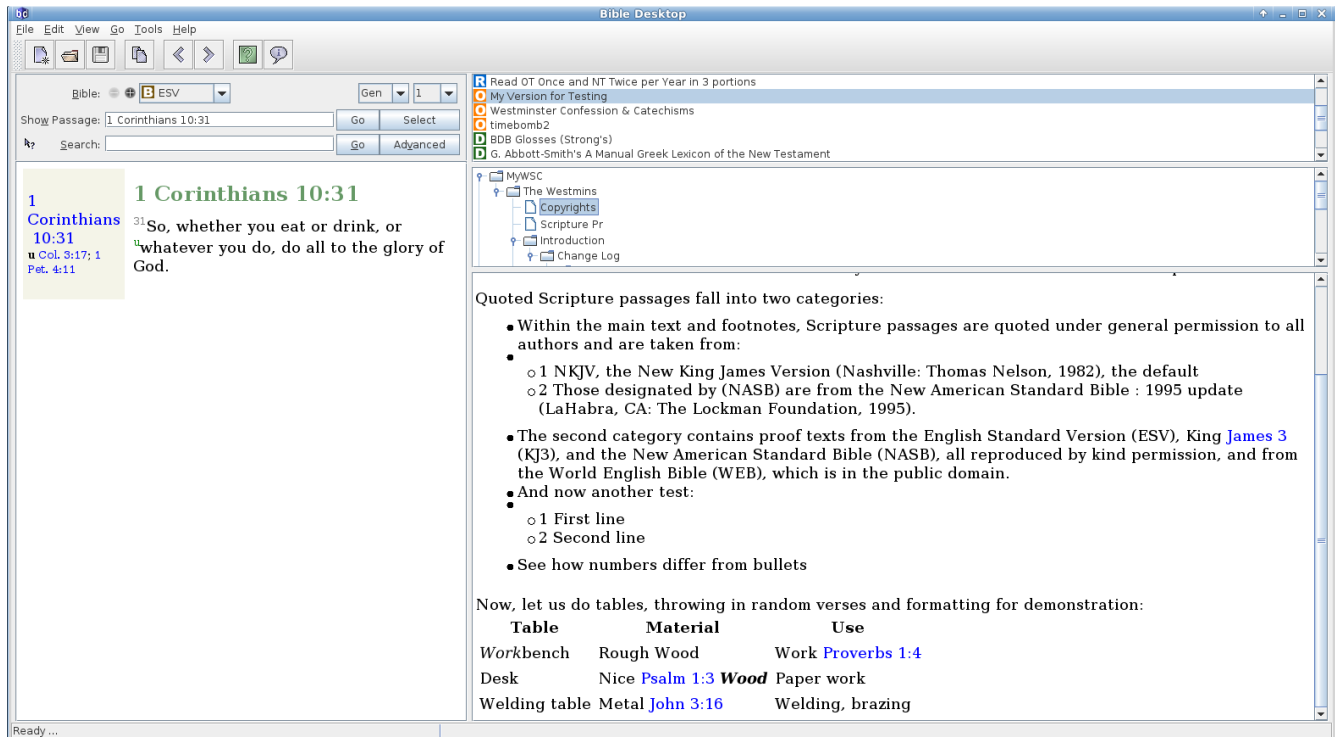
We now go to BibleDesktop.

Figure 15.8 – Our Generic Book as Presented by BibleDesktop, Part 1



In the main part of our book, BibleDesktop gives us a nice display. It also handles tables correctly as seen in Figure 15.9.

Figure 15.9 – Our Generic Book as Presented by BibleDesktop, Part 2



Fixing Things

First, hit the **Answer General Questions** button and change the answer to Questions 9 and 10 to n , and delete the answer to Question 11, then click OK. That will get rid of the nonfunctional indexes. If this problem gets fixed, at least now you know how these indexes work.

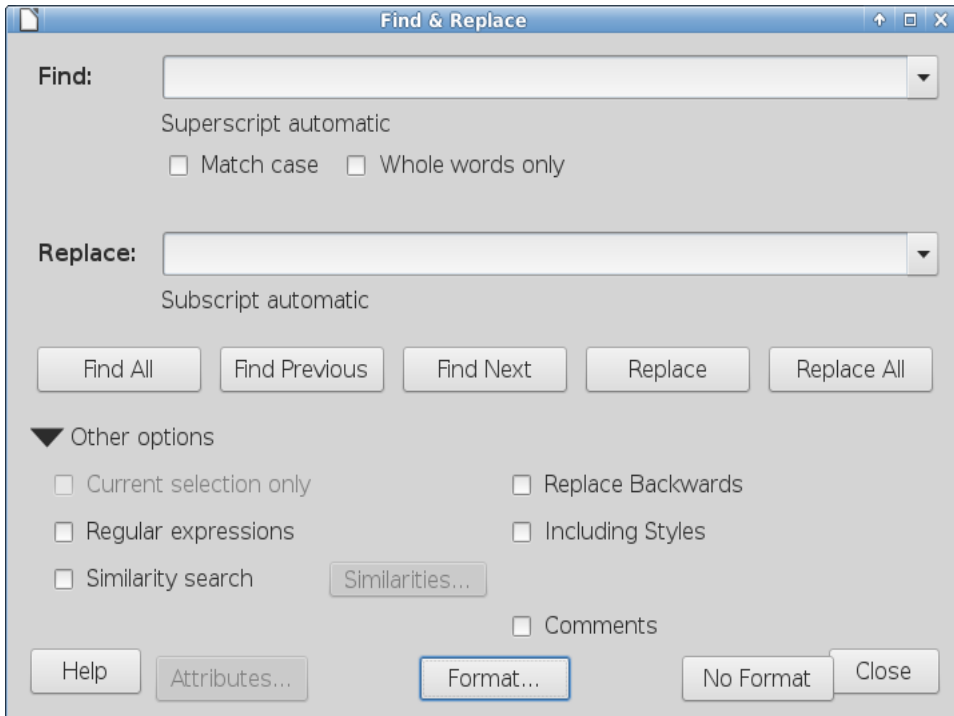
Next, we wish to change our Question Document answers. Change Question 13 (pertaining to **King James 3**) to `noref` to remove the supposed reference to James 3. Change Questions 14 and 15 (pertaining to the table labels) to remove `tablelabel`, but retain **bold**. Question 13 appeared because, if you look carefully, you will see that **King James 3** is in 12.1 font; this was done in anticipation of this problem, and it shows how a small change in font can be used, which is invisible to the reader of a print document.

Then hit the **Process Question Doc.** button to update the answers. Recall that new answers override the old. We do this now because if we were to wait until later, after making changes to our input document, and then running **Generate Question Doc.**, we would not necessarily get the opportunity to change our answers because the questions whose answers we wish to change would not necessarily have appeared again. Although had you forgotten, you would have simply had to go back and change the first answers to the first Question Document that needed to be changed, then resubmit the second Question Document.

Now, we need to make some edits to our input document. So open `MyWSC.odt` in Writer and do the following: **Caution:** This part should provide you with good motivation to make a copy of your input document if you wish to maintain different versions for a book-style document, and an electronic-style document, but you do not need to do that for this exercise.

1. Fix the list in WSC Question 18.
 1. Highlight the whole list.
 2. Hit the F12 key, or click the **Numbering On/Off** icon.
 3. Do Step 2 again, making sure the text is still highlighted.
 4. You will see that the list is numbered 1 through 5. Highlight numbers 2 through 4 and hit the **Increase Indent** icon or use the menu to do so.
 5. Highlight the whole list, right-click and choose the **Bullets and Numbering ...** option. Click **Level 2**, change the drop-down (at the top) to **Bullet**, then click OK.
2. Change superscripts to subscripts. We choose to work around the Xiphos bug.
 1. Hit `<ctl>H` to get the **Find and Replace** dialog box.
 2. Replace all **superscript** with **subscript**. This fixes our instructions to the user.
 3. While still in the **Find and Replace** dialog box, delete all of the text in the two boxes, and click the **Other Options** triangle.
 4. Place the cursor in the **Find** box, then click **Format**. Click the **Position** tab, select **Superscript**, then click OK.
 5. Place the cursor in the **Replace** box, then click **Format**. Click the **Position** tab, select **Subscript**, then click OK.
 6. Your dialog box should look like Figure 15.10. If so, click **Replace All**, then **Close**.
3. Fix the subtitle since the `st` is now a subscript. The easiest thing to do is just delete it, then type `st` in normal font since it would look a bit funny as a subscript.

Figure 15.10 – Change Superscripts to Subscripts



Now save your input document, and click the **Generate Question Doc.** button. You should get a dialog asking if you want to change the name of the Question Document to a new name ending with `_1.odt`. You should definitely select **YES**. SwordHammer automatically increments this trailing number for you as you need.

When SwordHammer finishes, open `MyWSC_Quest_1.odt` and you will have additional questions. You should be able to easily answer them. Be sure to answer Questions containing subscripts with **sub**. Recall that you will always get Question 1 so always answer it **SS** for a Generic Book. Also recall that the previous answers regarding superscripts though now superfluous, do no harm.

Save your Question Document, then hit the **Process Question Doc.** button. If all is well, hit the **Generate OSIS File**, **Generate Sword Module**, and **Copy Module To Local** buttons in sequence, waiting for each step to complete.

Figure 15.11 – Our Generic Book, Revised, as Presented by Xiphos, Part 1

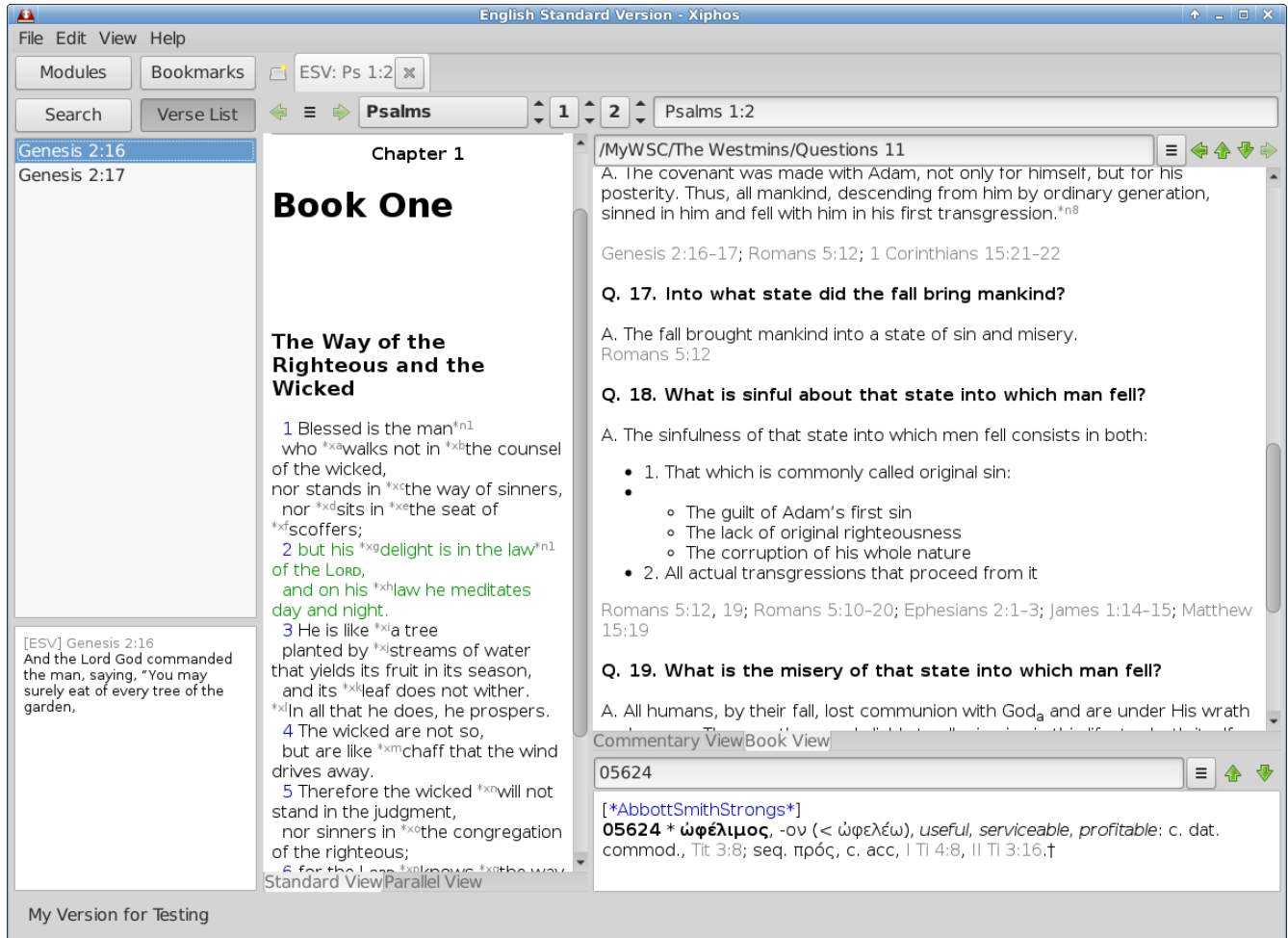
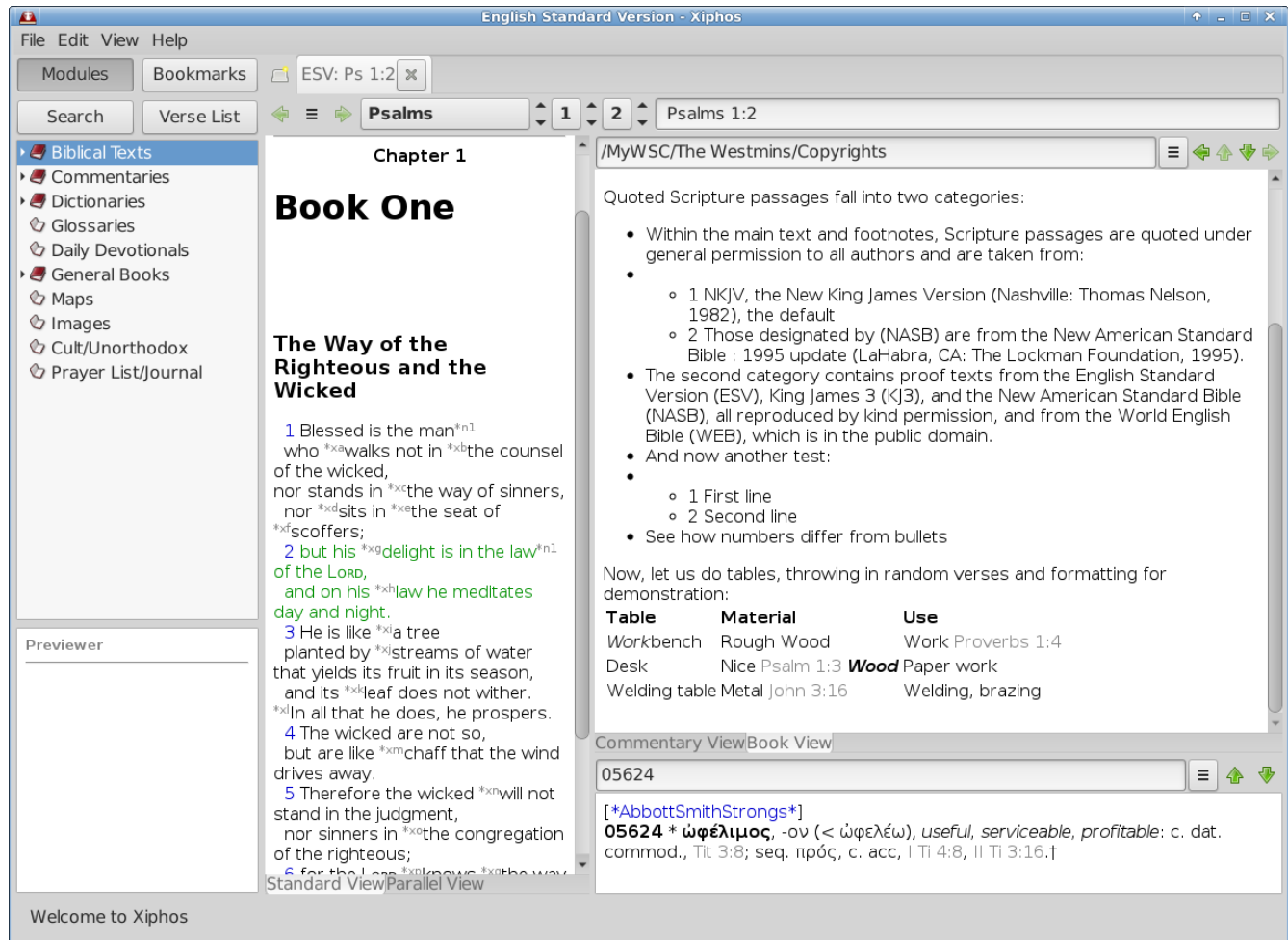


