Focal Homepage and Focal Software User Guide

Summary

This guide provides comprehensive instructions for installing, using, and managing the Focal homepage and Focal software, aiming to deploy a static frontend website and a standalone backend management software. It includes frontend and backend operations, local testing, deployment, and troubleshooting.

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Contents

1. F	rontend File	.1
	Frontend File Structure	. 1
	Deployment to School Server	. 1
	Local Testing	. 1
2. F	ocal Software Installation and Usage	. 1
	Software Features	. 1
	System Requirements	. 2
	Installation Steps	.2
	Usage Instructions	. 2
3. L	Ipload & Share Feature Overview	. 3
	Feature Introduction	.3
	Use Cases	. 3
	Uploading Files	.3
	File Management	. 3
	URL Types	.4
4. N	lanage Web Pages Feature Overview	. 4
	Feature Introduction	.4
	Use Cases	. 4
	URL Types	.5
	Usage Instructions	. 5
5. E	dit About Me Feature Overview	. 6
	Feature Introduction	.6
	Page Structure	.6
	Profile Information Management	. 6
	Sections Management	. 7
	Save Edits	. 8
6. E	dit Publications Feature Overview	.8
	Feature Introduction	.8
	Adding and Managing Categories	.8
	Adding and Managing Publication Items	.8
	Editing Publication Entries	. 9

	Adding Meta Data	9
	Save Edits	9
7. E	Edit Team Feature Overview	10
	Feature Introduction	10
	Page Structure and Usage	10
	Section Management	10
	Team Member Management	10
	Save Edits	11
8. I	Edit News Feature Overview	. 11
	Page Structure	11
	Feature Introduction	11
	Use Cases	11
	Feature Details	12
	Save Edits	13
9. I	Edit Resources Feature Overview	. 13
	Page Structure	13
	Feature Introduction	13
	Use Cases	13
	Feature Details	13
	Save Edits	14
10.	Change Password Feature	. 14
	Feature Introduction	14
	Usage Instructions	. 14
	Default Password Usage Prompt	. 15
	Success Prompt	15
11.	One-Click Export Feature	. 15
	Feature Introduction	15
	Usage Instructions	. 15
12.	Q&A	. 16

1. Frontend File

Frontend File Structure

All frontend-related files are stored in the 'Frontend' folder. The structure is as follows:

- 'Frontend'
 - o 'build' folder: Contains all static files, including HTML and other resources.
 - o 'frontend test.bat': Batch script for local testing.
 - 'test_frontend_static_server' folder: Contains the server program and configuration files for local testing, which can be ignored.

Deployment to School Server

Copy all contents of the 'Frontend\build' folder to the corresponding directory on the school server to complete the deployment. These are static files and do not require additional configuration.

Local Testing

You can perform local testing on a Windows computer by following these steps:

- 1. Open the 'Frontend' folder.
- 2. Double-click the 'frontend test.bat' script.
- 3. The script will start and automatically deploy a local static resource server.
- 4. Open a browser and visit 'http://localhost:1005/' to view the static web page.
- 5. After viewing, close the DOS window to shut down the local static resource server.

These steps are suitable for local testing. For actual deployment to the school server, just copy all files in the 'build' folder to the corresponding directory on the server.

2. Focal Software Installation and Usage

Software Features

The Focal Software allows users to manage frontend content, including the following features:

- Preview frontend effects
- Modify frontend display content

- Upload files to the cloud
- Publish new web blog pages
- One-click export of all frontend data to update the frontend static server

System Requirements

Focal software is compatible with Windows 64-bit operating systems.

Installation Steps

- 1. Double-click 'Focal Setup 1.0.0.exe'.
- 2. Follow the prompts by clicking "Next" until the installation is complete.
- 3. After installation, a software icon named 'Focal' will appear on the desktop.



Usage Instructions

- 1. Double-click the 'Focal' icon on the desktop to run the installed Focal software.
- 2. The software will display a page identical to the actual website. You can preview frontend effects, make modifications, upload files, and publish new web pages.
- 3. Click the button as shown in the image to enter the login system.



