docs.BloomLibrary.org

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Introduction

> **TIP**
>
> This site is a work in progress. Our initial goal is to bring together in one place the various advanced documentation writeups we've done over the years.

The Bloom Platform

Bloom *Editor*, Bloom *Library*, and Bloom *Reader* comprise the Bloom *Platform*.

The Bloom Platform is an integrated approach to book-making which provides a robust and sustainable means for language communities to author, translate, publish, and distribute books for themselves in the language they speak or sign.

Bloom Editor

Bloom Editor is a software program for authoring, translating, and publishing books and sharing those books with your community through Bloom Library. Bloom Editor runs on the Windows and Linux operating systems.

Bloom Editor is designed for ease of use. Bloom is so simple that if you can type and use a mouse, then you can make a book!

But despite its simplicity, in recent years, Bloom Editor has increasingly become a feature-rich desktop editor capable of producing beautiful print and electronic books. And where a simple, printed book is not enough, Bloom Editor makes it easy to add narration, sign language, and audio image descriptions for the visually impaired.

To view all of Bloom Editor’s features, see this page on Bloom Library.

Bloom Library

Bloom Library is a unique website that has more than 11,000 free books in 480+ languages. Books can be read online or downloaded in various formats for offline reading. The library interacts directly with the Bloom Editor for uploading and downloading books. The library also works with the free Bloom Reader Android app.

Key to Bloom's success is the generosity of local authors and organizations who freely share their openly-licensed books with the world, so others, in turn, can benefit from these materials and translate them into their languages.

Uploaded books are displayed using a "book card". The book card shows a thumbnail image of the book's front cover. Below that is a colored banner and 1-4 black dots to indicate one of four reading levels recognized by Bloom:

1. First words and phrases
2. First sentences
3. First paragraphs
4. Longer paragraphs

Special book features and the list of languages represented in the book are also indicated on the book card.

Bloom Reader

Bloom Reader is a free Android app that allows readers with Android devices to enjoy Bloom books offline. Books published to Bloom Reader can include all of Bloom Editor's advanced features: edge-to-edge images, synchronized audio narration, language switching (for books published with multiple languages), sign language video, audio image descriptions, and page navigation.

To get books onto a device that has Bloom Reader installed, users can either download from Bloom Library, transfer books directly from the Bloom Editor to their devices, or share from one device to another.

Organizations interested in mass distribution of Bloom books to a people group can transfer books onto SD-cards.

Bloom Enterprise

Bloom Enterprise is a special service for organizations that need additional program and publishing features. For more information about Bloom Enterprise, see Bloom Enterprise Service Overview.

Installing Bloom

Bloom Editor is a program that runs on your computer. Before you can use Bloom, you need to install it on your computer. There are some additional programs that you should install, too, to use the Bloom image gallery.

System requirements

Hardware

Bloom is designed to run on fairly modest hardware. Your computer should have at least the following to run Bloom:

- 1.5 Ghz processor
- 4 GB memory (RAM)
- 2 GB available hard disk space

Operating system

Bloom is primarily a program for the Microsoft Windows operating system. To run Bloom, you need **Windows 8.1**, **Windows 10**, or **Windows 11**.

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Bloom can also run on computers that use Ubuntu Linux. Bloom comes pre-installed in Wasta-Linux, SIL's Linux distro. If you are using Ubuntu Jammy (22.04)+, you can download the latest version of Bloom as a Flatpak here: https://flathub.org/apps/details/org.sil.Bloom,

For Ubuntu Bionic (18.04) and Focal (20.04), Bloom is distributed as apt packages from SIL's package repository. See https://bloomlibrary.org/page/create/linux for installation instructions.

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You can use older versions of Bloom with Windows XP and Windows Vista, but this is not recommended. If you must use these unsupported operating systems, you can download the required versions of Bloom from the Bloom Library downloads page.

:::

Fonts and keyboards

Bloom assumes that you have a way to type your language on your computer. That will often involve using a certain font. SIL offers a free, high-quality fonts for many scripts on its website at https://software.sil.org/fonts/.

You may also need a special **keyboard layout** to let you type the characters in your language. **Keyman** is a free program from SIL that has many keyboard layouts. You can get Keyman from https://keyman.com.

If you need help to find a font or keyboard for your language, try looking on SIL's ScriptSource site.

Downloading Bloom

You can download Bloom installation program from the Bloom Library at https://bloomlibrary.org/page/create/downloads. Click the **Download** button at the top of the page to download the latest release version for Microsoft Windows.

Installing Bloom

Double-click the installer program to install Bloom on your computer. While the installer is working, it will display this window.

After the installer has finished, it will show you a license agreement. Click **I agree to the terms of the license agreement.**

When you launch Bloom the first time, Bloom will ask you to create a **collection**. You may do so at this point, or you can create your initial collection later.

For more details on how to create a collection, see **Creating a new collection**.

Installing *The Art of Reading*

The Art of Reading is an collection of black and white line drawings from SIL International that you may use without cost.

To download *The Art of Reading,* click on **The Art of Reading illustration collection** link under "Related Software" on the Bloom installers page. That link will take you to the Art of Reading web page. Click on the link there that says, **Download Art of Reading version 3.3 installer**. The installer will download to your computer.

Next, Double-click *The Art of Reading* installer to install the image library. The installer program will take you through a series of screens where you will accept the license

agreement, find out more information about the collection, and, finally, click the "Install" button.

There is no icon or desktop shortcut for *the Art of Reading.* It will be available the next time that you run Bloom.

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If you are using Bloom for Linux, see https://bloomlibrary.org/page/create/art-of-reading for instructions on installing *The Art of Reading* from the SIL package repository.

:::

Troubleshooting

If Bloom does not install properly, try temporarily disabling your computer's anti-virus software. Then try to install Bloom again. It will probably install correctly this time.

> ⚠ **CAUTION**
>
> Be sure to re-enable the anti-virus software after you have installed Bloom!

If this does not work, ask an IT expert to help you. You may find other ideas to help at: https://community.software.sil.org/t/how-to-fix-installation-problems/17

How to Report a Problem with Bloom

If you come across a software problem when using Bloom, our team wants to know about the problem so we can find a solution for you.

There are four steps to this process:

1. Initiate your error report
2. Report the Problem
3. Check for an email receipt
4. Follow-up with Correspondence

Initiate your error report

To start the process, you must:

1. **Select the book which shows the problem. You might be editing the book, or publishing the book.**
2. **Click the ? in the top right corner.**
3. **Click Report a Problem**.**

Report the Problem

Following this, the **Report a Problem** dialogue will appear.

1. **Describe the problem in as much detail as you can.** For example, which page(s) of your book exhibit(s) the problem?
2. **Tell us if the problem happened only once, or if it keeps happening.**
3. **Ensure your email is entered and is correct.** (Hint: if you registered in Bloom, your email will appear automatically.)
4. **Ensure these boxes are ticked.**
5. **Click Submit**.**

Depending on the speed of your internet, and the size of your book, it may take some time to send your book to Bloom’s error-reporting system.

Eventually, you will see a message like this:

You can close the message.

Check for an email receipt

If you open your email program, you should see a message confirming that your error report was received by the Bloom team. The message will look something like this:

If you do *not* receive an email, there are two possible causes:

- You made a mistake in your email address
- The email was flagged as SPAM.

Follow-up with Bloom team

Through this email thread, the Bloom team will send responses to you about the status of their investigations. Sometimes, they will ask additional questions.

Please note that it is your responsibility to respond to requests from the Bloom team when asked. If the Bloom team does not receive a response from you when asked, the issue will be eventually be closed.

Creating Accessible Books

Creating Accessible Books in Bloom

Accessible books are electronic books that have features to make their content more readily accessible or available to people with visual disabilities. Such features include audio recording of the text, descriptions of images, and text size that can be changed by the person reading the book. Bloom can help you create books with these features and that meet technical accessibility standards.

What to expect in this module

In this training module, you will learn how to:

1. Create image descriptions,
2. Record audio of the text in the book and in image descriptions,
3. Evaluate whether images need adjustment for visual impairment, and
4. Choose images that are going to be easier to perceive

Activating the Image Description Tool

In order to access the Image Description Tool, click on the menu icon at the top right of the screen.

The toolbar will open. If the Image Description Tool is not listed at the top, click on the “More…” button at the bottom of the toolbar.

Then activate the **Image Description Tool** by clicking in the check box.

Create Image Descriptions

Now that the Image Description Tool is open, a space will be created next to the image for adding a text description. You may now type in the text which describes the image. If you are not familiar with how to write image descriptions, you may want to visit: poet.diagramcenter.org.

Once you are satisfied with the image description, you can close the Image Description Tool by clicking on the X above the Image Description Tool window.

> **NOTE**
>
> If you are using the Overlay Tool to make comic books, Bloom allows you to have a background image. You can describe that image just like any other. However, the Overlay Tool also lets you drag images on top of the background, and Bloom does not currently allow you to add image descriptions to these draggable images. Instead, you will need to describe whatever the user needs to know about the scene based on your description of the background image.

Recording Audio of Text and Image Descriptions

Learning to Use Bloom tells how to record audio of the text in a book. Those instructions start on page 149. The process is the same for recording the audio of image description text. To make a book accessible, you need to record all of the text as well as all of the

image descriptions. Here we will show you how to record the image descriptions. Begin by switching the active tool from the Image Description Tool to the Talking Book Tool.

If needed, use the Next and Back button to change from one text box to another. If you are recording by sentence, The Next and Back buttons will move one sentence at a time.

Recording by Sentence or by Text Box

Bloom allows you to record one sentence at a time, or to record the whole text box at one time. Some speakers find that recording the entire text box all at once will give a better recording. Others find it better to record one sentence at a time.

You can experiment with both approaches to determine which is best for your needs.

Some Bloom users like to record themselves using other audio equipment than the microphone in their computer. They then transfer these audio files to their computer and import them into Bloom. This imported audio must correspond to an entire text box.

Recording Image Descriptions by Text Box

> **TIP**
> This section will assume you are recording your audio on your computer with the Advanced setting, “Record by whole text box”.

Read aloud the highlighted text several times until you are familiar with the text.

When you are ready to record, click on and hold down the **Speak** button and start reading the highlighted text. While you are recording, the button will turn yellow.

—

When you are finished reading, release the **Speak** button and Bloom will stop recording. Now, click the Check button to review your recording.

Activating the Impairment Visualizer

The Impairment Visualizer is another tool for creating accessible books. This tool allows you to select several filters that will show you what the image might look like to someone with several different kinds of visual impairment.

Activate this tool by clicking on More... in the Tool Panel and selecting Impairment Visualizer.

Using this tool, you can evaluate whether an image should be modified so that it is easier to interpret for people with these sorts of visual impairments.

Bloom does not have a tool for editing images. If an image needs to be edited, you will have to use another program to do that.

Using the Image Visualizer

The first choice shows what the image might look like to someone with cataracts.

For color blindness, there are three possibilities. The first shows what the image might look like to someone with red-green color blindness.

The second option shows what the image might look like to someone with blue-yellow color blindness.

The third option shows what the image might look like to someone with complete color blindness.

General considerations for choosing images

Choosing images that are appropriate for readers with low vision is a complex subject, but we can consider some general principles.

- In general, simple images are preferable.
- Graphics should be relatively large to make them easier to see.
- It is helpful for objects and key features to have a black outline.
- Black and white line drawings (such as come with the Art of Reading) serve well, but even then some have more details than others.
- If color is used, they should be colors that contrast well with one another.
- In line drawings, the lines should be thick and solid black. Use black and white images rather than grayscale.
- Photographs often have many details that can be hard to distinguish. Only use them if they are simple and not too detailed.

Now we will compare some images to provide some examples of these principles.

Considerations for choosing images: Amount of detail

Here are some examples of images with more detail compared with images with less detail. All of these images are from the Art of Reading. It will be better to use the images with less detail.

For example, the Images with less detail on the left, rather than the images with more detail on the right:

Here are some additional examples of images with less detail on the left and more detail on the right:

Considerations for choosing images: Thick black lines

These images from the Art of Reading illustrate images that have thick, solid black lines compared to images with thinner, less distinct lines. It will be better to use images with thick, solid lines.

The images on the left have thicker, solid lines, and the images on the right have thinner, less distinct lines.

Here are some additional examples of images with thicker, solid lines on the left and thinner, less distinct lines on the right.

Considerations for choosing images: Color and photos

We all like photos and color illustrations, but they are visually more complex. Below you can compare line drawings to a photo or a color illustration or a simpler color illustration to a more complex one. It will generally be better to use simpler images.

The images on the left are simpler, while the ones on the right are more complex.

Additional examples of simpler images on the left and more complex images on the right:

Summary

In this training module, you learned how to:

1. Gain access to accessible book tools in Bloom,
2. Create image descriptions,
3. Record audio of the text in the book and in image descriptions,
4. Evaluate whether images need adjustment for visual impairment, and
5. Choose images that are going to be easier to perceive.

Permission to Publish

https://www.theedublogger.com/copyright-fair-use-and-creative-commons/

Is Bloom right for my project?

Bloom is an excellent tool for creating books, but Bloom is not the right tool for every situation.

When using Bloom is a good choice

Bloom is a good tool to use under the following circumstances:

- The people writing books have limited computer skills.
- The books people want to create are relatively simple in design.
- People want to adapt existing books to new languages and cultures.
- People want to create decodable and leveled books.
- People want to create “talking books” with a synchronized audio recording of the text.
- People want to create sign language books or books for the visually impaired.
- You want to provide writers with reader templates to help them write books that meet certain specifications.

When Bloom may not be a good choice

Bloom is not good for every purpose. Here are a number of needs that Bloom does not accommodate:

- Text does not flow from one page to the next. Rather, Bloom is page-oriented. If authors have more text than will fit on one page, they must stop typing, insert a new page with a text box, and start typing again.
- There are limitations to Bloom's page layout capability: for example, you cannot create a page where text wraps around a picture. You cannot easily create tables with rows and columns. If authors need complex page layouts, Bloom may not be the right tool.
- There are limitations to Bloom's text formatting capabilities: for example, bulleted and numbered lists are not possible.

