

Creating Symbolic Links on Ubuntu for PIERO

Ubuntu can connect to shared folders on third-party file servers, but the PIERO application cannot access these folders directly. To enable access, a script can be used to create symbolic links to the shared folders in a location that PIERO recognizes, ensuring seamless integration between Ubuntu's file system and PIERO's workflow.

This document covers the following topics:

[Prerequisites](#)

[Connecting to Shared Folders](#) 

[Notes](#) 

[Troubleshooting](#) 

Prerequisites

Before proceeding, ensure the following requirements are met:

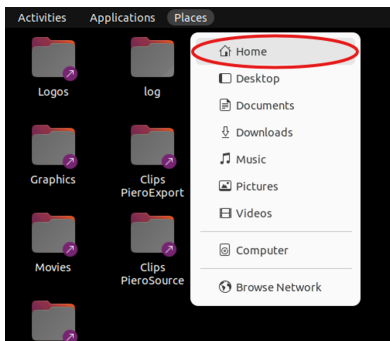
- The necessary shared folders exist on the file server.
- A user login has been created on the file server.

Connecting to Shared Folders

PIERO’s typical workflow involves accessing two shared folders—**ToPiero** and **FromPiero**—on a file server. A user account named **piero** is created on the server with read and write access to these folders. The following steps outline how to connect these shared folders in Ubuntu to ensure access for PIERO.

To connect to shared folders:

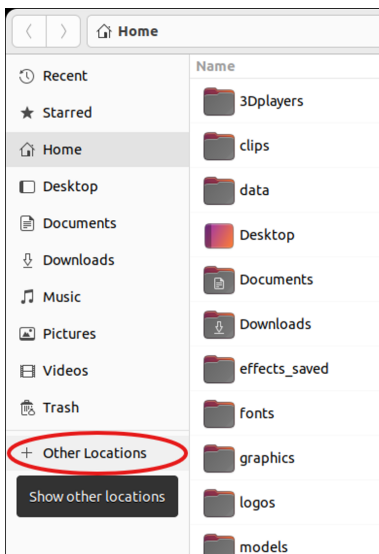
1. From the **Places** menu, select **Home**.



Places Menu - Home

The **Home** window opens.

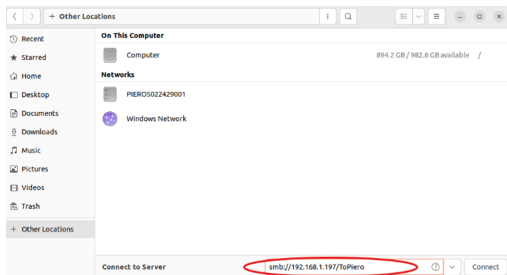
2. In the sidebar, select **Other Locations**.



Sidebar - Other Locations

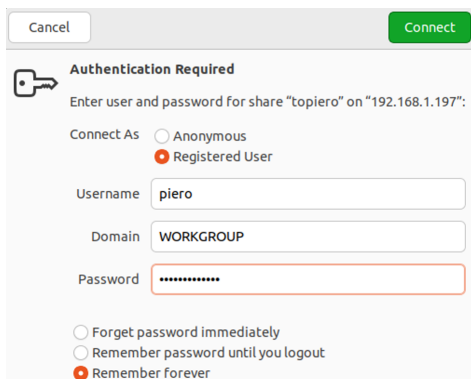
The **Other Locations** view appears, displaying the **On This Computer** and **Networks** sections.

3. In the **Connect to Server** field, enter the IP address in the following format: **smb://server-ip/source-folder-name**.



