

Squirrel UUCP Caller User Manual

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What Is UUCP?

UUCP, which stands for Unix-to-Unix CoPy, is a method of exchanging files and messages.

Files are exchanged when one system calls another – during calls, both sides can trade files they have waiting for the other side.

Systems can also be setup with *forwarding*, allowing them accept files to hold for other systems.

For example:

- Assume we have three systems – A, B, and C.
- System B can be setup to hold files for system C
- Then, system A can call B and give it a file for C.
- When B and C are on their next call later, B will give C the file it's holding that A sent it.

Brief History of UUCP

UUCP was prevalent in the 70's and early 80's when dial-up modems were the primary way to remotely access systems. One computer would literally call another, identify itself once connected, and file exchange magic would happen.

Through the forwarding scheme described above, decentralized peer-to-peer networks could be a thing – enabling data exchange from any one node to any other node – very slow, of course, given the technology of the time. You might wait days for files, but it was better than nothing.

UUCP Today

In modern times with prevalent high-speed connectivity, modern UUCP usage can utilize things like SSH. Communication is much faster, but is still “call”-based as described above – instead of making a modem dial and waiting for a carrier, SSH-based communication opens a private-key protected SSH pipe to a peer and uses that for the protocol.

What Squirrel UUCP Caller Does

Squirrel UUCP Caller is a Windows .NET application that provides a convenient GUI for making UUCP calls.

Squirrel UUCP Caller is intended to be as simple and straightforward as possible – primarily to enable someone new or unfamiliar with UUCP to quickly use it for sending or retrieving files from a UUCP receiver.

So if you are an “old hat” with UUCP you will notice a lot of options missing – and this is by design.

- Squirrel does not expose all UUCP functionality.
- Squirrel does not facilitate a UUCP receiver role.

Doesn't UUCP Require UNIX? It's In The Name After All...

Yes ... that's why one is included – through the magic of Cygwin.

Cygwin is a couple of things:

- Linux-a FOSS UNIX-like system--simulated in a few DLLs – cygwin1.dll and others.
- A repository of standard GNU programs—built as Windows executables to work under Cygwin from source code--including most of the “core” ones required for a basic GNU/Linux environment.
- Free to distribute and use.

Squirrel includes a minimal Cygwin environment – enough to run

- GNU core utilities such as `ls`, `cp`, `rm`, etc.
- `bash`,
- `ssh`,
- Taylor UUCP binaries

which is all that's needed to use UUCP over SSH.

Squirrel UUCP Caller will invoke this environment for various purposes, including checking the status of UUCP “jobs” (`uustat`) and actually making a call (`uucico`).

- “Old hats” or UUCP experts can actually enter the Cygwin environment directly and do whatever they want.

Installing Squirrel UUCP Caller

Squirrel UUCP Caller is currently distributed as a portable binary “Squirrel UUCP Caller.exe” with a DLL “Squirrel.DLL” and a few other files that must exist in the same directory.

- Squirrel UUCP Caller was developed using Microsoft Visual Studio 2022 and requires .NET 6.0 to be installed.

Portable Mode

If Squirrel finds a folder called `cygwin-uucp` when it starts up the first time, it will assume that the initial Cygwin environment is there, and also assume it's in “portable mode” and won't read or write any settings.

If you've downloaded the latest release from Github, the entire Cygwin environment is included in the ZIP file—within a `cygwin-uucp` folder as described above--along with the Squirrel UUCP Caller executable and supporting files.

- After downloading from Github you can simply unzip the package somewhere convenient (such as `C:\Squirrel`) and launch “Squirrel UUCP Caller.exe” and start using Squirrel UUCP Caller immediately.

Non-Portable Mode

If Squirrel UUCP Caller doesn't find a `cygwin-uucp` folder in the same folder that it's located, then it will rely on a settings file to know where to look for Cygwin environment.

- If a settings file does not exist, you will get a message saying the Cygwin environment is invalid or missing and that you need to tell Squirrel where it is.
- Cygwin UUCP Caller will write settings to the `squirrelsettings.txt` file upon exit and when there are certain changes.

NOTE: Squirrel UUCP Caller checks for the existence of `cygwin-uucp` in its folder before looking for the settings file. Any present `squirrelconfig.txt` settings file will be ignored if a `cygwin-uucp` folder also exists in the same folder Squirrel UUCP Caller is running from.

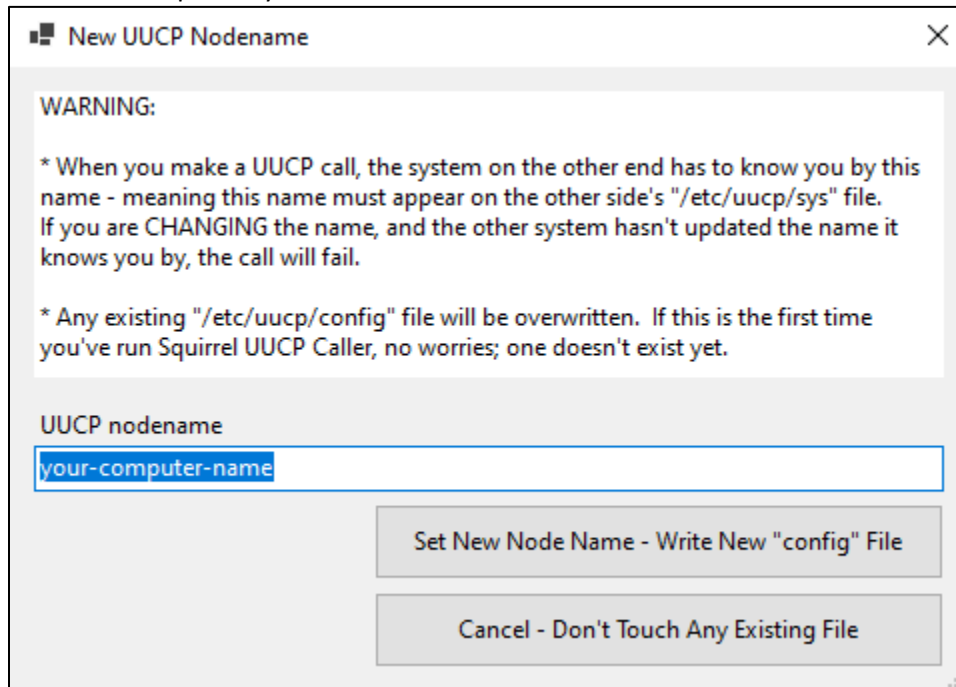
Initial Launch

You may see some dialogs when starting Squirrel UUCP Caller for the first time.

It's normal to see this **if** you do not have a `cygwin-uucp` folder present where you launched it from. You may be doing this on purpose if you want to use an existing Cygwin environment with Squirrel UUCP Caller.

- If you are completely new to UUCP and Cygwin, the easiest thing to do will be to use the .zip file from the distribution, which includes the Squirrel UUCP Caller executable and full Cygwin environment.

Otherwise, if you have such a folder present—which is normal if you downloaded and unzipped the distribution .zip file—you'll see this.