Other limitations of Bloom

- Bloom does not have built-in tools for editing images, audio, or video. Bloom lets you crop an image, but cannot make any other changes to it.
- Bloom only knows four types of content: text, pictures, audio, and video. Bloom books cannot include any other sort of content.

When you may need Bloom Enterprise

Bloom Enterprise is a set of publishing tools for institutional users. Bloom Enterprise subscribers have the following additional tools available to them:

- HTML5 widgets, for interactive pages
- Quiz pages, for testing readers’ comprehension
- The Overlay Tool, for creating more complex layouts and comic books
- Team Collections, to allow multiple team members to work together on books
- Custom branding and book designs
- A dedicated collection on the Bloom Library website

To learn more about Bloom Enterprise, see Bloom Enterprise Service Overview.

Two Different Approaches to Publishing Books in Multiple Languages

Several organizations like to publish their books to the Bloom Library in *multiple languages*. We encourage this, but also want to outline two different workflows or approaches and discuss the resulting ramifications of using each approach.

Method 1

Publish one single book to Bloom Library which contains multiple embedded languages for your original title

Advantages:

- There is only one book folder on your computer to manage for each original book title.
- When published to Bloom Library, your book will automatically become visible in all of the embedded languages.
- It is easy to “tweak” your book and republish it just once, and for that to immediately affect *all* versions of your book in the various languages on Bloom Library.
- The Bloom Reader version of your book (online or offline) can be viewed in any of the published languages and switched using the built-in language chooser.

Disadvantages:

- The online PDF of the book will only be available in a single language.
- The exact same structure of the book – sizing of images and number of pages – must suit all of the languages.

> **TIP**
>
> Regarding the “tweaking” mentioned above, if your book is not yet ready to show to the entire world, mark the book as a draft.

Legitimate “tweaking” of an already published Bloom book might include things like *adding* or improving the audio narration, or perhaps adding a forgotten book acknowledgment, or some other minor change.

Method 2

Publish one source language book, and then create derivative copies of the book in other languages

Advantages:

- An online PDF will be available for *each* language.
- The structure of the book – sizing of images and number pages – can be adjusted to suit each individual language.

Disadvantages:

- You cannot easily “tweak” all versions by republishing once since there are multiple copies of the book which each need to be corrected.

Now that you understand the advantages and disadvantages of these two methods, let’s talk about how your workflow would differ for each method.

Workflow for Method 1

For this method, you will create just *one* Bloom collection on your computer which will serve as a “master” collection and it will hold *all* of your books in *all* the languages you desire. When you wish to Edit a book in a different language, you will simply switch languages in your collection’s Language Settings. Bloom will then reboot and open your collection in the new language.

Repeat this process until you have completed adding all the languages you desire for a given book.

Once you are ready to publish your book, set your language setting back to the language you want the book’s PDF available in.

Click Publish, then Web. Under Upload Text, select the check boxes for each language you want to become available for your book and be sure to select Narration if you want your audio to become available.

If, at a later date, you need to update your book for any reason, you will need to upload the book again. When you do so, Bloom will present a screen showing the book already in Bloom Library compared with the one you are uploading. If the thumbnail and title match, then click on “Yes, this is an update of my book”.

Workflow for Method 2

In Bloom, create a separate Bloom collection for *each* language your organization is working with.

Then, for each new book you author, you will need to decide which language will be considered the “source” or the “original” language for the book in question. That language choice need not be the same for each book, but if you think you will sometimes be using (say) English as the “original” language for one title, and (say) “French” for some other title, then you will need some system to keep track of where your original book is located, otherwise, you may run into some confusion should you need to revise your book at a later date.

Once you’ve decided the language choice for your new book, open the corresponding language collection and create a new book in that collection. When completed, upload your book to the Bloom Library.

Versions of that book in other languages can then be done by you (or someone else in your organization) by downloading that book from the Bloom Library into the appropriate language collection and translating it. This book is called a “derivative” and Bloom assigns this “derivative” a unique book ID, different from the original book. So, when this “derivative” is uploaded to the Bloom Library for the first time, it will not replace the original – it will stand on its own.

Effective use of Styles

There are a number of simple “best practices” to follow to ensure your Bloom publications will display *optimally* on a variety of devices with Bloom Reader (or ePUB), or on Bloom Library.

When a user does not follow these best practices, the resulting book will be less flexible and less adaptable to changes in font settings and various publishing options.

Another way of saying this is that books which don’t follow best practices will be more “fragile” and more prone to “break” if you make a change in font settings or publishing format.

There are two bad habits that violate best practices:

- Using spaces to center or indent text.
- Formatting entire text boxes using *character* formatting instead of using the text box style.

Using Spaces to Center or Indent Text

Often users need to center text or indent the first line of a paragraph. Bloom provides a way to do this, but new users sometimes miss this and attempt to center or indent text using spaces.

The trouble with this approach is that doing any of the following will cause the text to no longer be centered:

- Changing the text in any way (adding a word, deleting a word, etc.)
- Changing the font size
- Change the font to a different font

For example, increasing the font size results in the text shifting to the right making it no longer fit on one line:

Likewise, changing the paper size will break the perfect centeredness of the text.

Also, if you upload your book to Bloom Library and then later someone downloads the book in order to translate it into their language, the translation bubble will retain those spaces:

This could be confusing for people.

> **TIP**
> Conclusion: Do not use spaces to center text or to indent text. Instead, use a centered text box style, or an indented paragraph style.

Formatting the entire text box using *character* formatting instead of using a style

Bloom allows you to select certain words in a text box and make them bold, italic etc.. This is useful for highlighting particular words, e.g.:

But if want an entire text box to be (say) Bold, you should set that formatting using the text box style, e.g.:

> **TIP**
>
> Key principle: use character formatting to highlight particular words or phrases in a text box, and use text box Styles to format an entire text box.

If you need a new Style for a text box, Bloom provides a simple way to create one:

Accurate Language Tagging

> **TIP**
>
> Key principle: the actual text typed in any text box needs to accurately correspond with the language tag associated with it.

When you are editing a book in Bloom Editor, Bloom indicates the language which should go in each text box using a light grey “language tag” located in the bottom right of each text box:

When you are making books in Bloom, it is *very* important that these language tags *accurately* correspond to the actual language written contained within each text box.

If you are simply printing your book, then having inaccurate language tagging will not negatively affect yourself or anyone else.

However, if you want your book to participate in Bloom's "ecosystem", i.e. the Bloom Platform, then accurate language tagging is absolutely crucial so that books on Bloom Library can be found in the correct language category:

In addition, if someone downloads the book to translate it into another language, the language displayed in the "translation bubble" is also accurate:

Typically, this won't be a problem since whatever language you specified as your main language will also be the same one used for any text box your add to your book.

Where the need does arise to pay attention to accurate language tagging is you are making a bilingual or trilingual book. Now, typically, when you specify you want to show

two or three languages in your book, Bloom will show the 2 or 3 languages *stacked* one upon each other like this example:

But you may wish to deviate from the above “stacked” orientation for your bilingual (or trilingual) book. For example, you might want a layout that has one language on the left, and another on the right:

To achieve this specialized layout like the above, you will (1) slide the Change Layout slider across, (2) click on the gear icon of the text box, and (3) choose the desired language:

Image Credits

Please ensure that you have accurately filled out the copyright and licensing information for all images in your book.

For ideas on options for illustrations, please refer to this important article.

Issues around derivative books

There are only three approved ways to make a book in Bloom.

1. Make a brand new book from a book template, such as the Basic Book template.
2. Make a book using an existing book in Sources for new books, typically, to translate it into another language.
3. Duplicate an existing book.

Book IDs

When you make a book using any of the above Bloom-approved methods for making books, the Bloom Editor will generate a unique number and assign that number to your book. This “book ID” is unique and it will follow that book *wherever* that book “lives” even when it is uploaded to the Bloom Library.

Consequences of using Windows Explorer to make a new book

If you use Windows Explorer to make a new book by copying a book folder from one collection into another collection, then the two books will have the *same* ID. This could cause confusion later on.

The problem will surface when you upload the two books sharing the same ID to Bloom Library, Bloom will then present you with an opportunity to correct this problem and assign a new ID to your copied book.

You will see a dialogue like this:

In this example, based on the two *different* thumbnail images and the *different* titles of these two books, we can safely determine that they are indeed different books. So, we select the second option, “No, these are different books”. In other cases, however, it may not be so obvious that they are different books.

To avoid this problem, here is the key point to remember:

> **TIP**
>
> To ensure that all of your Bloom books receive a unique book ID, it is important to *only* use the Bloom Editor – not Windows Explorer – to create a book, duplicate a book, or make a derivative.

Publishing Draft Versions of Books

One very powerful feature of Bloom is its ability to harness the generosity of its global user-community – book-creators from all over the world – who allow their original works to be freely translated into other languages. And so, a user in (say) India, can create a beautiful book using Bloom, upload it to the Bloom Library, and make it available to the entire world to freely adapt and translate into other languages.

It’s wonderful.

However, this powerful feature comes with an important caution because once people start downloading and making adaptations of your books, any mistakes or glitches in your original book will be *propagated* to those adaptations.

For this reason, *before* publishing original works to the Bloom Library, you should ensure that everything in the book is absolutely perfect: spelling, formatting, logos, copyright, licensing, credits, acknowledgments, audio, etc.

If your book is *not* yet ready to show to the entire world, but you need some way to share the book with others for review, you may consider uploading it to Bloom Library, and marking the book as a draft:

HTML5 Widgets

Bloom pages can embed little custom HTML5 activities called “widgets”. When published as a bloompub, these widgets will work on the web, Bloom Reader, and RAB Apps. You can see examples of widgets in these interactive books in the Bloom Library.

Many of these widgets already exist on the web, because they work with Apple's iBooks and other software. You can also make your own using programs like Active Presenter. Most widgets don’t have any custom programming, but if software like Active Presenter is not sufficient for what you need, you can hire a web developer to do something even more advanced.

Format

Bloom can import any of the following widget formats

- a zipped set of files ending in ".wdgt". which contains a file named "index.html", or, if the .wdgt file is not zipped, you can import the index.html file.
- the main .html file from a saved Active Presenter output.

Adding to Bloom

To add a widget, Click “Add Page” and then select one of the template pages. These have an image of a puzzle piece:

Then click on the button in the corner of the widget:

In the file chooser dialog, you can either choose a .wdgt file, an .htm file, or an .html file. A “.wdgt” file is just a zip file containing all the files of the widget. If you instead choose an HTML file, Bloom will gather up and import all of the files in that same folder.

Captive Widgets

Normally, when Bloom Player shows a widget, it also shows page navigation buttons:

If you want to hide these navigation buttons, follow these steps:

1: Use the special page template

In Bloom (version 5.1 or later) when you choose “Add Page”, you should see a “Captive Widget” page:

Bloom Player will not give the user any way to navigate away from this page except by leaving the book entirely. It will be up to your widget to tell Bloom Player when you want the user to leave this page and go forward or backward in the book.

2: Send navigation messages

To tell Bloom Player to navigate, you will need to add some javascript to a button:

```
window.parent.postMessage('{"messageType":"control",
"controlAction":"navigate-to-previous-page"}',"*");
```

or

```
window.parent.postMessage('{"messageType":"control",
"controlAction":"navigate-to-next-page"}',"*");
```

About Bloom Enterprise

Bloom Enterprise is a subscription service that provides additional features and tools for organizations and projects. By subscribing to this service, organizations and projects can meet some of their unique needs while also supporting the development of Bloom, which helps everybody.

Bloom Enterprise subscribers have access to the following features and tools:

- Enterprise book features
  - Branding and custom page layouts
  - Overlay Tool
  - Activity pages
  - HTML5 widgets
- Enterprise editing tools
  - Team Collections
  - Spreadsheet export/import
- Enterprise publishing tools
  - Bloom Library Collections
  - Uploading collections to Bloom Library
  - Convenient creation of multiple BloomPUBs
- Analytics
- How to subscribe

Enterprise book features

Enterprise customers gain access to additional Bloom Desktop Editor features:

Branding and custom page layouts

Bloom can automatically display your logo(s) on the cover, title page, or back cover of your books. Enterprise customers can also specify the copyright and license that each book will contain. For further details on Bloom branding, see What Bloom Branding can do.

> **NOTE**
>
> Bloom Enterprise customers may also request custom covers and front-matter pages at an additional charge, based on the amount of work such customization requires.

Overlay Tool

The **Overlay Tool** allows the user to place text, images, or video over a partial or full-page image. This allows more complex page layouts, including Digital and Paper Comic Book Templates.

Activity pages

Bloom supports two kinds of **activity pages** in digital books: Comprehension Questions and Simple Choice Activities.’

Comprehension questions let you design multiple-choice questions for readers to answer. These activities enhance the reading experience, and Bloom’s analytics system can capture whether readers answer the questions correctly or incorrectly. Such information can provide valuable data for an organization or project’s monitoring and evaluation efforts.

Simple Choice Activities come in two varieties: **Choose Word from Picture** and **Choose Picture from Word.**

HTML5 widgets

HTML5 widgets are JavaScript apps that are programmed outside of Bloom and can be embedded in Bloom book pages. These widgets open up many options for making books interactive.

To view just one example of a Bloom book with a widget, click on the READ button below and go to page 9:

embed

Editing tools

Team Collections

Team Collections enable a team to collaborate on a single collection of books. Team members check books in and out as they work on them, and use the Dropbox file-sharing service to synchronize files between their computers.

