

# MakeJmlrBookGUI User Manual

## Version 0.9.3b

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## 1 Introduction

MakeJmlrBookGUI is a Java GUI provided to help editors build [Journal of Machine Learning Research \(JMLR\)](#) proceedings or books in the [Challenges in Machine Learning \(CiML\)](#) series. This application is designed to only work with books using the  $\text{\LaTeX}$  `jmlrbook` class that import papers using the `jmlr` class. See the `jmlr` documentation for further details on using those classes. This manual assumes that the user is familiar with using  $\text{\LaTeX}$  and the `jmlr` bundle. Make sure you have an up-to-date version of the `jmlr` bundle [installed](#).

In addition to this manual, there are also some video tutorials available at <http://www.dickimaw-books.com/software/makejmlrbookgui/videos/>.

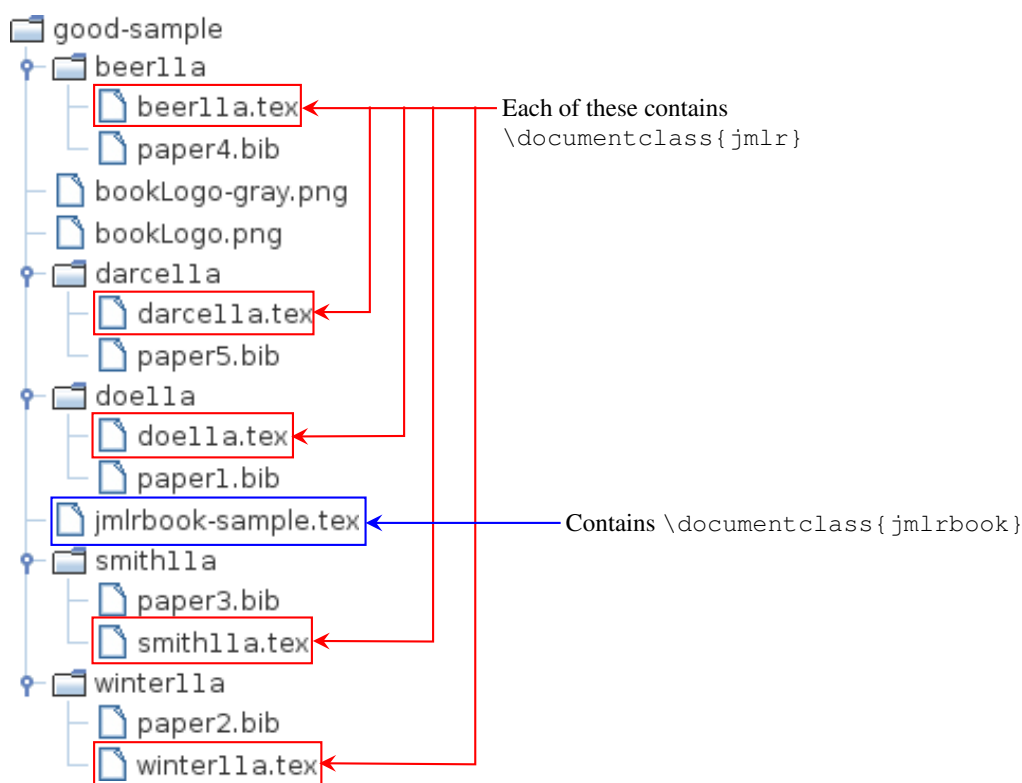


Figure 1: Sample Book File List

Most of the examples in this document use the file list shown in [Figure 1](#). The files `beer11a.tex`, `darcella.tex`, `doella.tex`, `smith11a.tex` and `winter11a.tex` are individual JMLR papers. The file names used are those required by the JMLR naming conventions (surname of first author followed by two-digit year of publication and iterative letter code for repeated names). Each of these files uses the `jmlr` class and can be compiled as a standalone document.

The file `jmlrbook-sample.tex` is the main book file, which imports each of the standalone articles listed above. This file uses the `jmlrbook` class. It also contains the following lines:

```
\begin{jmlrpapers}

  \importpaper{beer11a}{beer11a}

  \importpaper{darcella}{darcella}

  \importpaper{doe11a}{doe11a}

  \importpaper{smith11a}{smith11a}

  \importpaper{winter11a}{winter11a}

\end{jmlrpapers}
```

You also need to ensure that the main book file includes all the packages used by the imported articles. If you're wondering how it is that a  $\text{\LaTeX}$  document can import files that each contain a `\documentclass` command, the `jmlrbook` class uses the `combine` class, which makes this possible.

Since it can be rather complicated to set up the main book file, `MakeJmlrBookGUI` has a function that can do this for you. I strongly recommend you use this function to help reduce the chances of complicated errors. See [§4 Creating a New Book](#) for further details.

To start `MakeJmlrBookGUI`, run the command `makejmlrbookgui`. The following options are available:

- version** Print application version number.
- help** Print application version number and syntax.
- debug** Switch on debug mode.
- nodebug** Switch off debug mode (default).
- timeout**  $\langle n \rangle$  Set the maximum length of time for processes, where  $\langle n \rangle$  is an integer representing the number of milliseconds until the process times out. (This ensures that if things go very badly wrong and one of the processes doesn't complete, e.g.  $\text{\TeX}$  gets stuck in an infinite loop, it will be terminated after the given length of time. Otherwise the process will carry on, even after you've quit `MakeJmlrBookGUI`.)

Note: you can use sectioning commands, such as `\chapter`, outside of the imported papers (for example, you may want supplemental material in an appendix). **However, `\chapter`, `\appendix` etc must be placed outside of the `jmlrpapers` environment.** For example:

```
\begin{jmlrpapers}

  \importpaper{beer11a}{beer11a}

  \importpaper{darcella}{darcella}

  \importpaper{doe11a}{doe11a}

  \importpaper{smith11a}{smith11a}

  \importpaper{winter11a}{winter11a}
```

```
\end{jmlrpapers}
```

```
\appendix
\chapter{Datasets}
```

or

```
\begin{jmlrpapers}

  \importpaper{beer11a}{beer11a}

  \importpaper{darcella}{darcella}

  \importpaper{doe11a}{doe11a}

  \importpaper{smith11a}{smith11a}

  \importpaper{winter11a}{winter11a}
```

```
\end{jmlrpapers}
```

```
\appendix
```

```
\begin{jmlrpapers}
  \importarticle{dataset}{dataset}
\end{jmlrpapers}
```

## 2 Installing the JMLR LaTeX Bundle

This application requires an up-to-date version of the jmlr bundle installed on your computer. **This should be properly installed, not just placed in the same directory as the book.**

If you don't have the jmlr bundle installed, or your version is too old, you can use your T<sub>E</sub>X installation package manager to install or update the class files. For example, with the T<sub>E</sub>X Live update manager:

```
tlmgr update jmlr
```

(See the MikTeX documentation to find out how to do this with MiKTeX.)

This is the recommended method, but if you don't know how to do this or you are otherwise unable to do this, you can use MakeJmlrBookGUI's Tools → Fetch JMLR LaTeX Bundle menu item.

Alternatively, you can install manually:

1. Find out where to install T<sub>E</sub>X bundles on your computer, if you don't already know. To do this, open a command prompt or terminal and type:

```
kpsewhich -var-value=TEXMFHOME
```

This should print the name of the appropriate directory. For example, `~/texmf` or `C:\localtexmf`

2. Fetch the installation bundle from <http://mirror.ctan.org/install/macros/latex/contrib/jmlr.tds.zip>
3. Extract the above ZIP file to the directory given in Step 1. For example, on Unix-like systems:

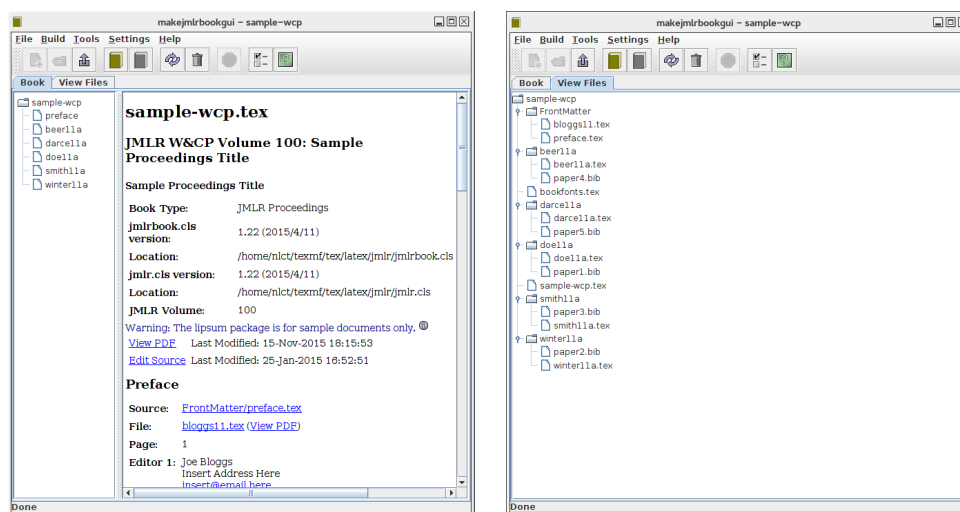
```
unzip -d ~/texmf ~/Downloads/jmlr.tds.zip
```

4. Update the T<sub>E</sub>X database. There should be a command called `texhash` or `mktexlsr`. Run it with the name provided in Step 1. For example:

```
mktexlsr C:\localtexmf
```

or

```
texhash ~/texmf
```



(a)


(b)

Figure 2: The Main Window: (a) the book details visible; (b) the book file list visible.

### 3 Main Window


The main window (Figure 2) has a tool bar, two tabbed panes and a status bar. The tool bar may be repositioned above, below, left or right of the tabbed panes. The status bar is always positioned below the tabbed panes. The tabbed panes consist of:

#### Book Details Tab

Select the book details tab to show information about the book (Figure 2(a)). This tab has a navigation panel with links to information about the imported articles. The book details include links to edit the source code or view the resulting document files. You can set the applications required to edit text files or view PDF files using the [properties dialog](#). You can save the displayed information using the `File → Export Messages...` function to export to an HTML file. (The further information buttons  won't work in the exported HTML file.)

There are two types of the complete book PDF that you can create: the colour version with hyperlinks for on-line viewing and the grey version without hyperlinks for printing. The links to these PDF files are identified as “View PDF (On-Line Version)” and “View PDF (Print Version)”. These PDF files are only required for the [CiML](#) books. For a [JMLR](#) workshop

and conference proceedings, the colour book PDF is used to obtain all the necessary information to build the individual papers and should not be sent to the proceedings production editor.

The book details tab also lists any errors that were encountered when compiling the book (shown in red) and, if the [strict option](#) is set, any non-conformance detected (shown in purple). (See [§9 Troubleshooting](#).) Warning messages are shown in navy. Many of these messages have a further information icon  that you can click on to open a message window with more detailed information and recommendations. If you prefer to change this icon to the text “[Details]” or if you want both the icon and [Details] displayed, then you can switch to these settings using the Properties dialog, described in [§8 Application Settings](#).

### Book File List

The book file list tab ([Figure 2\(b\)](#)) shows all T<sub>E</sub>X, BibT<sub>E</sub>X and image files in the book directory and subdirectories. You can double-click on one of these files to view them. You can refresh this list using Tools → Refresh Files...

