**PSU ICDS Interns**  
Kenny Hummel  
Lahkota Heverly  
Summer 2023

Confluence to Bookstack Migration

**Introduction:** This is a document to provide guidelines for the Confluence to Bookstack migration taking place. The reason behind this migration is that Atlassean products are moving to cloud only hosting in early 2024, and ICDS would like to keep their documentation hosted more securely, locally. The teams currently use Atlassean Confluence to keep notes and Atlassean Jira for coding collaboration and documentation. Jira and it’s BitBucket will be replaced with GitLabs while Confluence will be replaced with the open source program called Bookstack.

The migration will start with a general re-ordering and re-organization of the existing Confluence spaces in order to better migrate the files involved. Niccole Klueber has provided a general structure for the eventual re-organization as pictured below.

A screenshot of a document

Description automatically generated

**Prerequisites:** It is assumed that you have an instance of Bookstack installed already. You will need…

- Network Admin access to the Bookstack instance

- Admin access to the host running the bookstack instance

- SSH connection from your workstation to the host machine for cli, and file transfer. I used PuTTY, just install in default directory for below instructions to work.

Install PuTTY [here](https://putty.org/)

pscp through Putty works well for SSH, instructions to set up Path Environment in Windows here…new versions of Putty have it installed already..you simply have to make the path to PuTTY available to windows.

Press Windows Key and type “Path Variable”…select “Edit the system environmental variables”

Select “Environment Variables…” button

Select “New…” button

Enter the following information into the Edit User Variable window…

Path variable Instructions
Variable name: pscp
Variable value: C:\Users\mkh5089\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\PuTTY (64-bit)

Variable name: pscp  
Variable value: C:\Users\mkh5089\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\PuTTY (64-bit) (windows appears to auto shorten the path by removing C:\)

Now you will be able to securely transfer your exported HTML to your virtual machine in charge of running your instance of Bookstack, or vice versa from a windows command prompt…use…

pscp <source> <target>   
 For example…  
 pscp C:\Downloads\HTML.zip user@5.5.5.5:/home/user/Bookstack/  
 sometimes it helps to specify the port using -P <Port Number>…I typically do this…  
 pscp -P 22 C:\Downloads\HTML.zip [user@5.5.5.5:/home/user/Bookstack/](mailto:user@5.5.5.5:/home/user/Bookstack/)

**Note:** this only works to transfer individual files. You will need to zip them first and make sure both machines have the capability to zip/unzip files. This will help to preserve the needed file structure anyway. I used 7zip in Windows and the ‘zip’ and ‘unzip’ utilities in linux. You CAN transfer folders, if you know how to do that then you didn’t need these particular instructions anyway.

- An organized as possible Confluence Space to minimize work after migration. The chart in the intro paragraph summarizes the general plan.

*These instructions will apply to each space. However, once you get one you will know how to do the rest.*

1. **Exporting Confluence as HTML** (I only added these as it was confusing at first to figure out where to begin this export process from. I hope this helps)
2. Navigate to the Space Directory and select a Space  
   A screenshot of a computer

   Description automatically generated
3. From within a space go to “Space tools” located in the very bottom-left of the screenA screenshot of a computer

   Description automatically generated
4. Space Tools\Content Tools\Export – Export the space as HTML. Each space with the default script will create a single book. (This might be altered if my script works well) A screenshot of a computer

   Description automatically generated
5. Confirm and download.
6. Rename the folder downloaded exactly as the space it was downloaded from. It comes with a generic Confluence-space-export then a string of numbers by default.  
     
   A screenshot of a computer

   Description automatically generated

*Rename this to the intended name of the Space, which will become a book in Bookstack*

A screenshot of a computer

Description automatically generated

*A much better name…make sure it matches what you want it to become in Bookstack*

1. **Transfer files to Bookstack Instance**
2. Zip up the Space for export using [7zip](https://www.7-zip.org/) or compression utility of your choice. In this example it is assumed to be in your download folder. This not only reduces the file size but also gets us over hurdles in transferring file structure into the Bookstack host machine.