Spreadsheet export/import

Spreadsheet export/import allows you to export the contents of a Bloom book to a specially formatted Excel spreadsheet, and import the content back into a Bloom book. While there are some limitations on what can be exported and imported, this can be a convenient way to add translations into one or more new languages to a Bloom book.

Publishing features

Bloom Library Collections

Enterprise customers can request a dedicated page on bloomlibrary.org that features their books. The page can also feature a logo, a short blurb about the project or organization, and a link for more information. Bloom Library pages can also be embedded on your own website.

Uploading collections to Bloom Library

Bloom Enterprise users can upload all the books in a collection—or even several collections of books—to Bloom Library in one step.

Convenient creation of multiple BloomPUBs

Bloom Reader is a free Android app that allows readers with Android devices to enjoy Bloom books offline. Bloom Reader uses a special BloomPUB file format that supports all Bloom’s features, including audio and video playback. Bloom Enterprise subscribers can create BloomPUB files for all books in a collection in one step.

Analytics

Bloomlibrary.org collects anonymized analytics data from books read online, in Bloom Reader, or in other apps that use Bloom books. Enterprise customers can monitor the usage of their books through this dashboard, including reading activity, location data, and responses to comprehension questions.

For an additional charge, customers can also be given access to the SQL database of analytic events for their collection for more detailed analysis or presentation.

How to subscribe

To learn more about Bloom Enterprise, or to subscribe, contact us.

> **NOTE**
>
> SIL International staff should read about Bloom Enterprise on Gateway.

What Bloom Branding can do

A typical Bloom book has prebuilt **content slots** in the front and back matter. A custom **branding pack** can fill these slots with text or graphics to create a consistent branding across a collection of books.

Standard branding slots include the following:

- Front cover top
- Front cover bottom
- Credits page top
- Credits page bottom
- Title page bottom
- Outside back cover top
- Outside back cover bottom

In addition, a branding pack can declare:

- Default copyright notice
- Default license notice
- Default license notes

Creating a custom branding pack is a paid service. If you think you need a custom Xmatter pack, contact the Bloom team at info@bloomlibrary.org.

> **NOTE**
> You can do a lot with a custom branding pack, there are limits: see What Bloom branding cannot do below.

Branding pack samples

Here are some examples of front and back matter pages that have been customized using a custom branding pack

Cover Page

Title Page

The Moon and the Cap

Written by Noni Illustrations by Angie and Upesh

Tangshang Naga

SIL TM
Papua New Guinea

Title Page Bottom

Credits Page Top

Credit Page default license & license notes

(from Suluh-INOVASI)

(from GRN-REACH)

Credits Page Bottom

Back Cover Top

Back Cover Bottom

(Suluh-INOVAS)

What Bloom branding cannot do

Making a branding pack in Bloom is like decorating a house: it’s easy, but there are limits. In contrast, making a custom **Front/Back Matter pack** is like moving walls or adding on new rooms. With a custom front/back matter pack (called an **Xmatter pac**k), you can add

new front and back matter pages and new branding slots. Custom Xmatter packs must be created by a Bloom developer.

Creating custom Xmatter packs is a paid service. If you think you need a custom Xmatter pack, contact the Bloom team at info@bloomlibrary.org.

Bloom Analytics For Publishers

BloomLibrary.org Stats pages

Bloom Enterprise subscribers get a URL that gives them analytics on the reach of the books in their collection, updated once a day.

There are various reports:

Each report comes with buttons to get an image or a spreadsheet file of that data:

Advanced low level access to analytics data

We can also supply the raw data to your project through access to our SQL database. You can use this with your own custom dashboards.

See Available SQL Fields

Example dashboards using this data: PNG RISE, PNG Western Province E-Learning

Events that we measure

All Bloom Player contexts (Bloom Library, Bloom Reader, BloomPub Viewer, RAB apps)

- Pages read
- Was the last (numbered) page in the book read?
  - This is some indication that the entire book was read. Note: it is possible to just flip past pages, or to move randomly through the book. So it wouldn't be hard to cheat this system.
- Time spent
- Comprehension Quizzes
  - including how many questions were present and how many answered correctly.
- Duration of audio and video playback
- Book branding
- Bloom Library
- Downloads
- Bloom Reader Specific events
- Installations

No events at this time:

- Shared book
- Shared bookshelf
- Shared APK
- Share Link to app on Play Store
- EPUB

User Information that we collect

Web

- IP address (--> city / country?)

Bloom Reader only:

- Named device ids
- ANALYTICS_DEVICE_PROJECT
- ANALYTICS_DEVICE_ID
- Location
- Latitude, longitude, locationSource, locationAccuracy, locationAgeDays

  We record the locations available from each of the standard providers (network, gps, and passive) explicitly. But for the standard location for this report, we mainly want the most recent location we can get; precision is not very important.

```
However, we know from experience that in poor countries, IP address doesn't
give us reliable location, and we expect that wifi and other networks will
be similarly unreliable as means of location. So if we have a reasonably
recent high-precision location we will take that in preference to a lower-
precision one that may be even more current. (Elsewhere we request one
location per hour from GPS, if available, to ensure that the "last known
location" for the gps provider will be reasonably recent.)
```

- Districtution Source
- Hardware info
- Android version?

Difficulties getting analytics

- Getting analytics from devices that are normally offline
- No internet
- Effect of blocking cookies?
- Firewalls

- No events on EPUB
- Privacy Issues
- No emails
- IP addresses?
- Cookies
- GPS resolution
- GPS opt in/out
- Device hardware IDs
- Named Device IDs

Analytics Fields

> View field documentation

Internet Connection Issues

How much bandwidth?

These are the most common analytics events sent by Bloom Reader:

- Bloom Reader started
- Bloom Reader backgrounded
- Book Opened
- Book Closed

Each event is less than 3KB. So a person who runs Bloom Reader, reads 2 books, then quits will send less than 18KB.

What if the user is not connected to the internet?

If the user is not connected to the internet, Bloom Reader will cache their events. The cache is limited to 1000 events.

To prompt Bloom Reader to send all of its events *right now*, open the menu:

At the bottom of this screen, you will see Bloom Reader’s progress in sending the events:

How to Collect Bloom Reader Analytics by Device

When a project owns and distributes hardware to use with Bloom Reader, it is possible to get analytics that are specific to each device. To make this work:

- You will need to tell Bloom Reader the ID you want to appear in the analytics. To do this, there are two options:
  - Option 1: Enter the information directly within Bloom Reader.
  - Option 2: Create and place a special file on each device. Make sure Bloom Reader has permission to read this file.
- You will need to be directly reading from our analytics database. This device ID will not be available from a BloomLibrary.org stats page.

Option 1: Steps for adding the information directly within Bloom Readerundefined

1. Decide on a project ID and device IDs for each device.
2. Open the menu by clicking on the menu at the top-left of the book list.
3. At the bottom of the menu, there is an item which indicates it is trying to send stats information or all stats have been sent.
   i. Tap the menu item three times.
4. The following form will then allow you to enter the project ID and device ID:
5. Save. 2. You may change the IDs using this form, but the only way to remove them completely is to clear the app settings (from the Android settings) or uninstall.
6. See

Verification below.

Option 2: Steps for creating the file that identifies each deviceundefined

1. Decide on a project ID and device IDs for each device.

2. Create a file called deviceId.json.{ project: 'projectID' , device: 'deviceID' } 2. Example: \ { project: 'RISE2' , device: 'STUDENT NORTH FLY 001' }

```
1. The file content must be  \
```

3. Put the deviceId.json file on the device in the Bloom folder which contains the Bloom Reader books (at the root of Internal Storage).

4. Restart Bloom Reader. 3. This may require actually closing the app if it is currently running. 4. The user will see a brief message indicating the failure or success of loading the project and device IDs. The message is only shown once. The only way to change it after it is initially set is to clear the app settings (from the Android settings) or uninstall.

5. See

Verification below. 6. If this is not working, it means that Bloom Reader does not have permission to read from the Bloom folder at the root of Internal Storage. 5. Open the

menu at the top-left of the book list. 6. Tap “Find lost books”. 7. Navigate to the Bloom directory if needed, then tap “Use this Folder” or “Select” to give permission to the directory.

Verificationundefined

To verify the setup was successful, open the

at the top-left of the book list. There will be a new item at the end which will display “Stats ID: {device ID} (project)”.

Once the device is properly set up, it will begin reporting analytics with these values in the device_project_hardware_code field of various analytics tables. The value will be projectID-deviceID.

Spreadsheet Import/Export

> **CAUTION**
>
> The Spreadsheet Import/Export function was introduced in Bloom 5.2. It is an *experimental* Bloom Enterprise feature that is still under development.
>
> To access the latest developments of this experimental feature, it is essential to use the very most recent version of Bloom Beta.

1. Introduction

Exporting your Bloom book to a spreadsheet opens up an alternate workflow possibility for you and your colleagues. One typical workflow is to allow translators on your book-production team to add additional language translations to your books using a spreadsheet rather than the Bloom program.

After the additional language translations have been added to the spreadsheet, the team supervisor or administrator imports the spreadsheet into Bloom.

In this way, only the team supervisor needs to learn Bloom.

2. Enabling Spreadsheet Import/Export

To access this advanced feature, open Bloom Settings, then:

1. Click on the **Advanced Program Settings** tab
2. Tick the box **Spreadsheet Import/Export**
3. Please ensure you have ticked the box **Automatically Update Bloom**
4. Click to **Restart** Bloom

3. Exporting a book to a Spreadsheet

1. Right-click on the book you wish to export, then,
2. Click **More**
3. Click **Export to Spreadsheet**...

4. Importing a Spreadsheet into Bloom

After editing the spreadsheet, it can be imported back into Bloom. Typically, the spreadsheet will be imported back into the original book or into a duplicate of the original. In this way, the original structure of each page will be maintained.

You can also into a spreadsheet into a new blank book. In this case, however, the original page structure will not be maintained.

1. Right-click on the book you wish to import the spreadsheet into, then,
2. Click **More**
3. Click **Import Content from Spreadsheet**...

A progress dialogue will appear. Note, a backup of your original book will be placed in a temporary folder in case there is a problem.

The location of the backup is: `C:\Users\YOUR USER NAME\AppData\Local\Temp\bloom pre-import backups`

5. Understanding the Spreadsheet layout

The exported spreadsheet is organized into rows and columns. By default, only the main translatable material (the title, and the basic text) from the book is presented, and all other material — such as Copyright and Credits — is *hidden* from view.

> ⚠ **CAUTION**
>
> The rows and columns that are hidden from view should generally *not* be edited directly in the spreadsheet. Instead, it is best to edit these in Bloom itself.

Generally speaking, the rows of the spreadsheet progress through the translatable pages of the book, while the columns contain the content of the corresponding pages in various languages.

By default, the following are hidden;

- Row 1
- Columns B and C
- Approximately 14 hidden rows at the end of the spreadsheet for various “xmatter” material like Copyright and Credits

6. Usage Scenarios

6.1 Simple corrections or editing

Some teams prefer to use spreadsheets, rather than Bloom itself, to do the final editing of their Bloom books.

> ⚠ **CAUTION**
>
> If you have already recorded audio for a Talking Book, be careful editing text (whether in Bloom or in a spreadsheet).

6.2 Adding another language translation to a book

Some teams have translators who are comfortable using spreadsheets, but not Bloom.

To add a new language to a book, the exported spreadsheet will need a new column for the language. The easiest way to do this is to ensure the new language is listed in the Languages tab of your Bloom Settings prior to exporting the book.

Alternatively, you can add the new column to an existing spreadsheet. In this case, you will need to unhide row 1 to type in the language code of the language. The language code must be enclosed in square brackets.

6.3 Fixing an incorrectly tagged language

Sometimes, a user makes a book and only later discovers they have used the wrong language code.

This can be a fairly technical procedure. The following steps will cover simple cases only:

1. Change the Collection Language Setting to the correct configuration.
2. Export the book to a Spreadsheet.
3. Replace the wrong language code (row 1) and language name (row 2) in the spreadsheet with the correct one.
4. Import the spreadsheet into a *blank* book.

Bloom imports in a non-destructive way. This means it *updates* existing data *but does not erase* existing data. For this reason, it is important for this usage situation to import into a

blank book; otherwise, the original, incorrectly tagged language data, will remain.

Importing into a blank book works provided the book has a simple structure of one image and one text box per page. If the book contains multiple text boxes or images, the spreadsheet will have to be imported back into the original book in order to maintain the same data structure. In this case, the unwanted text (incorrectly tagged) will remain unless it is emptied out in the spreadsheet. This may require a Bloom specialist.

When publishing your book to Bloom Library, be sure to uncheck the box for any unwanted language. Doing this will strip out that unwanted language for Bloom Library.

6.4 Changing a book to Digital Comic Book

If your original book was made from the Basic Book template and you want to transform it into a Digital Comic Book, then do the following:

1. Create a blank book using the Digital Comic Book template.
2. Add a **Comic** page.
3. Using the Overlay Tool, add a Caption or Text Block to the page.
4. Right-click on this page's thumbnail, and choose **Duplicate Page Many Times** so that this blank comic book has the same number of pages as the original book.
5. Import the spreadsheet into this blank comic book.

> ⚠ **CAUTION**
>
> Limitations: this method works if the original book has one image and one text box per page.

7. Current Limitations

The following are *not* supported:

- Quizzes and other Activity pages
- Image Descriptions (forthcoming in Bloom 5.5)

In addition, there are dangers to editing a Talking Book in a spreadsheet. If you change the words of a sentence in any way, the audio recording will no longer match. Similarly, if you change the sentence boundaries, the recording will no longer match.

In addition to the above limitations, it is important to understand that when you export a book to a spreadsheet, Bloom does *not* include the characteristics of the page *layout* for the book. And so when you import a spreadsheet into a Bloom book, Bloom will either map the data from the spreadsheet onto the page structure of whatever book you have chosen to import into, or if need be, map the data onto its default page layout, namely the “Basic Text & Picture” layout.