## 4 Creating a New Book

To create a new book, first ensure that you have unpacked all the article source files to a temporary location. In this example, I have put the files in `~/Documents/JMLR/OriginalFiles/` listed as follows:

```
~/Documents/JMLR/OriginalFiles/  
  
  MaryJanedeBeer/  
    article.tex  
    references.bib  
    shapes.pdf  
  
  m-j-darce/  
    figs/  
      shapes.png  
    WorkshopOnSomethingArticle.tex  
    refs.bib  
  
  DoeJones/  
    DoeJones-suppl.pdf  
    main.tex
```



```
refs1.bib
refs2.bib
results.tex
table1.tex
table2.tex

Smith/
  article.tex
  jmlr2e.sty
  refs.bib
  shapes.eps

WFJ/
  figs/
    shapes.pdf
  mystuff.sty
  refs.bib
  WinterFinchleyJones.tex
```

There are some commonly-encountered issues with some of these source files:

1. Some of the articles have PDF or PNG images, which indicates that their authors use `pdflatex`, but one of the articles (Smith) has an EPS file, which means that the author used `latex` rather than `pdflatex`.

The original `latex` application (which creates a DVI file) can read EPS files, but it can't read PDF or PNG (or JPG) files. Whereas `pdflatex` can read PDF, PNG and JPG files, but can't read EPS files. When we compile the book, we can't switch output devices during compilation, so this could potentially cause problems.

Luckily most modern  $\text{\TeX}$  distributions are able to convert EPS to PDF during document compilation, but to ensure this works, the image file should be included in the document using `\includegraphics{\langle imagefile \rangle}`, where `\langle imagefile \rangle` is the name of the image file without the file extension.

This is one of the reasons why `MakeJmlrBookGUI` uses `pdflatex` rather than `latex`.<sup>1</sup> Unfortunately, in this example the author has used the obsolete `epsfig` package and has included the image with `\epsfig`. This means that in order for the book to compile correctly, all instances of `\epsfig`

---

<sup>1</sup>Another reason is that `pdflatex` handles hyperlinks better than `latex`.

must be replaced with `\includegraphics` with the file extension removed. This is a time-consuming task, especially if the author hasn't used a single `.tex` file for the article source, but has spread the document code out in multiple `.tex` files that have been included with `\input`.

`MakeJmlrBookGUI`'s new book function tries to overcome this problem by performing the substitutions for you.

2. Another problem with the Smith article is that it uses the old `jmlr2e` package with the `article` class instead of using just the new `jmlr` class. Since the `jmlrbook` class depends on the imported articles using the `jmlr` class, this will cause a problem when compiling the book.

`MakeJmlrBookGUI`'s new book function can detect this problem and will perform the relevant substitutions.

3. In the WFJ article, the authors have provided a custom package (called `mystuff.sty`) loaded in `WinterFinchleyJones.tex`. This typically just contains a series of short cut command definitions. Since this isn't a standard package, the main book file won't find it. While it is possible to just put a copy of `mystuff.sty` in the main book directory, it's possible that the definitions in `mystuff.sty` will conflict with custom commands defined in the other articles. For example, it's quite typical for authors to define `\eg` as a short cut for "e.g." (possibly with space factor adjustments).

When each article is imported into the book, the article source is scoped, so that any definitions made with `\newcommand` or `\renewcommand` only have an effect within the article. This means that if, say, both de Beer et al's article (`article.tex`) and Doe et al's article `main.tex` have:

```
\newcommand{\eg}{e.g.\ }
```

there won't be a conflict. However, if `mystuff.sty` has also defined `\eg` and you include it in the main book file, then `\eg` will already be defined when `article.tex` and `main.tex` try to define it. Therefore it's not a good idea to use `mystuff.sty` for the book. If the `mystuff` package just contains a series of command definitions, then the best course of action is to just copy those command definitions into the article's main file (`WinterFinchleyJones.tex` in this case) and remove `\usepackage{mystuff}`.

`MakeJmlrBookGUI`'s new book function will alert you if an article tries to load a package that is not in your  $\text{\TeX}$  distribution.

4. The d'Arçé (m-j-darce) article has a subdirectory for images (figs/) and has used `\graphicspath` instead of specifying the subdirectory in `\includegraphics`. This can cause a problem when compiling the main book as the `jmlrbook` class needs to modify the input paths when importing articles to ensure that any relative paths are correctly resolved.

MakeJmlrBookGUI's new book function solves this problem by removing `\graphicspath` and inserting the subdirectory in the argument of `\includegraphics`.

5. The Doe et al (DoeJones) article has multiple `.tex` files. The main file is `main.tex` which includes (via `\input`) the file `results.tex`, which in turn inputs `table1.tex` and `table2.tex`. This won't in itself cause a problem when the book is compiled, but if the author has made an error in the file, it's harder to track down which file the problem is in. To overcome this, MakeJmlrBookGUI's new book function will insert all the included files to create a single `.tex` file.

Note that the new book function creates copies of the source files, rather than modifying the originals, so you will still have the originals for reference or to fall back on if something goes wrong.

The other problem will all these files, is that none of them follow the [JMLR W&CP](#) file naming scheme  $\langle lastname \rangle \langle YY \rangle [\langle suffix \rangle]$  where  $\langle lastname \rangle$  is the first author's surname,  $\langle YY \rangle$  is the two-digit year of the conference or workshop and  $\langle suffix \rangle$  is a single letter to disambiguate in the event of duplicate names (for example, `smith15a` and `smith15b`). The new book function will attempt to name the new files as appropriate. It will also copy over any supplemental files provided they match `*-supp.*` (for example, `smith-supp.zip`).

To create a new book use the File  $\rightarrow$  New Book... menu item. This will display the dialog shown in [Figure 3](#).

When you're ready, click "Next" to move to the next screen, shown in [Figure 4](#). If you are creating a [CiML](#) book, click on the "CiML" radio button, which will display the screen shown in [Figure 5](#).

The [CiML](#) setting has a button labelled "Import from bib" which you can use to populate the fields from a `.bib` file previously created for the [JMLR W&CP](#) according to their [specifications](#). You will need to add the [CiML](#) volume number as this isn't stored in the `.bib` file. The `.bib` file must be located in the base directory relative to the source files. (In this example, that's the `OriginalFiles` directory shown above, but the file naming scheme has to match the [JMLR W&CP](#) requirements. This should be the case if you previously created the proceedings files and generated the `.bib` file using the Build  $\rightarrow$  Create bib... menu item.)

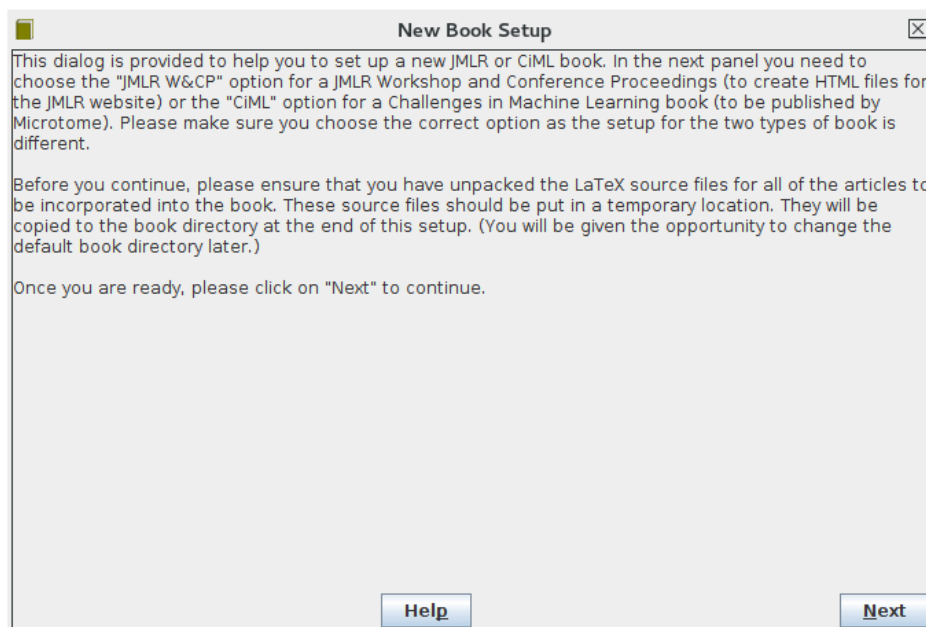


Figure 3: New Book Dialog Initial Screen

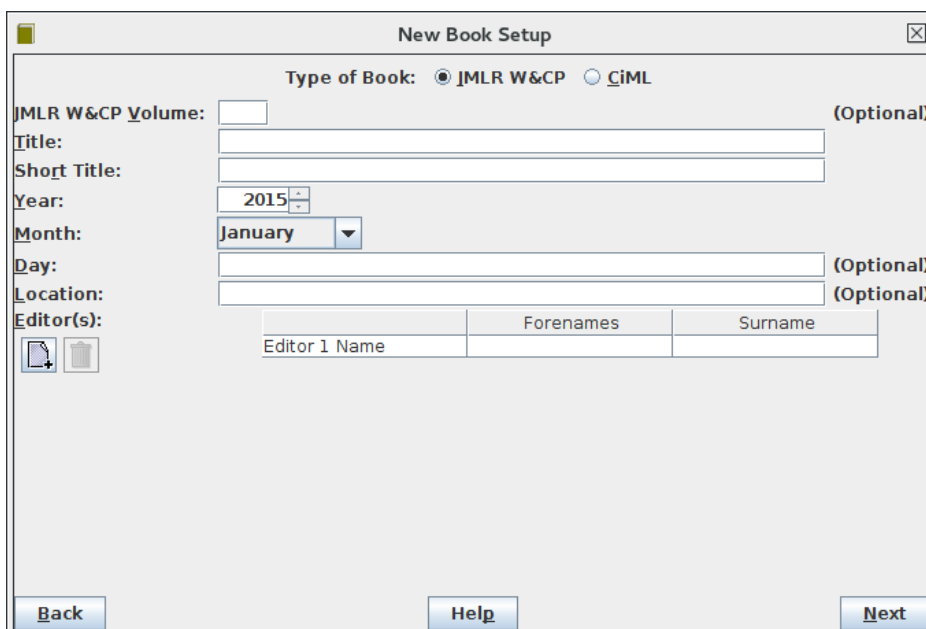


Figure 4: JMLR Title Setup

New Book Setup

Type of Book:  JMLR W&CP  CiML

CiML Volume:

JMLR W&CP Volume:  (Optional)

Book Title:

Short Title:  (Optional)

Sub-Title:  (Optional)

Production Editor:  (Optional)

Editor(s):



	Forenames	Surname
<input type="button" value="Add"/> <input type="button" value="Remove"/>	Editor 1 Name	

Figure 5: CiML Title Setup


The volume number is optional for the **JMLR** W&CP setting as it may not have been allocated yet. In this situation, leave the volume field empty and when you do find out the number, change the value of

```
\jmlrvolume{0}
```

to the appropriate number in the  $\text{\LaTeX}$  source code.

Each editor is entered in the “Editor(s)” table. The forenames should go in the “Forenames” column and the surname in the “Surname” column. To add a new row, click on the add  button. If you want to delete an editor, select the unwanted row and click on the remove  button. Sample title information for a **JMLR** book is shown in [Figure 6](#).

When you have finished specifying the title information, click on “Next” to move to the next screen. If you have specified a **JMLR** book, the screen will be as shown in [Figure 7](#). If you have specified a **CiML** book, the screen will be as shown in [Figure 8](#).