Figure 15.12 – Our Generic Book, Revised, as Presented by Xiphos, Part 2



As shown in Figure 15.12, things are much improved, though the table is not entirely correct in that it might do better with more spacing between the columns.

The debugging process shown above demonstrates (at least) three of four sources of possible errors:

1. SwordHammer
2. Your input document
3. The *Sword* system that underlies *Sword* based Bible programs
4. Individual Bible programs

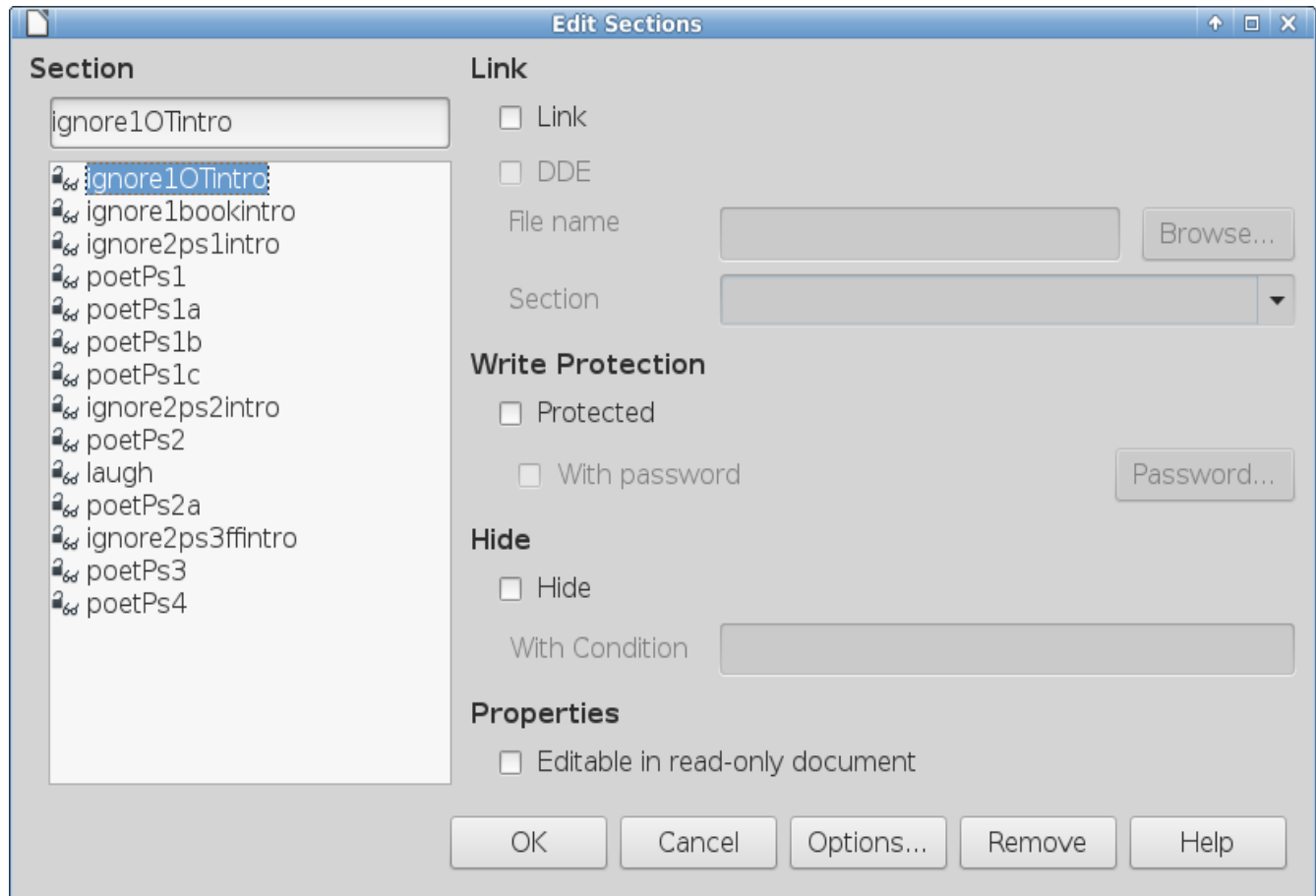
Sometimes it is not possible to fix certain problems, and we just have to work around them as best as possible. In some cases it is possible to visit the sites for a Bible program and report problems and get advice regarding issues. However, this author has observed that, while Bible programs do well for Bibles, support for Generic Book presentation seems less well developed.

Titles, Introductions, and Commentary Sections within Bibles or Commentaries

In various places above, especially while discussing [manuscript preparation](#), it was mentioned that you could use sections to embed blocks of material in Bibles or Commentary Text. Examples in Bibles would include introductions to books or chapters and commentary on passages or theological concepts.

To demonstrate this feature, please go to your Program Directory, to the TutorialFiles directory, and open both `TwoPsalmsSectDemo.odt` and `TwoPsalmsSectDemo_Quest.odt` so that you can look at them during this discussion. The sections of `TwoPsalmsSectDemo.odt` are shown in Figure 16.1.

Figure 16.1 – Section List for `TwoPsalmsSectDemo.odt`



`TwoPsalmsSectDemo.odt` is very similar to the `TwoPsalms.odt` you saw earlier, with some extra chapters and a number of commentary sections. Footnotes have been removed. This sub-chapter demonstrates three new concepts:

- The use of chapter titles and general titles as distinct from verse titles
- `ignoreNXXXX` section names, which are similar in concept to `poetXXX` section names
- The use of book, chapter, and top-level introduction and commentary sections

Psalm, Chapter, Verse, and General Titles

In the tutorials above, you were introduced to verse titles and the `vtitle` answer was given for all titles. But you actually have four title choices:

- `pst` – Psalm titles, also discussed above. Unlike all other titles, these are canonical.
- `vtitle` – Verse titles (were used promiscuously in the tutorials above). In most Bible programs, these now produce a title with a font similar in size to the canonical text.

- **ctitle** – Chapter titles In most Bible programs, these now produce a title with a font larger in size than the canonical text. In the tutorials above, some Bible programs treated verse titles as chapter titles due to their location within the text.
- **gentile** – Titles that are not connected with the canonical text. Bible programs may size or interpret them variously, depending on where they appear.

There are not really any hard and fast rules limiting where the above titles may be used, but proper placement will produce results that are visually acceptable and sensible in most Bible programs.

The use of ignoreNNXXX Section Names

You are already familiar with the use of the `poetXXX` notation, where `XXX` distinguishes one poetry section from another and the fact that the first `poetXXX` section generates questions to apply to all subsequent `poetXXX` sections. In similar fashion, you can have any number of `ignoreNNXXX` sections, where `NN` is an optional number of any reasonable length, and `XXX` is the part of the section name that distinguishes it from all other sections. For a particular number, the first section encountered generates questions for the section. Subsequent sections with the same number do not generate additional questions, but take their answers from the first section with that number. Note that sections with a given number are treated entirely separately from sections with different number. This feature is useful if you have many similar sections, such as an introduction for each chapter, or commentary sections interspersed inside the canonical text. The discussion of `TwoPsalmsSectDemo.odt` below will illustrate the use of this method.

Book, Chapter, and Top-Level Introduction and Commentary Sections

Table 16.1 – Sections Used in Conjunction with Canonical Bible Text or Book/Chapter/Verse Material

Answer Code	Purpose and Location	Effects
i	Introduction outside of the boundaries of canonical text	Jump out of any chapter or book
com	Commentary section outside of the boundaries of canonical text	Jump out of any chapter or book
booki	Introduction inside of a canonical book, but outside of any chapter	Jump out of any chapter
bookcom	Commentary inside of a canonical book, but outside of any chapter	Jump out of any chapter
chi	Introduction inside of any canonical chapter	Jump out of any verse, but some Bible programs may improperly place them just after the next verse number
chcom	Commentary inside of any canonical chapter	Jump out of any verse, but some Bible programs may improperly place them just after the next verse number

Caution: These codes are to *only* be used for Bibles and other documents organized by book/chapter/verse. Attempts to use them for Generic Books will likely produce errors.

The alert reader may well wonder what is the difference between an introduction and a commentary. So far as this author can determine, it make no difference to Bible programs at this time. Nevertheless, the author suggests that the distinction be preserved for future improvements to Bible programs.

Notice that the different codes allow one to precisely control placement of these non-canonical sections within the main text. But be warned: errors in using these can cause unexpected problems. For example, putting an `i` answer for a section inside of a book will terminate that book. Subsequent chapters will not find a book in which to reside, resulting in errors.

Discussion of Example

Please now take a look at `TwoPsalmsSectDemo.odt`. You will note from Figure 16.1 that it has a name using the `ignoreNXXX` feature. Its number is 1 and the name ends with `OTintro`. The section below that also has a number 1. If you now look at `TwoPsalmsSectDemo_Quest.odt`, you will note that the first section generates questions, but the second section has no questions at all because their names both start with `ignore1`. Because both of these appear outside of canonical text, they both are answered with `i`.

The third section, an introduction to Psalm 1, is answered with `chi` because it comes after the book title and chapter number. (Note that “Psalm 1” is answered with both `tb` and `cn`.) Next, you will see a distinction made between unwanted text, a chapter title, and a verse title. Due to use of the `poetXXX` feature, you will see far fewer questions for the next poetry section, and then very few in following poetry sections.

When you come to Psalm 2, you will see that since it has the same `ignore` number as the introduction to Psalm 1, there are no questions.

In the “laughter” section, note that the name of the section does not use any special features, so this chapter commentary section has its own questions.

When you come to “Psalms of Help,” you will notice that, even though it is named with `ignore2` in the name, it has its own questions. This kind of thing will happen; the phenomenon is the same as other cases of “repeated” questions discussed in the tutorials above. The author examined this in particular, and saw that Writer, having a mind of its own, just decided to put in slightly different attributes for this text than for the text in sections above.

For comparison purposes, Proverbs 1 is not marked for poetry. You will also note that this book is formatted a bit differently than Psalms in that it uses a large numeral for the chapter number and skips the first verse number. We thus answer `cnnv`; the repeated chapter number specification, like repeated book specifications is ignored by SwordHammer, except that the first verse is now properly found.

Figures 16.2.1-3 show examples of output as shown by Xiphos.

Figure 16.2.1 – First Portion of Results As Seen in Xiphos

My Version for Testing

Chapter 1

Introduction to the OT

The OT is critical for our understanding of the NT. Read it.

Introduction to the Book of Psalms

The Psalter is God's book of inspired prayers and praise to Him. Not only do the Psalms point clearly to Our Lord Jesus Christ, they are prayers that He ordained long before His incarnation as His own prayers and praise to His Heavenly Father; we thus get a glimpse into the mind of the God-man Messiah while He was on earth. As such, these are perfect prayers and praise that we can use with confidence.

Psalm 1

Introduction to Psalm 1

Psalm 1 contrasts the way of the wicked and the way of the righteous. All humans fall into one of these two categories. In the latter category are those, and only those, whose deeds give evidence of saving faith in Jesus Christ. We see that the wicked are characterized by giving evil counsel, that is, enticing others to join them in sin. They have an evil way, and their seat (rule, authority, or teaching) are evil. They will undergo some judgment in this life.

Figure 16.2.2 – Second Portion of Results As Seen in Xiphos

PSALM 1

The Way of the Righteous and the End of the Ungodly

1

The Life of the Righteous

Blessed *is* the man
Who walks not in the counsel of the ungodly,
Nor stands in the path of sinners, Nor sits in the seat of the scornful;
2 But his delight *is* in the law of the LORD,
And in His law he meditates day and night.