This is because there is no `config` file defining your UUCP nodename, so you get to pick a name here. The default will be your computer name. Squirrel UUCP Caller will then go ahead and create a `config` file with that information.

Of course, if you click “Cancel”, you’ll be dumped into the main application window with no valid configuration.

- If you see this dialog unexpectedly, something has happened to your UUCP configuration text files and you may need to restore from backup or add your systems again.

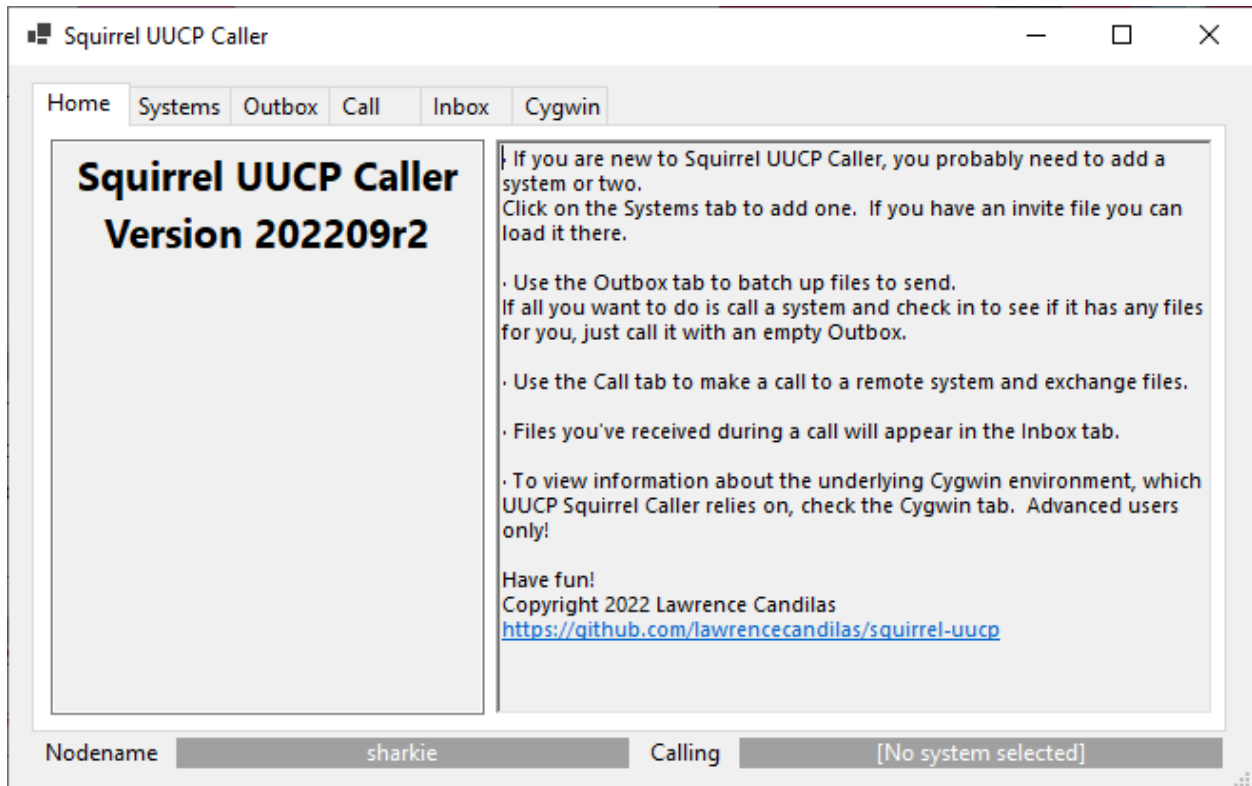
Main Window

The below illustration is what you'll see after Squirrel UUCP Caller has started and is ready.

Everything you can do will be accessible through one of the tabs at the top.

Home Tab

The illustration below shows the Home tab which is purely informational.



The bottom items will tell you what your current UUCP nodename is (or a warning if your UUCP configuration is invalid), and the name of the system selected to call (once you select one from the Systems tab). These are visible on all tabs.

Copyright 2022 Lawrence Candilas
<https://github.com/lawrencecandilas/squirrel-uucp>

Nodename

sharkie

Calling

[No system selected]

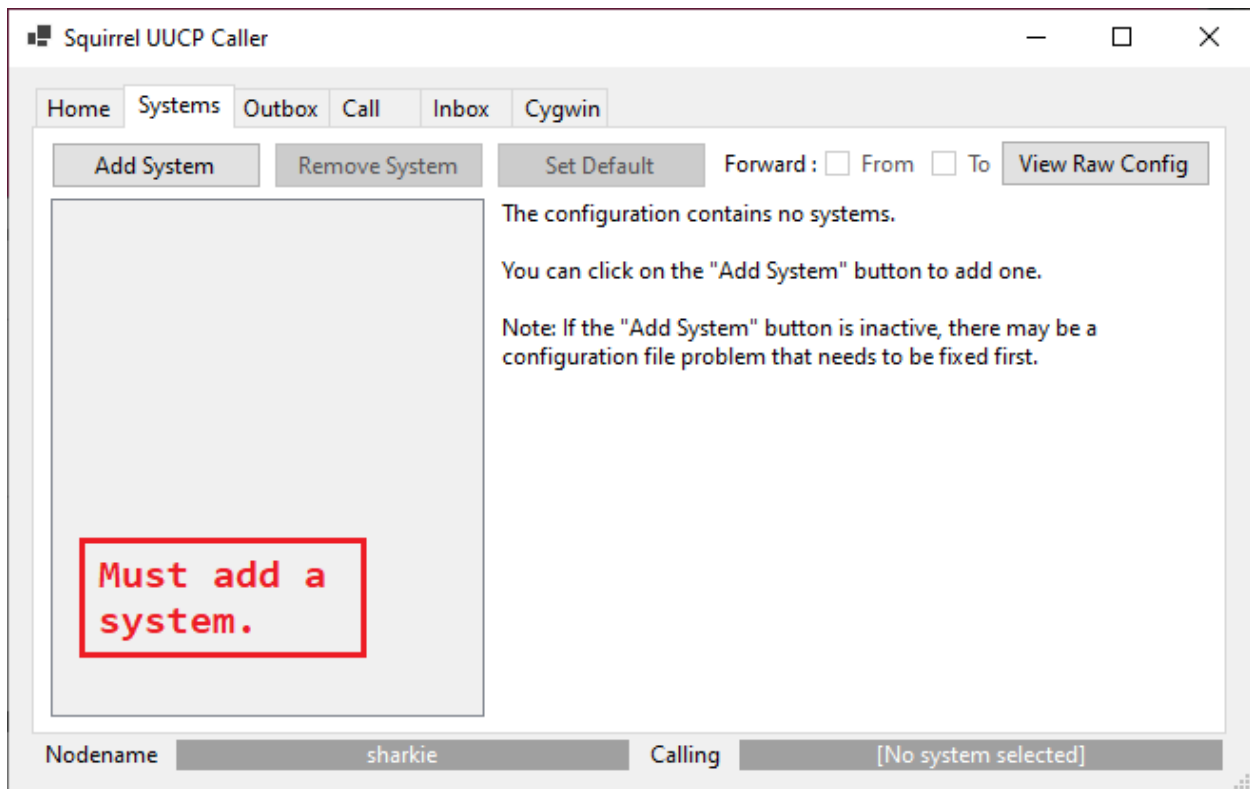
This is your UUCP node name. A warning will appear here if the UUCP configuration is invalid.