- 4. Enter the username and password to log in. The current database has the following username and password:
 - o Username: 'weixingchensimon@gmail.com', Password: 'This_is_a_Demo_Account!'
- 5. After successful login, an 'Admin Dashboard' tab will appear in the navigation bar. Click this tab to enter the management page.
- 6. Use the Focal software to manage content. After completing all modifications, use the Focal software to export all data to a folder named 'upload files'.
- 7. For local testing or replacing the 'upload_files' folder on the school's server, use this exported folder:
 - o For local testing, replace the 'upload_files' folder in the 'Frontend\build' folder and run the 'frontend test.bat' script to view the effects.

 For official deployment, replace the exported 'upload_files' folder on the server with the folder of the same name.

3. Upload & Share Feature Overview

Feature Introduction

Click 'Upload & Share' to enter this feature page. On this page, you can upload various types of files. This page acts like a cloud drive, storing the files you want to share and generating a URL that can be shared on the internet.

Use Cases

- Paper Sharing: Upload your paper PDF file and insert the generated URL into the Link area of the
 'Publication' page so others can download your paper by clicking the link.
- Resource Sharing: Add uploaded files to the Link area of the 'Resources' page, making it easy for
 others to download resources you uploaded to the server.
- **News Resources**: When posting news on the 'News' page, you can insert resource download links so readers can download related resources.
- **Direct Sharing**: You can also directly share the complete URL with others to access your shared resources via the internet.

Uploading Files

Click the 'Upload File' button to upload a new file. The uploaded file will automatically generate a URL that can be shared on the internet.

File Management

Each file in the list has two action buttons:

- Copy URL: Copy the URL of the uploaded file.
- Delete File: Click the delete button to remove the file if you want to stop sharing it.

URL Types

Click the copy button \Box to view and copy the URL of your uploaded file. There are three types of URLs:

- Full URL: Includes the full website domain, suitable for sharing directly with people on the internet.

 You need to replace 'https://www.example.com/SteveHranilovic' with the actual address of your homepage.
- Relative URL: Omits the domain part, suitable for pasting into the Link areas of the 'Publication',
 'News', and 'Resources' pages. Relative URLs come in two forms as follows:
 - Relative Download URL: Directly downloads the resource when clicked, suitable for files that need to be downloaded, such as compressed packages.
 - Relative View URL: Opens a new page to display the resource when clicked, suitable for online previewable files like PDFs or videos.

4. Manage Web Pages Feature Overview

Feature Introduction

Click 'Manage Web Pages' to enter this feature page. The 'Manage Web Pages' feature allows you to easily create a new web page, similar to posting a blog, and generate a URL for this new web page.

Use Cases

- Research Progress: Publish your latest research progress to expand your influence.
- Academic Lectures: Publish a web page to share information about academic lectures and share the
 URL on LinkedIn, Facebook, and other platforms. People can read your new article and may click
 other tabs on the page to view more information about your homepage, thereby expanding your
 academic influence.
- Long-Form News: If you need a long-form web page to record news, use this feature to publish a news web page and insert it into the 'News' page. People can click the link to directly jump to the web page.
- **Course Information**: If you have a new course, use this feature to publish course information.
- Publication Display: Insert this web page link into the 'Publications' page to display new
 publication content.

 Resource Page: Insert the newly created web page into the 'Resources' page for easy sharing of new resources.

URL Types

- Full URL: Suitable for sharing directly on internet platforms like LinkedIn and Facebook.
- Relative URL: Omits the domain part, suitable for pasting into the Link areas of the 'Publication', 'News', and 'Resources' pages.

Usage Instructions

- 1. Click the 'Create New Web Page' button.
- 2. Enter the title and content to publish the page (as shown in the picture below). The content area supports inserting images, videos, code snippets, adjusting paragraph separators, and setting font size and color, etc.
 - o For detailed usage, refer to the first web page in the 'Web Pages List' titled "Tutorial on Using the Rich Text Editor for Dr. Steve Hranilovic's Lab Homepage."



- 3. Several sample pages are pre-written in the 'Web Pages List' for reference.
- 4. Each web page has four buttons:
 - o **Preview**: View the published appearance of the article.
 - o **Edit**: Modify the web page.
 - o **Delete**: Remove the web page.
 - o **Copy URL**: Copy the full or relative URL.