In both cases, there is the option to have a preface at the start of the book. If the book requires a preface, check the “Yes, the book should have a preface” button. If you already have a file containing the preface text, select the “Preface .tex source file” button and use the file selector to specify the location of this file. (Click on the browse  button to open the file selector.) If the preface hasn’t been written yet, select the “Create New File” button to create a new file.

The screenshot shows the 'New Book Setup' dialog box with the following fields and values:

- Type of Book:**  JMLR W&CP  CiML
- JMLR W&CP Volume:** 53 (Optional)
- Title:** Sample Imaginary Proceedings
- Short Title:** SIP'15
- Year:** 2015
- Month:** October
- Day:** 15--18 (Optional)
- Location:** Norwich, United Kingdom (Optional)
- Editor(s):**

	Forenames	Surname
Editor 1 Name	John	Smith
Editor 2 Name	Jane	Doe
Editor 3 Name	Joe	Bloggs

Buttons at the bottom: Back, Help, Next.

Figure 6: Sample JMLR Title Information

The screenshot shows the 'New Book Setup' dialog box with the following options:

- Does the book have a preface?**
  - No Preface
  - Yes, the book should have a preface
    - Create New File
    - Preface .tex source file

Buttons at the bottom: Back, Help, Next.

Figure 7: JMLR Front Matter Setup

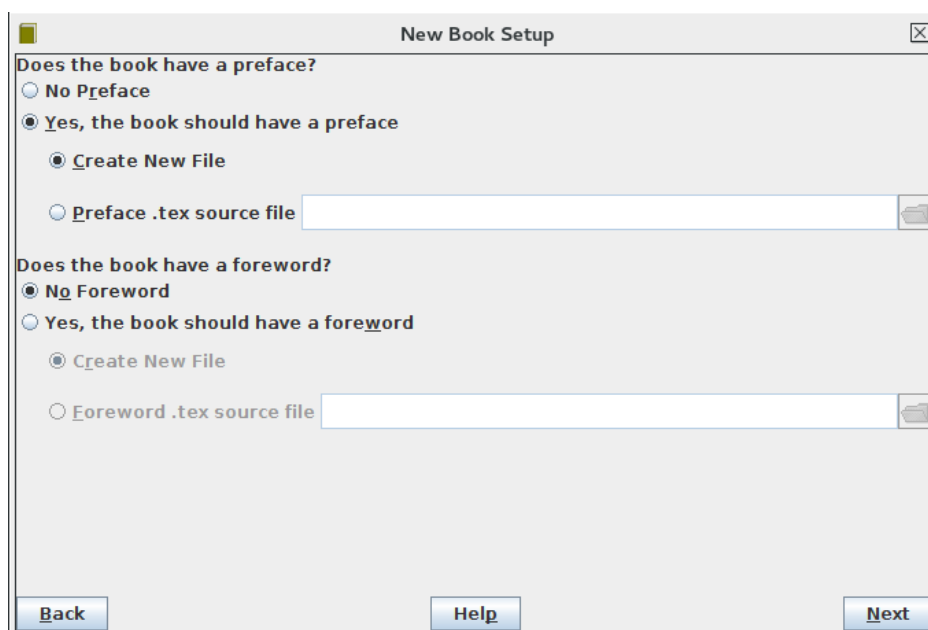


Figure 8: CiML Front Matter Setup


If you have specified a **CiML** book, you can do likewise for the foreword. When you are ready, click on “Next” to move to the next screen, shown in [Figure 9](#). All options are available for **CiML** books. None of these options are available for **JMLR** proceedings.

For the **CiML** book, if the articles should be grouped into parts (for example, “Part 1: Fundamentals and Theory” and “Part 2: Applications”), then select “Yes, but only in the table of contents” or “Yes, in the main matter and in the TOC”. If the book should also have articles included as an appendix, select “Yes, the book has appendices” otherwise select “No appendices”.

When you are ready, click on “Next” to move to the next screen. This will appear as shown in [Figure 10](#) for **JMLR** books.

For **CiML** books, the screen will vary according to the options from the previous screen. If you have specified no parts and no appendices, the screen will be as shown in [Figure 11](#). If you have specified parts, then the screen will be as shown in [Figure 12](#). If you have specified appendices, there will also be an appendix panel. For example, [Figure 13](#) is for a **CiML** book with parts and appendices.

For **CiML** books, each import file panel has a check box, which should be selected if the article was originally published in a **JMLR** workshop and conference proceedings. If this box is checked, you need to enter the start and end page numbers from the original **JMLR** article.

In the import file panel, use the file selector  to select the article’s `.tex`

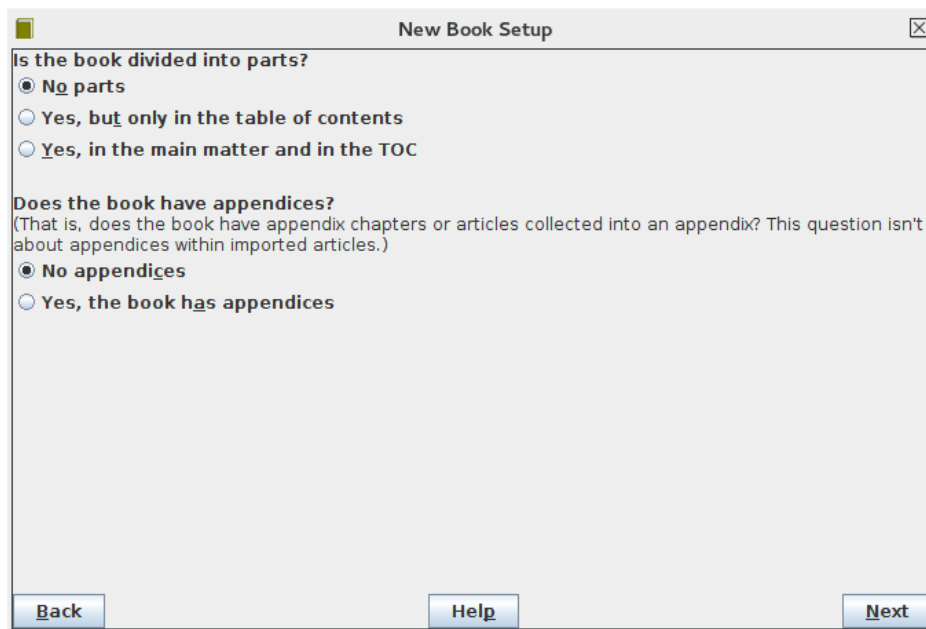


Figure 9: Book Parts and Appendices

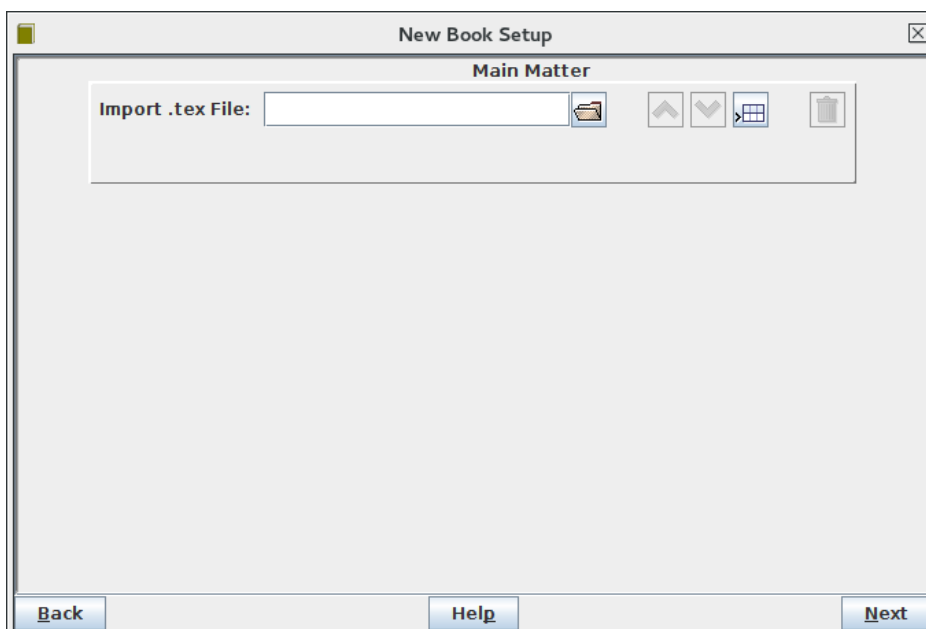


Figure 10: JMLR Import Articles



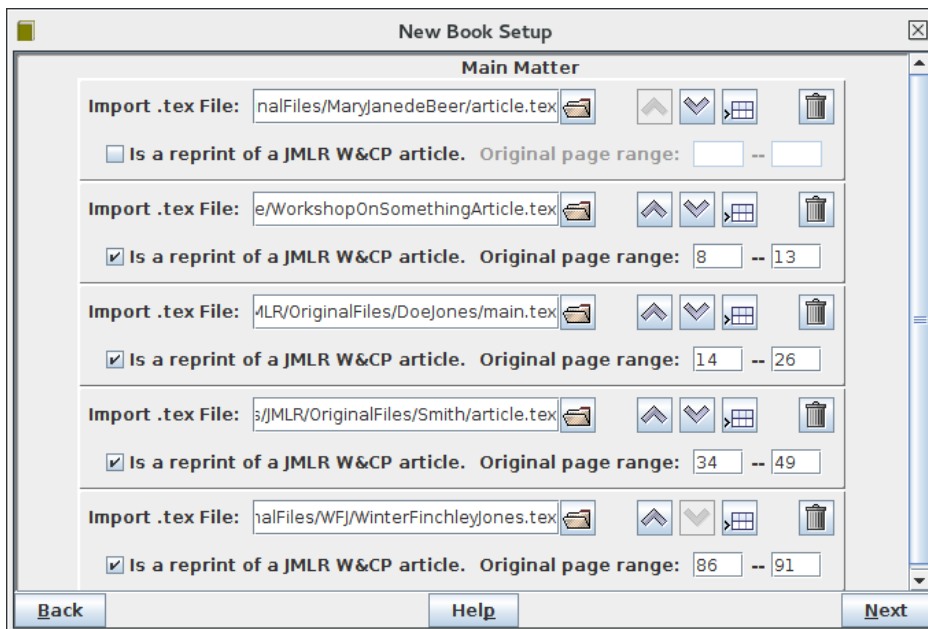


Figure 11: CiML Import Articles (No Parts)