Connect to Server - IP Address Format

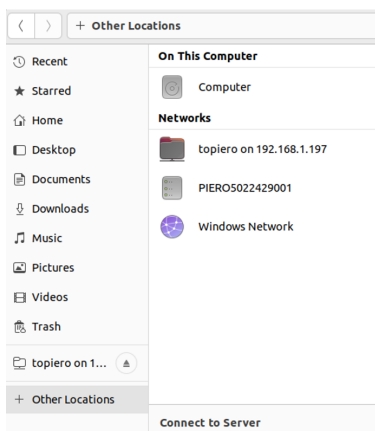
4. Select **Connect**.
5. In the **Authentication Required** dialog, enter your credentials, select **Remember Forever**, then select **Connect**.



Authentication Required - Remember Forever Selected

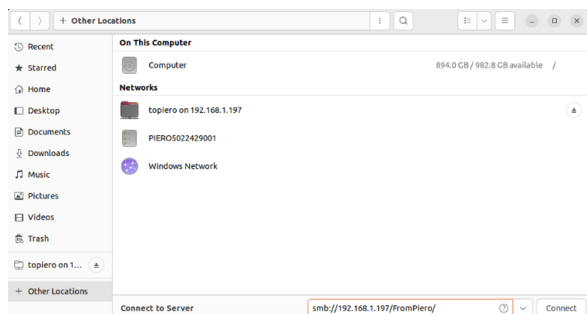
★ For more details, on how passwords are stored, see the [Notes](#) .

The shared folder appears under **Networks** in the **Other Locations** section.



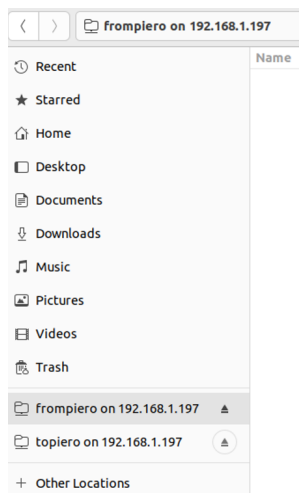
Other Locations - Networks

6. Repeat **steps 2–5** to add the **FromPiero** folder to the **Networks** section.



Connect to Server - FromPiero Folder

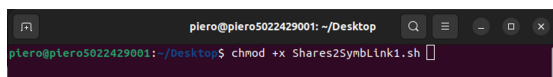
The result should be both folders appearing in the **Networks** section.



Sidebar - Two Folders

★ There is no practical limit to the number of folders that can be created.

7. Copy the `Shares2SymbLink1.sh` script to the PIERO desktop.
8. Change the file properties to be executable as follows:
 - a. Right-click anywhere on the desktop, then select **Open in Terminal** to launch the Terminal application.
 - b. In the Terminal, type `chmod +x Shares2SymbLink1.sh` and press **Enter** to make the script executable.



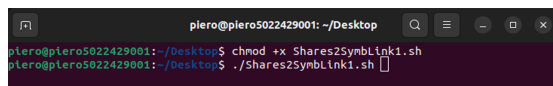
Terminal Window - Prompt 1

In the terminal window, a new prompt line appears.

9. Run the script to create the symbolic links as follows:

a. At the command prompt, enter:

```
./Shares2SymbLink1.sh.
```



```

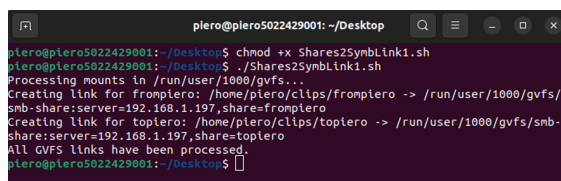
piro@piro5022429001: ~/Desktop
piro@piro5022429001:~/Desktop$ chmod +x Shares2SymbLink1.sh
piro@piro5022429001:~/Desktop$ ./Shares2SymbLink1.sh

```

Terminal Window - Prompt 2

b. Press **Enter** to execute the script.

A command output appears, confirming the creation of symbolic links.