5. Edit About Me Feature Overview

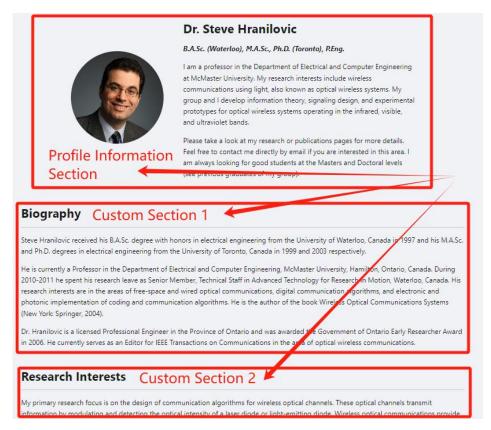
Feature Introduction

The 'Edit About Me' page allows users to edit and manage personal information and various sections on their homepage. Users can update personal information, add and edit multiple sections, and manage subsections within each section. This page is designed to help users create a detailed and professional personal profile page, showcasing their academic background and research interests.

Page Structure

The 'Edit About Me' page is divided into multiple sections:

- 1. **Profile Information**: Personal information section where you can modify your degree, profile image, and introduction.
- 2. **Sections**: Multiple optional sections with the same structure, such as Biography, Research Interests, etc.



Profile Information Management

- Degree: Edit and update your degree information.
- Profile Image: Upload or replace your profile image.

• Introduction: Edit your personal introduction.

Sections Management

Each custom section structure includes:

• **Edit Section**: Click the 'Edit' button next to each section title to edit the section's title and description.

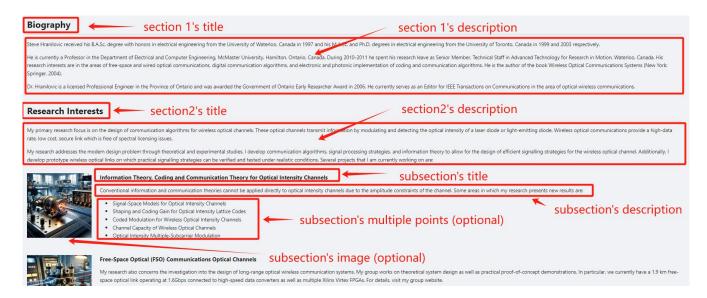


- **Delete Section**: Click the 'Delete' button next to each section title to delete the section.
- Add Section: Click the 'Add Section' button at the bottom of the page to add more sections.



Within each section, you can have multiple optional subsections:

- Add Subsection: Click the 'Add Subsection' button at the bottom of each section to add a new subsection.
- Edit Subsection: Click the 'Edit' button next to each subsection to edit the subsection's title, description, image (optional), and multiple points (optional).
- Add Point: Click the 'Add Point' button at the bottom of each subsection to add more points.
- **Delete Subsection**: Click the 'Delete' button next to each subsection title to delete the subsection.



Save Edits

After completing all operations, click the 'Save' button at the bottom of the page to save all changes.

6. Edit Publications Feature Overview

Feature Introduction

The 'Edit Publications' feature allows users to manage and display a list of the professor's publications. Users can add, edit, and delete multiple categories and their corresponding publication entries on this page. This feature is designed to help professors systematically showcase their academic achievements and research work.

Adding and Managing Categories

- Add Category: Click the 'Add Publication Category' button at the bottom of the page to add a new category.
- 2. **Adjust Category Order**: Click the up and down buttons next to each category title to adjust the display order of the categories.
- 3. **Edit Category Name**: Click the 'Edit' button next to each category title to modify the category name.
- 4. **Delete Category**: Click the 'Delete' button next to each category title to delete the entire category.

Adding and Managing Publication Items

- 1. Add item: In each category, click the 'Add Item' button to add a new publication item.
- 2. **Adjust Item Order**: Click the up and down buttons next to each entry to adjust the display order of the publications.
- 3. Edit Item: Click the 'Edit' button next to each item to edit the publication item.
- 4. **Delete Item**: Click the 'Delete' button next to each item to delete the publication item.

Editing Publication Entries

Each publication entry has four buttons: move up, move down, edit, and delete. Click the 'Edit' button to edit the following content:

- 1. **Title**: A required field, the title of the publication item.
- 2. **Description**: An optional field. If filled in, it will be displayed in bold as the title, followed by the description separated by a comma.

Raptor-Coded Free-Space Optical Communications Experiment, vol. 8, no. 6, pp. 398-407, June 2016.