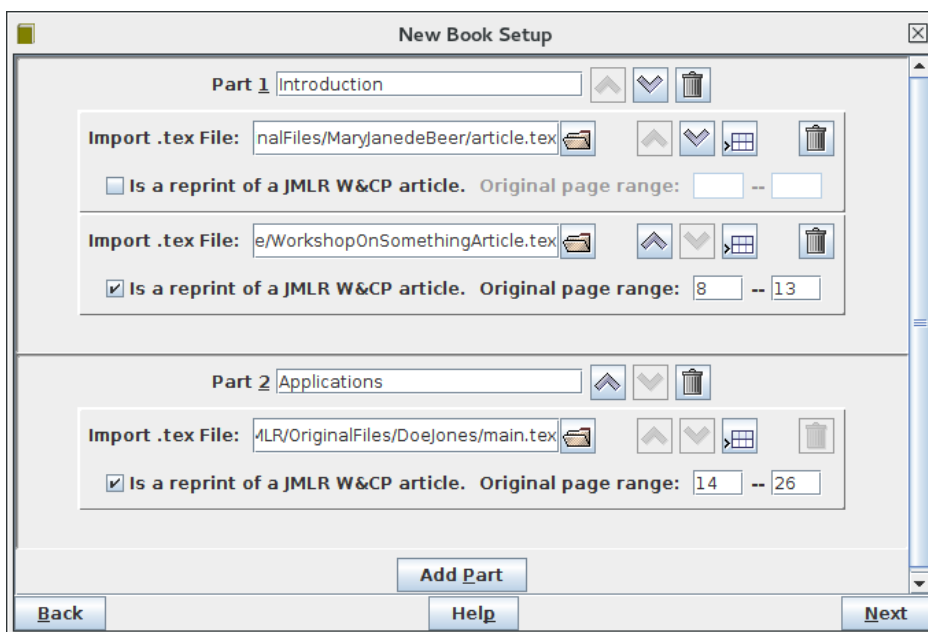


Figure 12: CiML Import Articles (Parts)

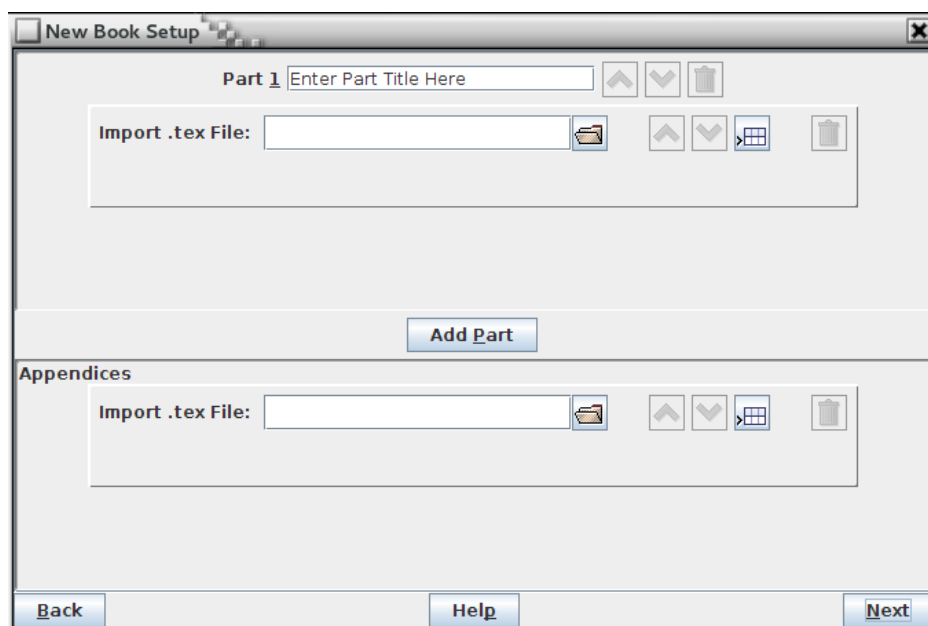




Figure 13: CiML Import Articles (Parts and Appendices)

file. If the author has supplied multiple `.tex` files, you need to make sure you only select the file containing the `\documentclass` command. For example, in Figure 14, I’ve selected the `article.tex` file. This file isn’t a reprint (perhaps it’s an introductory article for the CiML book) so I’ve left the reprint box unchecked. This reprint option isn’t available for the JMLR version (Figure 15).

To add a new article to the list, click the new row  button to add a new import panel. To add a new part panel, click on the “Add Part” button. You can reorder articles within a part using the up or down arrow buttons. You can remove an import panel by clicking on the associated  button. Drag and drop is supported for this panel, so you can drag import panels up or down to a new location. You can also drag and drop files from your filing system onto the import panels, if your operating system supports this.

In Figure 16 I have selected all my sample files. The first part has the title “Fundamentals and Theory” and has the de Beer and d’Arçé articles. The second part has the title “Applications” and has the Doe and Smith articles. The final article, de Winter et al, is in the appendices section.

When you’re ready, click on the “Next” button to move to the next screen, as shown in Figure 17. This screen specifies in which directory the new book will be created. The default name for this directory is given by “Volume” followed by the volume number. Earlier in this example, I entered “53” for the volume, so the default directory name is `Volume53`. The path this directory resides in is

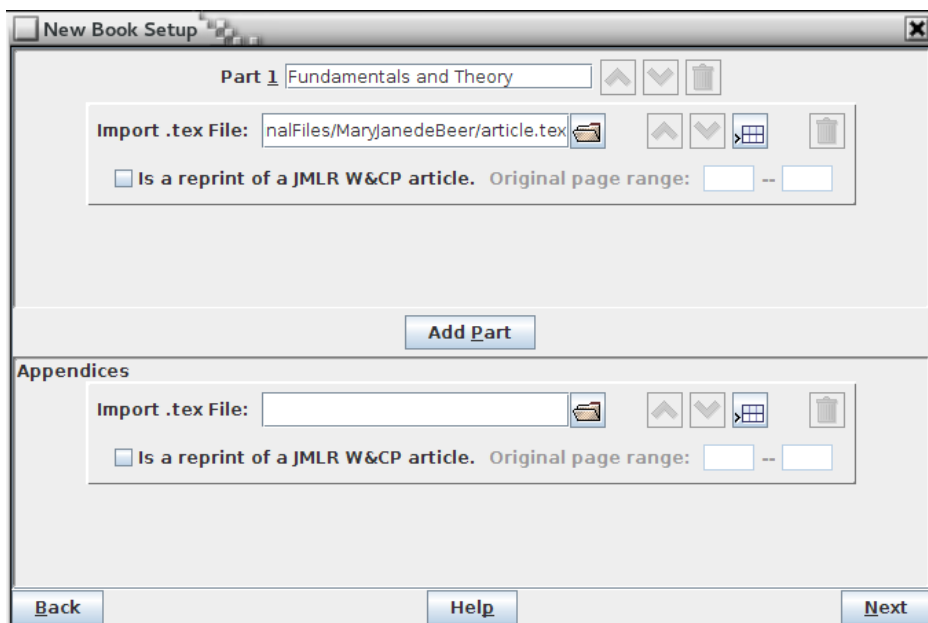


Figure 14: CiML Import Article Specified

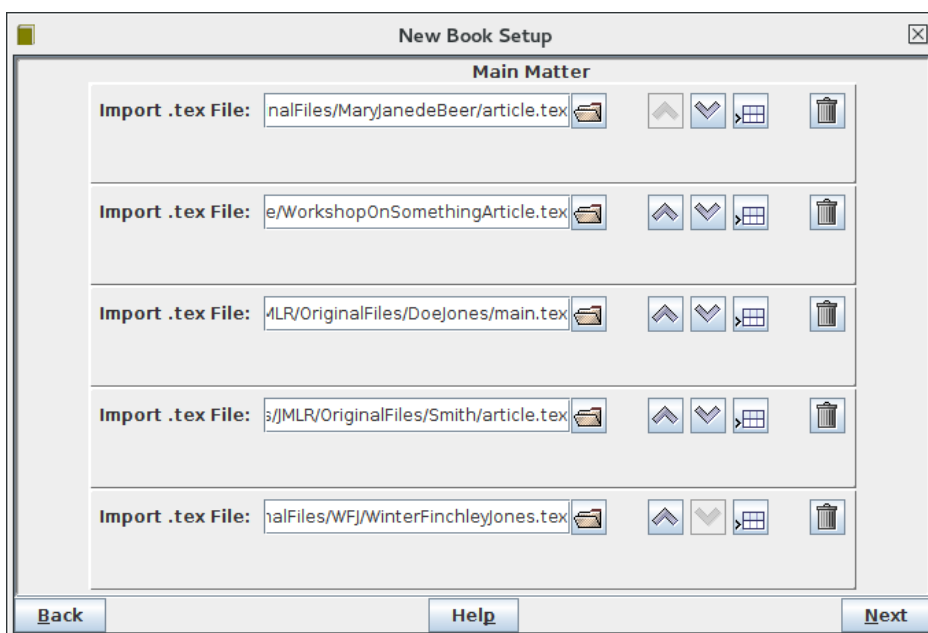


Figure 15: JMLR Import Article Specified

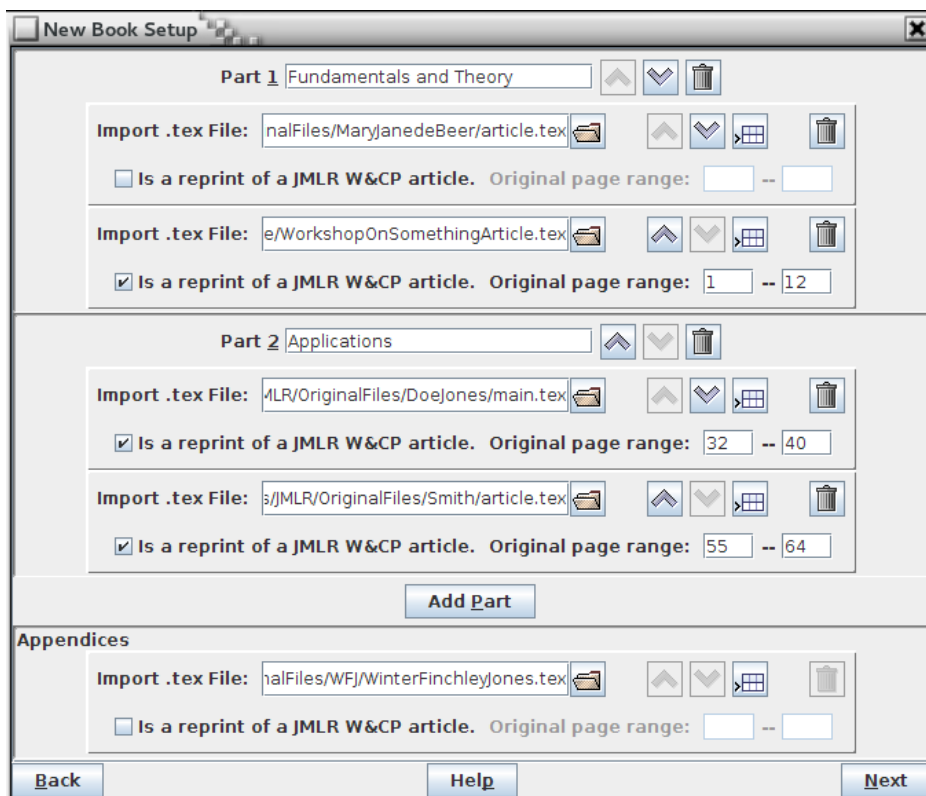



Figure 16: CiML All Import Articles Specified

specified in the right-hand field. You can change it using the file selector .

Note that the book directory can't already exist. This is a precautionary measure to ensure you don't accidentally overwrite the original files, in case they are still needed.