When you select a system on the Systems tab, it will show here.

Systems Tab

The Systems tab will let you pick a system to call.

If you don't have any systems set up yet, you'll see this:



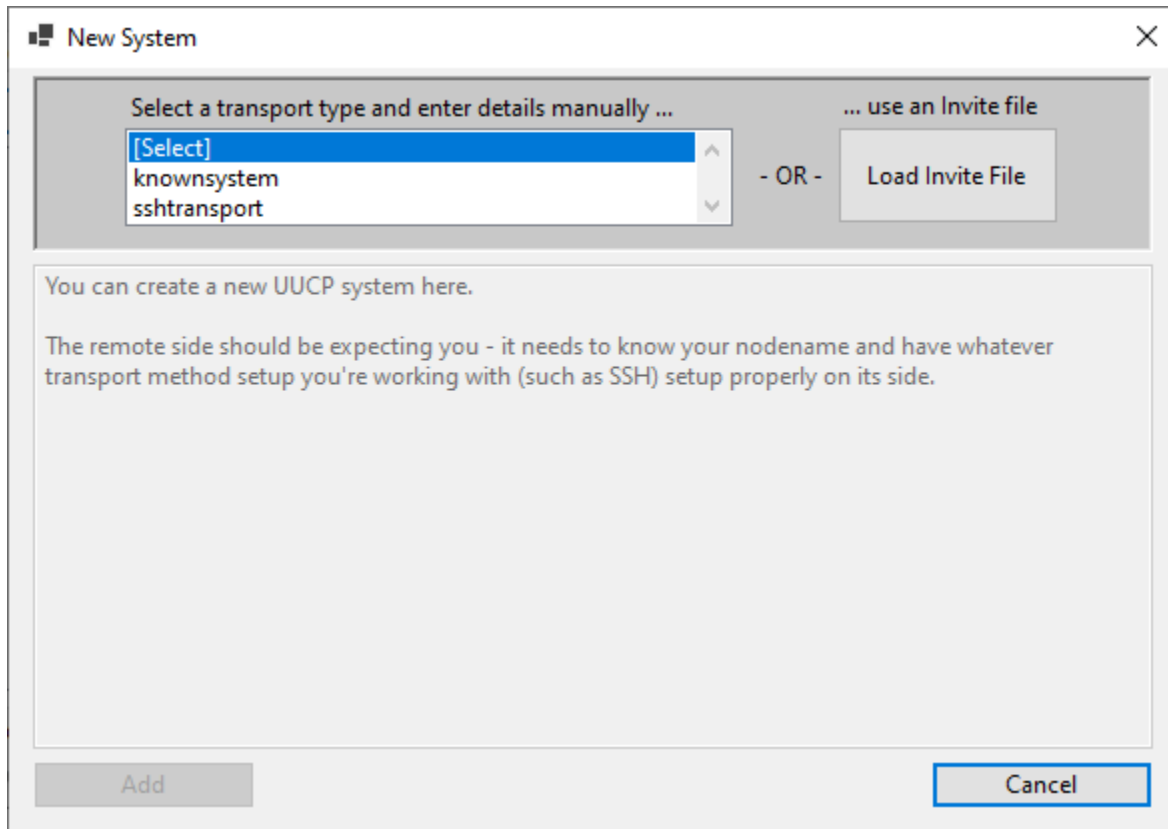
On the left panel is the list of systems you have configured.

There won't be any until you add some.

To add a system, click **Add System** at the top.

Adding A System

Clicking on Add System opens the New System window.



You can do one of three things here:

- Cancel and return to the main window.
- Select a transport type from the list. When you do that, you'll be able to enter details manually.
- If the system you are trying to call has provided you a UUCP Invite file, you can click "Load Invite File" and Squirrel UUCP Caller will read the details from the file and setup the system automatically.

What is a "KnownSystem"

The "knownsystem" transport type isn't a real transport type, it's just a "placeholder" for a system known to your UUCP node. Systems that are just "Known Systems" aren't ones you will call directly.

UUCP requires any node you may want to transact with, whether directly by calling or indirectly through calls with other systems, be present in your list of systems. The "Known System" lets you get these in your configuration.

More specifically: having a Known System setup is a prerequisite one or both of the below scenarios:

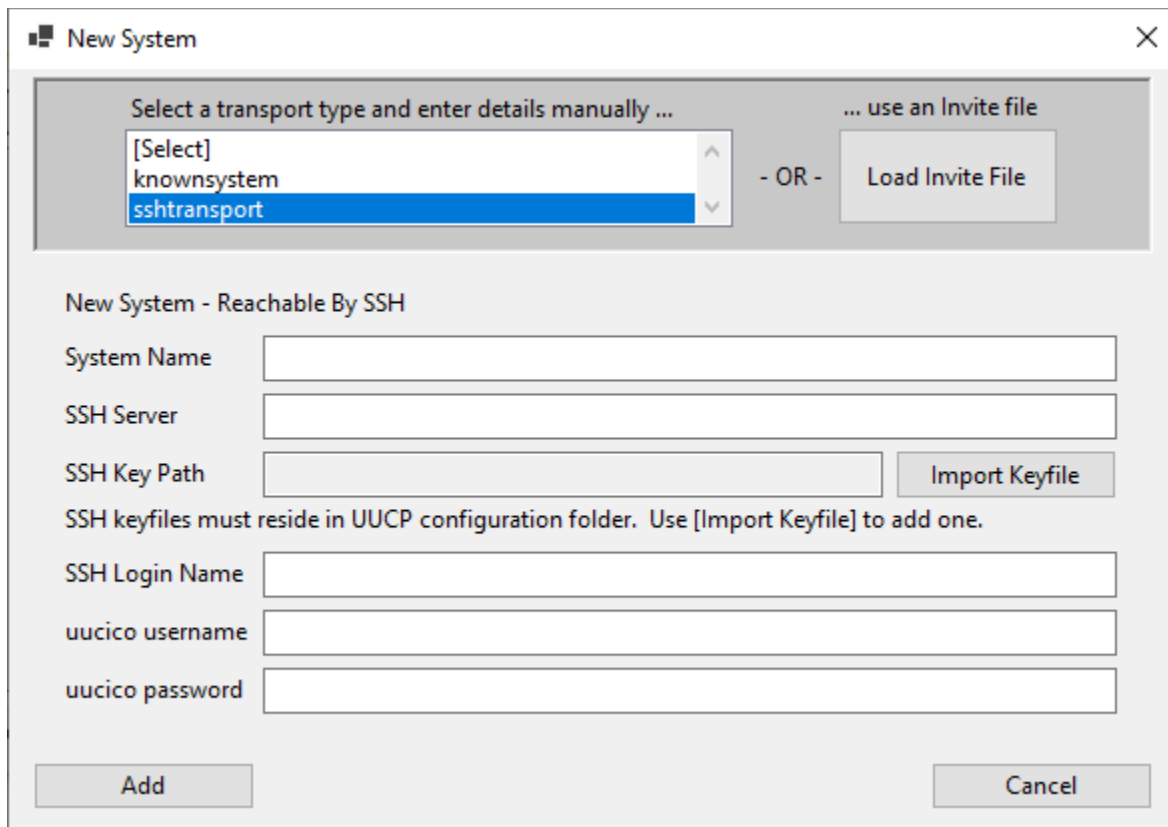
- A system you call may be able to hold files for later delivery to a Known System in your configuration ("forward-to").
- A system you call may want to give you files to hold for later delivery to a Known System in your configuration ("forward-from").