Authors: M. Lu, L. Liu and S. Hranilovic

Title

Journal: IEEE/OSA Journal of Optical Communications and Networking

- 3. **Image**: An optional field. If an image is uploaded, it will be displayed on the left side of the item.
- 4. Links: An optional field. You can add multiple links. Each link is divided into 'Text' and 'URL':
 - o **Text**: The content to be displayed.
 - o **URL**: The link that the displayed content jumps to when clicked. There are two types of links:
 - Full URL: A complete URL starting with HTTP or HTTPS, which can insert any URL shared on the internet.
 - Relative URL: Can insert relative URLs created on the 'Upload & Share' page or the 'Manage Web Page' page of this site.

A Multilevel Modulation Scheme for High-Speed Wireless Infrared Communications, May 31 - June 2, 1999.

Authors: Steve Hranilovic and David A. Johns

Conference: IEEE International Symposium on Circuits and Systems

Location: Orlando, Florida, USA

Award: Student Paper Competition Award Winner

Links: Paper (pdf), Slides (pdf)

Adding Meta Data

Click the 'Add Metadata Item' button at the bottom to add an attribute. The name and content of the attribute can be edited. You can add any custom fields such as Authors, Journal, Conference, etc.

Save Edits

After completing all content editing, click the 'Save' button at the bottom of the page to save all changes.

7. Edit Team Feature Overview

Feature Introduction

The 'Edit Team' feature allows users to manage team member information and display it on the webpage. Users can add, edit, and delete team members and their groups on this page, displaying team member information in a card format.

Page Structure and Usage

- Introduction: A section at the top of the page that provides an introduction, displayed before all team members.
- **Section**: Each section can represent a group of team members. Each section can contain multiple personnel information and will be displayed in a card format.

Section Management

- 1. Add Section: Click the 'Add Section' button to add a new section (team member group).
- 2. Edit Section Title: Click the 'Edit' button next to each section title to edit the section's title.
- 3. **Delete Section**: Click the 'Delete' button next to each section title to delete the section.
- 4. **Adjust Section Order**: Click the up and down buttons next to each section title to adjust the display order between sections.

Team Member Management

- 1. Add Member: In each section, click the 'Add People' button to add a team member.
- 2. **Manage Member Information**: Each member has four buttons on the right: move up, move down, edit, and delete.

Edit Member: Click the 'Edit' button to edit member information, including multiple fields:

- o **Name**: A required field that displays the team member's name.
- Degree: An optional field. If left blank, this attribute will not be displayed. If filled in, it will be displayed as a colored tag. You can select the tag color by editing the 'Degree Tag Color'. Eight recommended colors are pre-set, and you can also use the color picker to customize any color (it is recommended to use the same color tag for the same degree).

 Custom Attributes: Click the 'Add Metadata Item' button at the bottom to add and customize other attributes. The names and contents of custom attributes are editable. You can add custom fields such as Topic, Position, etc.



Save Edits

After completing all operations, click the 'Save' button at the bottom of the page to save all changes.

8. Edit News Feature Overview

Page Structure

The 'Edit News and Resources' page is divided into two tabs: 'Edit News' and 'Edit Resources'.

This chapter will introduce Edit News Feature.

Feature Introduction

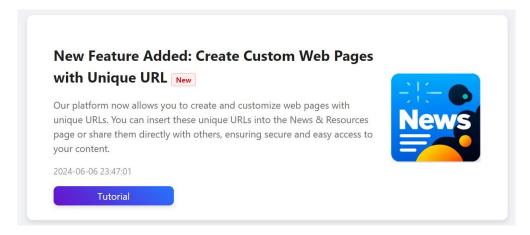
In the 'Edit News' tab, you can publish news cards, edit news cards, and delete news cards. All news cards are arranged in chronological order, with the latest news displayed at the top.

Use Cases

- Publish Short News: For example, the latest research developments or newly released course information.
- Publish Long-Form News: If you want to publish a long-form news article, it is recommended to use the 'Manage Web Pages' page to publish a webpage and insert the link into this news.