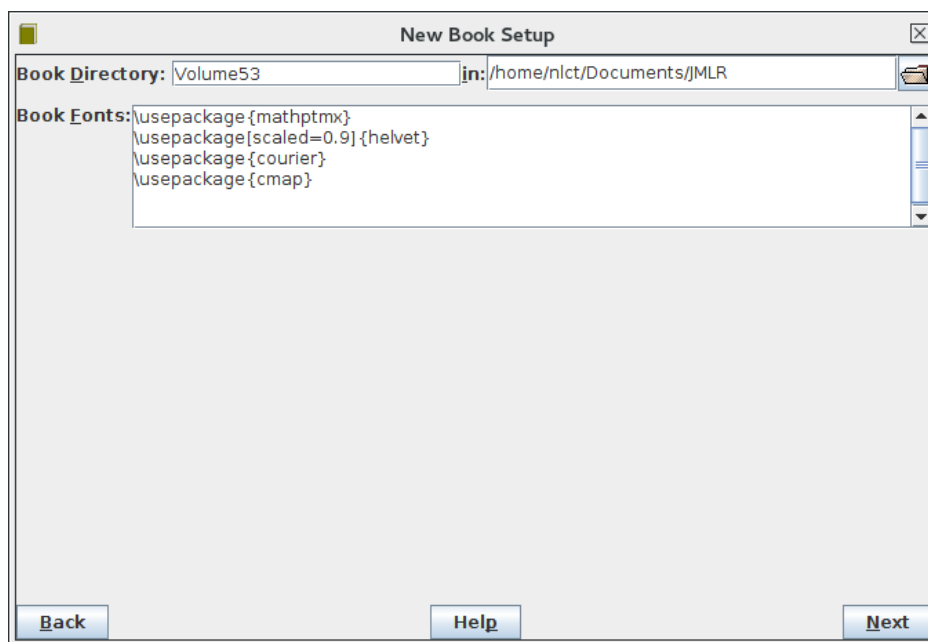


Figure 17: New Book Directory

When you are ready, click on the “Next” button. This will start the new book creation process. Recall from earlier that the Winter et al example had a custom package `newstuff.sty` provided by the author. Since this is likely to cause a problem, an error message is shown (Figure 18). This identifies the problem file and the line number where the `\usepackage` command occurred. There’s a possibility that the package may actually be available on [the Comprehensive TeX Archive Network \(CTAN\)](#) but isn’t installed on your computer. In which case you’re provided with a URL that you can copy and paste into your web browser to check.<sup>2</sup> If it turns out that the package is available on [CTAN](#), you will need to install it and then edit the article’s new `.tex` file to uncomment the relevant `\usepackage` command, and you will also need to edit the book’s `.tex` file to add it to the list of required packages.

Once you dismiss this message box, you can view the transcript in the final screen of the new book dialog (see Figure 19). If you want a copy of this transcript,

<sup>2</sup>The fact that `mystuff.sty` is present in the article’s directory doesn’t mean that it’s the author’s file as authors often copy all the packages they use into their article’s directory.

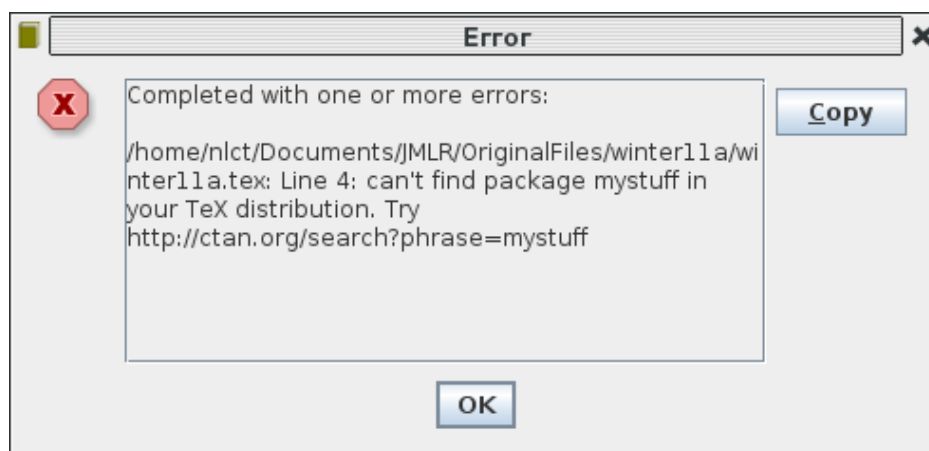


Figure 18: Error Message

you can copy it to the clipboard using the “Copy” button. If you want to view the newly created book file, click on the “View main .tex” button.

You can now either close the new book dialog by clicking on the close window button in the title bar, which will do nothing further, or you can click on the “Finish” button, which will close the dialog and load the new book into MakeJmlrBookGUI.

## 5 Loading a Book

Use the File → Open Book... menu item to specify the main file for the JMLR book you want to process (Figure 20). Alternatively, you can use the File → Recent Book menu to select a recently loaded file. Note that the main file is the file that loads the `jmlrbook` class using:

```
\documentclass{jmlrbook}
```

If you don't yet have a main file, you can create one with the new book function (see §4 Creating a New Book).

Once a book has been loaded  $\text{\LaTeX}$  (and possibly  $\text{\BibTeX}$ ) will automatically be run to create an up-to-date version of the book.

To clear the book details so that you can open a new one, use the File → Clear menu item.

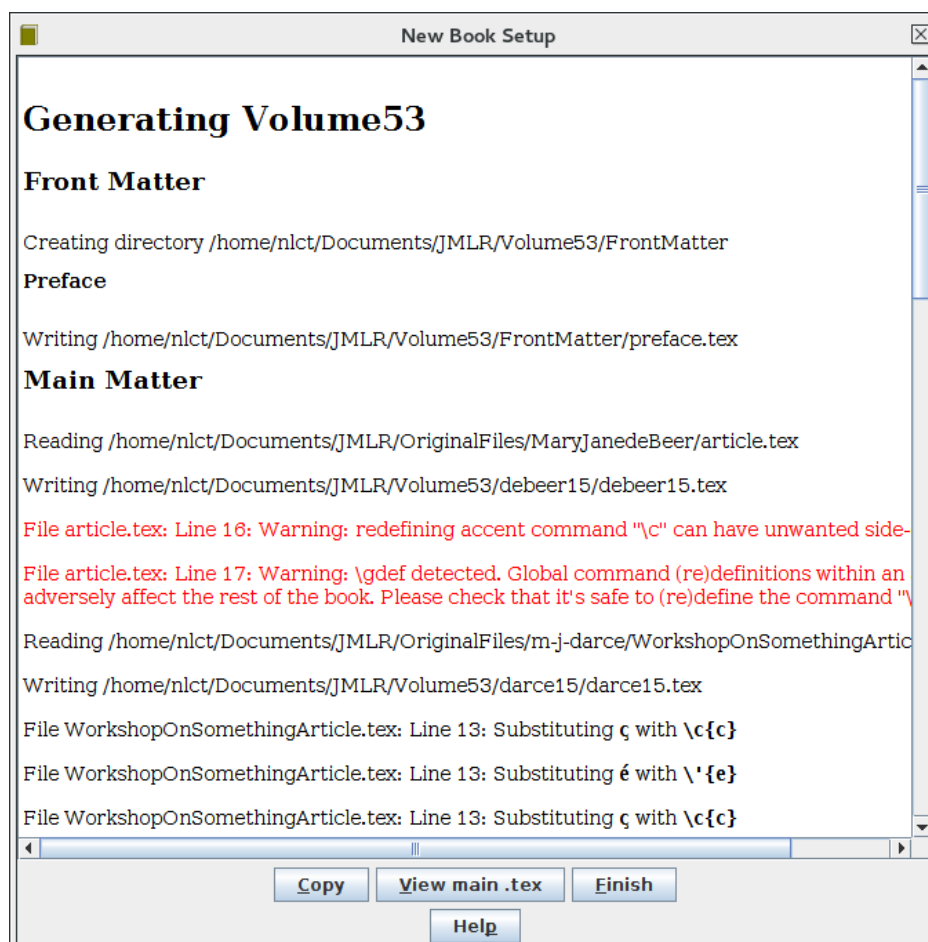


Figure 19: Transcript

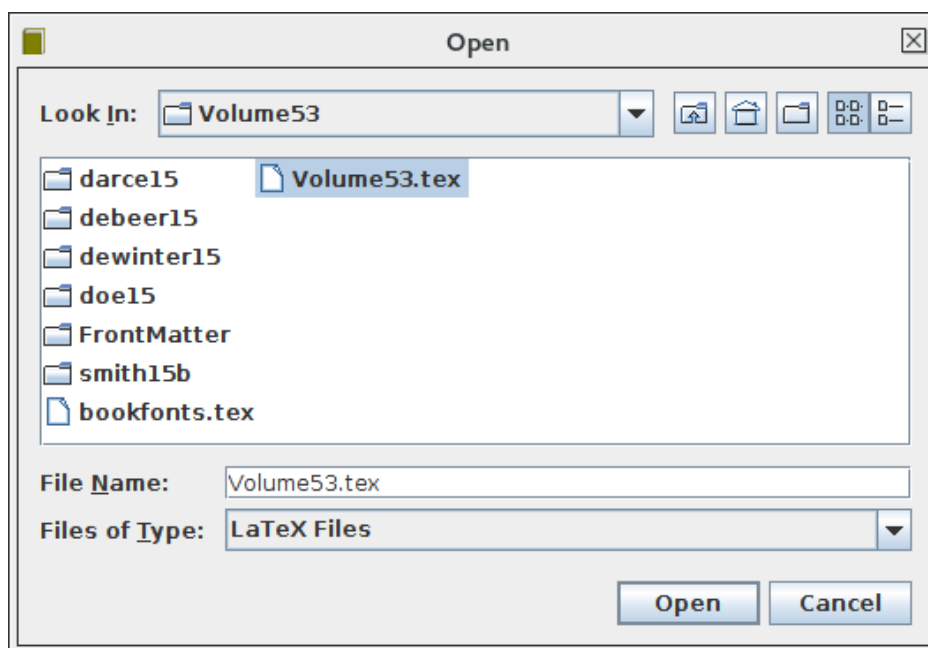


Figure 20: Opening a JMLR Book

## 6 The Build Menu

Different formats of the book can be created using the Build menu, which becomes enabled once you have [loaded](#) a book.

**Discrepancies in the page numbering can occur if the book uses a different set of fonts to the included articles.**

If you want the book to use a particular set of fonts, create a file called `bookfonts.tex` with the commands to load the font packages and add it to the book's main directory. `MakeJmlrBookGUI` will check the main tex file for the occurrence of

```
\input{bookfonts}
```

and if found will input that file when building the individual papers. (Note that when building the articles this inputs `../bookfonts`, so the articles must be in immediate subdirectories of the main book directory.)

### 6.1 Building the Main Book PDF

The entire book can be created using the Build → Book (Color Hyperlinked PDF) menu item. Since the `jmlr` and `jmlrbook` classes use the `hyperref` package, the resulting PDF will have hyperlinks and a set of PDF bookmarks. You may find



the bookmark package better at forming the bookmarks, but that package must be loaded last. Note that although you need to build the entire book in order for MakeJmlrBookGUI to build all the standalone articles with the correct page numbering, you shouldn't send the entire book PDF to the JMLR W&CP production editor.

## 6.2 Building the Print Version

If the book is to be printed, you need to supply the publisher with a PDF/1-X compliant document. MakeJmlrBookGUI tries to make a grey scale compliant document using `ghostscript`. However it is recommended that you check that the resulting document is compliant. This option is just for [CiML](#) books, not for [JMLR](#) workshop and conference proceedings.

## 6.3 Building Individual Papers

It may be that you are working on one particular paper and don't want to have to keep rebuilding the entire book to check your changes. In which case, you can use the Build → Papers sub-menu.

## 6.4 Create Proceedings bib File

You can create the `.bib` file required for the [JMLR](#) workshop and conference proceedings with the Build → Create bib... menu item.