The Temporal Reward of the Righteous

3

He shall be like a tree
Planted by the rivers of water, That brings forth its fruit in its season,
Whose leaf also shall not wither;
And whatever he does shall prosper.

The Temporal Reward of the Wicked

Figure 16.2.3 – Another Portion of Results As Seen in Xiphos

PSALM 2

The Messiah's Triumph and Kingdom

1 Why do the nations rage,
And the people plot a vain thing?

2 The kings of the earth set themselves,
And the rulers take counsel together,
Against the LORD and against His Anointed, *saying*,

3 "Let us break Their bonds in pieces
And cast away Their cords from us."

4 He who sits in the heavens shall laugh;
The LORD shall hold them in derision.

5 Then He shall speak to them in His wrath,
And distress them in His deep displeasure:

6 "Yet I have set My King
On My holy hill of Zion."

7

God and Laughter

Does God actually laugh? It cannot be doubted that His laughter is perfect, holy, and always appropriate and according to truth, and due to the difference between God and man, something different from the laughter of men. It is difficult to conceive how men could laugh, being made in God's image, if God did not laugh.

"I will declare the decree:

This completes the step-by-step tutorial sessions.

Troubleshooting

This is a list of steps to take when troubleshooting. Also see Annotated Error Messages just below.

- Avoid complex structures such as a list inside of a table or vice versa.
- If you see MESSAGE ERROR, it is because the language file is missing or corrupt. Make sure your language is selected. Try the Create Language File button. It may fix your problem. If your language is not American English and you are using a translation of SwordHammer's message strings, the translation may be bad or out of date with respect to the version of SwordHammer you are using. You should strongly suspect this if you have just upgraded SwordHammer to a later version.
- SwordHammer does not track file usage. Therefore, make sure you:
 - Correctly select or spell file names and directories and make sure you are submitting the correct type of file. Input files to both `Generate Question Doc.` and `Generate OSIS File` must be .ODT documents and input files to `Process Question Doc.` are also .ODT documents, and may normally be identified by their `_Quest.odt` ending.
 - Answer and submit all generated Question Documents to `Process Question Doc.`
 - Use a complete list of files in `Set Input Doc. List` unless you are testing. Make sure they are in the right order.
 - Make sure you do not inadvertently delete or modify files needed by SwordHammer or needed to process your manuscript.
- If SwordHammer crashes in some way in which is previously worked, consider rebooting your computer and trying again. This is particularly true for Windows.
- Re-check your answers to both General Questions and answers in Question documents. In particular, problems with verse, chapter, or book recognition can result in mysteriously blank Bibles or other strange output.
- Sometimes, a header, title, or other line or group of text will be mysteriously broken in one or more parts. By way of example, perhaps a header may appear as two headers instead of one. Sometimes this happens because there is an invisible difference in font, size, etc. You can highlight at the break in your input document and look at character and font settings. You may, for example, have a space which is superscript, a different font, size, or paragraph characteristics. The sure way to fix this unless the problem is obvious, is to delete text at and around the offending area and retype it. Do not copy and paste; the above method will allow the newly typed text to acquire the formatting attributes from the surrounding text.
- In many cases, SwordHammer will issue error messages. Please resolve these (if possible) as they typically result from defects in the manuscript. It is important to note that some manuscript errors generate a large cascade of errors. An example of this is a missing Bible book answer; in such cases, all chapter and verse functions fail. The error stream typically terminates after a couple hundred error messages.
- Particularly during Sword Module creation, but sometimes as SwordHammer runs, a normal text stream suddenly stops. In that case, one can often use the location of the stop to find manuscript errors. But note that SwordHammer sometimes just has to stop for awhile; it is pausing to "collect garbage." This is normal.
- It is to be expected that there will be bugs in SwordHammer. The most likely way for bugs to show up is to do something unusual. That is, suppose you mistakenly put verse 3 before verse 1. Hopefully SwordHammer will be polite and warn you. Or SwordHammer might be in a bad mood and act strange or crash. Such bugs should not exist and this author would like to know

about them so he can fix them. However, if you can find your mistake, you can fix your error and get on with your work; your error needed fixing anyway, after all.

- Along with the above item, it is the author's observation that input document errors are the largest source of problems, even when they do not cause SwordHammer to misbehave. Many error messages therefore indicate the general location of the problem. You can search on the provided strings within your input document and inspect your input document for errors.
- Finally, SwordHammer deals with large volumes of data for large documents. Both the input documents and the resultant OSIS files and modules can be far larger and more complex than might be indicated by the bare text itself. For this reason, on very rare occasions, memory, disk, or operating system errors may cause a crash or strange results. In such cases, repeating the crashed operation will avoid a crash even though no changes were made. Many operating system problems can be fixed by simply rebooting the computer. Over many years, this author's first question to anyone reporting a strange problem on their computer was, "Did you reboot?"

Annotated Warning and Error Messages

Not all of these error and warning messages are quoted in their entirety. The notation, {N}, where N is a number means that SwordHammer will insert text there, such as a file name or a number. Only errors and significant warnings are presented here; some warnings, such as that you are about to overwrite an existing file, do not rise to the seriousness of the kind of warnings presented here.

Most of these messages are followed by additional information and hints for resolution in serif font such as used in this paragraph. Messages considered self-explanatory may have little or no additional information. In addition, you may wish to consult the section on troubleshooting just above or relevant tutorial text.

`WARNING 1 - ODT file name does not have .odt extension in its name.
If you do not get errors, you can ignore this.`

Some operating systems do not normally use file name extensions. SwordHammer will add them as a matter of course; such are still legal file names in these operating systems.

`WARNING 3 - This will destroy your en-us (USA English / American)
language file(s). This should only be used if text elements or
questions do not display correctly. This will NOT fix problems with
other languages. Do you wish to proceed?`

In certain cases, there can be a mismatch between program code and the language file. This can result in inappropriate messages, or the appearance of MESSAGE ERROR in a dialog box. There can also be messages such as ERROR 50. You can use the Create Language File button to fix this, then restart SwordHammer. When you do, this message will appear as a warning. In spite of the warning, ***unless you have manually changed your en-us language file***, this is safe to do. One consequence of any change to the en-us language file is that language files for other languages will need to be manually updated. Generally, new messages will appear near the bottom of the language file, making the translator's job a bit easier.

`WARNING 4 - Question {0} is unanswered,`

`WARNING 5 - The question document name is set to {0}, but this answer
document is named {1}. Applying answers to {1}. Please check
carefully that you have submitted the correct answer document for the
question document.`

If you copy a project to a new Working Directory with a different name, this message may appear. If such a copy is the reason for this message, you may ignore this warning.

WARNING 6 - Quote warning: Attempt to push quote level past 6, {0}
Quote = {1} Level {2}

Only 6 quote levels are supported since higher levels of quotation mark nesting are confusing to readers anyway. Most likely, this warning will be triggered by errors in the input document.

WARNING 7 - Quote warning: Attempt to push quote level below 0, {0}
Quote = {1} Level {2}

This is most likely due to missing or unbalanced quotation mark usage.

WARNING 8 - Quote warning: Sequencing warning, {0} Quote = {1} Level {2},

For a given quote level, an opening quotation mark was not followed by a closing quotation mark or a new opening quotation mark of the same level was found or two consecutive closing quotation marks of the same level were found. Sometimes this error is triggered by an apostrophe used in a contraction or possessive as SwordHammer cannot quite handle all the nuances of English.

WARNING 9 - Quote warning: Unknown quote processing error, {0} Quote = {1} Level {2},

WARNING 10 - Two lists directly follow one another. This may result in undesired blank lines between them.

The two lists should be combined into one by editing the input document, removing, then regenerating the list structure in the input document. This problem results from Sword module processing, and is out of the control of SwordHammer.

WARNING 11 - It does not look like SwordHammer was able to launch your default .PDF document reader automatically. But in your Program Directory (the place where your SwordHammer program/source files are located), you should find SwordHammer.pdf which you can open in any PDF reader.

SwordHammer assumes, that in a Windows system, that the system will find a reader for a .pdf file. In Linux, SwordHammer searches for either Atril or Evince. If these are not found, you will get this message. You should create a desktop shortcut to open SwordHammer.pdf with your desired .pdf reader if this is a problem. Being able to open the documentation within the SwordHammer program is a minor feature anyway.

ERROR 1 - ODT file cannot be in the root - your working directory cannot be the root of a drive (e.g., c:\ or /).

Your Working Directory cannot be the root of a drive. You must make a directory in a drive to be the Working Directory.

ERROR 2 - (Possible program error) The copy operation failed.

For some reason, SwordHammer was not able to copy your files from your old Working Directory to your new Working Directory. Possible causes would include full drives with no space left and permissions problems. Network problems could cause failure if the destination drive is a remote location.

ERROR 3 - Could not serialize XML for created question document.
Likely SwordHammer internal program error.

SwordHammer works with the special XML files of input documents and Question Documents. If this special format is sufficiently damaged, probably due to a SwordHammer bug, it becomes impossible to convert this internal format to a file on your disk.

ERROR 4 - could not write out serialized XML to {0}.

SwordHammer works with the special XML files of input documents and Question Documents. If this special format is sufficiently damaged, probably due to a SwordHammer bug, it becomes impossible to convert this internal format to a file on your disk.

ERROR 5 - Could not delete an existing ODT file {}

If replacing an existing document, usually a Question Document, it is necessary to delete the old copy first. Permissions problems, network issues with remote files, and damaged files on disk can cause this.

ERROR 6 - Working directory {} does not exist.

SwordHammer never deletes Working Directories, but users certainly can, and disk file corruption or permissions problems can make files and directories invisible.

ERROR 7 - Unable create {0} from working directory {1}

SwordHammer was unable to create a zip file. In this case, the “working directory” is NOT your Working Directory, but the directory containing files that SwordHammer tried to zip up into an archive. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information.

ERROR 9 - Written, but Corrupted archive (zip) file.,

SwordHammer tried to create a zip file, but when SwordHammer tested the zip file’s integrity, the test failed. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information.

ERROR 10 - Test failed to verify {0} from working directory {1}

SwordHammer tried to create a zip file, but when SwordHammer tested the zip file’s integrity, the test failed. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information. (Slightly different parts of the program generate this message instead of the one above.)

ERROR 11 - Working directory named {0} for {1} exists and could not be deleted.

SwordHammer wanted to unzip a file, but could not delete the directory that was to contain the unzipped files. In this case, the “working directory” is NOT your Working Directory, but the directory that was to contain files that SwordHammer tried to unzip from an archive. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information.

ERROR 12 - Working directory named {0} for {1} could not be created.

SwordHammer wanted to unzip a file, but could not create the directory that was to contain the unzipped files. In this case, the “working directory” is NOT your Working Directory, but the directory containing files that SwordHammer tried to zip up into an archive. Disk or permissions problems,

among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information.

ERROR 13 - Corrupted .odt file {0}.

SwordHammer wanted to unzip a file, but found that the zip file did not work and could not be extracted. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information. Note that Writer documents, even though they end in .odt, are zip files, and must be first uncompressed before a program can work with the contents.

ERROR 14 - Corrupted updates zip file.

During a program update, the zip file containing the updates could not be unzipped. Since the downloaded file must pass a signature test, it is likely that the file was bad as uploaded.

ERROR 15 - Unable to extract (unzip) {0} into working directory {1}

SwordHammer wanted to unzip a file, but found that the zip file did not work and could not be extracted. Disk or permissions problems, among other things, could cause this error. The zip function is used in multiple places; other error messages should give more information. Note that Writer documents, even though they end in .odt, are zip files, and must be first uncompressed before a program can work with the contents.

ERROR 16 - Unable to extract (unzip) update zip file into Program Directory.

During a program update, the zip file containing the updates could not be unzipped. Since the downloaded file must pass a signature test, it is likely that the file was bad as uploaded.

ERROR 17 - Prior to directory copy, unable to delete {0}

This error can occur during Question Document creation at the very end of the process. Possible causes would include full drives with no space left and permissions problems. Network problems could cause failure if the destination drive is a remote location.

ERROR 18 - Unable to copy from {0} to {1}.

This error can occur during Question Document creation at the very end of the process. Possible causes would include full drives with no space left and permissions problems. Network problems could cause failure if the destination drive is a remote location.

ERROR 19 - Bad code {0} in answer {1}.

The answer code is not in the list of valid numbers or mnemonics. You could also have a missing comma or nearby spurious characters.

ERROR 20 - Database reverse lookup error for answer line {0}. This could be a SwordHammer program error. Most likely, it is the result of a corrupted database. This error occurs because you are answering a question, but the question no longer exists. Perhaps you deleted the database containing the question? You are likely to fix this by running Generate Question Doc. on your input document again, creating a new Question Document and answering it, just abandoning the Question document that caused this error.

As the message says, the root cause of this is that you are answering a question that no longer exists. If all but the first question triggers this error, you have likely deleted the database version that was created when the offending Question Document was created.

ERROR 22 - Bible Book Dictionary is missing or not specified.

The file, BibleBookAbbreviations_en-us.csv or its translated equivalent is missing or corrupt.

ERROR 23 - Bible Book Chapter Verse index is missing or not specified,

The file, BookChapterIndex.csv or its edited equivalent is missing or corrupt. This does not imply that versification systems other than standard KJV are invalid; the file itself is improperly structured or corrupt.

ERROR 24 - Input Source document is missing or not specified.

The input document you specified was not found by Generate Question Document.

ERROR 25 - Input Source document {0} is missing.

Just after Generate OSIS File is clicked, SwordHammer checks to see if the files in the input list all exist. This message is generated if one is missing.

ERROR 26 - Answered Questions document is missing or not specified.

You clicked on Process Question Doc., but the file specified by the Set Question Doc. name button does not exist.

ERROR 27 - Output Question document is not specified.

You clicked on Generate Question Doc., but no file is specified by the Set Question Doc.

ERROR 28 - Database name is not specified.

Use the Set Database File button to specify a base name.

ERROR 29 - Database does not exist.