Feature Details

- Publish News: Click the 'Publish News' button to publish new news.
- Edit News: Click the 'Edit' button under each news card to edit the news content. The editing fields include:
 - o **Title**: The news title.
 - o **Description**: The news description.
 - Date: The news date, which can be modified. The display order of the news will be affected by the modified date.
 - o **Image**: The news image, an optional field. You can delete the default news image, use or replace it with a random default image, or upload a custom image.
 - Links: An optional field where you can add multiple links. Each link is divided into 'Text' and 'URL':
 - Text: The displayed content.
 - URL: The link that the displayed content jumps to when clicked. There are two types
 of links:
 - Full URL: A complete URL starting with HTTP or HTTPS, which can insert any
 URL shared on the internet.
 - Relative URL: Can insert relative URLs created on the 'Upload & Share' page or the 'Manage Web Page' page of this site.
- **Delete News**: Click the 'Delete' button on each news card to delete the news.
- **Time Sorting**: All news is arranged in chronological order, with the latest news at the top. The latest news and news within three months will display a red 'New' tag.



- Link Field: You can add multiple links, each divided into 'Text' and 'URL':
 - Text: The displayed content.

- URL: The link that the displayed content jumps to when clicked. There are two types of links:
 - Full URL: A complete URL starting with HTTP or HTTPS, which can insert any URL shared on the internet.
 - Relative URL: Can insert relative URLs created on the 'Upload & Share' page or the 'Manage Web Page' page of this site.

Save Edits

After completing all operations, click the 'Save' button at the bottom of the page to save all changes.

9. Edit Resources Feature Overview

Page Structure

The 'Edit News and Resources' page is divided into two tabs: 'Edit News' and 'Edit Resources'.

This chapter will introduce Edit Resources Feature.

Feature Introduction

In the 'Edit Resources' tab, you can publish new resources, edit resources, and delete resources. All resources are arranged in chronological order, with the latest resources displayed at the top.

Use Cases

 Display Experimental Data, Course Files, etc.: Resources you want to make publicly downloadable can be added to this tab.

Feature Details

- Publish Resources: Click the 'Publish Resources' button to publish new resources.
- Edit Resources: Click the 'Edit' button under each resource to edit the resource content. The editing fields include:
 - o **Title**: The resource title.
 - o **Description**: The resource description.
 - Date: The resource date, which can be modified. The display order of the resources will be affected by the modified date.

- Image: The resource image, an optional field. You can delete the image, use a random image,
 or upload a custom image.
- Links: An optional field where you can add multiple links. Each link is divided into 'Text'
 and 'URL':
 - **Text**: The displayed content.
 - URL: The link that the displayed content jumps to when clicked. There are two types
 of links:
 - Full URL: A complete URL starting with HTTP or HTTPS, which can insert any
 URL shared on the internet.
 - Relative URL: Can insert relative URLs created on the 'Upload & Share' page or the 'Manage Web Page' page of this site.
- **Delete Resources**: Click the 'Delete' button under each resource to delete the resource.
- **Time Sorting**: All resources are arranged in chronological order, with the latest resources at the top.

 The latest resources and resources within three months will display a red 'New' tag.



Save Edits

After completing all operations, click the 'Save' button at the bottom of the page to save all changes.

10. Change Password Feature

Feature Introduction

The change password feature allows users to update their account passwords to ensure account security.

Usage Instructions

- 1. Enter Current Password: Enter the current password in the specified field.
- 2. **Enter New Password**: Enter the new password in the new password field and confirm it by entering it again in the confirm new password field. The two entries must match.

- 3. **Password Strength Prompt**: The system will provide a prompt on the strength of the new password. It cannot be too simple; a complex password is recommended to enhance security.
- 4. Change Password: After entering the information, click the 'Change Password' button to submit the change request.

Default Password Usage Prompt

If the user is using the default password and has not changed it, they will be automatically redirected to the change password page upon logging in. It is recommended to update the password immediately to ensure account security.

Success Prompt

When the password is successfully changed, the system will display a confirmation prompt indicating the password has been updated successfully.

11. One-Click Export Feature

Feature Introduction

The one-click export feature allows users to export all data to a folder, enabling them to update all local modifications to the school's static server.

Usage Instructions

Save Changes Reminder

- 1. After editing on each 'Edit' page (e.g., 'Edit About Me', 'Edit Publications', 'Edit Team', etc.), be sure to click the 'Save' button to save changes.
- 2. If changes are not saved, a yellow prompt will appear at the top of each 'Edit' page indicating 'You have unsaved changes'.