This function isn't required for [CiML](#) books.

## 6.5 Create Proceedings zip File

You can create the `.zip` file with all the files for submission to the [JMLR](#) workshop and conference proceedings production editor with the Build → Create zip... menu item. If the `.bib` file hasn't already been created it will be created by this function and added to the `.zip` archive. All supplemental files must have the naming scheme as described in the [JMLR W&CP Proceedings Specifications](#). All matching files will automatically be added to the `.zip` file.

This function isn't required for [CiML](#) books.

# 7 The Tools Menu

Use Tools → Remove Aux to remove all the auxiliary files. If you want to abort a current process, use Tools → Abort.

## 7.1 Check Characters Outside the Range 0x20–0x7E

Encoding problems can arise when different authors have used different input encodings. For example, one article may use latin1 and another may use utf8. Even more troublesome is where a single file contains a mixture of encodings. This can happen if the co-authors haven't agreed on an encoding, or (quite often) entries in the bib file have been copied and pasted from different sources so that different bibliography entries use different encodings. Sometimes you will get a message about missing or undefined characters, but sometimes (as in Example 6 in §9 Troubleshooting) there will be no messages but the resulting PDF file will appear incorrect.

To help editors track down problem characters, MakeJmlrBookGUI version 0.4.2b has introduced the Tools → Character Check... menu item. Use this function to open a dialog box with a list of all the .tex and .bib files belonging to the book. The files are arranged in hierarchical order. If you select a directory, everything inside that directory will also be selected, so to select all files just click on the root node. Once you have selected all the files you want to check, click “Okay” and the application will check each file for characters outside the range 0x20 (space) to 0x7E (tilde). On completion, a window will appear with the list of files with the line numbers where characters outside that range were detected. (The characters will be highlighted in bold red to make them stand out.)

## 8 Application Settings

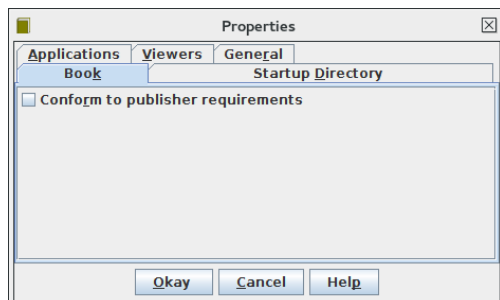
Application settings can be modified using the Settings → Edit... menu item, which will open the Properties dialog box. This has five tabs:

### Book

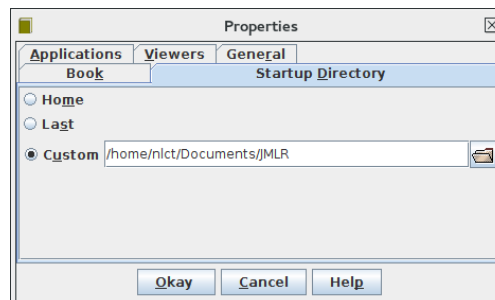
If the “Conform to publisher requirements” checkbox is selected, the application will run checks for certain requirements, such as checking that file names follow the JMLR convention. Note that not all JMLR requirements are checked and some have been changed since this code was written.

### Startup Directory

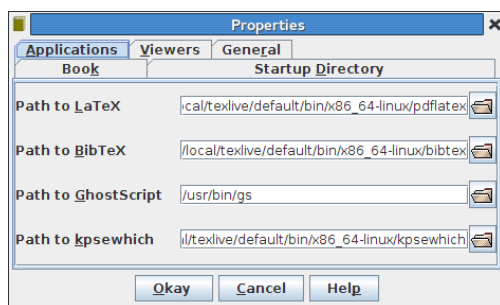
You can specify which directory MakeJmlrBookGUI should start up in. This can be the current working directory, the last directory used by the application or a specific directory.



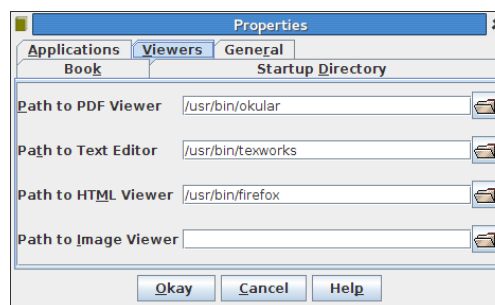
(a)



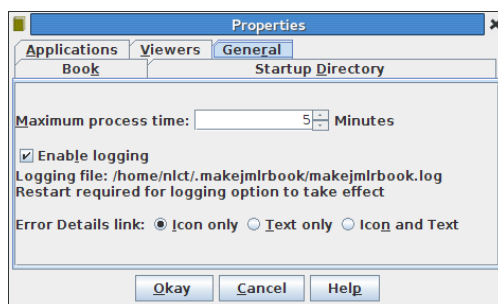
(b)



(c)



(d)



(e)

Figure 21: Properties Dialog: (a) book settings; (b) startup settings; (c) paths to build applications; (d) paths to file viewers and text editor; (e) general settings.

## Applications

You need to set the paths to executables required by the [build processes](#). They are:

**Path to LaTeX** The path to the PDF $\LaTeX$  executable is required. Note that the `jmlr` and `jmlrbook` classes were optimised to use PDF $\LaTeX$ . You are likely to run into errors if you use  $\LaTeX$  with DVI output.

**Path to BibTeX** The path to the BibTeX executable is required to compile bibliographies supplied with BibTeX databases.

**Path to GhostScript** The path to `ghostscript` is required when building the print version of the book.

**Path to kpsewhich** The path to `kpsewhich` is required to locate files in your  $\TeX$  distribution.

## Viewers

You need to set paths in order to view or edit files when following links in the book tab or by double-clicking on files in the [Book File List Tab](#).

**Path to PDF Viewer** The path to a PDF viewer is required if you want to click on any of the PDF links in the main panel.

**Path to Text Editor** The path to a text editor is required if you want to click on any of the links to source code or log files. The text editor may be a general purpose text editor, such as `gedit`, or it can be a  $\TeX$ / $\LaTeX$  front end, such as TeXWorks. Since TeXWorks is cross-platform, MakeJmlrBookGUI will default to that if the TeXWorks executable is found on the system path.

**Path to HTML Viewer** The path to an HTML viewer is required for viewing HTML files.


**Path to Image Viewer** The path to an image viewer is only required if you want to load an image from the file list tab.

## General

To help prevent orphaned processes, each spawned process (such as a  $\LaTeX$  run) is given a maximum process time. The default is 5 minutes, which is usually sufficient for a normal  $\LaTeX$  run, but more time may be required

when converting a PDF file to PDF/X, as is done by the build print version function. Large books with a lot of included images can take considerably longer, in which case you will need to change the maximum process time *before you run the process*. Changing this value won't affect currently running processes.

For debugging purposes, you can also switch on the logging file in this tab. You must quit and restart the application to enable logging. The log file is overwritten at the start of the application. Make sure you first quit the application before viewing the log file to ensure that it is closed safely.

Some of the error messages display in the main panel have a link next to them that opens a dialog window with further details and recommendations. The default link shows the information icon . On some operating systems or Java versions, this icon doesn't seem to show. If this is the case, or if you prefer text rather than an image, you can select the appropriate "Error Details link" radio button.

## 9 Troubleshooting

MakeJmlrBookGUI tries to detect common problems encountered when using the `jmlrbook` class. The navigation panel shows the problem papers in red to easily identify them. As mentioned at the end of the previous section, some of these error messages have a link next to them to provide further details or recommendations.

Try to fix the errors in the individual papers before you try addressing the errors for the entire book. Most of the errors listed here shouldn't occur if you set up the book using the File → New Book... function.

**Be careful of imported articles that use a different input encoding to the main book! This will not always produce an error message, but characters will not appear correctly in the PDF file. (See Example 6.)**

### 9.1 Examples of common problems

(The images here are from an older version with a slightly different interface.)

1. [Figure 22](#): one of the imported papers (`beer11a`) has an error in it. Clicking on the red "beer11a" link in the navigation panel scrolls the main panel to the relevant entry. In this case the error is an undefined control sequence which has been used on line 31. It may be that the command was defined in an accompanying package that hasn't been loaded.

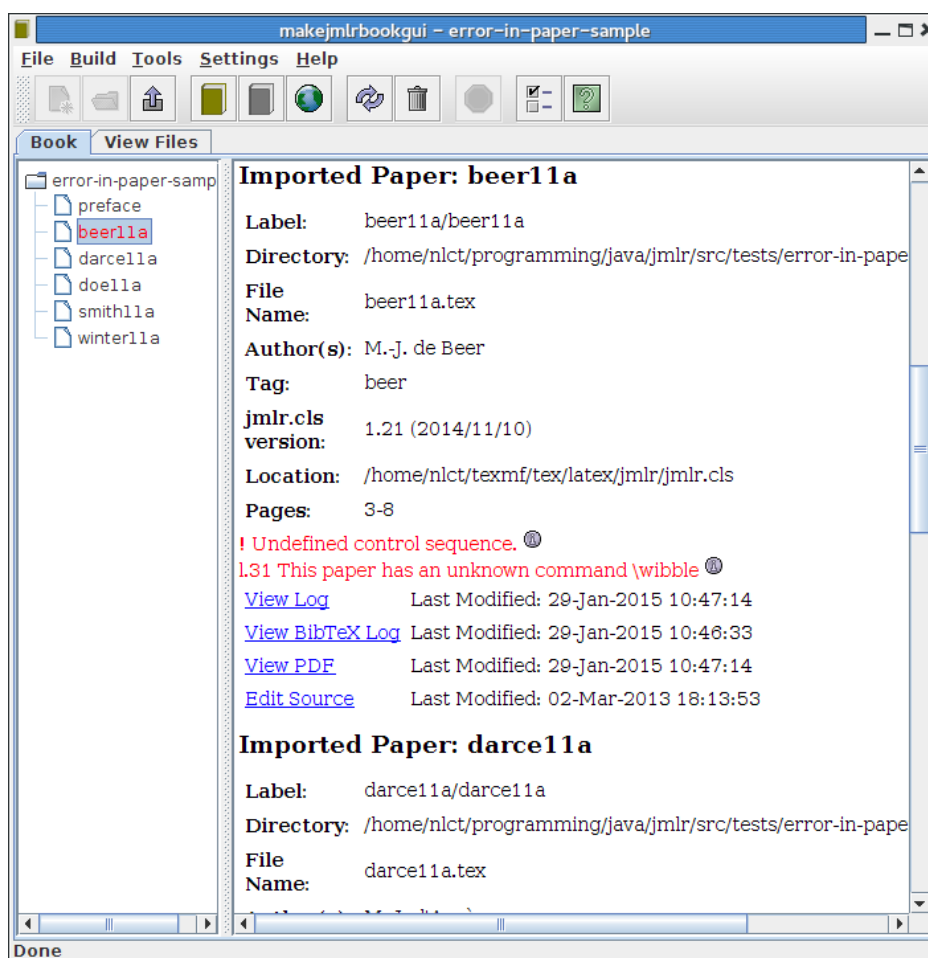


Figure 22: One of the imported papers (beer11a) has an error in it.