New System Example - SSHTransport

Below is what you see if you select “sshtransport” – you will be presented with a form that contains all required information.

Enter the details and click “Add” (or click “Cancel” to go back).

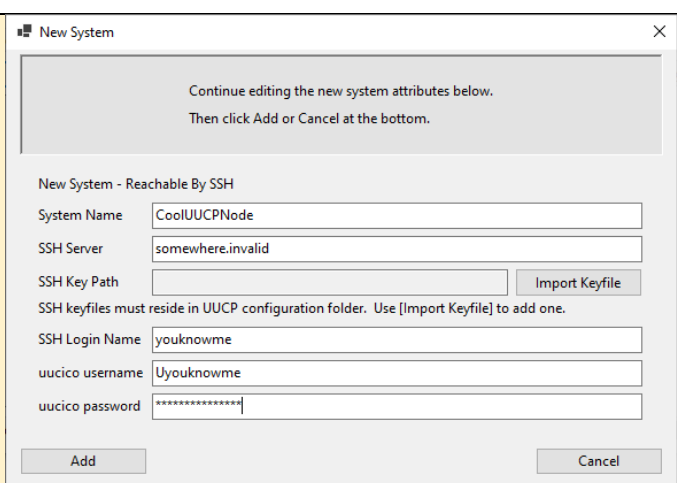
If there is a problem with the details, Squirrel UUCP Caller will show you an error message and not add the system.



The screenshot shows a window titled "New System" with a close button (X) in the top right corner. Inside the window, there are two main options for adding a system: "Select a transport type and enter details manually ..." and "... use an Invite file". The first option is selected, and a dropdown menu is open showing "knownsystem" and "sshtransport" (which is highlighted in blue). To the right of the dropdown is a button labeled "Load Invite File". Below these options, the text "New System - Reachable By SSH" is displayed. There are several input fields: "System Name", "SSH Server", "SSH Key Path" (with an "Import Keyfile" button next to it), "SSH Login Name", "uucico username", and "uucico password". A note states: "SSH keyfiles must reside in UUCP configuration folder. Use [Import Keyfile] to add one." At the bottom of the window are two buttons: "Add" and "Cancel".

NOTE: Once you start editing the form, you can't pick a different transport type.

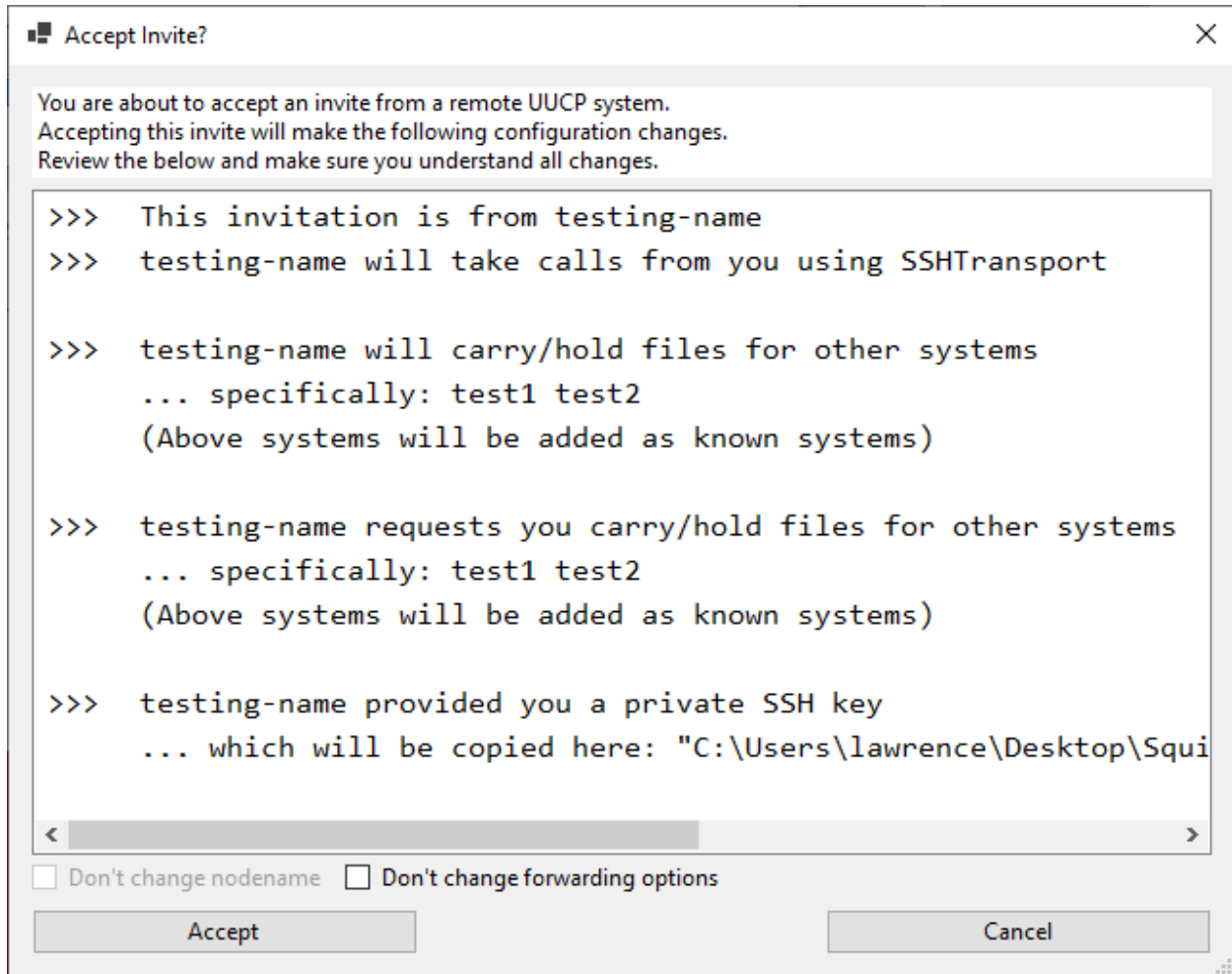
You'll have Cancel and click Add System again



This screenshot shows the "New System" dialog box after the user has entered details. The title bar still says "New System". The top section now contains the text: "Continue editing the new system attributes below. Then click Add or Cancel at the bottom." The input fields are now populated: "System Name" is "CoolUUCPNode", "SSH Server" is "somewhere.invalid", "SSH Login Name" is "youknowme", "uucico username" is "Uyouknowme", and "uucico password" is masked with asterisks. The "SSH Key Path" field is empty, and the "Import Keyfile" button is still present. The "Add" and "Cancel" buttons remain at the bottom.