Bloom 5.3 Release Notes

Publish to Audio or Video

You can now turn your book into a video that can be shared on Facebook or YouTube. You can also make a version that will work on inexpensive “feature phones” or mp3 players. Here is the original Feature Request.

Text Color

To highlight a word or some characters, you can now select some text and set its color.

New Copyright / License Dialog

We’ve re-worked the copyright / license dialog in order to help you better understand your choices.

Font License Info

When you’re just making paper or PDF copies of your book, you can use whatever fonts are on your computer. However, many fonts are not freely licensed for use on the web or in ebooks. But how are you supposed to know? It turns out that inside many fonts, there is some metadata that indicates things like what the license is, where the font comes from, and what version of the font you have. Bloom now reads this information and uses color and icons to indicate how safe a font is to use.

Team Collection: Single Book History

Startup Time

We made several changes to speed up Bloom’s launch time.

Menus

In the Collection dropdown menu, we

- Renamed the “Advanced” submenu to “Troubleshooting”.
- In “Source” collections (which we think should be *very* rare in 2022), we moved “Make Bloom Pack” from the toolbar to this menu.

We simplified the book menu:

Less-used commands are now under a “More” submenu. In the future, we intend to simplify this further.

BloomLibrary.org

Project cards can now have country names:

We added a map showing where the collection is being read:

And finally, we added city and country tables:

Bloom Reader

We have changed the name and file extension of Bloom's digital book publishing format from `Bloom Digital / .bloomd` to `BloomPUB / .bloompub`. All readers have accepted both for some time, and now Bloom Editor and BloomLibrary.org both deliver `.bloompub`. The new name is purposely parallel to the better-known `ePUB` format.

Bloom 5.4 Beta Release Notes

Simple Choice Activities

We’ve added two new activities that you can add to your books. Just enter the correct answer in the first box. When someone reads the book, Bloom will shuffle the answers.

Choose Word from Picture

Choose Picture from Word

Are there other simple activities that you would like to have in your Bloom books? Feel free to request them in a Feature Request. Note that a Bloom Enterprise subscription is required to add new activities to a book.

Get More Books from Within Bloom Reader

Finally, users can get more books into their Bloom Reader without going to a separate browser window. We've added a button at the bottom of the screen:

You then choose a language and Bloom Reader shows you books from BloomLibrary.org. It will remember your recent languages, so you don’t have to find them each time:

Once you pick a book, you can either download it into Bloom Reader or just read it online:

Smarter Splitter

We heard you: getting image and text boxes to *just the right size* was too hard. We've made the splitter smart in a couple of ways:

1) You can now double-click the splitter to make it snap to the position used by the previous page.

2) The splitter now "snaps" to some common locations:

- The position used by the previous page.

- The position that perfectly matches the image’s proportions.
- 1/4, 1/3, 1/2, etc.
- Square

3) Previously, the splitter moved by tenths of a percentage. Now, it moves only by full percentage points.

4) If you need more precision, hold down the CTRL key to go back to moving by tenths of a percent, ignoring snap points.

Fixed Layout ePUBs

Bloom can now create ePUBs in “Fixed” mode which asks ePUB players to preserve the page as you see it in Bloom. If you have a very simple book, Bloom will also let you choose the previous “Flowable” mode.

With this improvement, you can now publish overlay (comic) books as ePUBs.

> **CAUTION**
>
> Note that if you make a Talking Book out of an Overlay (comic) book, ePUB readers will read bubbles in the order you created them. That won’t always be the correct

> order! We have an idea of how to improve things for Bloom 5.5.

See here for more information about the state of Bloom-to-ePUB publishing.

Color Chooser

We improved the color chooser and made the same chooser available everywhere you can set a color, including text, background colors in the overlay tool, and cover colors.

Text Color in Styles

As before, you can also color individual words and letters:

Modernised Topic Chooser

“Needs Copyright” Button

We’ve noticed that sometimes people forget to add a copyright, which later prevents them from publishing the book to BloomLibrary.org. Now Bloom shows this button to prompt you.

Overlay Tool

- We’ve added a new Bubble shape, “Rectangular”:

- We added hints to remind you about two important shortcuts:

- You can now click on the background image in order to change it.
- If a bubble somehow ends up off-screen, Bloom will move it back on screen the next time it loads the page.

Note that a Bloom Enterprise subscription is required to add new Overlay (comic) images to a book.

Other Improvements

- Previously, there was a slight difference in text size between the Edit Tab and what Bloom would actually publish. You could see this even just in the Collection Tab preview. Where this mattered was that a line might break in a different place. We have fixed this difference in favor of the published versions, so that if a book is re-published using this versions of Bloom, the layout will be the same as it was previously. But if you look in the Edit tab, changes may be visible from what you would have seen in the Edit tab in previous versions.

- Bloom’s experimental spreadsheet import/export now retains a book’s metadata.
- We added experimental spreadsheet import/export for Talking Books. Note that a Bloom Enterprise subscription is required to use the spreadsheet commands.
- We made it feasible to use leading spaces in a Talking book to make the left edge of a text box vary in order to do things like conform to the image to the left of the text. While we don’t *like* this approach, it is currently the only way to achieve this.
  - Don't highlight leading/trailing whitespace of current audio segment.
  - Collapse multiple whitespace in translation bubbles.
- When Bloom makes a BloomPack, it now includes any audio in the books.
- Bloom now shows the Sign Language name on the cover. Note that the name only appears once there is at least one recording, and only after the book has been reloaded.
- You can now access the “Scripts & Variants” settings for a Sign languages. The “scripts” part is not relevant, but this allows you to define a language as a regional dialect of a more widely known Sign language.
- If you download and translate a book, Bloom now gives you the same cover colors as the original.
- SIL has deprecated Andika New Basic since Andika now contains all of its characters. We are gradually switching everything over to Andika in a way that we think will be invisible to users. For this release, we switched Bloom Reader & Viewer to come with Andika built in.
- We improved sorting of books in BloomLibrary.org. By default, books now sort from newest to oldest. For particular collections, we can change this to sorting by title with good number sorting so that numbered series will show in order.
- BloomLibrary’s “stats” pages now have a “People Reached Digitally” Stat

- We added a way for advanced users to override the image compression we do when we publish books.

- We added a 6” x 9” paper size.
- You can now set text to right-align:

- You won’t notice it, but we did months of work preparing Bloom to move to a modern browser component. This investment will reduce our maintenance cost and unlock some new capabilities in the future.
- We introduced a new layout to most of our “Publish” screens. In the next version, we’ll complete this transition by rewriting the PDF/Print and Web Upload screens to fit this new system. In the end, the publish screens will be much more uniform so that if you learn one, others will be more familiar.

Team Collections- Introduction

A **Bloom Team Collection** is a normal Bloom Collection that is shared among team members through the synchronized cloud storage service Dropbox or a local area network. By synchronizing files across computers, each person who works on a book has the latest version available. **We recommend this system for any project where more than one person touches a book before it is published, and where everyone has adequate internet access.**

System requirements for using a Team Collection

- A Bloom Enterprise subscription, **OR** you can affirm that your project is fully funded by a local community
- Bloom 5.1 or greater. (It is recommended, but not required, that all the team members use the same version of Bloom.)

> ⚠ **CAUTION**
>
> Each team member must register his or her copy of Bloom with a unique email address.

- A Dropbox account. The free version of Dropbox, which provides 2GB of storage space, should be sufficient for 100–1000 typical Bloom books.

> ⓘ **NOTE**
>
> These instructions focus on using Dropbox to synchronize Team Collection files. If you want to use a local network share instead of Dropbox, contact the Bloom team at experimental@bloomlibrary.org.

How Team Collections work

A Bloom Team Collection has two parts. The first part is a normal Bloom collection of working files. This is a folder that contains one or more Bloom books, each in its own folder, as well as special files used by Bloom.

The second part is a special **shadow collection folder**, which is created for the Team Collection by Bloom. Bloom synchronizes the shadow collection and the working files. The

shadow collection is also synchronized between your computer and the Dropbox cloud storage service, which synchronizes it to other team members' computers.

> **NOTE**
>
> A **shadow collection folder** (sometimes called a "shadow collection" or "shadow folder") is a special folder that contains compressed copies of all the Team Collection files. The shadow collection folder is stored in a cloud-synchronized local directory on your computer.

For example, let's say Awa has a collection of books on her computer (Figure 1):

Awa's collection is a Team Collection, so Bloom creates a shadow collection folder on her computer from her working files. The shadow collection is also synchronized to the Dropbox file-sharing service (Figure 2).

Awa shares the shadow collection folder with her teammate Barkari using Dropbox. Now Awa and Barkari both have a shadow collection folder on their computers (Figure 3).

When Barkari launches a special file in the shadow collection folder, Bloom copies the Team Collection files from the shadow collection on his computer, to create a working collection. Now Barkari can edit books in the collection, too.

Whenever Awa or Barkari change something in the working collection on their computers, Bloom copies the changes into the shadow collection, and Dropbox copies the changes to the other one’s computer. In this way, they can both work on the collection, even though they are using different computers.

Checking books in and out

In a Team Collection, each book has a **status**. There are three possibilities for a book:

- **Available for editing**

- **Checked out by you**

- **Checked out by someone else**

Only the person who has a book checked out can make changes to it. Whenever one user checks out a book for editing, Bloom uses Dropbox to notify the other team members that the book is checked out. After the user checks the book back in, Bloom notifies the other team members that the book is available for editing again.

This checkout system ensures that team members do not develop multiple conflicting versions of a book that must be painfully reconciled later.

What if I don't have Internet access all the time?

You do not need continuous internet access to use Bloom team collections. You only need to be connected to the internet when you check books in and out. Your internet service does have to be sufficiently fast and reliable to transfer books to and from Dropbox.

Why Dropbox?

Team Collections works with Dropbox because we have found that it works more reliably and efficiently for this purpose than other commercial filesharing services do. In particular, Dropbox lets other team collection users know when a teammate has updated a book more reliably than Google Drive does. Even more important, when you change part of a book, Dropbox transmits only the parts of the book that have changed rather than the entire book. This is helpful in places with less than super-fast internet.

For more information

- Getting started with Team Collections
- Working with Team Collections
- Team Collections FAQs
- Team Collections: When things don’t go according to plan
- Team Collections: Advanced Topics

Getting Started with Team Collections

To create a Team Collection, you start with an existing Bloom collection and convert it into a Team Collection. In this guide, we will walk through the process of converting an existing collection into a Team Collection.

The basic steps are:

1. The team designates a Team Collection Administrator
2. The Administrator converts a Collection into a Team Collection
3. The Administrator shares the Team Collection with the other team members
4. Other team members join the Team Collection

Let’s look at each step in turn.

Before you begin

Before you begin, make sure:

- The latest version of Bloom is installed on your computer, **and** you have registered it with a distinct email address.
- You have a Bloom Collection that you want to convert to be a Team Collection.
- You have a Dropbox account.
- The Dropbox app is installed on your computer. If the Dropbox app is not installed on your computer, see Setting Up Dropbox on Your Computer.

> ⓘ **NOTE**
>
> Dropbox is free for most users, so you may want each team member to have his or her own Dropbox account. If this is a problem (for instance, if you have a limited number of high-capacity Dropbox accounts available), it is possible for all your team members to use the same Dropbox account.

Step 1: The team designates a Team Collection Administrator

Your team must decide who will be the Team Collection's *Administrator*. The Administrator is the one who will convert the collection into a Team Collection and share it with the other team members.

> **NOTE**
>
> In addition to setting up the Team Collection and sharing it with the other team members, the Team Collection Administrator has sole control of all Team Collection settings, including the default font, Bloom Enterprise subscription code, and "xmatter" (front and back matter) book settings. The Administrator also has control over any Leveled Reader and Decodable Reader settings.

Step 2: The Administrator converts the Collection into a Team Collection

The next step for our Administrator is to convert the "regular" Collection into a Team Collection. The collection can be an existing one with books already in it, or it can be a newly created, empty collection.

> **NOTE**
>
> If your team has multiple copies of the exact same book or even multiple copies of several books, the team should carefully determine which book is the most up-to-date version of each title. The team should gather those books together and pass the "master copy" to the team administrator who will place these books in their Bloom collection.

Once you have the base collection prepared, there are four steps to the process:

1. Open the Collection Settings in Bloom
2. Enable Bloom Enterprise features
3. Enable Team Collections
4. Create the Team Collection

Let's look at each step in detail.

2.1 Open the Collection Settings in Bloom

Open the Collection in Bloom, and click on **Settings** in the "Collections" toolbar (make sure you are in the “Collections” mode, not "Edit" or "Publish").

2.2 Enable Bloom Enterprise features

Team Collections is a Bloom Enterprise feature. Navigate to the **Bloom Enterprise** tab of the Collection Settings.

Click the **Enterprise Subscription** radio button and enter your Bloom Enterprise subscription code ❶.

> ⓘ **NOTE**
>
> If your project is funded entirely by a local community, you can enable Bloom Enterprise features by clicking “Funded by the local community only” ❷.

Restart Bloom ❸.

2.3 Enable Team Collections

Team Collections is an experimental feature that must be enabled. After Bloom restarts, return to the Collection Settings and navigate to the **Advanced Program Settings.**

Tick the **Team Collections** box ❹.

Restart Bloom ❺.

2.4 Create the Team Collection

After Bloom restarts, return to the Collection Settings. This time, you will see a new tab for **Team Collections**. When you activate it, you will see a warning message:

> ⚠ This is an **experimental** feature. Please contact us at experimental@bloomlibrary.org so that we can talk over your needs and make sure that this feature is ready for you.

Click the **CREATE A TEAM COLLECTION** button **❻.**

Now Bloom will present another dialog box titled “Create a Team Collection”, with two sections.