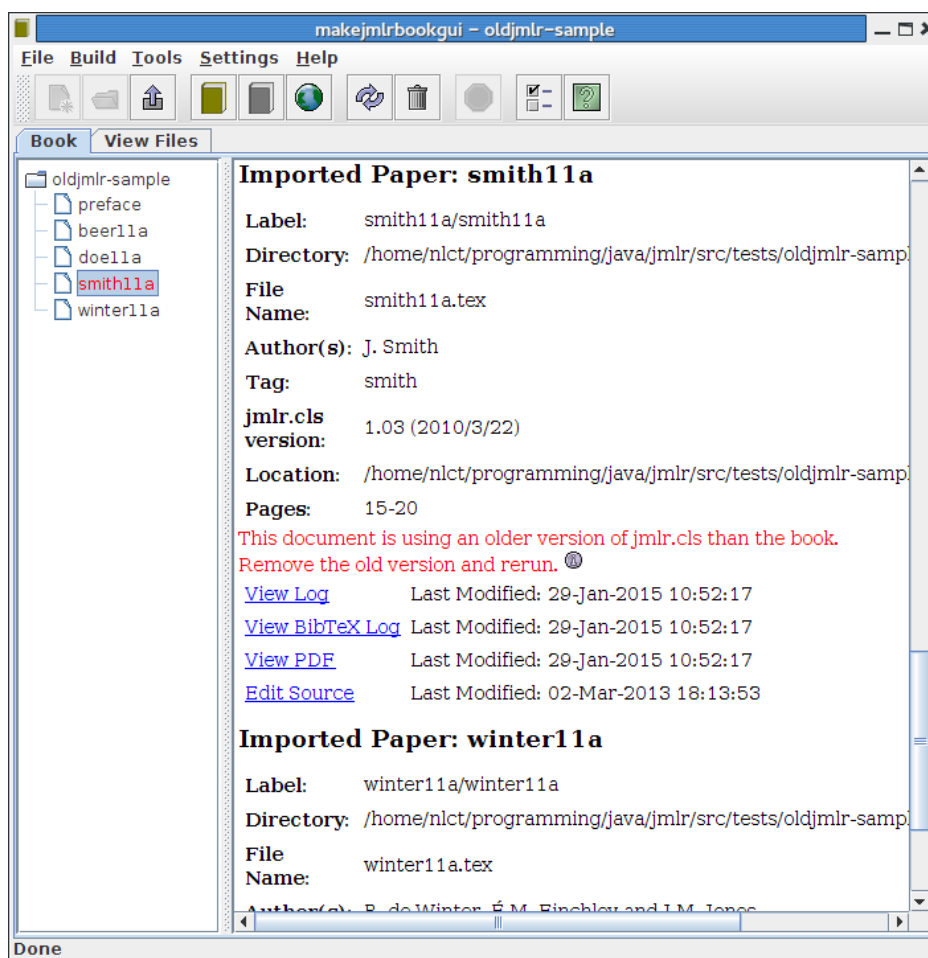


Figure 23: One of the imported papers (smith11a) is using an different version of jmlr.cls from the rest of the book.

2. [Figure 23](#): one of the imported papers (smith1a) has a copy of an old version of the jmlr class in its directory. This unwanted file should be deleted.
3. [Figure 24](#): one of the papers (paper1) in this book has used a package (theorem) that is known to conflict with the jmlr and jmlrbook classes. The imported document must be modified so that it no longer uses that package. This is an issue that is corrected by the new book function.

Note that this example has also produced non-conformity error messages (shown in purple).

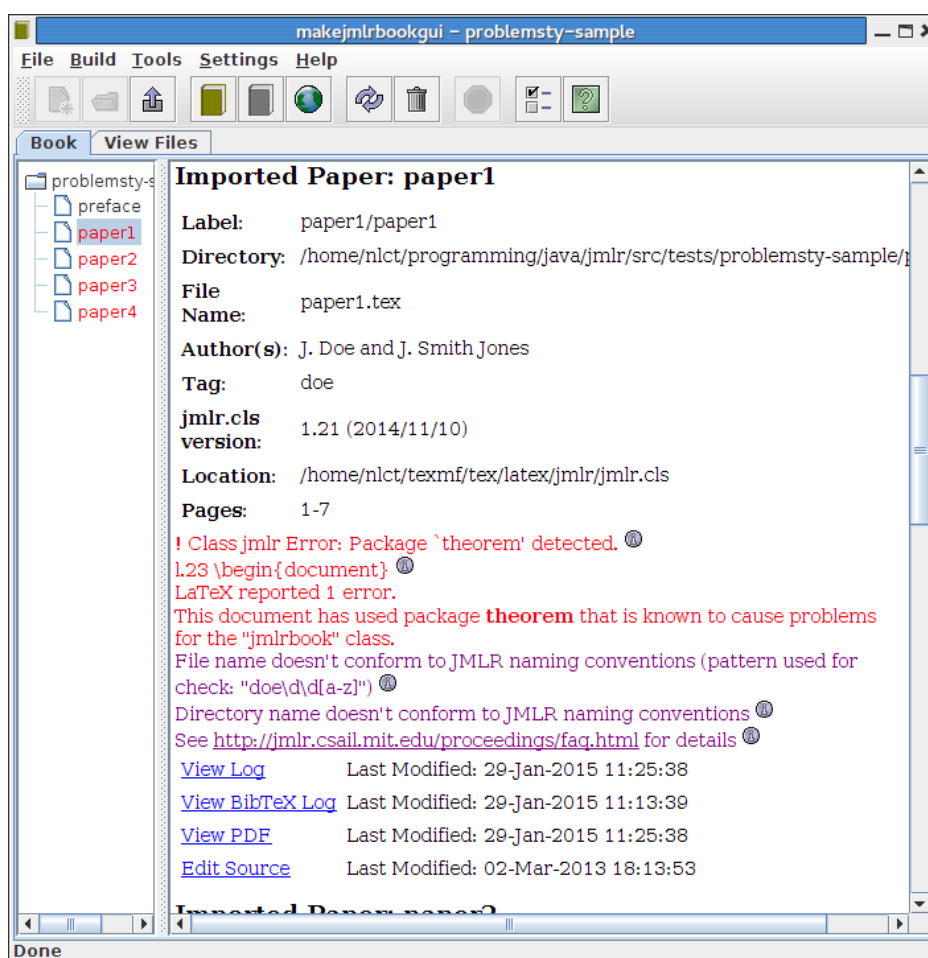


Figure 24: One of the imported papers is using a package that is known to conflict with the jmlr bundle.

4. [Figure 25](#): one of the papers in this book (paper3) is not using the jmlr class. (It's using the article class.) This is the reason for all the obscure



error messages. It's also using obsolete packages (`jmlr2e` and `epsfig`). These problems must all be fixed. This is an issue that is corrected by the new book function.

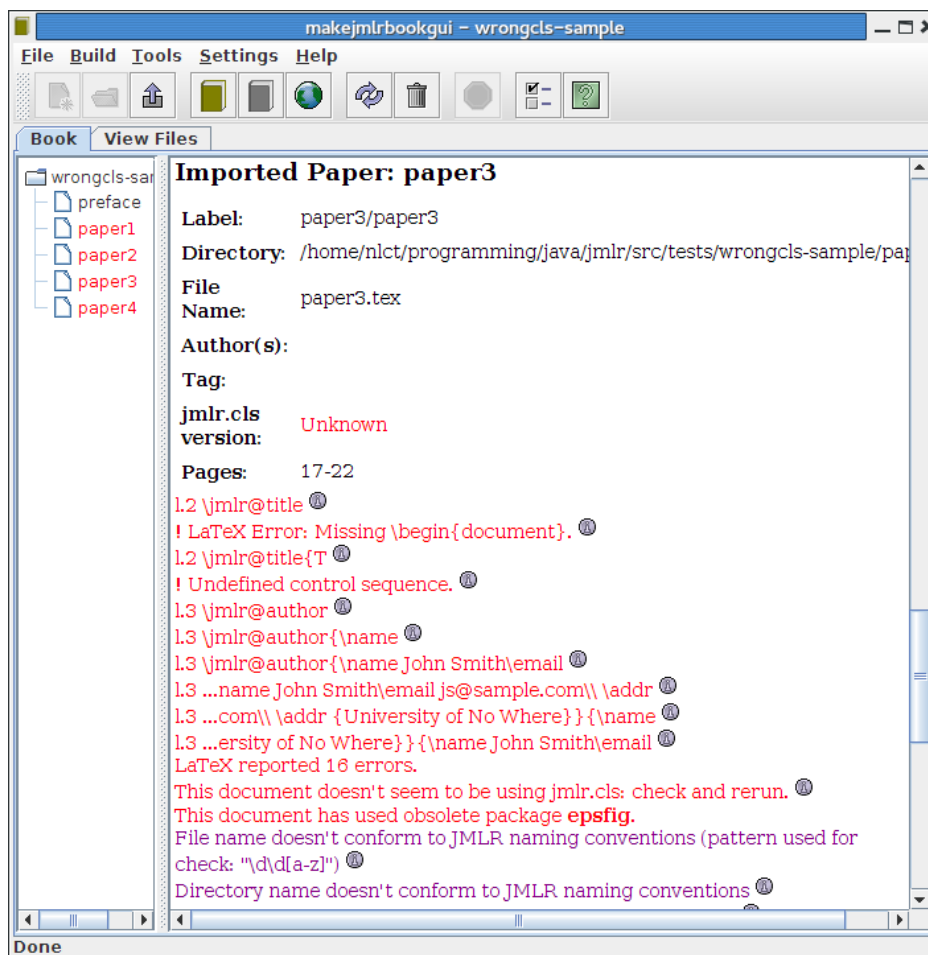


Figure 25: One of the imported papers is not using the `jmlr` class.

5. [Figure 26](#): one of the papers was misspelt in the main book file. Instead of:

```
\importpaper{smith11a}{smith11a}
```

it was written as

```
\importpaper{smith11a}{smoth11a}
```

This error shouldn't occur with the new book function.

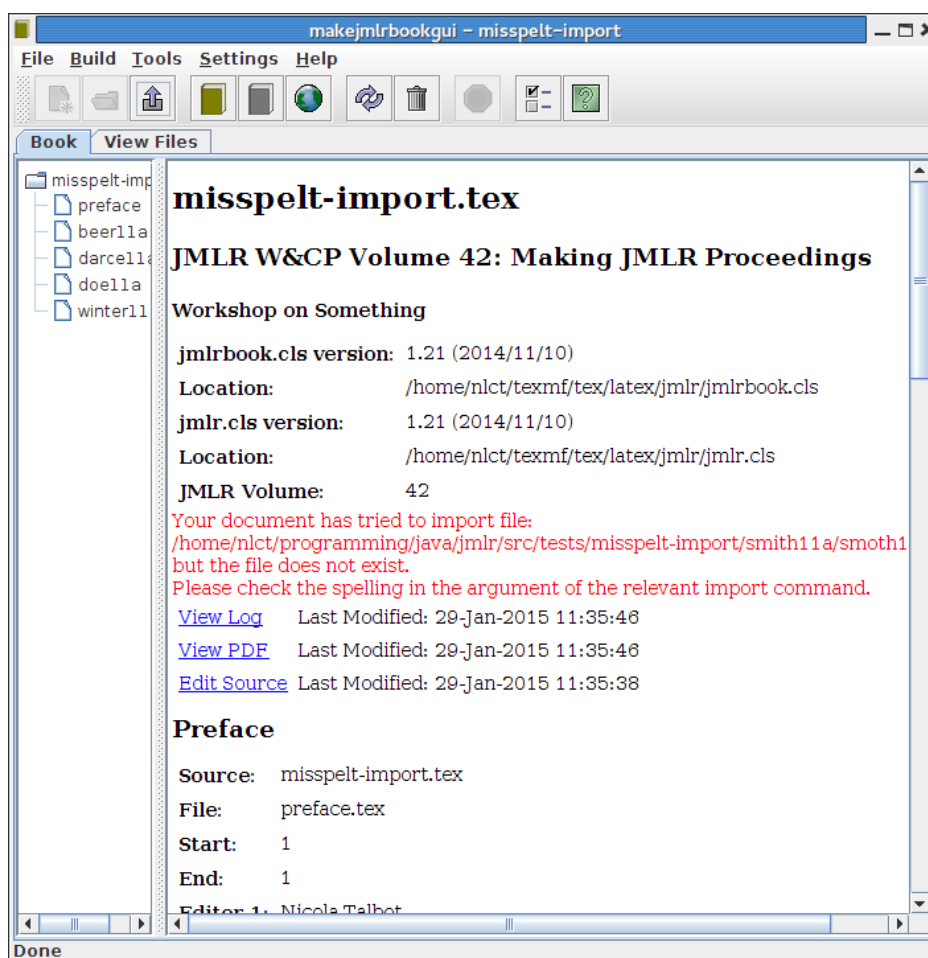


Figure 26: One of the imported papers has been misspelt in the main book file.