No database having a base name as specified in the Set Database File button exists.

ERROR 30 - Input Document List file does not exist.

Use the Set Input Doc. List button to create a list of files to be processed by Generate OSIS File before you hit the Generate OSIS File button.

ERROR 31 - Question document {0} does not exist. This document must exist.

You clicked on Process Question Doc., but the file specified by the Set Question Doc. name button does not exist.

ERROR 32 - Empty code in {0} in answer {1} (remember that commas are between and separate codes.)

Something is wrong with the answer, possibly two consecutive commas.

ERROR 33 - Backslashes contain text adjacent to a significant string of formatted text. They must be in pairs. Problem is in answer to question {0}.

You include a slash (/) in your answer. At this time, slashes are not allowed. (Pairs of slashes are reserved for a future feature, if ever.)

ERROR 34 - Corrupted SwordHammer answer line:

This is a catch-all error for any number of problems with the answer line in a Question Document. The answer itself may be bad, or you may have modified the answer line by mistake. In the later case, you may be able simply to re-type the bad part(s).

ERROR 35 - No start [in answer line.

You may have modified the answer line by mistake. In the later case, you may be able simply to re-type the bad part(s).

ERROR 36 - No end] in answer line or nothing between[].

You may have modified the answer line by mistake. In the later case, you may be able simply to re-type the bad part(s).

ERROR 37 - Question document file not specified or does not exist, implying XML files not ready.

This error can only happen if you click the Create Q. Doc From XML button. This is a *very* advanced feature and should only be used on direct and specific advice from tech support. The meaning of the message is that the Question Document you are trying to modify does not exist or the file name is not specified by the Set Question Doc. Name button.

ERROR 38 - This setting may not be changed because you have not yet set a Working Directory.

When you make changes to SwordHammer settings, even by moving the window, internal settings are changed. These changes are stored in your Working Directory. This is usually a non-fatal error.

ERROR 39 - This setting may not be changed because the set Working Directory does not exist.

When you make changes to SwordHammer settings, even by moving the window, internal settings are changed. These changes are stored in your Working Directory. This is usually a non-fatal error.

ERROR 40 - Requested setting not in settings dictionary:

This is a SwordHammer Bug. The name after the colon is important information for tech support.

ERROR 41 - You must select a file.

The file name cannot be blank or a directory.

ERROR 43 - You must specify a filename.

The file name cannot be blank or a directory.

ERROR 44 - The item you selected is not a file or does not exist.

You may have selected a directory, link, shortcut, etc.

ERROR 45 - The item you selected is a directory, not a file.

Be sure you select a file, not a directory.

ERROR 46 - You selected a new directory that is NOT in your working directory. This is forbidden for this file.

Certain directories and files must reside in your Working Directory.

ERROR 46 - (Possible program error) Cannot save settings because no working directory is set.

When you make changes to SwordHammer settings, even by moving the window, internal settings are changed. These changes are stored in your Working Directory. This is usually a non-fatal error.

ERROR 47 - (Possible program error) Cannot get settings because no working directory is set.

When you make changes to SwordHammer settings, even by moving the window, internal settings are changed. These changes are stored in your Working Directory. This is usually a non-fatal error.

ERROR 48 - {0} widget not found by builder during widget reads.

This can only be a SwordHammer bug, possibly caused by missing SwordHammer file(s).

ERROR 49 - File name and language do not match, or invalid file name.

Usually this is caused by a bad or misnamed language file.

ERROR 50 - Line {0} lacks a tab separator. Use of button "Create Language" may fix this.

It is possible that a SwordHammer bug may cause this, but the most common cause would be a corrupt language file. When editing or creating language files, the format of the file is very important to observe.

ERROR 51 - Line {0} has an invalid key (part to the left of the tab). This may be due to accidental translator error or a file I/O error. Use of button "Create Language" may fix this.

It is possible that a SwordHammer bug may cause this, but the most common cause would be a corrupt language file. When editing or creating language files, the format of the file is very important to observe. It is important to preserve the keys exactly.

ERROR 52 - {0} widget not found by builder during widget populate.

This can only be a SwordHammer bug, possibly caused by missing SwordHammer file(s).

ERROR 53 - {0} key not found in language dictionary during widget populate.

It is possible that a SwordHammer bug may cause this, but the most common cause would be a corrupt language file. When editing or creating language files, the format of the file is very important to observe. It is important to preserve the keys exactly.

ERROR 54 - Language file en-us did not install in {0}. Possible problem with Working Directory or permissions.

ERROR 55 - General Questions Source Spreadsheet is missing (GeneralQuestions_en-us.csv). This file is part of the program source and should be in the Program Directory.

ERROR 56 - General Questions Source Spreadsheet is corrupt (GeneralQuestions_en-us.csv). This file is part of the program source and should be in the Program Directory.

ERROR 57 - General Questions Source Spreadsheet is corrupt ({0}). This file is a working language copy in your Work Directory.

You should never edit this file manually. However this happened, copying GeneralQuestions_en-us.csv from your Program Directory to your Working Directory should fix this. This may also be caused by improperly edited or created language files in other languages than en-us.

ERROR 58 - Due to a program update, the version of your General Questions generator file for language {0} is obsolete. To avoid errors, the language of the General Questions will be in en-us until a translated file is provided.

The author of SwordHammer has tried very hard to minimize the chances of this happening. It should be a rare occurrence. Unfortunately, there is very close tie between SwordHammer code and this file. Thus, if you see this message, you will simply have to again answer all of the General Questions. The file in question is GeneralQuestions_en-us.csv. Translations of this file must, of course, also be updated.

ERROR 59 - File {0} is missing from the Program Directory. You must restore this file or all kinds of bad things could happen.

If you cannot quickly find the missing file, you can either restore it from the SwordHammer web site manually, or simply re-install SwordHammer.

ERROR 60 - The number of answers in Responsible Person, Date, and Brief Narrative do not match. Each of these three questions must have the same number of answers.

ERROR 61 - An answer is required, but not given for question: {0}

ERROR 62 - The character {0} is forbidden in answers, but it appears in question: {1}

ERROR 63 - This pair of questions must have the same number of answers, but they do not: {0} and {1}.

ERROR 64 - These questions must have the same number of answers, but they do not: {0} and {1}.

ERROR 65 - {0} cannot be deciphered as a date or date and time.

Try the format yyyy.mm.dd hh.mm.ss, where the time or the seconds may be omitted. Use leading zeros where needed to keep two digits for month, day, 24 hour time hour, minute, and second.

ERROR 66 - Although it is optional to have secondary works, for each secondary work, the short name is not optional. Dash in entry {0} is invalid.

ERROR 67 - Character {0} is not permitted in {1}.

ERROR 68 - {0} must be in the given list, verbatim, and {1} must be 1 to 4, inclusive.

Unfortunately, the General Questions text is without the ability to put things in bold, italic, or otherwise make text stand out, so please carefully re-read the question and answer accordingly.

ERROR 69 - Answer {0} in General Question 26 (regarding answers generated from particular text strings) has an error in it.

The nature of the error cannot be determined. Please carefully read both the question instructions and the explanation [in this manual](#).

ERROR 70 - Answer {0} in General Question 26 (regarding answers generated from particular text strings) lacks a =

An equals sign was not found. Please carefully read both the question instructions and the explanation [in this manual](#).

ERROR 71 - Answer {0} in General Question 26 (regarding answers generated from particular text strings) lacks a leftmost =

An equals sign was found, but there is no leftmost equals sign. Please carefully read both the question instructions and the explanation [in this manual](#).

ERROR 72 - Answer {0} General Question 26 specifies whitespace on both sides of the substitution character(s). This would find all words in the document.

Please carefully read both the question instructions and the explanation [in this manual](#).

ERROR 73 - Attributes not found for text "{0}". Most likely you just need to run questions on {1} and answer any new questions. A program error is also possible.

Sometimes you can modify an input document and not bother generating a new Question Document and answering it. Much of the time, this “shortcut” only wastes time. After making changes to an input document, always generate and answer a new Question Document for that input document.

ERROR 74 - Answers not found for text "{0}". Most likely you just need to run questions on {1} and answer any new questions. A program error is also possible.

Sometimes you can modify an input document and not bother generating a new Question Document and answering it. Much of the time, this “shortcut” only wastes time. After making changes to an input document, always generate and answer a new Question Document for that input document.

ERROR 75 - Attributes not found for section "{0}". Most likely you just need to run questions on {1} and answer any new questions. A program error is also possible.

Sometimes you can modify an input document and not bother generating a new Question Document and answering it. Much of the time, this “shortcut” only wastes time. After making changes to an input document, always generate and answer a new Question Document for that input document.

ERROR 76 - Found new chapter number of {0}, but this is the first chapter in book {1}. A program error is also possible.

This is not a fatal error. It is possible that some versification systems may omit a Chapter 1. Most likely, the number of the first chapter was not found. Possibly the input document may omit the first chapter number of a book. Possibly also, a Question Document was improperly answered or the chapter numbers do not have consistent formatting of their own. Inspecting your input document and inspecting the output by opening your finished module with a Bible program will help you determine if you need to take corrective action.

ERROR 77 - Found new chapter number of {0}, but the previous in book {1} is {2}. A program error is also possible.

This is not a fatal error. It is possible that some versification systems may omit a chapter. Most likely, the number of the previous chapter was not found. Possibly also, a Question Document was improperly answered or the chapter numbers do not have consistent formatting of their own.

ERROR 78 - Found new chapter number request, but no book in which to put it: {0}. Did you use i or com answers, causing you to drop out of the book?

This is not a fatal error. Most likely, the book title was not found before the chapter number. Possibly also, a Question Document was improperly answered or the book titles do not have consistent formatting of their own. Check that you do not have any of the section answers listed above in the message, as they will drop you out of a book.

ERROR 79 - Found new chapter title request, but no chapter in which to put it: {0}. Did you use i, booki, com or bookcom answers, causing you to drop out of the chapter?

This is not a fatal error. A chapter title was found outside of a chapter. Check that you do not have any of the section answers listed above in the message after the chapter number because those answers will drop you back into the book level, awaiting a new chapter number.

ERROR 80 - Found new verse request, but no chapter in which to put it: {0}. Did you use i, booki, com or bookcom answers, causing you to drop out of the chapter?

This is not a fatal error. A verse was found, but there was no chapter in which to put it. Check that you do not have any of the section answers above in the message above because these answers will drop you back to the book level, awaiting a new chapter number. You may also have a bad answer or lack of consistent, distinctive formatting for your chapter numbers.

ERROR 81 - Problem with document {0}. In the absence of any OTHER error messages, this is almost certainly a program error unless this document is not a real document or something.

Make sure all of the documents in your Input List are valid input documents, not other kinds of files or Question Documents.

ERROR 82 - Problem mating OSIS sections. This is almost certainly a program error unless all input documents are bad or missing.

Different parts of the OSIS output file are made at different steps, then put together (mated) at the end. You get this message if there is something wrong with the mating process.

ERROR 83 - Problem with OSIS validation. This is could be a program error or it could be a problem with a General Questions answer. It could also be a problem with your document, and this is common. Please fix all errors (but not necessarily warnings) about your document - this solves many OSIS validation errors. Also, you should copy and paste this message into a text document in case you need to send it to technical support.

This error message is accompanied with a lot of apparently meaningless text, but the text is not meaningless to tech support. However, as suggested, please fix all known problems with General Question answers and input documents. Examining the text fragments displayed in the message will tell you where to look in your input documents for possible problems. If you see this message, you should always send the whole text of this message and the log file to tech support. The reason is that SwordHammer should have handled input document errors and General Question errors without generating a bad OSIS file, and tech support would like to fix it.

ERROR 84 - OSIS file is not specified or not found.

Use the **Set OSIS File** button to specify the OSIS file. If it is specified, but you get this message when you try to generate a Sword Module, check that it exists and that you did not delete or move it.

ERROR 85 - Directory to receive new Sword module is not specified or not found.

Use the **Sword Module Directory** button to specify the location. If you get this message when you try to copy your Sword Module to a local directory, check that it exists and you did not delete or move it.

ERROR 86 - Sword module creation failed. Results:{1}

You should never see this message because a good OSIS file should always result in a good Sword Module. However, you should check in your Question Document answers and the General Questions that you have consistently specified the same kind of document. Failure in this can cause this message. For example, a document organized by book/chapter/verse should always have **b** for the first question in a Question Document and never use **SS** for any question, and the type of document consistently identified as a Bible or Commentary in the General Questions. The input documents should never use the Header hierarchy. Likewise, a Generic Book should always have **SS** for the Header hierarchy answers, and never use book/chapter/verse organization. In General Questions, the document should be consistently identified as a Generic Book / General Book.

This error message is accompanied with a lot of apparently meaningless text, but the text is not meaningless to tech support. If you see this message, you should always send the whole text of this message and the log file to tech support. The reason is that SwordHammer should have handled input document errors and General Question errors without generating a bad OSIS file, and tech support would like to fix it.

ERROR 87 - Local Sword repository not found.

You have either given SwordHammer the wrong location or the Sword repository directory is missing.

ERROR 88 - module configuration file (.conf) is missing. If you did not delete it, it may be a program error.

This file resides in your Working Directory, and is part of a Sword Module, but does not reside in the Sword Module directory in your Working Directory. Permissions problems, network issues with remote files, and damaged files on disk can cause this also.

ERROR 89 - Copy failed.

Copying the Sword Module to a local location failed. Permissions problems, network issues with remote files, and damaged files on disk can cause this.

ERROR 90 - Answers for section {0} not found.

Answers for the section were not found. SwordHammer bugs and a section being renamed without re-running `Generate Question Doc.` and answering it, as well as database corruption are possible causes.

ERROR 91 - Answers for text {0} not found.

Answers for the text fragment were not found. SwordHammer bugs and changes to an input document without re-running `Generate Question Doc.` and answering it, as well as database corruption are possible causes.

ERROR 92 - Unable to get list parameters. Probable program error.

For some reason, SwordHammer was not able to get the parameters (information) about a list or list item from your input document. This could be due to a SwordHammer bug or input document corruption. An overly fancy list structure could also be the problem. Note that Sword Bible programs have only very basic list display capabilities.