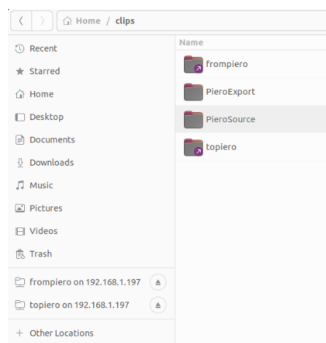
```

piro@piro5022429001:~/Desktop$ chmod +x Shares2SymbLink1.sh
piro@piro5022429001:~/Desktop$ ./Shares2SymbLink1.sh
Processing mounts in /run/user/1000/gvfs...
Creating link for frompiro: /home/piro/clips/frompiro -> /run/user/1000/gvfs/
smb-share:server=192.168.1.197,share=frompiro
Creating link for topiro: /home/piro/clips/topiro -> /run/user/1000/gvfs/smb-
share:server=192.168.1.197,share=topiro
All GVFS links have been processed.
piro@piro5022429001:~/Desktop$

```

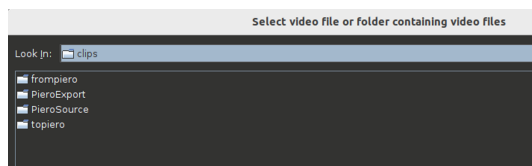
Terminal Window - Report

Two new symbolic links to the server folders are now in the **Clips** folder.



Clips Folder - Symbolic Links

The same links will be available in PIERO.



Clips Folder

★ If the report does not appear or an error occurs during execution, see [Troubleshooting](#) for help, including resolving script formatting issues.

Notes

The following table provides additional details about password storage and folder limitations when working with PIERO.

Topic	Details
GNOME Keyring and Password Storage	Selecting Remember Forever stores the password securely in the GNOME Keyring, Ubuntu's built-in password manager. The keyring consists of encrypted files stored in the PIERO user's home directory and is secured using the AES (Advanced Encryption Standard) algorithm. The encryption key for the GNOME Keyring is derived from the user's login password when the keyring is tied to the login session. This ensures that only the logged-in user can access stored credentials, provided they have authenticated with their login password.
Shared Folders Capacity	There is no practical limit to the number of shared folders that can be connected and linked for PIERO.

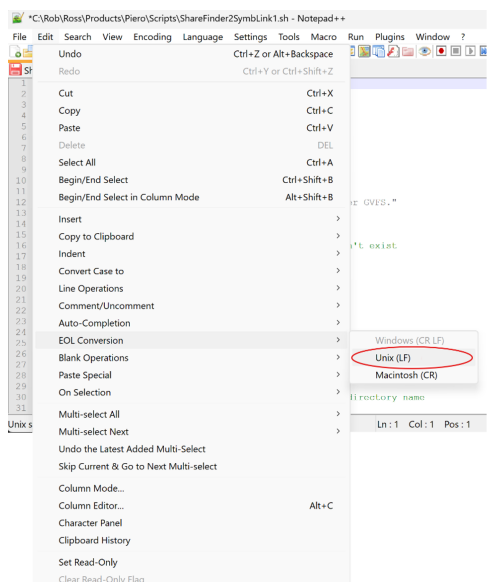
Troubleshooting

If you encounter issues while setting up symbolic links, refer to the troubleshooting table below to resolve common errors.

Issue	Resolution
Command Errors in Terminal	If any command returns an error, check for typos and try again.
Line Ending Errors	If running the script results in the error: .../bin/bash^M: bad interpreter: No such file or directory... The script may have been saved in Windows, which adds carriage return and line feed (\r\n) characters. Ubuntu expects Unix-style line endings (\n). To resolve this issue, the script must be converted to the correct format before it can run successfully. Follow the procedure below to ensure the script is properly formatted.

To Convert the Script to Unix Format:

1. Obtain a fresh copy of the original, unedited version of the script.
2. Open the script in Notepad++.
3. Select **Edit > EOL Conversion > Unix (LF)**.



EOL Conversion - Unix (LV)

4. Save the script and copy it to the PIERO desktop.
5. Run the script again, starting from **step 6** of the [To connect to shared folders](#) procedure.