Load Invite File – Accepting An Invite

The “Accept Invite?” dialog will appear after you load an invite file (if there are no problems with the invite file). The invite will be summarized, and you can accept it or cancel.



Forwarding

An invite file may tell you that:

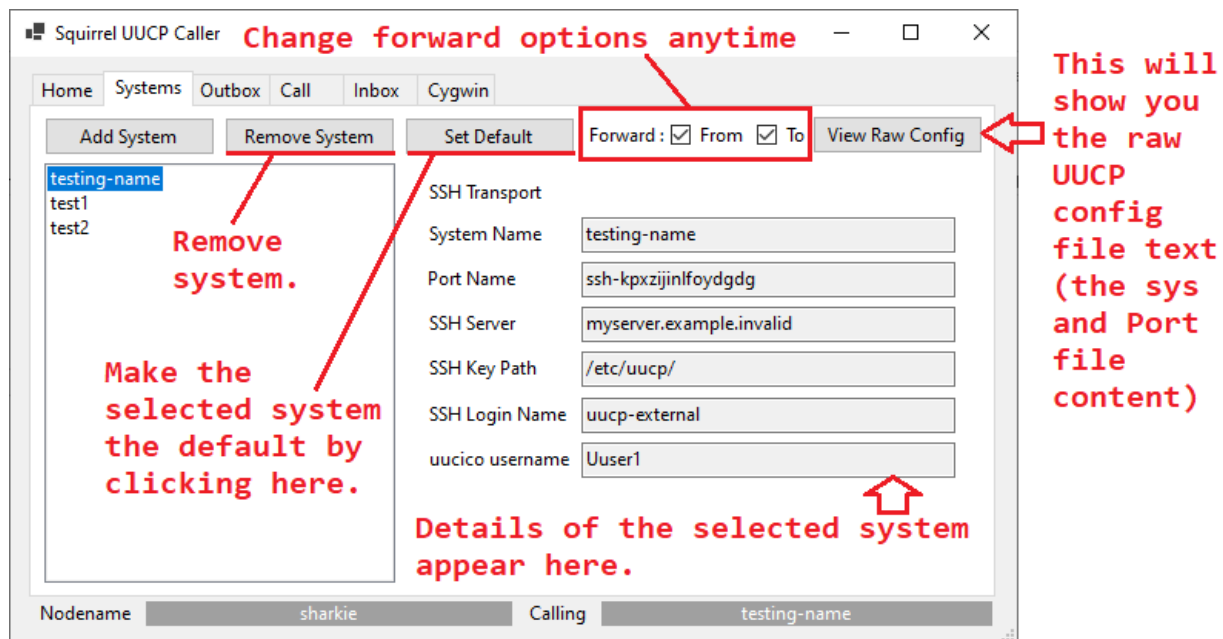
- an inviting system advertises that it will hold files for one or more nodes (“forwarding-to”).
- an inviting system is asking that you hold files for one or more nodes (“forwarding-from”).

If you don’t want to enable the forwarding, check the “Don’t change forwarding options” box. You can always enable (and disable) “forwarding-to” or “forwarding-from” later.

NOTE: If you accept the forwarding options in the invite file, known systems will be created (as they are required for forwarding to work).

If you have the “Don’t change forwarding options” checked, these won’t be created – you’ll have to create those yourself later.

Once you have a system or two populated, the other options at the top are useable.



Default System

The "default system" will be automatically selected when you launch Squirrel UUCP Caller. This means you can go straight to the Call tab and call the system immediately after launching the application.

You do not have to have a default system. The "Set Default" changes to "Remove Default" when you have whichever system is the default selected - and clicking it will make no system the default.

Forward From/To

These settings are per-system and reflect the currently selected system.

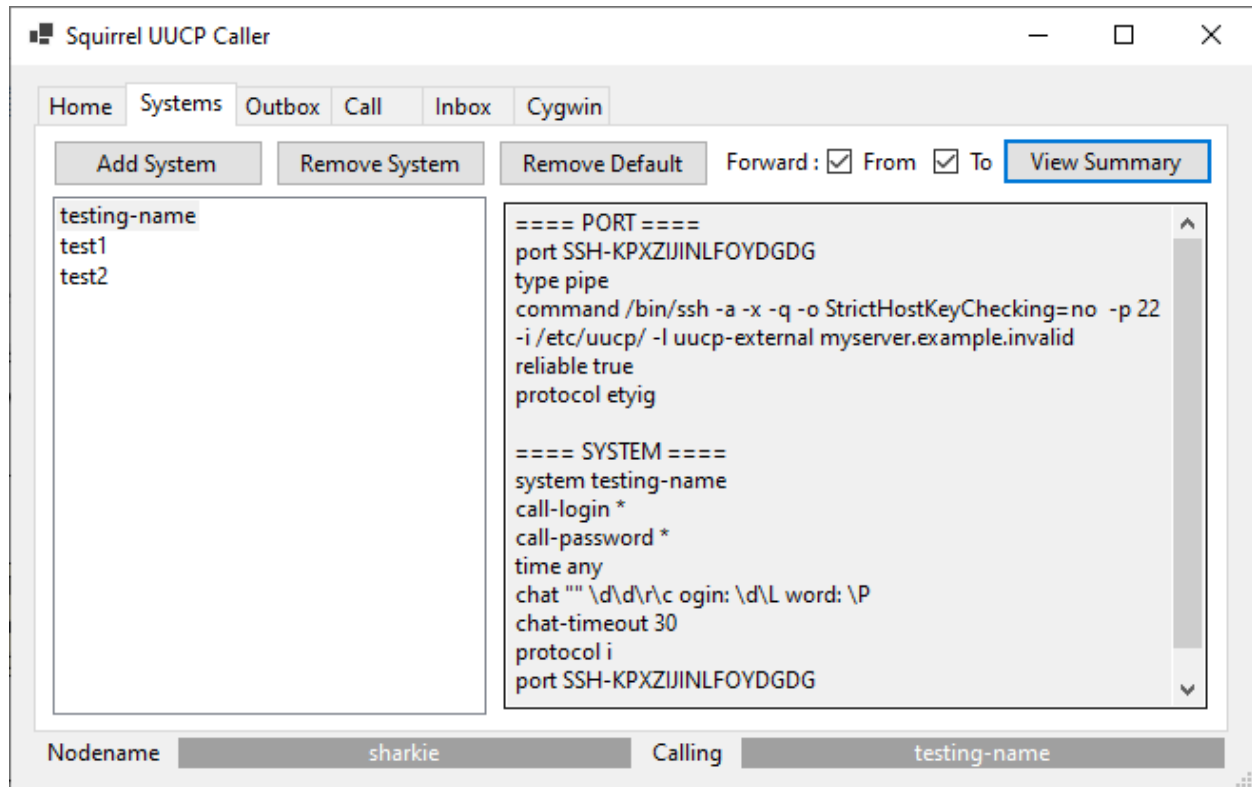
- If "From" is checked – your node is willing to accept files meant for this system from other nodes. (Your node will forward the files the next time you call it).
- If "To" is checked – your node will allow this system to be specified as a destination. The system you are calling will need to be configured by its administrator to be willing to accept the file for this system.