ERROR 93 - Multiple substitution strings found here have overlapping ranges {0}:

This pertains to Question 26 in General Questions. Substitution strings are where you substitute an answer for specific text snippets. The problem here is that one or more substitution strings overlap one another. This creates unresolvable confusion and ambiguity. For example, suppose you have the substitution string `AXA=X=47`, and you have `AtestAtest2A` in your document somewhere. The middle A is common to both proposed substitutions, so there is overlap. This kind of thing is forbidden.

ERROR 94 - In General Questions, a manually supplied index file is specified, but {0} not found.

The index file mentioned in General Question 11 does not exist. Permissions problems, network issues with remote files, and damaged files on disk can cause this also.

ERROR 95 - Request for outline level change, but not yet at first div.

Generic Books use Writer's built-in hierarchy of headings. However, a lower level, less than level 2 has been encountered, but the highest / top level, "Heading 1" has not yet been encountered in the document. Headings should always go up one level at a time, but may drop any number of levels.

ERROR 96 - Outline level not found for {0}

SwordHammer could not extract the outline level for a header found in the input document. This could be a SwordHammer bug or it could result from input document corruption. Another possibility is that a non-standard header has been used. Only the supplied default headers should be used. Special

formatting should not be applied to headings; Bible programs will not recognize the special formatting anyway.

ERROR 97 - General questions answers to the two character substitution lists do not have the same number of answers.

This pertains to General Questions 19 and 20. Check that the number of answers is the same.

ERROR 98 - General questions answers to the two trigger word questions do not have the same number of answers.

This pertains to General Questions 21 and 22. Check that the number of answers is the same.

ERROR 99 - Too many errors to continue. {0} Errors, Limit: {1}

There are some kinds of errors that generate a large number of additional errors. For example, if a book (answer = `tb`) is missing, all of the chapters will generate errors, and missing chapters will generate errors for every verse. You should find the root of the errors and re-run the OSIS generation. To limit time spend processing garbage, SwordHammer, in certain cases, terminates a process after a certain number of errors is reached.

ERROR 100 - Module {0} could not be imported or is not installed. See `SwordHammer.pdf` for installation instructions. If no mention of this import appears in the instructions, you should do a web search to determine how to install the appropriate module for your operating system and distribution.

SwordHammer uses Python 3.4 (a programming language) or higher, and assumes a certain basic level of installed Python support modules and functions common to most operating systems. At startup, SwordHammer tests for the availability of each of these support modules. This message is generated for each missing module. Missing modules may generally be installed as packages in MSYS2 or in Linux operating systems. They may also be installed via pip, which is part of the Python language system. You may wish to contact tech support for assistance if the above discussion is not meaningful to you or you are not able to find what you need.

ERROR 101 - Your Input Document List is empty.

ERROR 102 - SwordHammer cannot find the `osis2mod` file. You should find it and use the Set `osis2mod` Location button to tell SwordHammer where it is.

The `osis2mod` file is an external program that converts a Bible or commentary OSIS file to a Sword Module. The same source of external programs in which `osis2mod` resides also has `xml2gbs` in it, which converts OSIS to Generic Books. You should consult the section on finding the Sword Utilities [above](#).

ERROR 103 - SWORDHAMMER CRASH! Sincere apologies from the author. SwordHammer has crashed. Details will be written to the log file. You should send the log file, located at {0} to SwordHammer support along with a description of what you were doing. That way this can be fixed so it will not happen again, either to you or other users. Even if you made a mistake somewhere, this should not have happened and is the fault of SwordHammer. The following details are important to support, and have been written to the log: {1}

SwordHammer tries to detect invalid conditions caused by bad input documents, bad question answers, and so on, but this author undoubtedly has missed some things or made other errors. Thus, from time to time, SwordHammer will encounter a bug which causes SwordHammer to be unable to continue operation. In such cases, SwordHammer is usually able to capture a record of the event. It is important to get the message text and the log to tech support so the problem can be fixed. Tech support may also be able to provide a work-around pending correction of the bug. When copying the message text, please use the **Copy to Clipboard** button to do the copy since it is the most reliable and you may miss text due to the normal small size of message windows.

ERROR 104 - Unable to connect to SwordHammer web site.

Sometimes this is due to a SwordHammer or web site error, but is usually due to a bad Internet connection. You should try again later.

ERROR 105 - Something was downloaded, but signature verification failed. This is most likely a download data transmission error. Malicious file tampering is also conceivable.

Try downloading again in case the Internet is at fault, as sometimes happens.

ERROR 106 - Unable to back up SwordHammer Program Files. This is likely a SwordHammer bug if you are not out of disk space.

ERROR 107 - Bible Book Names File {0} not found. If this file is in your Program Directory, you can copy it to your present Working Directory to fix this. Otherwise, you should re-install the file from backup or the web.

ERROR 108 - Bible Book Chapter Index File {0} not found. If this file is in your Program Directory, you can copy it to your present Working Directory to fix this. Otherwise, you should re-install the file from backup or the web.

ERROR 109 - There is no database. Run Generate Question Doc. first.

You tried to **Generate OSIS File**, but there is no database at all. Possibly the database was deleted or renamed, or **Set Database File** was used to change the database name between generating and answering Question Documents and **Generate OSIS File**.

ERROR 110 - Due to Windows interaction with SwordHammer, the signature of {0} cannot be tested. Proceed at your own risk anyway?

When SwordHammer does an automatic update, it checks the signatures of downloaded files to ensure that they were not tampered with by criminals or corrupted during the download process. This message occurs only for Windows systems. It does **not** mean that a bad signature was found, but that SwordHammer was **not able** to check the signature. The reason is that the process of using the Windows system to check the signatures is complex and it is possible that not all versions of Windows will work properly to check a signature.

Note: The optional, partial download system for updating documentation does **not** check signatures due to the very large number of small files; the partial download system is intended to reduce download size and a large number of signatures would significantly increase total download size.

ERROR 111 - Unable to convert Updates/SwordHammer.odt to Updates/SwordHammer.pdf.

In the partial documentation update process, SwordHammer creates SwordHammer.odt and then converts it to SwordHammer.pdf. This process failed for an unknown reason. Possible causes will include failing to close all LibreOffice, OpenOffice, and similar programs, invalid or old installations of LibreOffice or use of a Windows version that will not support the conversion.

ERROR 112 - Unable to complete downloads of documentation files.

At least one step in the process of downloading and assembling the updated documentation failed. Other error messages should indicate the cause.

ERROR 113 - Could not properly download documentation partial component {0}.

The indicated file could not be properly downloaded when doing a documentation update using individual component files. Either the file or the signature for the file was bad, and three tries were attempted without success. (This does not apply to documentation updates of the single SwordHammer.pdf complete file.)

Help Resolving Input Document Errors

From version 0.31 forward a new tracking system is available. Each time you submit a Question Document, section names are linked to Question Document names and Question numbers. (Attribute sets have always been linked to Question Document names and Question answers, but this information was not available to the user.) When you run **Generate OSIS File**, a new file is generated, **AnswerTracking.txt**, which appears in your Working Directory. This is a text file that may be opened in either a text editor or a word processor. For each text fragment, one may find the Question Document name and the number of the Question in the Question Document that applies to that text fragment. Here is an example:

```
Sections: ignore2ps1intro:
/home/xyz/SwordHammer/MyVsecDemo/TwoPsalmsSectDemo_Quest.odt Q. 5
    $doc$root$:
/home/xyz/SwordHammer/MyVsecDemo/TwoPsalmsSectDemo_Quest_1.odt Q. 1
Attributes:
/home/xyz/SwordHammer/MyVsecDemo/TwoPsalmsSectDemo_Quest.odt Q. 8
Psalm 1 contrasts the way of the wicked and the way of the righteous.
All humans fall into one of these two categories. In the latter
category are those, and only those, whose deeds give evidence of
saving faith in Jesus Christ.
```

In a word processor, the lines may appear as paragraphs. The first two lines give the answers affecting the text fragment. The third and following lines are the fragment. Either of the first two lines may be missing. The first line starts with **Sections:**, and the second, with **Attributes:**. In the example above, we can see that the text fragment is controlled by the section named **ignore2ps1intro**, which is a nested section inside of **\$doc\$root\$**. These answers appear as the answers to Question 5 in **TwoPsalmsSectDemo_Quest.odt** and Question 1 in **TwoPsalmsSectDemo_Quest_1.odt**. Also in **TwoPsalmsSectDemo_Quest.odt**, the answer to Question 8 also applies. (Note that **\$doc\$root\$** is controlled by the first Question 1 that always shows up, so that is why it appears in a later Question Document; newer answers always override older answers.)

So, to use this tracking feature, first search for the problematic text fragment. You may have to try more than once as the fragment may be smaller than you think. You may also search for nearby text. Then find the problem text and its Question Document names and Question numbers. Do not be surprised if the problem Question is very far away from the problem text, or even in a different Question Document. You may then examine your answers and correct the problem.

Caution: Each time you run Generate OSIS File, AnswersTracking.txt is overwritten, so copy it if you wish to save it, prior to re-running Generate OSIS File.

More Answer Codes

Appendix B has a detailed list of answer codes, both mnemonics and numeric codes. It is the author's opinion that the vast majority of these will never be directly supported by both SwordHammer and most Bible programs, at least not down to the fine distinctions indicated. For example, Generic Books really only need sections (code SS) to properly structure them. Reasons for this situation include:

- Relative to actual needs of Bible programs, the OSIS standard is overly feature-heavy. In particular, sections and notes may be specified more precisely than would seem necessary. To see this, glance at Appendix B. SwordHammer includes many of these in case of future need, but they will not be discussed in this section and have not been well tested or tested at all to date.
- The *Sword* project and *Sword* based Bible programs support only a limited set of literary genres. The OSIS standard is intended to support a much larger set.
- Many OSIS features are intended to provide information about a document, but much of this information is not of value to users of Bible programs.
- SwordHammer is an automated system. However, literature is something that has humans on both ends. There are potential features of both OSIS and Bible programs that will likely always be beyond the capabilities of SwordHammer.

The answer codes given in this section pertain to the present version of SwordHammer. Some codes in Appendix B are reserved for planned future features.

Also, if you look at the codes in Appendix B, you will quickly realize that one might experiment with a very large number of permutations and variations. This author does not have to time and resources to evaluate all of these. SwordHammer is intended to be as simple as possible to use. Therefore:

Important Note: Only the answer codes given in this section are officially supported by SwordHammer and this author, and only in the manner prescribed herein. Other uses and experimentation are at the user's own risk and enjoyment.

Important Note: Many codes can appear in different contexts; the inclusion of a code under a heading below does not necessarily imply a restriction on where it may appear; see the specific entry for details.

Section Codes

b is used to indicate the start of a Bible or commentary, and should only be used as the answer to the first Question Document question, and only for Bibles and commentaries. Generic Books should use the SS code. The **b** code should not be used to answer any other question.

bookcom is used to mark a section as a commentary within a book. It will terminate any chapter in which it is used, so it should only go between chapters.

booki is used to mark a section as an introduction within a book. It will terminate any chapter in which it is used, so it should only go between chapters.

chcom is used to mark a section as a commentary inside of a chapter. It will terminate any verse in which it appears, so it should only go between verses.

chi is used to mark a section as an introduction to a chapter. It will terminate any verse in which it appears, so it should only go between verses.

com is used to mark a commentary section outside of canonical text in book/chapter/verse organized material. Use inside of canonical text will terminate the book.

i is used to mark an introduction outside of canonical text in book/chapter/verse organized material. Use inside of canonical text will terminate the book.

poet essentially converts paragraphs to groups of single spaced lines. This code may appear as the answer to a question about a section, or in answer to a question about any other formatting. For example, one might make all poetry in 12.5 point font when the rest of the document is in other size fonts. Sections are probably the most reliable way to mark off poetry however, and generate the fewest number of questions in the Question Document.

ss is used to indicate the start of a Generic Book, and should only be used as the answer to the first Question Document question. Bibles and commentaries should use the **b** code.

Display Formatting Codes

* Because they can only be handled by a Bible program, any particular Bible program may or may not support some of these, but **bold** and **italic** seem to be universally accepted.

* **bold** makes text appear in bold font.

* **italic** makes text appear in italic font.

lb generates a line break. (That is a lower case L.) This is distinct from a paragraph in that a line break is single spaced, and paragraphs are typically spaced at greater than single-space. If text is marked with **lb**, a line break will precede the text.

noref (no reference) inhibits the Bible passage reference finder from examining any text to which this answer applies.

np (no print) causes all text to which this answer applies to not be output, so that the Bible program does not print it.

r forces SwordHammer to look for Bible passage references in any text covered by this answer.

* **smallcaps** causes text to appear in SMALL CAPITALS.

* **strike** causes text to appear in ~~strike-through~~.

* **sub** causes text to appear as _{subscript}.

- * **super** causes text to appear as ^{superscript}.
- * **under** causes text to appear as underlined.
- * **wcr** causes the words covered by this answer to appear in red. Not all Bible programs support this feature, and many Bible programs allow it to be turned on and off. Note also, that there are two General Questions that affect this. First, General Question 24 must be y to activate this feature in SwordHammer. Second, OSISRedLetterWords must be given as an answer to General Question 72.

Table Related Codes

Note: These codes may not work with all Bible programs. Issues seem common.

tablecenter places text centered in a table cell.

tablelabel marks text as being a column label.

tableleft places text left justified in a table cell. This is the default.

tablejust places text left justified at both left and right margins in a table cell.

tableright places text right justified in a table cell.

Bible Passage Identification Codes

cn marks text which contains a chapter number. The first number it finds will be used for the chapter number. The quoted text above will pick up the first chapter fine, as will, “Chapter 1 of the Gospel According to Luke.”

cnv marks text which contains a chapter number. It works just like cn above, but it warns SwordHammer that the number of the first verse will be missing. This is typically found in Bibles that use a large number for the chapter number, omitting the number for verse 1. SwordHammer thus knows to include 1 as the verse number as soon as it finds more text.

ctitle is used to mark non-canonical chapter titles such as are often inserted to summarize the contents of the chapter.

gentitle is also used for Generic Books. It is non-canonical if in a Bible. It is a catch-all for titles.

pst is used to designate a Psalm title. It flags the text as canonical, so Bible programs know to include it as part of the Bible text.

tb marks text which contains the name (title) of a Bible book. SwordHammer will pick out the first Bible book name that it finds. For example, a title like, “The Gospel According To Mark, the first synoptic Gospel, Chapter 1” will work just fine to pick up Mark as the Bible book.

v is used to mark a verse number. It may not contain other than digits.

vtitle is used to mark non-canonical verse or paragraph titles such as are often inserted to summarize the contents of a group of verses or a paragraph.