The first section lets you choose a location for the team collection’s “shadow folder”. You can accept the default location suggested by Bloom, or you can click **CHOOSE FOLDER ❼** and navigate to another location within your synchronized Dropbox folder.

> **NOTE**
>
> The **shadow collection folder** is a special folder of compressed files stored in Dropbox, which Bloom uses to synchronize files between team members’ computers. See How Team Collections work for more details.

> **CAUTION**
>
> Make sure that the folder you choose as your shadow folder (the “LAN or Dropbox Folder”) is NOT one of the following:

- a folder that is already a shadow folder (i.e., DON’T choose a folder that contains a `.JoinBloomTC` file)
- a Bloom collection working folder working collection (i.e., DON’T choose a folder that contains a `.bloomCollection` file)
- a folder that already contains a folder with the same name as the shadow folder you are trying to create

Next, take a moment to read and make sure you understand the three items in the second section ❽. Then, tick the three boxes showing you have read and understood these notices.

If you are satisfied that everything is correct, click **CREATE & RESTART ❾**.

Bloom will create a special “shadow folder” in your shared Dropbox folder and begin to add the books in your Collection to it. Be aware that if your collection of books is very large, this may take some time.

After Bloom has finished creating the cloud collection folder, Bloom will restart. Now you should see the Team Collection notice in the tab bar:

3. The Administrator shares the Team Collection with the other team members

For others to collaborate on your Team Collection, you need to share your Team Collection folders with them. You do this by sharing with them the synchronized folder that contains your cloud collection folder. Assuming you are using Dropbox on Windows, you can do this by right-clicking the team collection shadow folder *in Windows File Explorer* (10a) and then clicking **Share…**. (10b).

NOTE

The shadow collection folder contains a special file called `Join This Team Collection.JoinBloomTC`. (This file might appear as simply `Join This Team Collection`, if you have Windows File Explorer set to hide filename extensions.) The Administrator can rename this file (for instance, to translate it into another language), but the file **must** retain the `.JoinBloomTC` filename extension.

NOTE

> If you are using Windows 11, you will probably need to choose **Show more options** (10b) from the right-click context menu, then choose **Share…** (10c) from the larger menu.

Enter the email address of each person you want to invite. Make sure the recipient will have **editing** privileges for the folder. (This is the default setting.) You can also type an introductory message **(11)**. Then Click **Share (12)**. Each team member will receive an email notification from the Administrator about the shared folder. (If the recipient has the Dropbox app installed on their computer, there will also be a pop-up message.)

4. Other team members join the Team Collection

To join a Team Collection, other team members do the following:

1. Make sure that Bloom is registered.

> **NOTE**
>
> If the user’s Bloom installation is not registered, he or she can register it by clicking the **Registration…** line under the Bloom Help menu (marked with a **(?)**

icon).

1. Add the shadow collection to his or her Dropbox by clicking **Add** in response to the Administrator’s invitation.
2. Locate the shadow collection folder in the Windows File Explorer and open it.
3. Locate and double-click the `Join this Team Collection.JoinBloomTC` file **(13)**.

> **CAUTION**
>
> It is essential to double-click `Join this Team Collection.JoinBloomTC` **in Windows File Explorer**, not in the Dropbox interface in a web browser.

> **NOTE**
>
> The Administrator may have changed the name of the file, but it will still have a `.JoinBloomTC` filename extension.

Next, Bloom will present a dialogue box allowing the user to join the team collection. Click **Join (14)****.**

Next, Bloom will launch itself and copy the working files from the shadow directory into a new working directory.

NOTE

If the user already has a collection with the same name as the Team Collection, Bloom will present a dialogue box allowing the user to *Join and Merge* the Team Collection. This action will cause this team member’s private collection to be merged with the Administrator's team collection. Note that during the merge process, the Administrator’s settings will overwrite the member’s collection settings.

After Bloom has copied all the files into a working collection, Bloom will restart and open the new collection. All the team members should see the Team Collection badge in the toolbar.

What next?

Working with a Team Collection is like working with a regular Bloom Collection, but you need to check books out in order to edit them. When you’re finished making edits, check them in again so that your teammates can work on them. For more details, see Working with Team Collections.

Working with Team Collections

Checking In & Checking Out Books

When you open a Team Collection, the first thing you will notice is a “Team Collection” badge in the toolbar. You will probably also see colored circles on some of the book thumbnail images. These circles indicate which books are checked out for editing by members of your team.

When you click on a book thumbnail, Bloom will display who has the book checked out. Books that are checked out to other team members are not available for editing. (Notice that the “Edit” tab is gray, meaning that you cannot click on it to edit the book.)

In the example below, team member Awa Issa sees that the book “**آس**” is **available for editing** and wishes to edit that book. She clicks the thumbnail image **(1)**, and then clicks **CHECK OUT BOOK (2)**.

The book’s status immediately changes to **This book is checked out to you**, and Awa is now permitted to edit. Awa can click the **Edit** tab (3) or the **EDIT THIS BOOK (4)** button to begin editing the book.

While Awa has this book checked out, other team members will see in the book’s status panel that Awa has the book checked out. Awa’s teammates cannot edit the book until after Awa has checked it back in.

When Awa is finished editing the book, she can check it back in. First, she types a brief note about the changes she made, to let her team members know what she has done **(5)**. (This step is optional.) Then she clicks the **CHECK IN BOOK** button **(6)**.

The book is now available to the other team members to make further edits.

> **CAUTION**
>
> **Slow internet connections can cause status update delays** The status panel of a book may take some time to update over slow internet connections. When this happens, it is possible that two people may start to edit the same book at the same time. This will cause an editing conflict. If an editing conflict occurs, Bloom will determine one team member to be the “winner” and will put the other team member’s edited book into a special *Lost and Found* folder. (If this happens, see Retrieving a book from Lost and Found.)
>
> If your team members do have poor internet access, you may wish to schedule the work through email or other means to lessen the potential for editing conflicts.

Making avatars for your team

Bloom marks the thumbnails of books in a Team Collection with an initial letter of the name of the user who has a book checked out, or a small image (called an “avatar”) to represent the user:

How does Bloom know what to show? In the Bloom Registration, there is a field for name and email.

Make sure each user has a correct and unique email. From that, Bloom can generate an avatar that uses their initials. If you want to have a picture instead of just initials, you can register your email address at gravatar.com.

Manually updating your team collection

If another team member checks in a book, the Team Collections badge may say **Updates Available**. To get the latest version of the collection's books right away, click on the **Updates Available** badge **(7)**.

Book history

Clicking on the Team Collection badge in the toolbar lets you see a history of changes.

Team Collections- When things don’t go according to plan

Check-in / Check-out problems

What happens if there is a delay in synchronization such that two people both have a book checked out?

This should happen only rarely. If it does happen, Dropbox will choose one of the users as the “winner” and one as the “loser”. On the “losing” machine, Bloom will notice within a minute or so that another user is editing the same book. Bloom will send that user back to the Collection tab, and any changes made to the book on the “losing” machine will be removed. Bloom will alert the user to what happened, and why.

What happens if I connect to a Team Collection with multiple computers?

You can join a Team Collection using multiple computers. To do this, use the same email address to register Bloom on each computer, and launch the `Join this Team Collection.joinBloomTC` file on each machine. (You’ll also need to use the same email address for Dropbox on both computers.)

Be aware that you can check out a book for editing *on only a single computer at a time.* If you have a book checked out on one computer and look at the same book on a different computer, Bloom will inform you that “This book is checked out to you, but on a different computer. You cannot edit the book on this computer, until you have checked it in on [the other computer’s name].”

What happens if someone checks out a book but then becomes unreachable for a long time, and the team wants to edit that book?

The Team Collection Administrator can use the “Force Unlock” command to make the book editable again.

> ⚠ **CAUTION**
>
> **“Force unlocking” a book is not the same as checking the book in!** When the administrator force-unlocks a book, any changes made by the user who originally checked the book out will not be saved to the shared team version. Instead, that

version of the book will be moved to a “Lost and Found” folder. If you want to incorporate those changes into the shared team version later, you must do so by hand.

What happens when the long-lost team member comes back online?

On the long-lost team member’s computer, Bloom will notice that the shared team version no longer has a “lock file” that indicates that he or she has that book checked out for editing. It is now likely that there are diverging versions of this book. Bloom will save the force-unlocked version to a special “Lost & Found” folder in Dropbox, remove that user’s edit access, and notify him or her of what just happened.

If your long-lost teammate has been very productive and you want to use his versions of the books, you’ll need to retrieve them from the “Lost & Found” folder. It’s best to get a Bloom expert to help you do this. If you’re a confident computer user and want to do it yourself, see Retrieving a Book from Lost & Found.

Bloom Enterprise license problems

What happens if someone tries to join a Team Collection but does not have a Bloom Enterprise License?

Enterprise Licenses are for the project, not people. So anyone joining a Team Collection is joining a collection that already has the Enterprise license set up.

What happens if a Bloom Enterprise License expires on a Team Collection?

The collections will keep working, but they will become disconnected from each other. Without the Bloom Enterprise enabled, the books on the team members' computers will not synchronize with each other, nor will they have a checked-in/checked-out state.

What happens to a Team Collection when an expired Bloom Enterprise license is renewed?

Each user will have to rejoin the team collection. (This allows any edits that were done while not in enterprise mode to be properly merged.)

Naming conflicts

What happens if you join a Team Collection but you already have a local collection with that name?

This has several answers.

Usually, the two collections are merged. Books that are unique to either collection are copied to the other. If a book is found in both places and they are not identical, the local version is moved to a special folder called "Lost & Found" and the Team Collection version is copied to the local folder.

If the local collection is found to be already connected to the Team Collection you are trying to join, Bloom will point this out in a message and open it normally. As a special case of this, if you have moved the Team Collection (for example, reorganizing your Dropbox, or switching from a LAN Team Collection to a Dropbox one), joining the collection in the new place will provide a way to reconnect them. (Otherwise, when Bloom can't find the Team Collection at the old location, it will report that it is "disconnected".)

What happens if a book has been renamed before a copied collection is merged into a team collection

Recall that if a user tries to join a Team Collection, but already has a collection with the same name as the Team Collection, Bloom will ask the user to *Join and Merge* the local collection with the Team Collection. If the user agrees, Bloom will add the books in the user's private collection to the Team Collection.

Now, suppose that Joe got a copy of Fred's collection. Fred's collection isn't a Team Collection — it's just a regular Bloom collection. Since then, Joe has renamed *Book 1* to *Joe's book*, and Fred has renamed *Book 2* to *Fred's book*. Joe then makes his collection into a Team Collection, and invites Fred to join it.

When Fred tries to join the Team Collection, Bloom will see that team collection has a book called *Joe's book*, and that *Joe's book* has the same internal ID number as *Book 1* in Fred's local collection. Moreover, Bloom will see that *Book 2* in the Team Collection has the same internal ID as *Fred's book* in Fred's collection. Bloom has no way of knowing which name is right for each book, but a decision must be made, since we don't want the resulting collection to end up with two books that have the same internal IDs.

In this situation, the Team Collection wins. Bloom will put Fred's books *Book 1* and *Fred's book* in a special Lost & Found folder, and update Fred's local collection to have the Team Collection versions of *Joe's book* and *Book 2*.

What happens if two Team Collections have the same name?

Suppose Fred is creating books in the VMU language. He creates a Team Collection called "VMU books" and shares it with his friend Joe. Joe joins Fred's "VMU Books" team collection.

Joe's friend Sally is also creating books for the VMU language. Sally also creates a Team Collection called "VMU Books", and shares it with Joe. But when Joe tries to join Sally's collection, Bloom disables the Join button and tell Joe that he already has a collection called "VMU Books", and it is not the same collection as the one he is trying to join.

What to do:

- *If Fred, Sally, and Joe want to work together, they should decide which collection they should all use.* In this case, they agreed that Sally's collection was the best.
    - If Sally invites Fred to join her collection, he will get the same warning as Joe did, because he still has a Team Collection with the same name as Sally's Team Collection. Fred should remove his Team Collection and try again. This time Bloom will merge Fred's local collection with Sally's Team Collection. Sally's collection will

now contain all the books. Now that Fred’s collection is gone, Joe can join Sally’s collection.

- *If Fred and Sally do not want to work together, they should choose different names for their Team Collections so that Joe can work with them both.*

Team Collections FAQs

What happens if I want to edit a book but I cannot get online?

If you already have the book checked out, you can edit it. If you do not have the book already checked out, you cannot check it out or edit it.

Does everyone on the team have to have the same version of Bloom?

No. The members of a team can use different versions of Bloom, with one limitation: if one team member adds a book that uses a new Bloom feature, other team members will not be able to edit that book until they update Bloom on their computers. (This is how Bloom works in general, not just for Team Collections.)

What happens if I drag a Bloom Book folder into my Team Collection folder?

Bloom will notice that the book is not yet part of the Team Collection, and automatically add the book to the Team Collection as a “checked in” book.

How can I remove a book from a Team Collection?

To remove a book from a Team Collection, do the following:

1. **In Bloom:** Check Out the book. (Remember, you need to check the book out to make changes.)

2. **In Bloom:** *While the book is still checked out to you,* right-click on the book's thumbnail and choose **Delete Book**.
3. **Dropbox** will ask whether you want to "Remove (book title) from your Dropbox account and all devices?" Click "Move out of Dropbox". If you do not want to see such notices in the future, you can tick the box "Don't ask me this again".
4.

What happens if I rename a book in a Team Collection?

Bloom treats renaming a book in a Team Collection as a *deletion* followed by an *addition*.

Suppose you check a book out, and while you have the book checked out you change its name. Until you check the book in, the *local* book and folder will have the new name, but the corresponding file in the Team Collection's "shadow collection" will have the *old* name.

When you check the book in, Bloom will remove the book from the shadow collection, and add a new book (with the new name) to the shadow collection. The next time your teammates synchronize their team collection files, Dropbox (or your LAN) will remove the old book and add the new ones to their team collection files.