NOTE: Enabling "Forward To" on another system won't make forwarding work unless that other system has "Forward From" enabled on their end. If you are setting up systems manually, you will need to know the expectations from the other system's administrator.

[View Raw Config](#)

This will show you the raw content of the system in the UUCP sys and Port files. Content in the call and passwd configuration files are not shown.

NOTE: Squirrel UUCP Caller generates random port names for SSH Transport and possibly other supported transports.



Outbox Tab

The Outbox is where you can add and remove files from the batch that will be sent during your next call.

It's OK if you don't add any files – you might do this if all you want to do is call a system and check if it has any files for you.

The screenshot shows the Squirrel UUCP Caller application window. At the top is a title bar with the application name and standard Windows window controls. Below the title bar is a tabbed menu with options: Home, Systems, Outbox, Call, Inbox, and Cygwin. The 'Outbox' tab is currently selected. Underneath the tabs, there's a section for adding files. It includes a label 'Recipient' followed by a text input field containing 'testing-name!'. To the right of this field are two buttons: 'Add File' and 'Remove Files'. Below this section is a large table with five columns: 'UUCP Job ID', 'Destination System', 'Recipient', 'File Path/Name', and 'File Size'. The table has multiple rows, all of which are currently empty. At the bottom of the window, there's a status bar. On the left, it says 'Nodename' followed by a grey box containing the text 'sharkie'. In the center, it says 'Calling'. On the right, it says 'testing-name'.

Files batched up here will remain here until sent or removed.

Recipient

The Recipient text box is where you will specify your recipient – in UUCP address format.

Basic UUCP addresses look like this:

- *destination-node!recipient-username*

The recipient username is optional – if you just want to send a file to anyone on the destination system, you don't need to specify a recipient.

The destination-node must match your currently selected system, since that's the one you'll be calling.

Here's what it looks like when you have files added.

Remove files by selecting one or multiple files and click "Remove Files." This won't actually delete the original file, just the UUCP job setup to send it.

The screenshot shows the 'Squirrel UUCP Caller' application window. It has a menu bar with 'Home', 'Systems', 'Outbox', 'Call', 'Inbox', and 'Cygwin'. The 'Outbox' tab is selected. Below the menu bar, there is a 'Recipient' field containing 'testing-name!', an 'Add File' button, and a 'Remove Files' button. A table displays the list of files added:

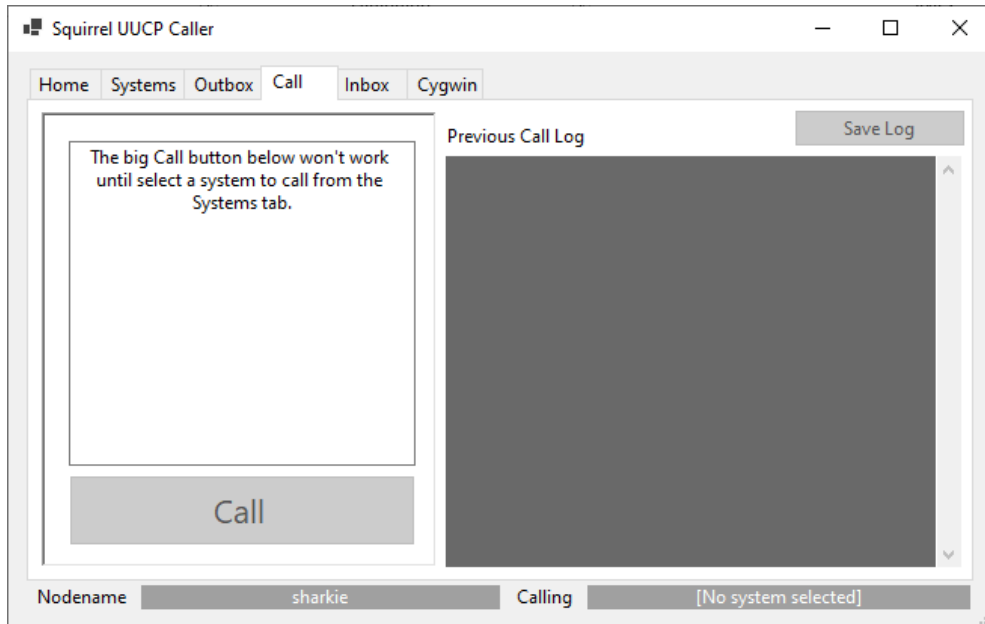
UUCP Job ID	Destination System	Recipient	File Path/Name	File Size
testing-name.ND0SpwdAAAUR	testing-name	~/receive//sha...	C:\Users\lawren...	480
testing-name.ND0Fu0xAAAH7	testing-name	~/receive//sha...	C:\Users\lawren...	11

At the bottom of the window, there is a status bar with 'Nodename' set to 'sharkie' and 'Calling' set to 'testing-name'.

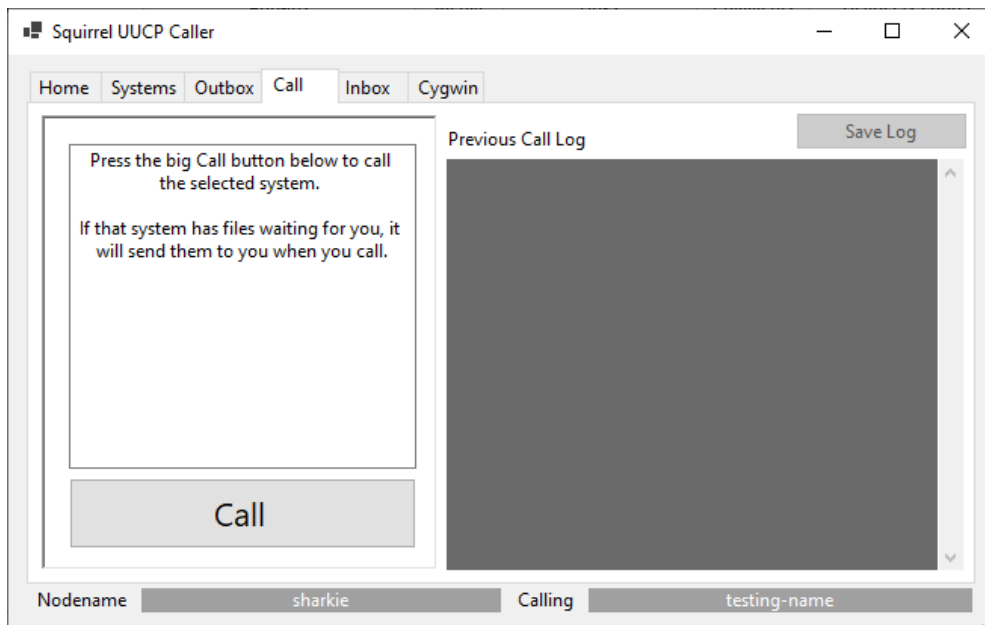
Call Tab

The Call tab has the big “Call” button – that will start a call with your selected system.