Note Related Codes

All of the codes under this heading apply only to note markers. They should never be applied to any part of the text of the note itself.

These codes identify note markers and tell where the note should appear. They should never stand alone, but should be used in conjunction with the next set of codes to indicate the purpose of the note.

e is an endnote.

f is a footnote.

in is an in-line note. This code is not allowed in Generic Books.

These next codes are also never stand alone, but should be used in conjunction with one of the codes in the previous group.

ncr is used to mark Bible passage cross references. This code is not allowed in Generic Books, and should only be used for cross references.

ntr is used to mark translator's notes. In Bibles and commentaries, this is the catch-all code for anything that is not a cross reference. This code is not allowed in Generic Books.

x is used for *all* notes in a Generic Book, and is not allowed for Bibles or commentaries.

Miscellaneous Codes

can marks the text to which it applies as canonical.

nocan marks the text to which it applies as not canonical.

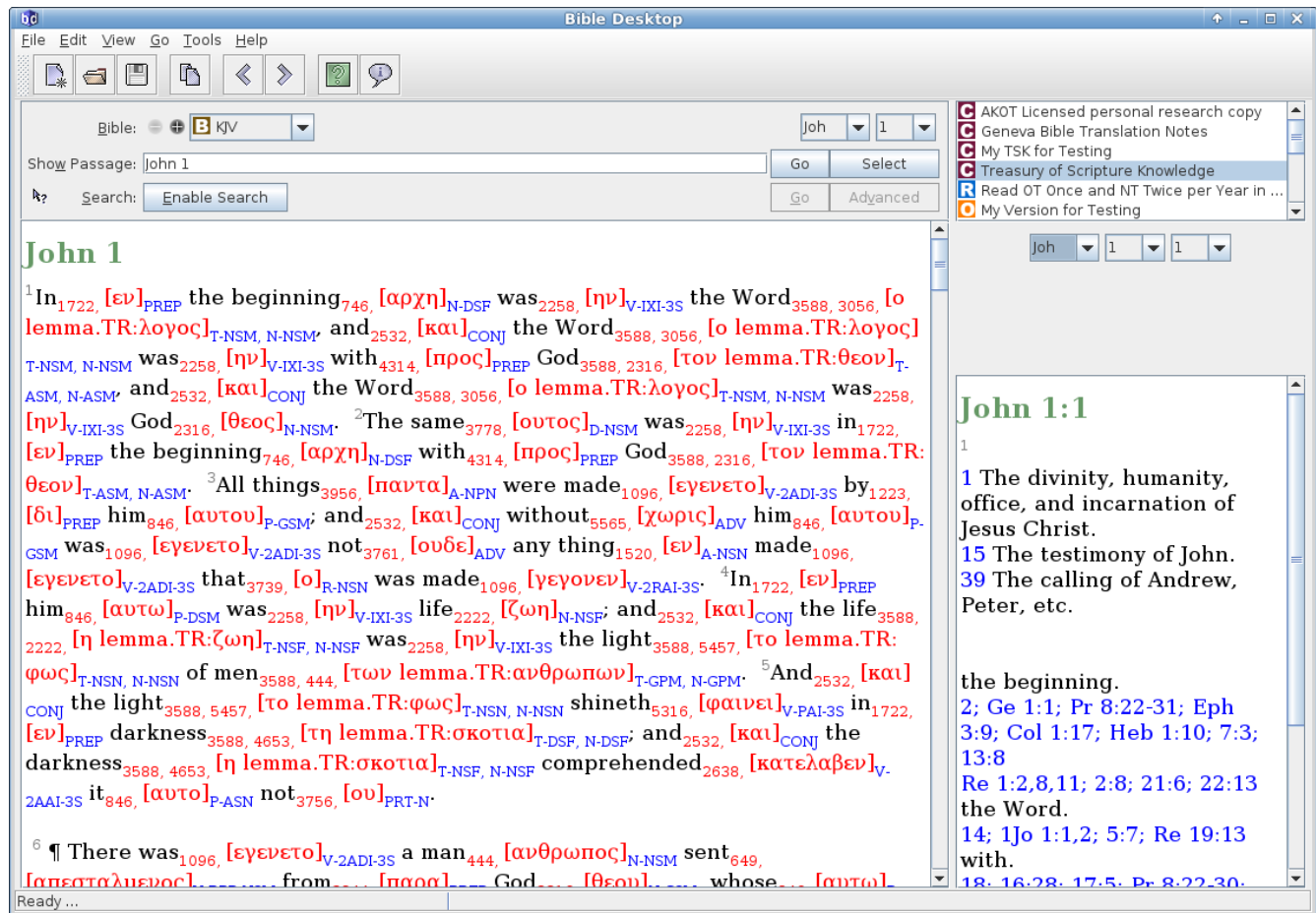
These two codes are used in cases where SwordHammer does not get canonicity correct, or to override a default. Particularly in a Bible, if you think you have to use either of these codes, check that you are using a correct type, or add a section to mark off non-canonical text, and so on.

Concluding Remarks and Some Encouragement

In the course of developing SwordHammer, this author has found that most long documents, say one-sixth of a Bible (breaking it into four OT and 2 NT sections), take only a little more of a user's time than to do short documents. This, of course, refers to time the user spends interacting with SwordHammer and its Question Documents, not the time the computer grinds away. This means that, now that you have worked through the examples in the step-by-step sections, you should be able to produce your first Sword Module in no more than twice the same amount of time – provided your input documents and answers are all perfect, of course. So have at it – in a disciplined, careful, manner, doing all things in faith, for God's glory, and in Christ's name, for His Kingdom.

Advanced Operations With OSIS

Figure 20.1 – A View of Advanced Bible Program Display



Some Bible programs are capable of some advanced display features. Figure 20.1 shows BibleDesktop displaying John 1:1-5. The display includes Strong's Numbers, and Greek words and their morphology. It is possible that SwordHammer will never have the capability of doing something like this, if for no other reason than that it is difficult to conceive of any standard format of a Writer document that will produce such output. However, development of SwordHammer, D.V. will continue.

However, this author has a great desire to be able to use tables in a Writer document to produce interlinear Bibles. This will also necessarily entail writing a Bible program dedicated to displaying interlinear Bibles, so it will not be a small project. For those not familiar with the concept of interlinear Bibles, Figure 20.2 shows a snippet of a proprietary, copyrighted interlinear Bible, the *Nestle Aland 26th Edition Greek New Testament With McReynolds English Interlinear*.

Figure 20.2 – Interlinear Bible Snippet



Returning to the topic at hand, the question naturally arises whether SwordHammer could be of value when producing complex OSIS files to be converted to Sword Modules. In most cases, the answer will be yes, and the procedure would be somewhat as follows:

1. Do as much as you can with SwordHammer, working until you have created a complete, good, and well proofread module.
2. Be sure to back up the OSIS file that SwordHammer Produces.
3. Using an XML editor, such as *JEdit*, edit the OSIS output from SwordHammer.
4. In some cases, you will need to update your answers to General Questions.
5. Use the **Set OSIS File** button to set SwordHammer to work with your new, edited XML file. You should also have a backup copy of this XML file just in case you accidentally hit the **Generate OSIS File** button.
6. Hit the **Generate Sword Module** button, followed by the **Copy Module To Local** button.
7. In some cases, you will need to directly edit the .conf file that SwordHammer produces. In such cases, since this file will not change unless you change certain General Questions, you can simply copy your edited .conf file to the Sword repository after each use of the **Copy Module To Local** button from some place not your Working Directory.
8. Using one or more Bible programs, evaluate your results.
9. Go to Step 1 or 3 as needed based upon your evaluation.

You will find the OSIS manual, **OSIS.pdf** in your Program Directory. Information about Sword Module development and other topics will be found at <http://crosswire.org>. The author apologizes, but further instruction in this advanced topic is outside of the scope of this manual. Also, if this author knows or can quickly find the answer, you can get tech support for OSIS file editing, but otherwise, tech support is not available for this advanced work. There is, however, some tech support available from CrossWire, and they are much more likely to have the answers you need. Finally, <http://www.crosswire.org/~dmsmith/kjv2011/> has some examples of OSIS for the KJV; there is nothing like examples for teaching.

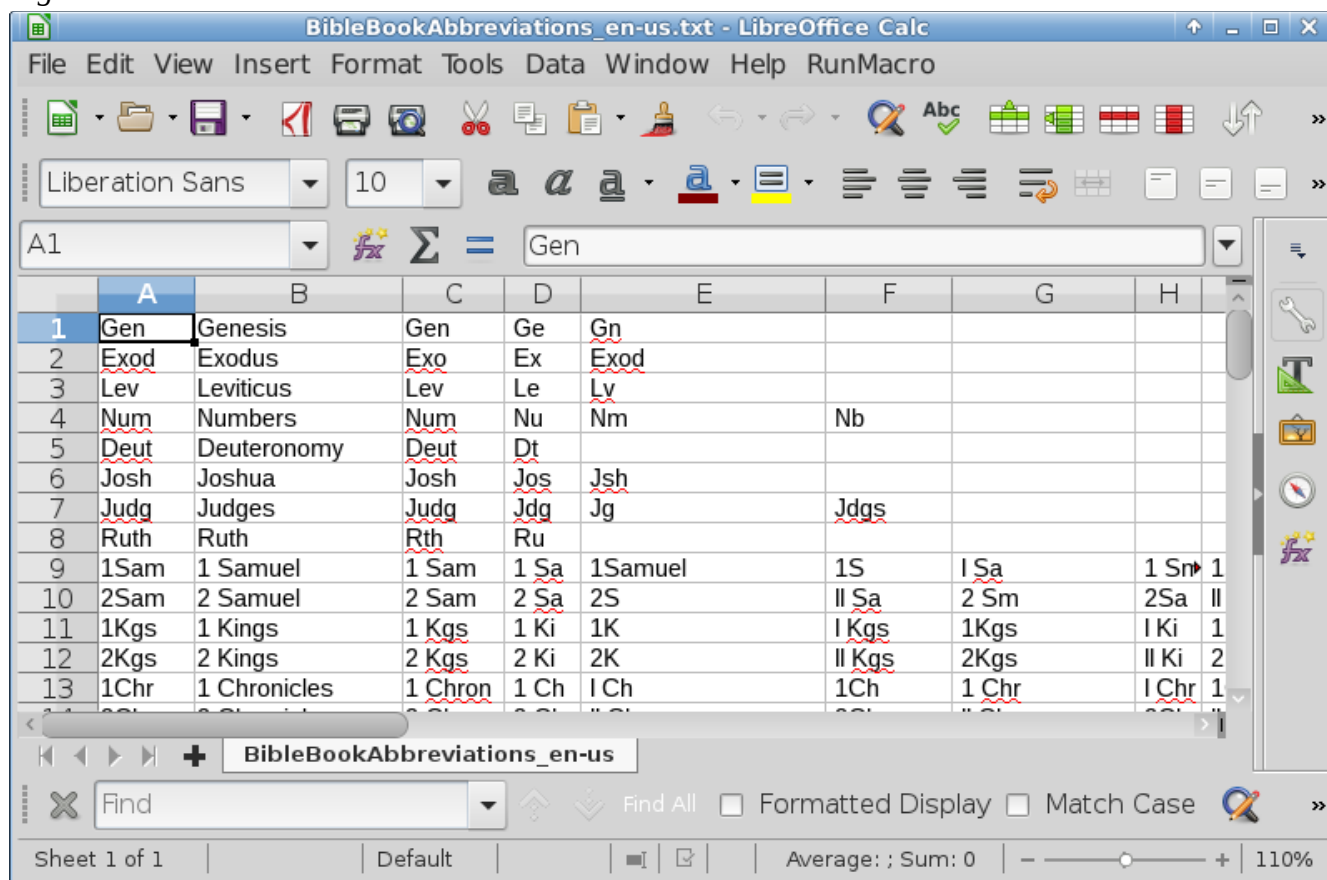
The Bible Book Abbreviations File

SwordHammer provides a spreadsheet of common English Bible book abbreviations. This list is somewhat standardized and is quite extensive. In keeping with the author's doctrinal convictions, it only includes the canonical 66 books of the Holy Bible (but see below). The list is designed to catch Bible book references in Generic Books and book/chapter/verse indications in Bibles, including popular abbreviations. SwordHammer then converts these book names to OSIS book abbreviations; these OSIS abbreviations are standardized to be only one abbreviation per book. The names found in the input document are used displayed verbatim by the Bible program; only the internal referencing system sees the changes.

The English language version of this file is in the SwordHammer Program Directory and is called: `BibleBookAbbreviations_en-us.csv`, and, if any kind souls have provided translations, the translations will have the same name, except for the `en-us` part.

The instructions below are applicable to translating the file into another language.

Figure 21.1 – Abbreviation File



For languages other than those provided by SwordHammer, to use other abbreviations, to eliminate unwanted abbreviations, or to include non-canonical books, the user must modify the abbreviations file. This is simply enough done, as seen in Figure 21.1. First, copy `BibleBookAbbreviations_en-us.csv` to your Working Directory, then open the Working Directory copy in LibreOffice Calc.