6. Imported paper `darcella/darcella.tex` has used `utf8` encoding via:

```
\usepackage[utf8]{inputenc}
```

but the main book document has used `latin1` encoding via:

```
\usepackage[latin1]{inputenc}
```

The imported article has specified the author name using a Unicode diacritic:

```
\title[D'Arcé Article]{An Article by Mary-Jane d'Arcé}
```

```
\author{\Name{Mary-Jane {d'Arcé}}\Email{mjdb@sample.com}\
\addr{University of No Where}}
```

This appears correctly for the standalone article, but in the book the surname appears as `d'Arcé` instead of `d'Arcé`. Imported articles that use the `inputenc` package can switch the encoding using `\inputencoding`. In this example, `darcella/darcella.tex` could have:

```
\usepackage[utf8]{inputenc}
\inputencoding{utf8}
```

however this might corrupt the book's table of contents if the non-ASCII characters appear in the headings or author names (as in this case). See [§7.1 Check Characters Outside the Range 0x20–0x7E](#) to help detect this type of problem.

The new book function tries to detect characters that have a known  $\LaTeX$  equivalent and replace them accordingly, but it doesn't check the `.bib` files which may contain non-ASCII characters.

7. [Figure 27](#): one of the papers (`winter11a`) has loaded `siunitx`, but the main book file hasn't. To correct the problem, add the package to the main book file. Remember that all packages that must be loaded before `hyperref` should be included as follows:

```
\def\jmlrprehyperref{
  \usepackage{siunitx}
  \usepackage{booktabs}
}
\documentclass[wcp]{jmlrbook}
```

This is something that the new book function does automatically, provided the package is installed in your T<sub>E</sub>X distribution.

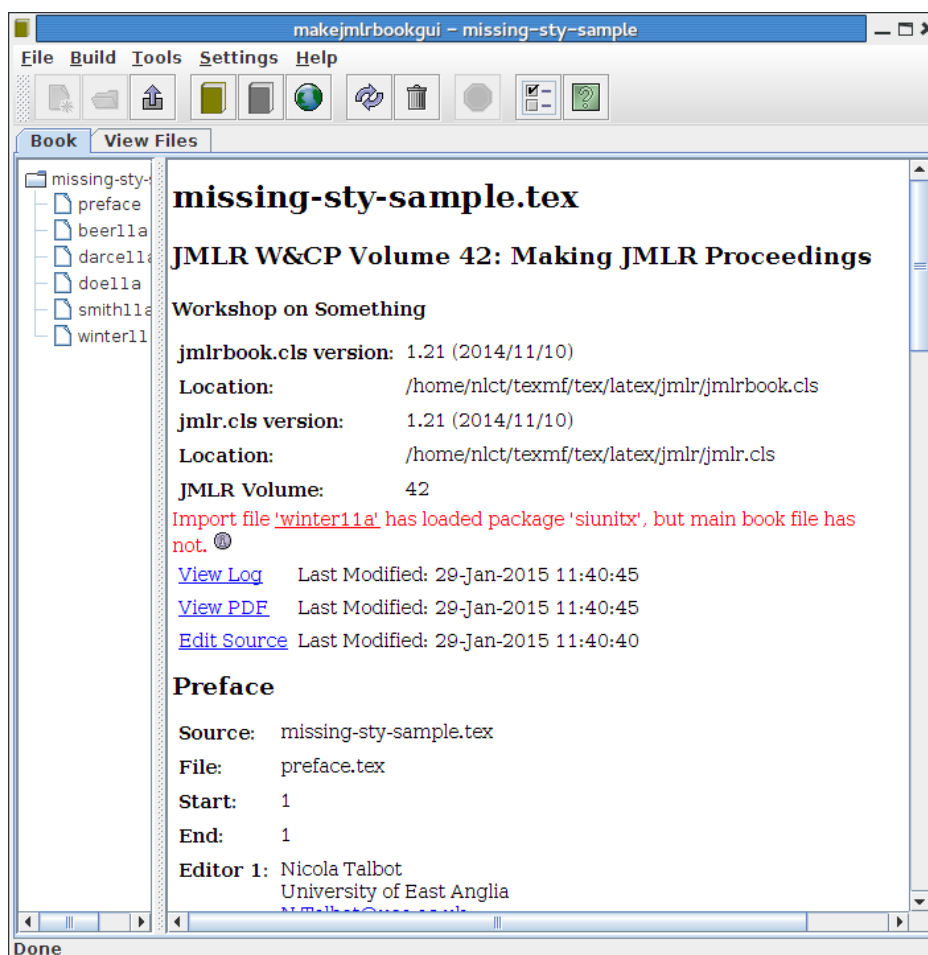


Figure 27: One of the imported papers (winter11a) has loaded a package (siunitx) that has not been loaded by the main book file.

8. [Figure 28](#): one of the imported papers (doe11a) contains a copy of an old version of the xfrac package. This old copy should be removed so that all files use the same version of that package.

The new book function doesn't copy across any packages that the authors may provided with their document source, but instead checks that the packages required are installed in your T<sub>E</sub>X distribution.

9. Suppose you have included articles in your book using `\importpaper` and all the paper ranges in the book pdf seem correct, but when you look at

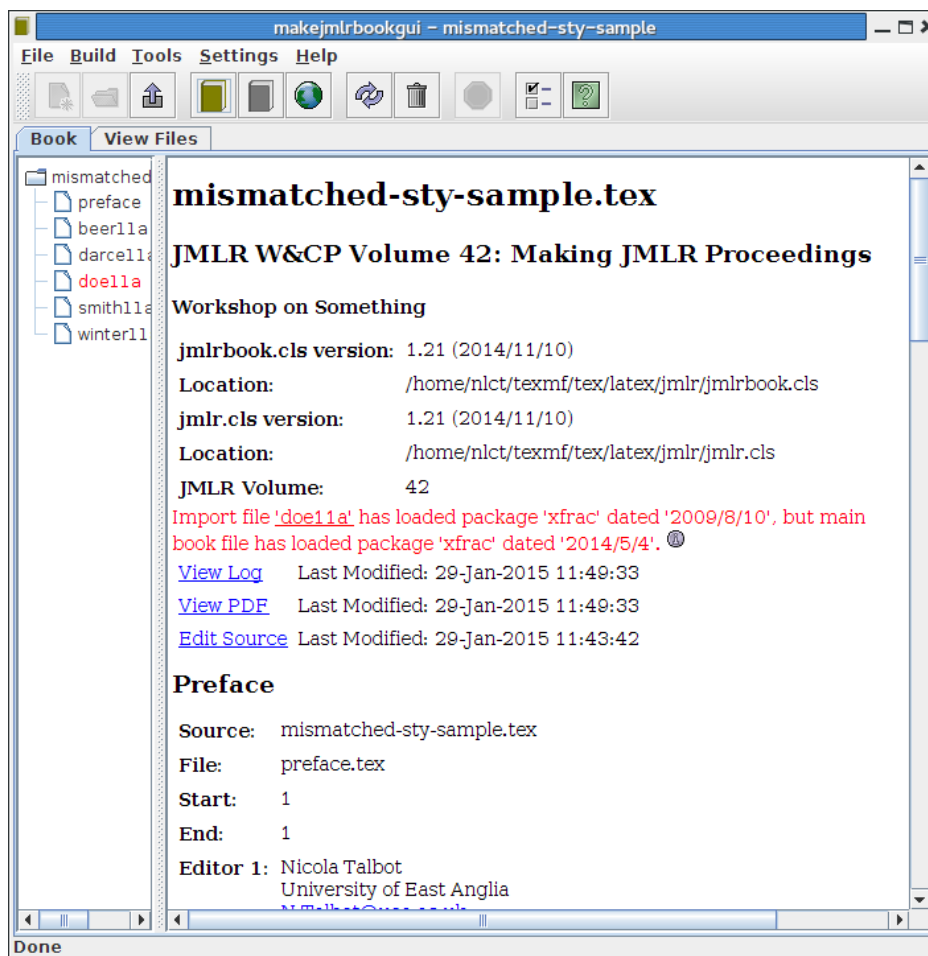


Figure 28: One of the imported papers (doe11a) has loaded a different version of a package loaded by the main book file

the individual article PDFs there is a discrepancy in the page range. Why is this?

Most likely, it's because the article is using a different set of fonts to the book. Perhaps the article is using the default Computer Modern, but the book is using Times, Courier and Helvetica. This change in font size can occasionally be enough to shift the last page. Since it's a bit inconvenient to have to edit every imported article to use the same set of fonts as the book, MakeJmlrBookGUI checks the main book .tex file for the line

```
\input{bookfonts}
```

If found, it will try to include this file when building the standalone articles. (See §6 The Build Menu.)

The new book function creates a file called `bookfonts.tex` with the font packages specified in the setup dialog.

## 9.2 Error Messages

### 1. Message:

```
Exception in thread "main"  
java.lang.UnsupportedClassVersionError:
```

Cause: you are using a version of Java that is too old. You need Java 7, which can be downloaded from <http://www.oracle.com/technetwork/java/javase/downloads/>.

### 2. Message:

```
Process timed-out (process time limit: 300000ms)
```

Cause: a spawned process has been aborted because it has taken too long to complete. The default time-out value is 300000ms (5 minutes). This most-likely means that the process has got stuck, but if you have a very slow machine and a very large book, you may need to increase the time-out threshold using the [-timeout command line switch](#).

### 3. LaTeX Message:

```
! LaTeX Error: Command \c@lenddoca already  
defined. Or name \end... illegal, see p.192 of  
the manual.
```

Cause: conflict between `combine.cls` and `hyperref.sty`. You need to upgrade to at least version 1.16 of `jmlr.cls` and `jmlrbook.cls`.

## **Acronyms**

### **CiML**

Challenges in Machine Learning. [1](#), [5](#), [9](#), [11](#), [13](#), [16](#), [23](#)

### **CTAN**

the Comprehensive TeX Archive Network. [19](#)

### **JMLR**

Journal of Machine Learning Research. [1](#), [5](#), [9](#), [11](#), [13](#), [20](#), [23](#), [24](#)

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