If you don’t have a system selected, you’ll see the below message and the Call button won’t work.

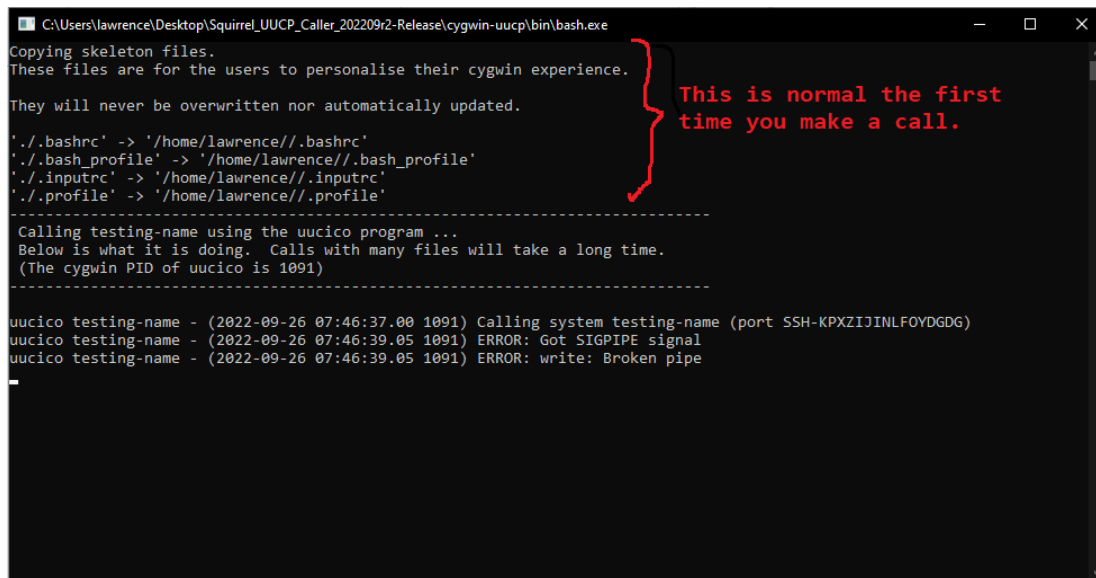


Once you have one selected, the Call button will be enabled.



When you make a call, a terminal window will popup and you can see the uucico command in progress. During the call the main Squirrel UUCP Caller window will be inactive.

Because a non-existent system was used to create this screenshot, errors are visible below.



```
C:\Users\lawrence\Desktop\Squirrel_UUCP_Caller_2022092-Release\cygwin-uucp\bin\bash.exe
Copying skeleton files.
These files are for the users to personalise their cygwin experience.
They will never be overwritten nor automatically updated.

'./bashrc' -> '/home/lawrence//.bashrc'
'./bash_profile' -> '/home/lawrence//.bash_profile'
'./inputrc' -> '/home/lawrence//.inputrc'
'./profile' -> '/home/lawrence//.profile'

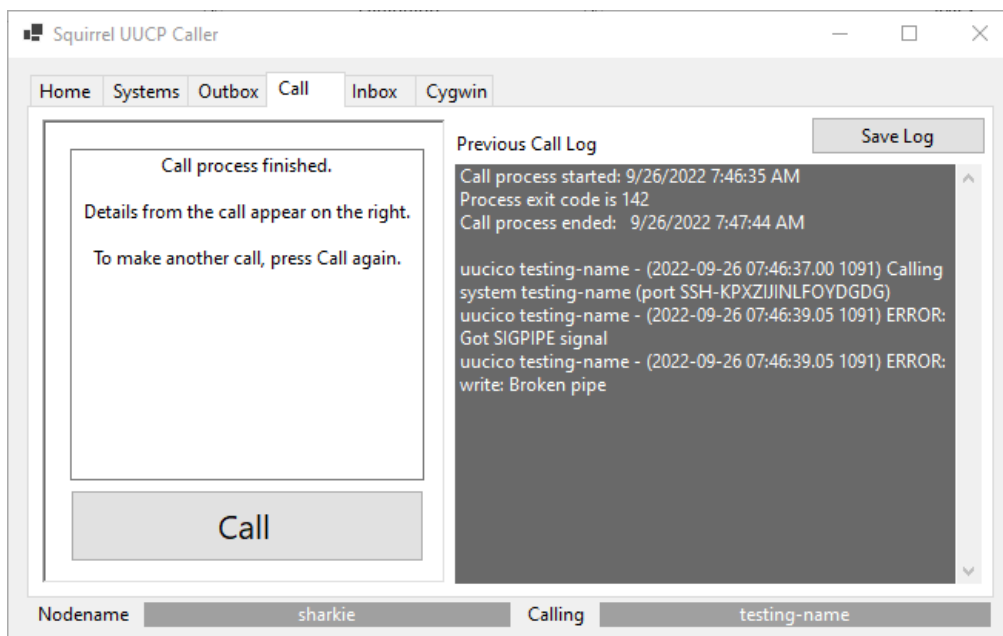
-----
Calling testing-name using the uucico program ...
Below is what it is doing. Calls with many files will take a long time.
(The cygwin PID of uucico is 1091)
-----

uucico testing-name - (2022-09-26 07:46:37.00 1091) Calling system testing-name (port SSH-KPXZIJINLFOYDGDG)
uucico testing-name - (2022-09-26 07:46:39.05 1091) ERROR: Got SIGPIPE signal
uucico testing-name - (2022-09-26 07:46:39.05 1091) ERROR: write: Broken pipe
```

You can press Ctrl-C to interrupt the call.

When the call completes, the call log window will be populated. You can save the call log by clicking “Save Log.”

NOTE: Squirrel UUCP Caller doesn’t maintain any history, master log, or database of calls. The only data left over after a call is the one from the last call.
If you make a new call and did not save the log, the previous log cannot be recovered.