A screenshot of a computer

Description automatically generated

*Zip using utility of your choice*

A screenshot of a computer program

Description automatically generated

*I recommend .7z, .tar, or .zip formats; however, I use .zip in my examples*

1. Open up an administrator command prompt, navigate to your downloads folder, and use the following command. Just place them in your user folder for now. Don’t clutter the Bookstack directory. These can be deleted when you import, or when all imports are done. You are the captain of your own ship. Anyways, enter your VM password when prompted…

pscp -P 22 <name of file to be exported> YourVMUserName@YourVMAddress:/path/to/your/user/directory

A computer screen with white text

Description automatically generated

1. Log into the Bookstack host using PuTTY; just enter the IP address or Host Name in the box, confirm SSH is check and click “Open”. Enter your username and password as prompted.

A computer screen shot of a computer

Description automatically generated

1. Install the unzip utility of your choice for Linux using the command prompt. We will use 7zip. The commands will obviously be different for different versions of Linux. One of the 3 commands I give will most likely work…starting with fedora as the Bookstack instance currently being tested is hosted on Redhat.

First give everything an update…

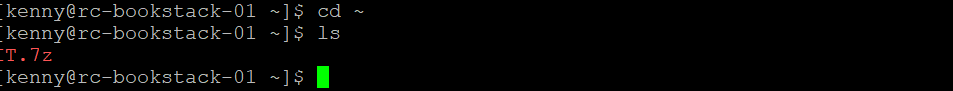
sudo yum update OR sudo dnf update OR sudo apt update

Then install 7zip…

sudo yum install p7zip OR sudo dnf install p7zip OR sudo apt-get install p7zip

1. Navigate to your home directory for your user and confirm your zipped file is in there.

cd ~  
ls



1. Unzip the file with 7z using the command **sudo 7za x IT.7z** (make sure to use the ‘x’ to preserve file structure otherwise you will unzip many, many files into that directory)

A screenshot of a computer

Description automatically generated

1. Navigate to the bookstack directory and clone the icds-bookstack-html-importer inside of it. By default Bookstack is installed in /var/www/bookstack, however, our test instance in my case is /var/www/BookStack/. Use the commands…

cd /var/www/BookStack

sudo git clone <https://github.com/PSU-ICDS/icds-bookstack-html-importer.git>

A computer screen with white text

Description automatically generated

1. Head to the new cloned directory with just created with…  
    **cd** **icds-bookstack-html-importer**   
     
   From here we are going to want to unzip simplehtmldom.zip in order for my script to access it…  
     
   **sudo 7za x simplehtmldom.zip** (again make sure to include the ‘x’ to preserve file structure
2. Acquire your OAuth token and setup credentials.php
3. Login to Bookstack
4. Head to your profile image in the top right and open the menu, select “Edit profile”, this seems counterintuitive but it is where you will set up your token.

A screenshot of a computer

Description automatically generated

1. Scroll to the bottom of the ‘edit profile’ page and select ‘New token’

A screenshot of a computer

Description automatically generated

1. Give the token any name you choose and an expiration date. You wont need this token very long and if you need to migrate again you can create another.

A screenshot of a computer error

Description automatically generated

1. Open notepad and paste in the information pertaining to your token…you can easily paste this into your credentials.php file this way…no need to actually save the notepad file.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

*Make it easy on yourself and give a copy/paste into your notepad*

1. Back in PuTTY or in any Code Editor with an SSH plugin as well as a ‘save as root’ plugin, open your credentials.php located inside the cloned /icds-bookstack-html-importer directory. Enter the credentials and save the file.  
     
   **sudo nano -c credentials.php** (-c to activate line count to help you find the below lines)

A screen shot of a computer

Description automatically generated

*Make sure to enter the correct IP or Domain of your Bookstack instance*

…Make sure to save and exit CRTL + X, then hit one for yes, then ‘enter’ to exit

1. Open importer.php located in the same directory…  
     
   **sudo nano -c credentials.php** (-c to activate line count to help you find the below lines)  
   …check out lines 20-21. Enter the title of the Book you wish to create, make it the same name of the ‘Space’ you renamed earlier. Also, enter the path to your HTML import, which we put into our /home/user folder earlier. In my case /home/kenny/IT.

A screen shot of a computer program

Description automatically generated

*Lookin’ good.*

….save and exit

1. Copy bookstack\_client.php into the root of bookstack. The default installation directory is /var/www/bookstack, however, in my case it is /var/www/BookStack.

**sudo cp bookstack\_client.php /var/www/BookStack**

1. Run importer.php

**sudo php importer.php**

A screenshot of a computer

Description automatically generated *We have created the book called “IT-Example”*