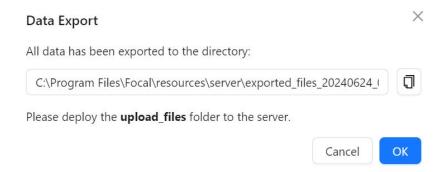
3. **Note**: Ensure all changes are saved before using the one-click export feature. Unsaved data will not be exported.

Export Data

- 1. Under the welcome message on the page, there is an 'Export All Data' button.
- 2. Click the 'Export All Data' button to export all data to a folder.

Display Export Path

- 1. After the data is exported, the system will display the path of the export folder.
- 2. You can copy this path and paste it into the address bar of the file system and press Enter to open the folder.
- 3. In the folder, you will see a folder named 'upload files'.



Update Website Content

Copy the 'upload files' folder and replace the folder with the same name in the frontend.

Testing and Deployment Steps

1. Local Testing

- After exporting the data, replace all contents of the 'upload_files' folder in the 'Frontend\build' directory.
- 2. Run the 'frontend test.bat' script to ensure that the local test displays as expected.

2. Deployment to Server

1. After passing local testing, replace all contents of the 'upload_files' folder with the corresponding location on the server.

12. Q&A

Q: Why is my 'Upload files' folder so large?

A: This folder contains all your modified data, including all files you uploaded to the cloud. These files are bundled in the 'Upload_files' folder to be deployed to the school's static resource server for user downloads.

Q: How do I synchronize old data to a new computer?

A: Follow these steps:

- 1. On the old computer, find the 'C:\Program Files\Focal\resources' folder and copy it to a portable storage device (e.g., USB drive).
- 2. Install the Focal software on the new computer.
- 3. Copy the 'resources' folder from the portable storage device to the 'C:\Program Files\Focal' directory on the new computer, overwriting the existing 'resources' folder.
- 4. **Note**: 'C:\Program Files\Focal\resources' is the default installation path. If you did not change the path during installation, it should be in this location. If unsure, right-click the Focal software icon on the desktop and select "Open file location" to check your installation directory.

Q: What should I do if the software has issues?

A: The running logs of the software are stored in the following locations:

- In the installation directory under 'C:\Program Files\Focal\resources\logs'
- 'C:\Users\<Your Username>\AppData\Roaming\focal\focal client.log'

Quick Access Method: Enter '%AppData%\focal\focal_client.log' in the address bar of the file explorer and press Enter to open the log file directly.

If you have technical skills, you can check the logs to troubleshoot. If the issue persists, please collect all logs and contact me at weixingchensimon@gmail.com.

Q: Why can't I run the bat frontend test script or install the Focal management software, or why is it running improperly?

A: Please ensure your operating system is a Windows 64-bit version, as the software currently only supports this system. Additionally, make sure your user account has administrator permissions. During operation, if a permission request or network access prompt appears, please agree to ensure the software runs properly. If you still encounter issues, please check the running logs or contact technical support.

Q: How do I ensure all changes are saved?

A: After editing on each 'Edit' page (e.g., 'Edit About Me', 'Edit Publications', 'Edit Team', etc.), be sure to click the 'Save' button to save changes. If changes are not saved, a yellow prompt will appear at the top of each 'Edit' page indicating 'You have unsaved changes'. Please ensure all changes are saved before performing the one-click export operation.

Q: How do I test my website locally?

A: Open the 'Frontend' folder and double-click the 'frontend_test.bat' script. The script will start and automatically deploy a local static resource server. Open a browser and visit 'http://localhost:1005/' to view the static web page. After viewing, close the DOS window to shut down the local static resource server.

Q: What are relative URLs and full URLs?

A:

- **Full URL**: A complete URL starting with HTTP or HTTPS, which can insert any URL shared on the internet.
- Relative URL: Can insert relative URLs created on the 'Upload & Share' page or the 'Manage Web Page' page of this site.

Q: How do I export and deploy my website data?

A: Click the 'Export All Data' button under the welcome message on the page to export all data to a folder. The system will display the path of the export folder. Copy the 'upload_files' folder and replace the folder with the same name in the frontend 'build' folder. For deployment to the school server, replace the 'upload_files' folder with the corresponding location on the server.