If one of your teammates checks a book out and renames it, the same thing happens: the old book is removed, and a new one is added. But this time, the change starts on *their* computer, and Dropbox (or your LAN) and Bloom propagate the change to your computer.

In the Team Collection history log, Bloom will report that the book has been renamed.

Team Collections- Advanced Topics

Moving a book from one collection to another

Sometimes a book needs to be moved from one collection to another. For example, suppose you have multiple Team Collections organized according to grade levels or difficulty. After reassessing a book's level of difficulty, you decide it needs to be moved to a different collection.

The procedure to do this is as follows:

1. **In Bloom:** Check Out the book. (Remember, you need to check the book out to make changes.)
2. **Using Windows File Explorer:** Copy the book's *local* folder (not the Dropbox or LAN folder), to the new collection folder.
3. **In Bloom:** *While the book is still checked out to you,* right-click on the book's thumbnail and choose **Delete Book**.

Locking down a book to prevent further modifications

There are several ways you can "lock down" a book to prevent further modification:

- The Administrator can permanently Check Out the book.
- The Administrator can move the book out of the team collection (see Moving a book from one collection to another).
- The Administrator can "retire" the entire Team Collection (see Retiring a Team Collection).

(In a future version of Bloom, we may add the ability to "lock down" a book.)

Retiring a Team Collection

The team collection Administrator may wish to "retire" a particular Team Collection in order to prevent accidental book modification or deletions. This might happen if a team has completed work on a book collection, or if collaboration on the book collection is no longer needed or desired.

The team collection Administrator can change the Team Collection back into a regular Bloom collection. The procedure to do this is as follows:

1. **In Bloom:** Ensure all books have been checked in.
2. Close Bloom.
3. **Using Windows File Explorer:** delete the following files from the Team Collection **local** folder:
   - `lastCollectionFileSyncData.txt`
   - `log.txt`
   - `TeamCollectionLink.txt`
4. **Using Dropbox:** Delete or un-share the shared **Dropbox** folder containing the Team Collection. (If you are using a LAN for file sharing, delete or un-share the shared LAN folder.)

Changing the name of a Team Collection

When you create a Team Collection, you are warned that you will not be able to change the name of the collection later. This is not *exactly* true: it is possible to change the name, but it's painful. If you find yourself in dire circumstances and must change the Team Collection name, here is how you can do it:

1. The Team Collection Administrator "retires" the Team Collections, following the instructions in Retiring a Team Collection above. (Note that this requires that all books be checked in.)
2. The Team Collection Administrator deletes shadow folder, so that it is removed from all team members' computers. If for some reason the Administrator cannot delete the shadow collection from the team members' computers, the team members should be sure they have removed the shadow collection from their computers.
3. The Team Collection Administrator renames the retired Team Collection (which is now a "regular" Bloom collection).
4. The Team Collection Administrator follows the regular instructions to create a Team Collection from the collection (see Getting Started with Team Collections).

Moving a Team Collection's shadow collection folder to a different location

When you create a Team Collection, you choose a Dropbox (or LAN) folder for the Team Collection's shadow collection folder. If you later decide you need to move the shadow

collection folder to a different location, here is how you can do it:

1. **Close Bloom.**

2. **In Windows Explorer,** navigate to the location of the shadow collection folder (in your Dropbox folder). Move the shadow collection folder to its new location.

> **NOTE**
>
> You may get a notice from Dropbox warning you that moving the folder will "remove it for the members of" the folder you are moving it out of. This happens when you rely on the sharing settings of a higher-level folder to share the shadow collection folder with your teammates.
>
>
>
>
> If you see this notice, click the **Move anyway** button. Then re-share the shadow collection folder (or a higher-level folder) with your teammates.

1. **In Windows Explorer,** re-join the Team Collection by double-clicking the `Join this Team Collection.JoinBloomTC`. (This will alert Bloom to the new location of the shadow collection folder.)

2. **Bloom** will start, and will show this message:

3. Click **JOIN**. Bloom should proceed to open the Team Collection.

> **NOTE**
>
> If you try to open a Team Collection whose Dropbox folder has been moved, Bloom will show a “disconnected” state in the Team Collection status badge, and display a message which outlines the above steps.

Retrieving a book from “Lost and Found”

There are a number of situations where conflicts arise between books on different team members’ computers and Bloom cannot decide which one it should treat as authoritative. In these cases, Bloom chooses one version as the “winner” and saves the other one in a special folder called “Lost and Found”. (The Lost and Found folder exists only in the synchronized team collection “shadow folder”, not in your working files.)

If you want to rescue a book from the Lost and Found, it’s best to get a Bloom expert to help you. If you are a confident computer user and want to do the job yourself, here’s how:

1. Navigate to the Dropbox (or LAN)-synchronized “shadow folder” (for instance, `C:\Users\<your username>\Dropbox\My-collection - TC\`).
2. Now look for a subfolder called `Lost and Found`. Inside the `Lost and Found` subfolder you will find one or more files with a `.bloom` extension. Each of these is a compressed book folder.
3. Copy the desired `.bloom` file to a different location on your computer, and uncompress it into a new folder. You will probably need to use a zip utility such as 7-Zip to do this. (Alternately, you can change the filename extension to `.zip`, and use Windows’ built-in zip tools to uncompress the file into a new folder.)
4. Copy or move your newly uncompressed folder into your **local** Team Collection folder. **WARNING: Make sure the folder has a different name than the original book’s folder name!** Otherwise you’ll get back into a conflict situation.
5. Launch Bloom (or close and relaunch Bloom). Bloom will recognize that a book has been added to the Team Collection, and will automatically check it out to you.
6. Check in the book, and Bloom (with a little help from Dropbox or your LAN) will propagate the new book to the other Team Collection computers.

Now comes the hard part: you must manually reconcile the two different versions. This means identifying the parts you want to keep from one book (the version you will not keep), and manually moving them into the one you will keep. This can be a painful process!

After you have finished reconciling the two books, you can remove the one you do not want to keep (see How can I remove a book from a Team Collection for instructions on how to do this).

Setting up Dropbox on your computer

As a Cloud service, Dropbox can operate entirely through a web browser interface. However, in order to use Bloom Team Collections, **you need to also install the Dropbox App on your computer.** The Dropbox App allows you to access your Dropbox files through your computer's file manager (in Windows, that's File Explorer). It also allows Bloom to synchronize your Team Collection between Bloom's working files and the Team Collection's cloud collection folder.

In this guide, we'll walk through the process of installing the Dropbox app on a Windows computer.

When you sign into Dropbox initially, you may see this dialogue box. Click on the Download button to get started.

If you don't see that sign, then from your web interface in Dropbox, click on your account icon (1), then click on "install Dropbox app"(2).

You’ll see:

`DropboxInstaller.exe` will download. After download, double-click on the file to install it. You may need to register a phone number to your account. After that you should see:

Other steps may be presented. Eventually, you’ll get to:

If you only have a basic Dropbox account, you must choose the first option.

Next, Dropbox will want to add several large folders to be automatically backed up. It is very likely that the space requirements for backing up these folders will surpass the allotment of a Basic Dropbox account.

If you only have a Basic Dropbox account, uncheck those boxes and click “Not now” to proceed.

You’ll see a warning:

Click to **Continue to Dropbox**.

Dropbox will create a folder on your computer to hold synchronized files. On most computers, this will be located at `C:\Users\<your username>\Dropbox`.

That’s it! Now you can store your Bloom Team Collection cloud collection folders in your synchronized Dropbox folder, and enjoy using Bloom Team Collections.

Notes on Team Collections

> **CAUTION**
>
> The following are known problems and limitations of this feature.

We know you’d rather be using Google Drive

Team Collections relies on other file syncing systems while hiding their complexity. Currently, you can use a local LAN server to sync or Dropbox. We don’t yet offer Google Drive because our experiments with “Google Drive for Desktop” showed that it was not reliable enough to use for Team Collections. However, in the future, we hope to build a reliable Google Drive option based directly on Google APIs instead of the “Drive for Desktop” app.

It might be possible for two people to check out a book simultaneously

Only one person can have a book checked out at once. When you try to check out a book, Bloom first makes sure that it isn’t already checked out. However, due to delays inherent in cloud-based file syncing, it is at least theoretically possible that the book was checked out recently by a teammate, and your computer hasn’t received that data yet. In the future, we plan to add a full-proof cloud-based system that will close this loophole.

OPDS API

> **NOTE**
> An “API” is a way for programmers to connect their program to another system. In this case, Bloom’s OPDS API allows programmers to get information on BloomLibrary.org’s collections of books.

Bloom implements the OPDS API, which is a common API in the ePUB world. The OPDS format is extremely verbose, and we don’t love it, but it works. Using Bloom’s OPDS API, you can

- Get lists of languages
- Get lists of books in a language
- Get thumbnails and URLs for books

Getting an account from us

There are two general ways to get an account:

1) a Bloom Enterprise Subscription

2) an agreement based on mutual content sharing or other partnership

We will set up your account and provide you with the credentials you need.

> **NOTE**
> Before requesting an API key, please create an account at BloomLibrary.org. Then when you write, tell us what the email address is that you used to create that account.

To discuss getting a key, please write to admin@bloomlibrary.org.

> **CAUTION**
> We don’t currently have a way of rate-limiting you, so it is on you not to break us! Please do not use this API in a way that would generate queries every time one of your users opens a page. Instead, please cache the results and update them daily or whatever.

> This also holds for the thumbnails this provides. If you are a high-volume site, we will need you to cache the thumbnails.
>
> Thanks!

Base URL

`https://api.bloomlibrary.org/v1/opds`

Queries

In the following

- `YOURACCOUNT` is the email you use for your BloomLibrary.org account
- `YOURKEY` is the secret API key we will give you
- `LANGUAGETAG` is a BCP47 tag

Parameters

The following parameters are our additions the OPDS spec:

`key`: YOURACCOUNT:YOURKEY

`lang`: string, optional. bcp47 lang tag that narrows the search to one language

`ref`: string, optional. The referrer tag, used internally for recording who is doing the query

`tag`: string, optional. Limit search to books with this tag

`organizeby`: string, optional. If defined, the only option is “language”.

`minimalnavlinks`: “true” | “false” (default), optional.

`epub`: “true” | “false” (default), optional.

Languages

To get a list of languages, use a URL like this:

`https://api.bloomlibrary.org/v1/opds?organizeby=language&minimalnavlinks=true&key=YOURACCOUNT:YOURKEY`

This will return a large result that looks like this:

```
<feed xmlns="http://www.w3.org/2005/Atom"
xmlns:dcterms="http://purl.org/dc/terms/" xmlns:opds="http://opds-
spec.org/2010/catalog">
<id>https://bloomlibrary.org</id>
<title>Bloom Library Books</title>
<updated>2022-11-09T17:39:22.868Z</updated>
<link rel="http://opds-spec.org/facet" iso="haz"
href="https://api.bloomlibrary.org/v1/opds?
lang=haz&organizeby=language&minimalnavlinks=true" atMost="26"
title="Hazaragi" opds:facetGroup="Languages"/>
<link rel="http://opds-spec.org/facet" iso="acu"
href="https://api.bloomlibrary.org/v1/opds?
lang=acu&organizeby=language&rminimalnavlinks=true" atMost="1"
title="Achuar-Shiwiar" opds:facetGroup="Languages"/>
<link rel="http://opds-spec.org/facet" iso="fub"
href="https://api.bloomlibrary.org/v1/opds?
lang=fub&organizeby=language&minimalnavlinks=true" atMost="7"
title="Fulfulde (Adamawa)" opds:facetGroup="Languages"/>
etc...
```

Important OPDS/catalog/link attributes

`iso`: Actually a bcp47. That is, normally this is iso-6393 code, unless it has been augmented with script or regional variant information.

`atMost` : Use this if you just want to know if we have books in a language. This is the total number of books we have, but not all of them will necessarily be in circulation, or available in your country. In other words, this query doesn’t take the time to go and get an accurate count.

Books of a language

To get a list of books in a language, use a URL like this:

```
https://api.bloomlibrary.org/v1/opds?&minimalnavlinks=true&
[key=YOURACCOUNT:YOURKEY](https://api.bloomlibrary.org/v1/opds?
key=rev79_app@sil.org:kCaAHOBD2r&minimalnavlinks=true&lang=hi)&lang=LANGUAGETA
```

This will return a result like this:


```
<?xml version="1.0" encoding="UTF-8"?>
<feed xmlns="http://www.w3.org/2005/Atom" xmlns:dcterms="http://purl.org/dc/te
   <id>https://bloomlibrary.org</id>
   <title>Bloom Library Books</title>
   <updated>2022-11-09T17:57:18.286Z</updated>
   <entry>
      <id>ee2d7092-be71-43fd-8ae8-575925539492</id>
      <title>            !</title>
      <summary>Virus information for children</summary>
      <updated>2022-08-17T17:31:58.448Z</updated>
      <dcterms:subject>health</dcterms:subject>
      <dcterms:rights>Copyright © 2020, SH, TF</dcterms:rights>
      <dcterms:license>cc-by-sa</dcterms:license>
      <dcterms:language>nod</dcterms:language>
      <link rel="http://opds-spec.org/image" href="https://api.bloomlibrary.org
type="image/png" title="Image" />
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/upload/3ccIsvrpEQ/%e0%b8%95%e0%b9%88%
type="application/pdf" title="PDF" />
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/harvest/3ccIsvrpEQ/%e0%b8%95%e0%b9%88
type="application/bloompub+zip" title="bloomPUB" />
      <link rel="http://opds-spec.org/acquisition/open-access" href="https://b
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/harvest/3ccIsvrpEQ/%e0%b8%95%e0%b9%88
type="application/bloomSource+zip" title="bloomSource" />
      <link rel="http://opds-spec.org/acquisition/open-access" href="https://b
   </entry>
   <entry>
      <id>0e5b456d-f04a-46d4-a8f6-1f61033ee9b8</id>
      <title>            </title>
      <summary>            :
                                          </summary>
```

```
      <updated>2022-08-17T18:00:33.564Z</updated>
      <dcterms:rights>Copyright © 2019,                              </dcterms:
      <dcterms:license>cc-by-nc-nd</dcterms:license>
      <dcterms:language>nod</dcterms:language>
      <link rel="http://opds-spec.org/image" href="https://api.bloomlibrary.org
type="image/png" title="Image" />
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/harvest/lweHdAjFbg/epub/%e0%b8%ab%e0%b
type="application/epub+zip" title="ePUB" />
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/upload/lweHdAjFbg/%e0%b8%ab%e0%b8%87%e
type="application/pdf" title="PDF" />
      <link rel="http://opds-spec.org/acquisition/open-access"
href="https://api.bloomlibrary.org/v1/fs/harvest/lweHdAjFbg/%e0%b8%ab%e0%b8%87%
type="application/bloompub+zip" title="bloomPUB" />
      <link rel="http://opds-spec.org/acquisition/open-access" href="https://bl
      <link rel="http://opds-spec.org/acquisition/open-access" href="https://bl
   </entry>
</feed>
```


Notice that these book entries provide:

- link to a thumbnail
- link to the BloomLibrary.org page for the book
- link to read the book online

Also, depending on the book, it may provide:

- link to a pdf
- link to an ePUB
- link to a bloomPUB

Notes on Publish as Audio or Video

> **NOTE**
>
> The following are known problems and limitations in this feature.