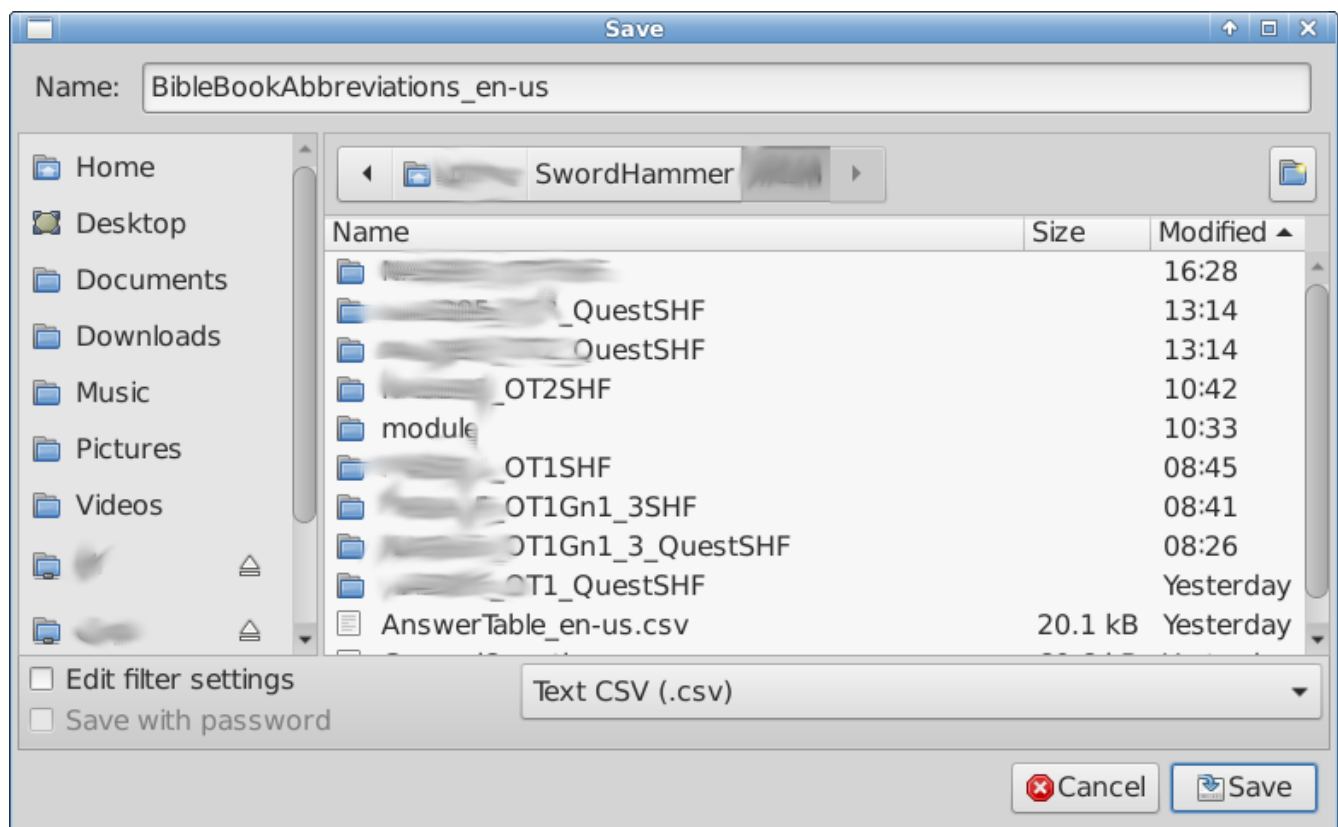
Also, you can simply copy the file without changing the language code or renaming it if all you wish to do is make changes to the file to suit your requirements.

If you are translating the file, you need to change its name, so to be on the safe side, you should now click Save As in the File menu.

Figure 21.2 shows the correct settings. Note that a Working Directory has been selected, *not* the Program Directory. Also, importantly, the format is set to Text CSV (.csv). You will get a message asking you to confirm that you wish to save in CSV format. Click the Use Text CSV Format button. The copy in the Working Directory will override the copy in the Program Directory because if SwordHammer finds a copy in the Working Directory, it will ignore the one in the Program Directory.

Now you can begin editing. But remember to **always save as a .csv**. Leave Column A alone as these are the standard OSIS abbreviations. In Column B, in any language supported by LibreOffice, enter the corresponding full book name and then any standard abbreviations for that language in as many subsequent columns as desired.

Figure 21.2 – Correct Method to Save Abbreviations File



The Book and Chapter Index File

There is a Bible book and chapter index file in SwordHammer. This file is designed to help you make sure your Bible is not missing any verses. Verses may be deemed missing, not only by their absence, but because of a missing verse number, a wrong Question Document answer concerning a verse number, or because of choices by translators and editors regarding manuscript variants. For this reason, SwordHammer is able to check for missing verses during the OSIS file generation step. This check may be turned off in General Questions. If the check is used, you will get a list of any missing books, chapters and verses. For example, a missing book will not list missing chapters and a missing chapter will not enumerate each of its verses.

This index is based on the verses found in the AV (KJV, King James Version) of the Bible. In making this choice, the author does not intend to force any particular text-critical viewpoint on the user; some choice had to be made, that is all.

If you chose to use this missing verse check feature, and the author highly recommends it, you have two basic choices for Bibles that use a (typically slightly) different verse set. First, you may simply note the missing verses and perhaps check that you have included translator’s notes concerning each “missing” verse. You may alternately modify the verse list in a manner similar to that given above for the abbreviation file. Here is how to do that.

The file is in the SwordHammer Program Directory and is called: `BookChapterIndex.csv`.

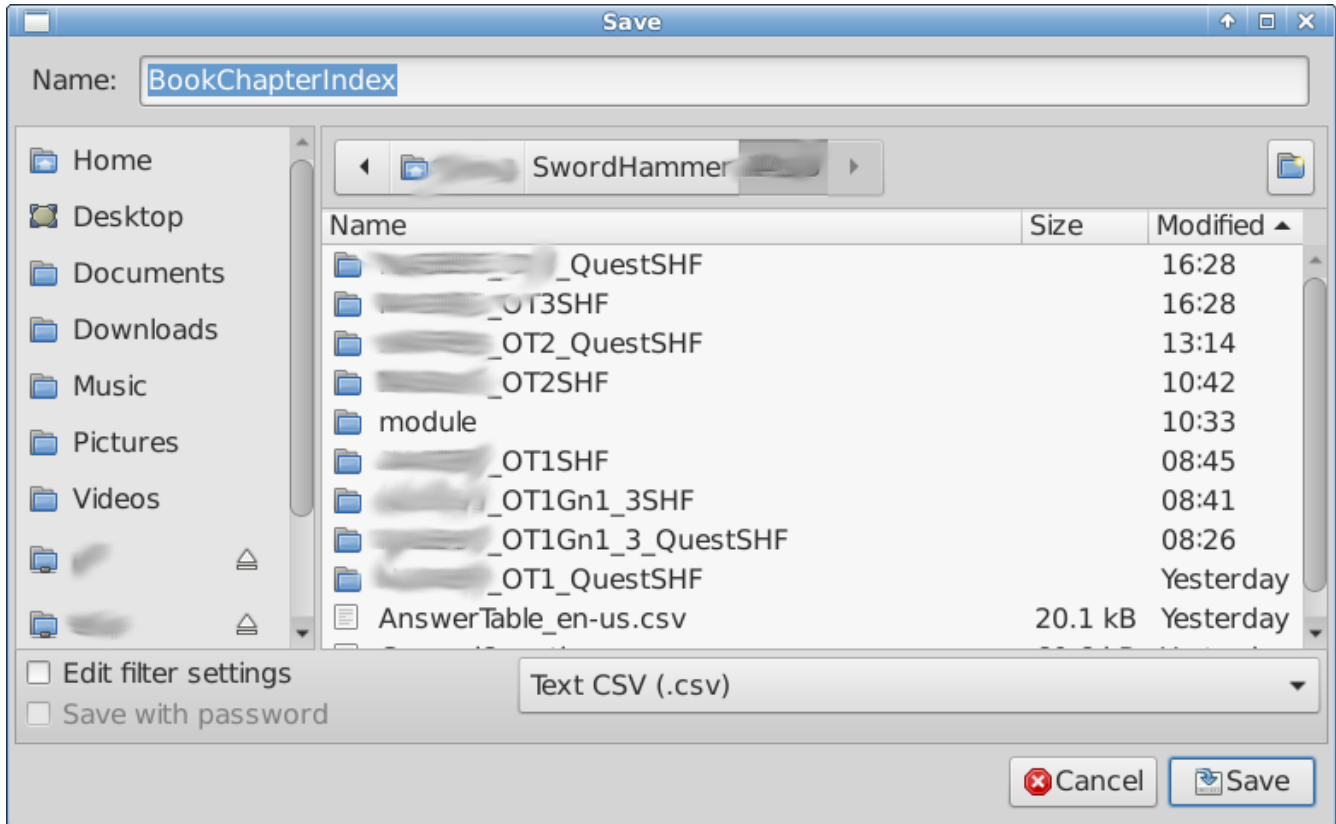
Figure 22.1 – Book Chapter Index File

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Gen	Genesis	50	31	25	24	26	32	22	24	22	29	32	32	20	18	24	21	16	27
2	Exod	Exodus	40	22	25	22	31	23	30	25	32	35	29	10	51	22	31	27	36	16
3	Lev	Leviticus	27	17	16	17	35	19	30	38	36	24	20	47	8	59	57	33	34	16
4	Num	Numbers	36	54	34	51	49	31	27	89	26	23	36	35	16	33	45	41	50	13
5	Deut	Deuteronomy	34	46	37	29	49	33	25	26	20	29	22	32	32	18	29	23	22	20
6	Josh	Joshua	24	18	24	17	24	15	27	26	35	27	43	23	24	33	15	63	10	18
7	Judg	Judges	21	36	23	31	24	31	40	25	35	57	18	40	15	25	20	20	31	13
8	Ruth	Ruth	4	22	23	18	22													
9	1Sam	1 Samuel	31	28	36	21	22	12	21	17	22	27	27	15	25	23	52	35	23	58
10	2Sam	2 Samuel	24	27	32	39	12	25	23	29	18	13	19	27	31	39	33	37	23	29
11	1Kgs	1 Kings	22	53	46	28	34	18	38	51	66	28	29	43	33	34	31	34	34	24
12	2Kgs	2 Kings	25	18	25	27	44	27	33	20	29	37	36	21	21	25	29	38	20	41
13	1Chr	1 Chronicles	29	54	55	24	43	26	81	40	40	44	14	47	40	14	17	29	43	27

First, copy `BookChapterIndex.csv` to your Working Directory, then open the Working Directory copy in LibreOffice Calc. When you save the file, **always save as a .csv**. Leave Column A alone as these are the standard OSIS abbreviations. Or, for your convenience, (still leaving Column A alone) you may put the book name in Column B in any language supported by LibreOffice. SwordHammer does not use this column. In Column C, put the number of chapters in the book. In Column D and following, for each chapter, put in the number of verses in each chapter, starting with the first chapter.

Then, click Save As in the File menu. Figure 22.2 shows the correct settings. Note that a Working Directory has been selected, *not* the Program Directory. Also, importantly, the format is set to Text CSV (.csv).

Figure 22.2 – Correct Method to Save Abbreviations File



You will get a message asking you to confirm that you wish to save in CSV format. Click the Use Text CSV Format button. The copy in the Working Directory will override the copy in the Program Directory.

Appendices

Appendix A – Copyright Information and Remarks Concerning Copyrighted Material

Quoted Material

Copyright information about versions quoted herein is below. For each of the Bibles, the permissions are based on general permissions to all authors, or fair use.

NKJV:

New King James Version

Nashville: Thomas Nelson, 1982

Taken from the New King James Version®. Copyright © 1982 by Thomas Nelson. Used by permission. All rights reserved.

NASB:

New American Standard Bible : 1995 update

LaHabra, CA: The Lockman Foundation, 1995

Copyright © 1960, 1962, 1963, 1968, 1971, 1972, 1973, 1975, 1977, 1995 by The Lockman Foundation, La Habra, CA. All rights reserved.

ESV:

The Holy Bible, English Standard Version®

copyright © 2001 by Crossway, a publishing ministry of Good News

please visit <http://www.crossway.org/rights-permissions/esv/>

Handling Copyrighted Material

“For the Scripture says, ‘You shall not muzzle an ox while it treads out the grain,’ and, ‘The laborer is worthy of his wages.’” (1 Timothy 5:18 NKJV)

“You shall not steal.” (Exodus 20:15 NKJV)

Note: The comments below are without regard to the laws of any particular country or jurisdiction, and are not intended to imply an encouragement to violate any local laws or contractual obligations.

Aside from plagiarism, stealing copyrighted intellectual property, and other sinful acts, there is an obvious potential use case for SwordHammer that needs to be addressed. Clearly, any user can copy and paste text from any work, such as a copyrighted Bible version, into a word processor and feed that to SwordHammer to create a private SM. This is some understandable motivation for this. For example,

major companies tend to hold Linux users in contempt due to their small relative number; their potential sales volume is small compared to major OS's. Nevertheless, this author wishes to make one point and two admonitions to his brethren:

- First, the author will not knowingly provide tech support to any user who is in the process of violating copyright laws in the user's jurisdiction. The author reserves the right to require users submitting copyrighted source material as input samples for debugging and tech support to provide a copy of an invoice, screenshot of a licensed source, or other proof of valid license or copyright ownership or permission to reprint.
- Second, irrespective of the laws of any particular jurisdiction in which a user is located, the user is admonished, according to the two above Scriptures as follows: If you desire to use a copy of copyrighted material that you convert into an SM:
 - You are morally obligated to already own or to purchase a licensed copy of the material, even if the purchased material is not, itself, usable as an SM prior to conversion.
 - You are morally obligated to ensure that the resultant SM, since it is not copy protected or tracked, be kept secure and private. Sternly resist the temptation to distribute copies of the SM to relatives, friends, or others unless they present proof of valid license ownership to you and agree to abide by this sub-chapter.
 - You morally obligated, if you choose to retain the original source material as a backup, to keep it exclusively for your own use. That is, it would be stealing to create an SM from some copyrighted source material, then give away or sell that original source material without also destroying all copies the SM.
 - Similarly, while you might retain the original source material as a backup, you must not use both the original and the SM at the same time, unless you also purchase another licensed copy.
 - The operating principle here is similar to purchasing and owning a copyrighted book. You can change its format by rebinding it and the like. But you still end up with only one book that can only be used in one place at one time.

It takes a lot of work to produce a good Bible translation. Such workers produce products of infinite value! To steal from them can only be great evil.