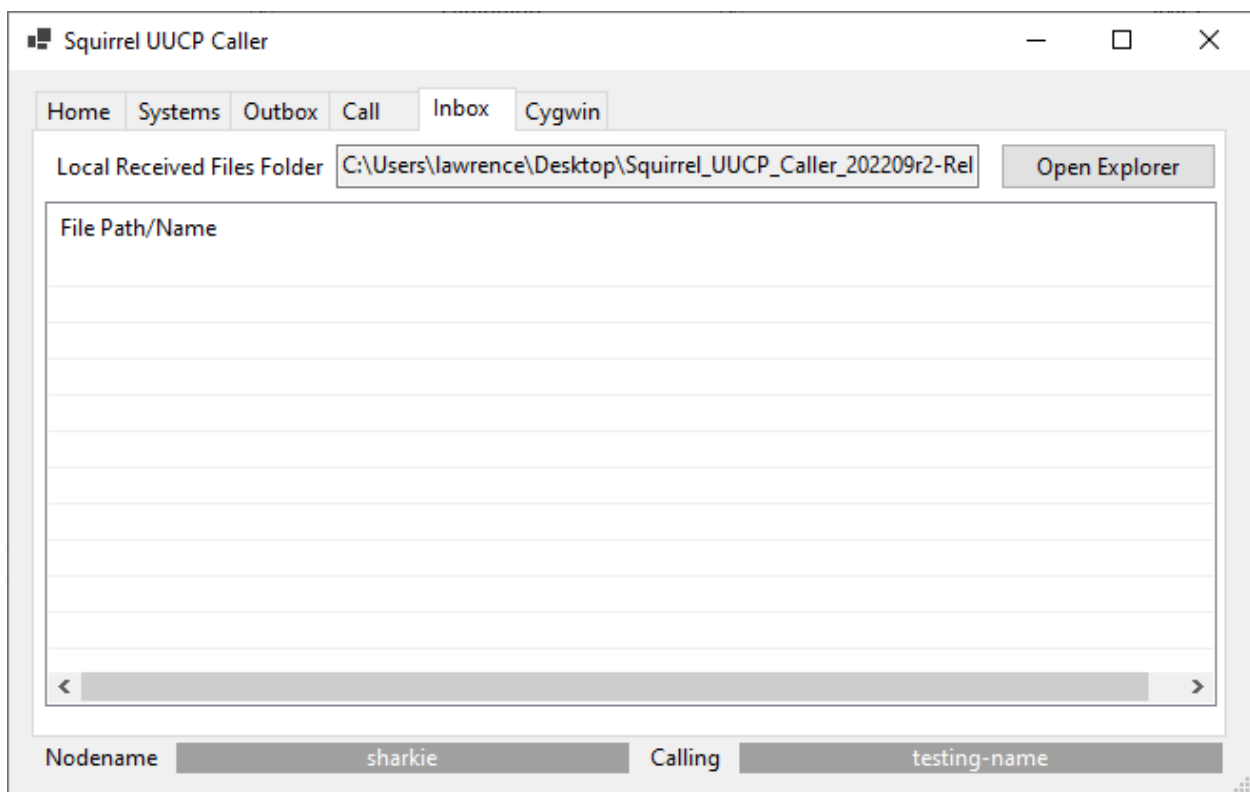
Inbox Tab

The Inbox tab shows you any received files. Clicking on “Open Explorer” will open the Windows File Explorer on the folder.

Files you receive will remain here until you open the folder and move or delete them.

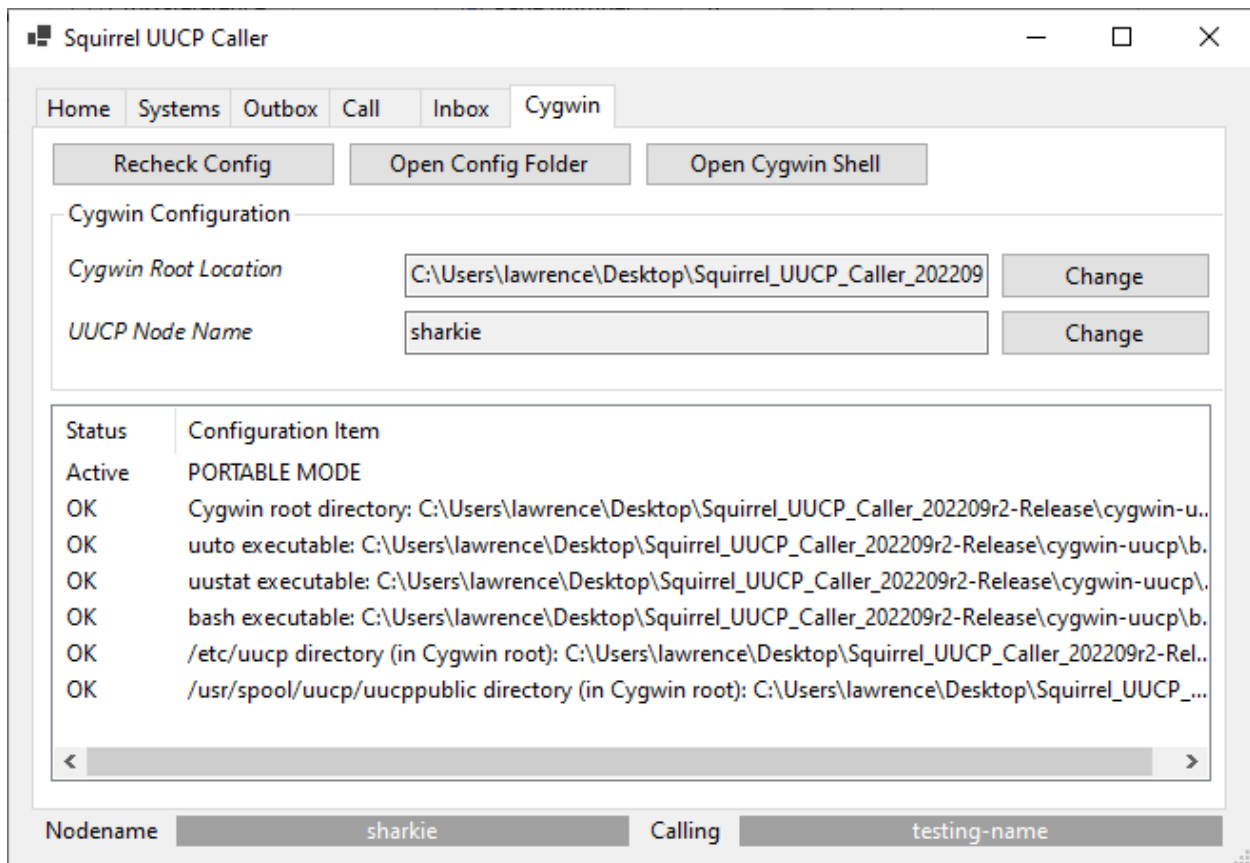
The Local Received Files Folder is fixed within the Cygwin environment you are using and can’t be changed from the GUI.

NOTE: Squirrel UUCP Caller does not provide any file open or management functions here by design. To open, view, copy, move, or delete any files here, you must open Windows File Explorer (or other application) and do those actions from there. Squirrel UUCP doesn’t maintain any history, log or database of received files.



Cygwin Tab

The Cygwin tab will let you perform functions relating to the Cygwin environment that Squirrel UUCP Caller depends on to make calls.



Cygwin Environment Status

Squirrel UUCP Caller checks the Cygwin environment each time it starts. The lower panel will show you the result. If everything passes, everything on the left should say “OK.” Errors with specific items are typically addressed by downloading or recreating a new environment.

- The “Recheck Config” button can be pressed to run the check again anytime.

If Squirrel UUCP Caller detects a `cygwin-uucp` folder in the same folder that it’s running from, it will assume “Portable Mode” and indicate this with an additional line in the lower panel. If you don’t see this line, Squirrel UUCP Caller is not in portable mode.

Other Functions

The “Open Config Folder” button will open the folder containing UUCP configuration files. You can backup the files if you wish.

The “Open Cygwin Shell” button will launch the Cygwin environment’s `bash.exe`. From here you can directly execute commands in the environment. If you are using the supplied environment, only the minimum required for UUCP (and supported transports) to work is included, as well as basic UNIX utilities such as `ls`, `cp`, `rm`, `mv`, etc.