Known Bug: Sign Language video may be skipped in videos that are only a portion of the book

When you record an entire SL book, and then playback the recording, all is well.

But if you select a portion of the book:

and if the first page you specify contains a sign language video, then that sign language video won't be included in the final video recording of the book.

Issue: BL-11248

Limitation: Bloom does not currently playback any audio from embedded videos

Currently, Bloom only supports videos that are silent, i.e. for Sign Language. But some SL videos contain dubbed audio narration, e.g. this book. When recording such books in Publish to Video, the audio is lost.

Issue: BL-11249

Notes on “Publish as ePUB”

> **TIP**
>
> **Fixed vs. Flowable ePUBs**
>
> Starting with Bloom 5.4, you have the option of publishing ePUBs in either **Fixed layout** mode or **Flowable** mode.
>
> **Fixed Layout** ePUBs work with fully compatible e-readers (ePUB 3 standard) to display the book exactly like it is shown in Bloom. Fixed mode ePUB is an attractive option for landscape books and it is the only option for Bloom books containing image overlays like speech bubbles and captions. Unfortunately, many e-readers do a very poor job of presenting landscape books. In addition, Fixed mode ePUBs do not handle scrolling text boxes, so all your text must fit on the page.
>
> **Flowable** ePUBs allow e-readers to lay out images and text however they want. This mode also enables users to adjust the size of the text in the app or user system font settings.

> **TIP**
>
> Note that for dependable What You See Is What You Get digital Bloom books, we recommend readers that handle our **bloomPUB** format. Currently, these are: Bloom Reader, BloomPUB Viewer, and apps created with Reading App Builder. These readers also supply analytics back to BloomLibrary.org so that you can see how your books are doing.

There are many ePUB readers available for Windows, Android, iOS and Linux, but these readers vary in their ability to comply with the ePUB3 standard. As a result, you cannot depend on them to faithfully display the contents of a Bloom book, play sign language videos, or to play audio of Bloom Talking Books.

In the following two charts, we present some notes on our testing with various readers, first for **Fixed** mode ePUBs, and secondly, for **Flowable** mode ePUBs.

Performance of various ePUB readers for Bloom Fixed-mode ePUBs

	Talking Book Audio	Talking Book Text Highlighting	Image Descriptions (audio)	Landscape Layout	Sign Language
eKitabu Windows version	✓	No	✓	✓	✓
eKitabu Android v5.4.1	✓	No	✓	(1)	(1)
Lis-a Android version Feb 25, 2022	✓	✓	✓	(2)	(2)
Google Play Books Sept 2022	No	No	No	No	No
Apple Books Sept 2022	No	No	No	✓	✓
Dolphin EasyReader (Android version)	(4)	(5)	No	No	No
Thorium Reader (Windows)	No	No	No	✓	✓
Simply Reading (Android)	✓	No	✓	(1)	(1)

1. Various app controls (e.g. menu bar, media bar) obscure significant portions of Fixed mode ePUBs, making them unusable.
2. Text on right-side of screen is frequently slightly clipped.
3. The positioning of text inside speech bubbles and captions is inaccurate, sometimes badly.
4. Frequent audio clipping.
5. Text highlighting is erratic and unreliable.

Performance of various ePUB readers for Bloom Flowable-mode ePUBs

	Talking Book Audio	Talking Book Text Highlighting	Image Descriptions (audio)	Landscape to Portrait Rendering	Sign Language
eKitabu Windows version	✓	✓	✓	(2)	✓
eKitabu Android v5.4.1	No	No	No	(2)	✓
Lis-a Android version Feb 25, 2022	✓	✓	✓	(2)	✓
Google Play Books Sept 2022	No	No	No	(3)	No
Apple Books Sept 2022	No	No	No	(2)	✓

	Talking Book Audio	Talking Book Text Highlighting	Image Descriptions (audio)	Landscape to Portrait Rendering	Sign Language
Dolphin EasyReader (Android version)	(1)	Unreliable	(1)	✓	No
Thorium Reader (Windows)	✓	✓	✓	(2)	✓
Simply Reading (Android)	✓	✓	✓	(2)	✓

1. Frequent audio clipping.
2. Top or bottom positioned text blocks (in Bloom Edit) will display nicely, but right-side text blocks (in Bloom Edit) may have reduced margins.
3. Text which should wrap is often simply cut off.

CAUTION

For books produced by Bloom 5.4: if you make a Talking Book out of an Overlay (comic) book, ePUB readers will read bubbles in the order you created them. That won't always be the correct order! We have an idea of how to improve things for Bloom 5.5.

Installing aeneas

> **NOTE**
>
> This page describes how to install aeneas on a Windows computer for use with Bloom. **aeneas** is an additional, free software package which Bloom uses to divide recorded audio for a text box into sentence-sized chunks.

Recording audio by text box

Bloom has two methods for recording audio narration for a book: **by sentence** and **by text box**. Bloom's usual way of recording narrated audio is one sentence at a time. Bloom will highlight each sentence and allow you to record audio for that sentence.

However, if you record a whole text box at once, the recording usually sounds more natural. If there is more than one sentence in the text box, Bloom uses an extra software package called **aeneas** to split the recording into sentences.

To enable recording by text box, tick the check box that says **Record by whole text box, then let Bloom split it into sentences later**. Bloom will highlight the entire text box.

If you do not have the aeneas software package installed on your computer, Bloom will display a warning in the lower portion of the Talking Book tool controls, saying **To split recordings into sentences, first install the aeneas system.**

How to install aeneas

1. Click the link under “aeneas” in the Talking Book Tool’s warning box, or navigate to this webpage to download the aeneas software: https://github.com/sillsdev/aeneas-installer/releases/tag/v1.7.3

1. Click the `aeneas-windows-setup-1.7.3.exe` link to download the software.

1. Find the downloaded `aeneas-windows-setup-1.7.3.exe` installer program (probably in the **Downloads** folder) and double-click it to launch the software installer. Windows will show you a User Account Control window, asking whether you want to allow the app to make changes to your device. Click **Yes**.

The aeneas tools setup wizard will start.

1. Click **Next** to follow the steps of the setup wizard. **Do not make any changes to the default installation settings unless you are sure what you are doing.**

1. When you reach the “Ready to Install” screen, click **Install.** You will see a number of installation status screens, including some in the Windows command line.

Eventually, you will see a “Completing the aeneas tools Setup Wizard” screen.

1. Restart your computer.

Now you can record an entire text box in Bloom, and let Bloom automatically split the recording into sentences.

Installing BloomPub Viewer

These days — for very good safety reasons — Windows makes it difficult to install programs that are not widely used. The BloomPUB Viewer is one such program. In this article, we will give steps to overcome the difficulties associated with installing BloomPUB Viewer.

We will show you how to:

- Bypass the caution message on Chrome when downloading the BloomPUB Viewer.
- Bypass the caution message on Windows Defender.

Step 1: On the CREATE tab of Bloom Library, click DOWNLOAD BLOOM

Step 2: Click the link for “BloomPUB Viewer for Windows” under “Related Software”

Your browser will open up a webpage on github.com. This page contains links to *all* versions of the BloomPUB Viewer program (current and previous versions).

Typically, you will want to install the *latest* version. The latest version will always be listed at the top of the page. It will be marked “Latest”:

Step 3: Click the arrow beside “Assets”

To access the link to the actual installer program, click on the arrow ► beside “Assets” to reveal all of the files.

The arrow will change from ► to ▼.

Step 4: Click on the very first setup file in the list

CAUTION

Your browser may now present a File Explorer dialogue so you can Save the program to any location you wish, or your browser may automatically begin to download the program.

After the program has finished downloading, typically, it will show up at the bottom of your screen like this:

In the picture above, the exclamation mark `!` is indicating that the installer program for BloomPUB Viewer is potentially dangerous. Remember, this is only because BloomPUB Viewer is not used by many people. The program is safe.

Step 5: Click the arrow beside the “Discard” button and then click “Keep”

If your browser marked the BloomPUB Viewer installer as potentially dangerous, the default action your browser will suggest is to *discard* the installer. But since we know BloomPUB Viewer is a safe program, we need to override this default action and instead *keep* the downloaded file.

To do so, click on the arrow beside the “Discard” button, and choose “Keep”:

Now, the downloaded program will now no longer show the red `!` mark:

TIP

In the above examples, we are using the web browser **Chrome**. Be aware that other web browsers (e.g. Edge, Firefox) will have slightly different ways of unblocking potentially dangerous installer programs.

Step 6: Click on the downloaded program

Click on the downloaded program to install it.

At this point, Windows Defender will probably halt the installation and will present a screen to alert you to a potentially dangerous program.

By default, this screen offers only one button: “Don’t run”.

CAUTION

Remember, if you download some other program which you are not 100% sure is a safe program, then always click on the “Don’t run” button.

Step 7: Click on “More info”

Since you know that “BloomPUB Viewer” is a safe program, you can click on “More info”:

Step 8: Click on “Run anyway”

Windows Defender now shows an additional button, “Run anyway.”

Click on this.

The program will now install and launch:

Share a BloomPUB via Wi-Fi (Firewall Permissions)

In Bloom, when you Publish your book to BloomPUB, there are three available publishing options:

- **Share over Wi-Fi** to a device
- **Save BloomPUB File** to your computer
- **Send over USB Cable** to a device

The first option allows you to share your BloomPUB to an Android device which has Bloom Reader installed on it.

When you do this action for the very first time, the "Firewall" on your computer will initially block the action.

For example, Windows Defender Firewall will show the following alert:

To allow Bloom to share books over Wi-Fi to devices (phones or tablets), you need to click the "Allow access" button.

You will need to do this once for each new version of Bloom you install.

How to Embed a single book from Bloom Library In Your Website

It is possible to embed an interactive book directly on your website, if your website supports “iframes”.

```
<iframe
  src="https://embed.bloomlibrary.org/bloom-player/bloomplayer.htm?url=URL-TO-THE-BOOK"
  title="my book"
  height="500px"
  width="100%"
    allow="fullscreen"
    allowFullScreen={true}
  initiallyPaused={true}
/>
```

For example, if we use

```
<iframe
  src="https://embed.bloomlibrary.org/bloom-player/bloomplayer.htm?url=[https://bloomlibrary.org/player/Da5Scm1XBK](https://bloomlibrary.org/player/rFnCBRPsDs)"
  width="100%" height="450px" allow="fullscreen" allowFullScreen={true} initiallyPaused={true}
/>
```

then we get

01a - Cat and Dog: Alphabet

01a - Pusi na Dok: Ol Leta

v1.0

English

Prim

NOTE

It does cost us something to “deliver” books in this way. We don’t expect this will be a problem, but if in the future we had books that became expensive to serve this way, we might limit access to the service.

How to Disable Display Scaling

When publishing your Bloom book to video, if the display settings of your monitor have “scaling” applied, then Bloom will give a warning and will disable the RECORD button.

To disable the scaling for your monitor, click the link “Open Display Settings”.

Now, scroll down until you see “Scale and layout”. There you will find a percentage % set to something greater than 100%.

Click the down-arrow:

Click on 100%:

Your scaling is now set to 100%. This is the same as saying that scaling has been disabled.

For Bloom to recognize that your scaling has changed, you need to exit the Publish tab, then return to Publish.

The RECORD button will now be enabled. Click the RECORD button to begin your recording:

The “Lost and Found” folder

A book gets put in Lost and Found in three scenarios:

1. When **Joining** an existing Team Collection, Bloom finds that there is already a Working collection by the same name and it contains a book with the same book ID as one in the Shadow collection but a different name.
2. When **Joining** an existing Team Collection, Bloom finds there is already a Working collection by the same name, and it contains a book with the same name as one in the Shadow collection but a different book ID.
3. When Syncing a Team Collection, Bloom finds a book that is checked out and edited in the Working collection, but is recorded in the Shadow collection as being: a) checked *out* by you elsewhere, or b) checked *out* by someone else, or c) checked *in* but edited and changed in any way.

#3b will create a NotifyUserOfProblem, allowing the user to report it.

#1 and #2 represent somewhat unusual circumstances, but not necessarily a failure of our code.

#3a and #3c probably indicate some failure of the checkout/checkin system, though it could be something else (e.g., someone unwisely restored an old backup of the Dropbox folder).