Appendix B – Answer Codes

These answer codes are, at least theoretically, supported by SwordHammer. Those not listed [above](#) have not necessarily been tested, and depending upon the situation, may not be supported by tech support.

Num. Mnem-		
Code	onic	Meaning
0	0	Transfer verbatim, no special meaning. Use to answer questions about text that is not special, although section answers may apply.
These codes are used for sections, and would normally be used to distinguish large blocks of text from one another. NOTE: None of these are required, except where separation of canonical from non-canonical text is needed and such separation is not provided by distinctive formatting.		
1	a	article
2	b	book

3	bg	book group
4	com	commentary
5	i	introduction
6	ilin	Create interlinear layout from all tables in the section.
7	majss	major section
8	poet	poetry – uses lg / l elements instead of paragraphs.
9	ss	section
10	subss	subsection
11	noilin	Tables are NOT interlinear text.
12	chcom	Chapter commentary
13	chi	Chapter introduction
14	bookco m	Book commentary
15	booki	Book introduction
<p>Note: All of the above (1 – 11) must be triggered by section changes OR by use of text:outline-level in headers. Otherwise, there is no way to distinguish between levels.</p>		
<p>These codes are also used for sections, but they have no special meaning to SwordHammer or Sword Modules – in some cases, they are significant within OSIS format documents.</p>		
20		acknowledgment
21		afterword
22		annotation
23		appendix
24		back
25		bibliography
26		body
27		bridge
28		colophon
29		concordance
30		coverPage
31		dedication
32		devotional
33		entry
34		front
35		gazetteer

36		glossary
37		imprimatur
38		index
39		map
40		outline
41		part
42		preface
43		publication data
44		summary
45		table of contents
<p>These codes help with text layout, but do not otherwise impart special meaning to the text – NOTE: All original document formatting is ignored, unless added back with an answer code.</p>		
60	bold	bold
61	italic	italic
63	lb	line break
66	smallcaps	small-caps
67	strike	line-through
68	sub	sub
69	super	super
70	under	underline
71	acrostic	
72	emphasis	
73	illuminated	ADVANCED – Not supported by Bible programs
74	normal	ADVANCED – Not supported by Bible programs
Specialized and Miscellaneous		
75	np	No Print – do not display the text
76	noref	ignore Scripture reference
77	tablelabel	marks a table first row as labels
78	tableleft	table cells left justified
79	tablecenter	table cells centered
80	tableright	table cells right justified
81	tablejust	table cells left and right justified
<p>These codes have special meanings that help Bible programs do their job, even if this work is not a Bible.</p>		

90	ar	reference to a passage for specific commentary on a verse, such as might be used in TSK – Used by commentaries
91	arp	reference to a passage parallel, such as in synoptic Gospels. ADVANCED
93	cn	text is chapter number
94	cnnv	text is chapter number, first text starts verse 1 (no "1" for first verse)
95	ctitle	chapter title
96	cw	uses text as written prior to a note marker ADVANCED
97	dn	Divine Name
98	gentitle	general title, not part of Bible text
99	pst	Psalms title
100	r	Bible passage reference ADVANCED References should normally be picked up automatically.
101	rdg	ADVANCED – Alternate reading of the text that is not in a note, displayed as written
102	selah	Selah in a Psalm, MUST appear appear within a lg element in text designated as poetry ONLY.
103	tb	title of start of new book of Bible
104	v	verse number or verse range for Bible text
105	vttitle	verse, passage, or section title
106	wcr	Words of Christ in red
<p>These codes specify notes about the text. They can be footnotes or endnotes or embedded inline with the text. See further below for codes to specify the location of the note. <i>Normally</i>, these are applied to the note marker (e.g., ¹), not the body of the note.</p>		
120	nalt	alternative
121	ncr	cross reference Supported by most Bible programs
122	ntr	translation Should be used for all other notes in Bible programs.
123	nvar	variant
124	study	study
125	allusion	allusion
126	background	background
127	cit	citation
128	devotional	devotional
129	exegesis	exegesis
130	explanation	explanation
<p>These codes specify note locations. They are most naturally answers to marker questions, but other answers may be needed and are permitted, most particularly the answers just above.</p>		
140	e	endnote

141	f	footnote
142	in	inline
These codes support lists, tables, images, and outlines – you should NOT normally use these as SwordHammer picks them up from the document itself.		
151		list – handle just like the document does it
152		list item – handle just like the document does it
153		list caption – handle just like the document does it
154		table – handle just like the document does it
155		table row – handle just like the document does it
156		table cell – handle just like the document does it
157		image – handle just like the document does it
158		image caption – handle just like the document does
159		hyperlink – handle just like the document does it
170	can	force canonical
171	nocan	force NOT canonical
These codes provide special information. ADVANCED, not supported by most Bible programs.		
173	added	added
174	amplified	amplified
175	changed	changed
176	deleted	deleted
177	implied	implied
178	moved	moved
179	tense	tense changed

Appendix C – Feature Status

To summarize: SwordHammer works well to produce ordinary Bibles. There are limitations for Generic Books and commentaries at this time. This is not a detailed bug list. Programmers are always working on Bible programs, the Sword system, and SwordHammer; the set of bugs is quite dynamic.

SwordHammer is, as the author finds time, health, and energy, an ongoing work. But it is presently in its early stages.

The author of SwordHammer regrets a lack of modern language skills. Nonetheless, evidence to date suggests that LibreOffice competently handles most significant languages. Provided that the target language’s alphabet is in the UTF-8 character set, LibreOffice should handle the language. SwordHammer is, by design, language-agnostic, except for a few minor areas which do not result in actual errors. However, SwordHammer has only been tested with English as of this writing.

It is important to understand that not all features are supported by all Bible programs, and as of this writing, some features are not supported by any Bible program, even though such features are in the specifications for OSIS and Sword Modules.

Bibles

Most Bible programs that use Sword Modules handle the actual Scripture text well.

Known failure areas for at least some Bible programs or SwordHammer:

- English “smart quotes” and other non-ASCII characters fail to print.
- Words of Christ in red can be problematic and produce errors.
- Embedded non-Scripture text, such as chapter introductions or titles may be poorly formatted or displayed or even absent.
- Generally, only two classes of notes are supported – cross references and everything else.
- Some Bible programs will not handle other than standard ASCII characters and will thus not properly display other languages.
- Sophisticated inclusion of Greek or Hebrew lemmas, Strong’s numbers and other helps are not supported by SwordHammer. The user is encouraged to parallel the KJV module with his or her chosen version within a Bible program to obtain this kind of information; this author does not yet have a clear path to producing output with that level of sophistication.

Generic Books

Sword Module Generic Books should be used for works that rely significantly on Scripture references. A theological work is good example of this use. Other books should use another format than a Sword Module.

Known failure areas for at least some Bible programs or SwordHammer:

- Generic Books seem to be poorly supported relative to Bible texts.
- Scripture references tend to work, but traditional footnotes generally are sometimes not displayed correctly.
- Lists, tables, and other features generally have cosmetic issues.
- Hyperlinks, thus indexes and tables of contents do not work.

Commentaries

Commentaries are distinguished from Generic Books in that Generic Books are organized by chapter, sub-chapter, and so on, whereas a commentary is organized by Bible book, chapter, and verse.

Commentary support by Bible programs seems good, but footnotes may be problematic.

Appendix D – Technical Support

First, prior to accessing technical support, please check your manuscript or other source document at the error location to make sure that the root cause is not an error in the source document. Admittedly, SwordHammer and the module creation code *should* have handled the problem gracefully, but it is best to just fix the problem and get on with it. You may wish to report the issue to tech support so that it may be fixed for the benefit of all in the future.

Also, check the [Troubleshooting](#) section before contacting support.

To aid tech support, please copy all error messages and paste them into a text document and send that to tech support with a description of your problem. Tech support may well respond with a request for more files.

To obtain tech support, contact Tom Sullivan by email only at:

info@BeForgiven.INFO

Tech support is available not only for SwordHammer itself, but for help in manuscript preparation, answering questions properly and so on. In some cases, this author could also be willing to add features to SwordHammer to accommodate a user's needs. Tech support for various Bible programs is up to the author of that program.

Also, please note that tech support availability is contingent on this author's health, life events, and requests by other users. Tech support is not guaranteed to be available. But at least SwordHammer and any available tech support are free. Tech support personnel reserve the right to refuse tech support to any user for any reason whatsoever, including, but not limited to, personal abuse, burdensome requests, or requests to support heretical, blasphemous, or dishonest material.

Appendix E – Translation of SwordHammer Messages and Documentation

This author apologizes for a lack of fluency in any modern language besides American English. Volunteers who wish to translate SwordHammer are welcome to do so. Submitted translations can be included in the SwordHammer code package once a second person verifies the translation (at least the first time).

To translate SwordHammer into a language other than American English, use the following procedure:

- Note: In all translations, please keep the name SwordHammer as it appears, in English, so as to avoid confusion. Also, in copyright notices, the English word **Copyright** is an internationally recognized standard.
- Translate this instruction manual and save it as both an .ODT and a .PDF. Name it `SwordHammer_xx-yy`, where `xx` is the standard IANA language code and the optional `-yy` is the country. For example, one might create `SwordHammer_en_uk.odt` and `SwordHammer_en_uk.pdf` or `SwordHammer_fr.odt` and `SwordHammer_fr.pdf`.
- Translate all of the buttons and messages used by SwordHammer:
 - Open the file `LanguageFile_en-us.txt` in the LibreOffice Calc program.
 - If the Text Import dialog box appears, just click OK.
 - Right away, use Save-As to save a copy of `LanguageFile_en-us.txt`, renamed to the target language using the IANA codes.
 - You will observe two columns. Make only this **one** change to the first column: In the first row, change the IANA language code.
 - It will be helpful to most translator to re-open `LanguageFile_en-us.txt` in another window so you can see the original text and the translated text at the same time.
 - Put your translations in the second (B) column, replacing the English. Be sure to observe the following – These rules are important as this file is read by software, not humans:

- Keep or translate all punctuation.
- Do not add a <tab> (\t) or <enter> (\n or \r\n) character to any field – enter is also called return. Many users will be familiar with the \t and \n (or \r\n) notation. Do not use any of these.
- Do not use any of the following characters: “ ’ \ t ’ ” ” ’ \r\n \n
- The syntax {n}, where n is a number such as {0} is a coding construct which must be preserved as is whenever it appears. They can, however be re-ordered if the target language demands it. These are places where SwordHammer inserts numeric or textual information. Such information is language-agnostic.
- Note that you will find the phrases in random order; this is due to the storage mechanism that SwordHammer uses. Thus do not be worried if you do not always see the phrases in the same order between versions of SwordHammer.
- Using a file manager or the command line, look at the file saved by LibreOffice. LibreOffice sometimes stubbornly saves text files with a .CSV ending. You will have to rename the file back to a .txt ending. Similarly make sure that it is a text document, which you can confirm by trying to open it in a text editor such as Pluma, Leafpad, or Notepad.
- Translate the GeneralQuestions_en-us.csv spreadsheet:
 - Note well that much of the information in this document **must not be changed**.
 - Open the GeneralQuestions_en-us.csv in Calc, with Tab for the only Separator under Separator options and with the double-quote for the Text Delimiter.
 - Translate all information in column G **only**:
 - You may skip translating rows that do not have a number in column K.
 - Do NOT change or translate any symbolic or literal text to be entered. For example, consider, in Row 25 that has column K = 46: Do not translate any of the three-letter abbreviations given such as ann, art, aut, and so on. This will take some discretion and thought on the translator’s part. The basic idea is that any text that the computer must recognize as meaningful must not be changed or translated. This means that you must not change or translate any text that is to be entered literally as demanded by a question.
 - Some questions demand y or n answers for yes or no. These single-letter answers cannot be changed, though their meanings can be translated, e.g., y for ja and n for nein.
 - As a reminder: OSIS Bible book names cannot be translated.
 - Be sure to save the file as a CSV file, with the tab-separated option. Change the en-us in the file name to the appropriate designator for the target language.
 - Test the saved file by opening it in a text editor such as Notepad, Pluma, or Leafpad to be sure that it is saved as a tab-delimited text file and that file name is valid and correct.
- See the above instructions for editing the [BookChapterIndex](#) and [BibleBookAbbreviations](#) files and translate the names of Bible books to the target language.
- Put your completed translations in your Working Directory and then start (or restart) SwordHammer. Try to select the new language. It may be necessary to use the Create Language File button. If this is successful, put the completed translation in the SwordHammer program directory.
- Refer to Appendix D for contact information and consider submitting your translation to this author for the benefit of other users.

Appendix F – Known Bugs and Workarounds

SwordHammer

As of this writing SwordHammer is considered to be in Beta (testing stage), not really ready for public release. It has been published mainly to allow people to experiment with it and to allow Bible program publishers and others to interact with the author to resolve issues.

That said, however, SwordHammer is working well for Bibles having notes, chapter and verse titles, red letters for the words of Christ, and, to some extent, introductory passages at the beginning of the work. Cross reference notes (code: ncr) work; all other notes work under the code: ntr. (translator's notes).

There are cosmetic issues with lists and tables.

Images work, but placement can be an issue.

Not all Bible programs respond reliably to poetry-marked sections.

Generic Books do not support footnotes well.

Hyperlinks do not work at all. A working facility for bookmarks internal to the document is needed.

Placement and display of non-canonical text in Bibles is uncertain. A facility to include non-canonical introductory or study material would be helpful.

There does not appear to be a unified and consistent source of Sword Utilities. Different sources have different versions. In some cases, this could impact Sword Module generation by SwordHammer.

Windows Issues

These issues are specific to Windows and all of them are believed to be not problems with SwordHammer, per se, but to the fact that SwordHammer is using third-party software to interface with a “foreign” operating system.

General Questions operates normally, but any attempt to resize or move the General Questions window freezes the window. Workaround: use alt-tab to switch to another application, then return to the General Questions window.

The appearance of SwordHammer is rather different than intended in some cases, but this does not impair functionality.

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The author thanks and praises his Lord Jesus Christ who answered many prayers during the
development of SwordHammer. To Him alone be the glory.

I can do all things through Christ who strengthens me. (Philippians 4:13 [NKJV])