Installing & Updating WebView2

Bloom 5.5 and later requires the Microsoft WebView2 Runtime “Evergreen” to be installed and up to date. If your computer regularly receives Windows Updates, you will already have this. Otherwise, follow these instructions:

Only for you?

Click here to get a small program from Microsoft. When you run it, it will download and install whatever you need. It may mention “Microsoft Edge” instead of “Webview2”, that’s fine.

Want to save bandwidth by getting an installer you can share with others offline?

Click here for a page that will let you download a large (~140mb) installer that you can share with others. When you get that page, click the one that says “x64”:

Introduction

Distributing SD cards that are *pre-loaded* with BloomPUBs is a fast and convenient way for an organization to grant users access to an *entire library* of Bloom books. This is a particularly useful distribution method when the intended consumers of these books have limited or no access to the Internet in their home environment. An additional benefit of distributing BloomPUBs pre-loaded on SD cards is that the books are safeguarded from accidental deletion from within the Bloom Reader app. (They can, of course, be deleted through other means.)

An alternative is to sell phones pre-loaded with the Bloom Reader app already installed and a library of books.

In this article, we will provide step-by-step instructions for both methods.

1. Distributing Bloom books on SD Cards
2. Distributing Books via Pre-loaded Phones
3. Advanced Options

1. Distributing Bloom books on SD Cards

When **Bloom Reader** starts, it automatically looks for an SD card and for certain private folders reserved for the app. If it finds such a folder, it includes the books it finds there in the list of available books to read. If it finds `.bloomshelf` files, Bloom Reader also organizes the books according to those *shelves*.

There are three steps:

1. **Gather your BloomPUBs**
2. **Create the required folder on your SD card**
3. **Copy over the BloomPUBs**

1.1. Gather your BloomPUBs

Gather all the books you want to distribute. These books will have an extension of either `.bloomd` or `.bloompub`. You can get BloomPUBs by downloading them from the Bloom Library (or perhaps a colleague has sent you a BloomPUB directly).

Downloading BloomPUBs from the Bloom Library

From Bloom Library, click on the book you desire and look for the Download section. Then click on the BloomPUB icon; for example:

Publishing BloomPUBs from the Bloom Editor

Using the Bloom Editor, you can make a BloomPUB file of any book in your collection by choosing the Publishing tab ❶, selecting the Bloom Reader button ❷, selecting the **Save Bloom Reader File** button ❸, then clicking the **Save…** button ❹**:**

1.2. Create the folder on your SD card

After gathering all your Bloom books on your computer, you will then use your computer to create the following series of folders on the SD card:

`Android\data\org.sil.bloom.reader\files\Books`

For example, if you mount the SD card as drive **D** on a Windows PC, you will first create the Android folder:

`D:\Android\`

Then, in the Android folder, you'll add the data folder:

`D:\Android\data\`

And so on until you have a series of nested folders as follows:

`D:\Android\data\org.sil.bloom.reader\files\Books`

💡 Note that capitalization must be *exactly* as shown.

1.3. Copy over the BloomPUBs

Copy the BloomPUBs into the folder.

The SD card is now ready to distribute.

1.4 Optional: Folders & Bookshelves

Beginning with **Bloom Reader** 3.0, you can organize this folder using subfolders. For example, you could have:

`Android\data\org.sil.bloom.reader\files\Books\FooGrade1\letters.bloompub`

`Android\data\org.sil.bloom.reader\files\Books\FooGrade1\numbers.bloompub`

`Android\data\org.sil.bloom.reader\files\Books\FooGrade2\animals.bloompub`

2. Distributing Books via Pre-loaded Phones

2.1. Connect the phone to your computer

To pre-load your books onto a phone, you will need to connect the phone through a USB cable to your computer. Depending on the device and its version of Android, it may or may not allow immediate access. If immediate access is granted, then the phone will show up in Windows Explorer under “This PC”.

Here’s an example:

If you cannot see the connected phone, you will need to open your phone’s settings and find “USB settings.” There will be an option to allow you to transfer files.

Here’s an example:

2.2. Create a folder called “Bloom”

Once the phone is successfully connected, using Windows File Explorer, create a new folder called “Bloom” on the root of the Internal storage.

2.3. Copy over the BloomPUBs

Drag and drop all the desired books to the newly created Bloom folder.

2.4. Install Bloom Reader

Install Bloom Reader on the phone, either through the Google Play store or by copying the app to the Download folder and then “side-loading” the Bloom Reader from the phone’s file manager app.

To “side-load” the Bloom Reader app, you will need to grant permissions. For example, you may see something like this:

Click Settings to modify the permissions for installing unknown apps. Grant permission to your file manager by sliding the slider to the right ❶. Then click to Install Bloom Reader ❷:

2.5. Check for Lost Books

When Bloom Reader opens and detects the folder “Bloom” in the internal storage, a prompt will appear to allow you to retrieve these books.

Click on “Check for Lost Books”:

Click **OK** to the following prompt:

The file manager will then show the Bloom folder. Click on the blue button, “USE THIS FOLDER”:

Finally, another prompt to confirm access will appear. Click ALLOW:

Bloom Reader will transfer all the BloomPUBs from the Bloom folder into its private folder.

The phone is now ready for distribution.

3. Advanced Options

> ⚠ **CAUTION**
>
> This section described advanced options and is *not* recommended for most users.

Using Bloom Reader Beta or Alpha

The private books folder is *specific* to each ‘channel’ of Bloom Reader. Unfortunately, this means that if you want to make an SD card that will work seamlessly with Bloom Reader Beta, the books must be placed in:

`Android\data\org.sil.bloom.reader.`**`beta`**`\files\Books`

and for Bloom Reader Alpha, in

`Android\data\org.sil.bloom.reader.`**`alpha`**`\files\Books`

If you wish, and you have enough space, you can place the same collection in all these locations on the same SD card, so that it works with multiple “channels” of Bloom Reader.

Support for older Bloom Reader versions

Bloom Reader will also notice the existence of the older system using a `\BloomExternal` folder at the root of the SD card, if it does not find `\Android\data\org.sil.bloom.reader\files\Books`.

N.B. : you can use *either* the `\BloomExternal` folder, *or* the private Books folder, not both at the same time. (Both can be present, as explained below, to support both old and new versions of BloomReader, but the newer versions will ignore `\BloomExternal` if they find the private Books folder, expecting it to be a duplicate.)

This is more complicated and is *not* recommended. The following are technical notes for those who need to know:

If Bloom Reader finds a `\BloomExternal` folder and does not find the private books folder described above, it will show a button the user can click, which will show instructions and guide the user through the process of giving BloomReader permission to access the folder. Once this permission is granted, books in `\BloomExternal` work just like those in the private books folder (except it will be somewhat slower, especially for larger books). If you

have a need to support both newer (3.0+) and older (pre-3.0) versions of Bloom Reader, you can place the same collection of books in both places. However, we don't expect this to be necessary for long, since devices will typically upgrade automatically to the latest version. It does mean, though, that SD cards made for older versions of Bloom will go on working, albeit less conveniently.

So, you can:

- Make SD cards with just books in `\Android\data\org.sil.bloom.reader\files\Books`. They will be ideal for current BloomReader.
- Keep using or making SD cards with just books in `\BloomExternal`. They will work with all versions of Bloom Reader, but will be slower with newer versions and require the user to give special permission
- Make SD cards with the same books in both **\Android\data\org.sil.bloom.reader\files\Books** and `\BloomExternal`. They will work well with both new and old versions of BloomReader.

My Books

When you are logged into your Bloom Library account, there is a convenient way to view all of the books you have uploaded to the library.

First, you must **Sign In** to your Bloom Library account:

1. **Click on the blank avatar symbol in the top right corner.**
2. **Click on** `Sign In / Sign Up`.

Bloom Library will present two options: you can `Sign In with Google` , or you can `Sign In with email`:

After signing in, your avatar will be displayed in the top right corner.

1. Click on your avatar.
2. Click on `My Books`.

Following this, all of your books will be presented.

When Bloom is prevented from changing its image files

Some users regularly run into an error in which something is preventing Bloom from updating some image files.

We are investigating this and will put more information here as we learn more.

Starting with Bloom 5.5, if you get this error, you will be directed to this page for more information.

Likely Cause

Our leading theory is that these users have some non-Microsoft anti-virus program installed that is aggressively preventing Bloom from working with its own files, particularly .png files (these files are known to be able to carry viruses).

For now, if you run into this problem, please help us learn:

1. If the problem comes and goes, or if it is constant.
2. If you are using an extra antivirus program (beyond the built-in Windows Defender), try telling your antivirus to exclude Bloom. This is called “whitelisting”. For help with this, please refer to this article. If you do not feel comfortable doing that, try temporarily disabling your antivirus.

Let us know if that helps so that we can spread the word to other people.

Alternate Causes

If you are *not* using a non-Microsoft anti-virus program and you are encountering this problem, then there are a number of less-likely, yet possible, causes:

User access settings for Bloom folders

About once a year, we work with someone whose Windows computer won't let Bloom access its own files. We don't know what causes that, but here's how to fix it:

1. Locate your Bloom folder. Normally this folder is Documents/Bloom.
2. Right click on the folder and choose "Properties".
3. Click on the "Security" tab.
4. Click Edit.
5. Click Add.
6. Type *everyone*.
7. Click OK.
8. Next to "Full Control", tick the box next in the "Allow" column.
9. Click OK.
10. Click OK.

Interference from a backup program

If you are using a cloud backup program, such as OneDrive, Dropbox, or Google Drive, then it is possible that there could be a very brief disruption when Bloom is trying to access some particular files. If this happens, the problem should resolve itself almost immediately.

Introduction to the problem

Bloom works great with the antivirus program that is built into Windows, which is called “Windows Defender”. Most people don’t need or want anything more than that.

However, some people choose to add a second antivirus program. These programs often wrongly say that Bloom is a problem. Bloom has a small audience, so these programs don’t recognize it. They assume the worst and start interfering with it. For example, you might see:

If your antivirus program is complaining about Bloom, do not write to us about it — there is nothing we can do. Instead, if you trust Bloom, you can tell your program that Bloom is OK. This is sometimes called “whitelisting”.

In this article, we will show you how to do this in a couple of different programs.

General Instructions for Whitelisting Bloom

When you install Bloom, it adds a special folder to your computer. The path to this folder will be:

```
C:\Users\YOUR USER NAME\AppData\Local\Bloom
```

Every antivirus or antimalware program provides a way for you to tell it that **Bloom** is *safe*. You do this by telling your antivirus or antimalware program that this Bloom *folder* is safe.

For some programs, you will add the Bloom folder to a list of “allowed” folders.

For other programs, you will add the Bloom folder to a list of “excluded” folders.

In either case, the result is that your program will no longer scan the Bloom folder looking for virus threats or Adware threats.

Each antivirus program will have its own method for doing this.

Total AV

To begin, click on the **gear icon** to go to program settings:

Next, in the (1) Antivirus Scans tab, click to (2) add an Excluded folder:

Navigate to the Bloom folder under \AppData\Local\ and click Select Folder.

The Excluded folder list will now have Bloom:

Malwarebytes

To begin, do the following three steps:

1. Click on the **gear icon** to go to program settings.
2. Click on the **Allow List** tab
3. Click the **Add** button

Next, choose “Allow a file or folder”:

Next, choose “Select a folder” and navigate to the Bloom folder under \AppData\Local.

Click Done.

If you also use Bloom Beta, then you will need to repeat the process to add the Bloom Beta folder as well.

In the end, your **Allow List** should now look like this:

WebView2 Trouble

> **TIP**
>
> Please **[Problem Internal Link]** if you get directed here by Bloom. Even if the following instructions work for you, we need to know that this is actually happening to someone!

Bloom's user interface is powered by the same browser engine as Microsoft Edge, which is named "WebView2". If WebView2 were to get damaged in some way, Bloom would not be able to run. It would direct you to this web page.

If this happens to your, here are some things to try:

Click "Modify", then "Repair":

Repair Microsoft Edge WebView

Repairing Microsoft Edge WebView requires an internet connection and will reinstall the browser. Your browser data and settings won't be affected.

Repair | Cancel

If the repair doesn’t work

> **TIP**
>
> Please **[Problem Internal Link]** if you get this far. Even if the following instructions work for you, we need to know that this is actually happening to someone!

We have seen a situation where the above does not fix the problem, and have prepared a “nuclear option”: tell Bloom to use the WebView2 that comes with Microsoft Edge. To do this, create an environment variable named “BloomWV2Path” and set it to “edge”:

Close these windows and run Bloom again. If this doesn’t work, or even if it does, Please **[Problem Internal Link]**.

Glossary

1. Mouse: click and right-click
2. Shell Book

CAUTION

This page is a work in progress.

Mouse: click and right-click

One example in Bloom where a right-click is needed is when you want to Duplicate or Delete a Book. To access these commands in Bloom, you need to right-click on the book's thumbnail. Doing so will reveal these commands (and others).

Shell Book

"Shell Books" (sometimes called “Shells”) are books that have been intentionally designed by their authors to be translated into other languages.

Generally, Shell Books are first made available in languages of wider communication in order to facilitate and encourage easy and simple book production in local languages.

Most of the books uploaded to Bloom Library are “shell books” because the authors of these books have published them using Creative Commons licensing. This means they can be freely adapted or translated into other languages.

The Bloom Desktop Editor is designed to work well with Shell Books.

When you explore Bloom Library and you see a book that you like, there is a very high chance that you will see a button like this:

This button means this is a Shell Book and can be translated into your language.

When you click on this button, the shell book will be downloaded into the Bloom desktop editor. Once it is downloaded, you can choose to make a new book from that shell book by clicking the button “MAKE A BOOK USING THIS SOURCE”:

On each page of this shell book, you will see the original text in some majority language (the example below has English), as well as an empty space for you to type in your translation:

PDF Downloads

PDF of English Docs in A4