



# iBus WaitZar 0.0.1

## *Alpha Release*

### 1.0 Introduction

Thanks for taking the time to try out WaitZar on Linux! This is the alpha release, 0.0.1. Most of the important features are working. This guide will explain how to work around any known issues. Please subscribe to our mailing list if you'd like to know when we release the full version (1.0.0)

<http://groups.google.com/group/waitzar>

This program was tested on Ubuntu Karmic 9.10, on two different machines. It should work on other versions of Ubuntu (or on any system that supports ibus) –however, you might have trouble linking some of the libraries. It should work fine on 64-bit Ubuntu, but if there are problems, please file a bug report:

<http://code.google.com/p/scim-waitzar/issues/entry>

Thanks again for downloading WaitZar. Please let us know if you have any suggestions.

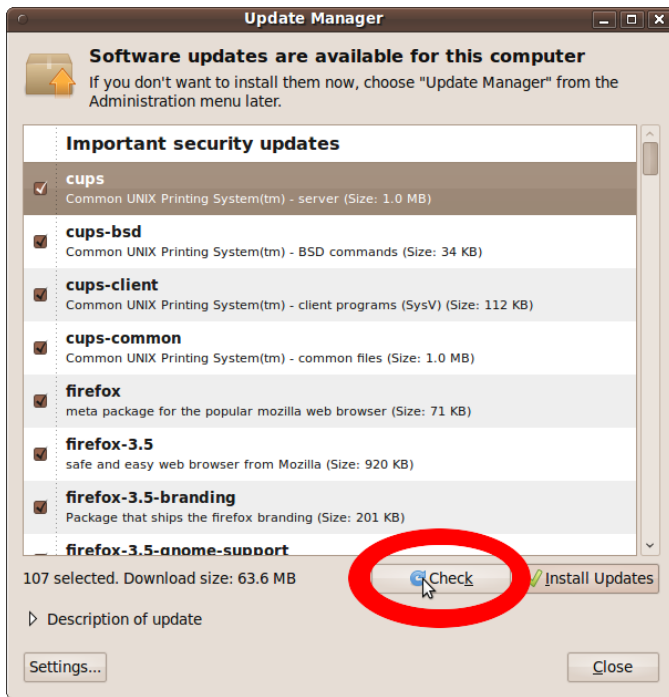
### 2.0 Installing WaitZar

Because ibus-waitzar is a new program, installing it is slightly difficult compared to other packages. (You cannot just use apt-get.) Don't worry; this guide will walk you through each step.

#### 2.1 Updating Your System

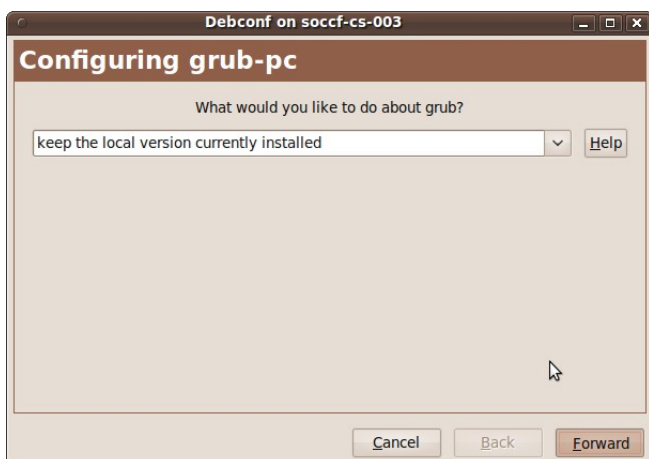
**Note:** If your internet connection is very slow, you can skip this step. But you should update as soon as possible.

You should always update your system before installing anything. To do this, click on “System” then “Administration” then “Update Manager”. Then click the “Check” button to check for updates. You may be asked to type in your password.



After checking, click on “Install Updates” and wait for the update to finish. Congratulations, your system is now up to date!

**Note:** You might see a prompt asking you what to do about GRUB. If you see it, just choose “keep the local version currently installed” and click “Forward”.

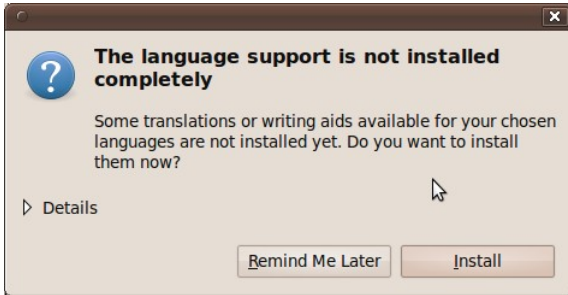


## 2.2 Installing Burmese Language Support

**Note:** If your internet connection is very slow, you can skip this step. But you might have some problems using ibus-waitzar. We highly recommend completing this step.

It is a good idea to enable the Burmese locale before installing ibus-waitzar. The easiest way to do this is to click on “System” then “Administration” then “Language Support”. You will probably see a box that says your languages are “not completely installed”. That's ok, just click “Install” and then “Apply” on the

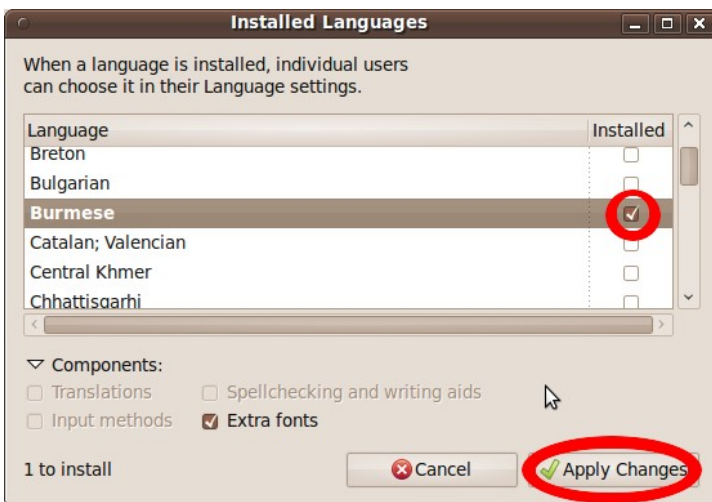
next screen.



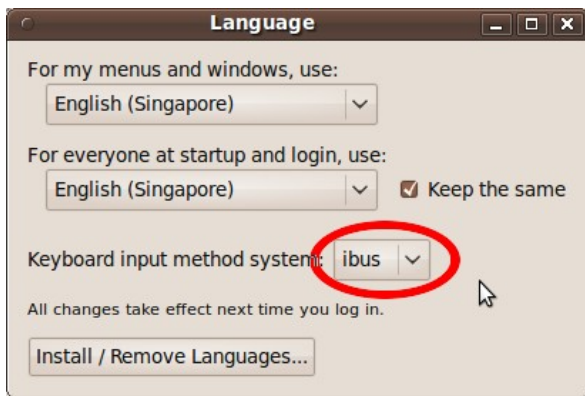
Now, you should see the “Language” dialog. Click on “Install/Remove Languages” to open a new window.



On this screen, scroll down until you see “Burmese”, and then click the check box next to it. Then, click “Apply Changes”. Click “Apply” on the window that pops up.



When you are done, you will be back at the Language window. Change the “Keyboard input method system” to “ibus” and then close the window.

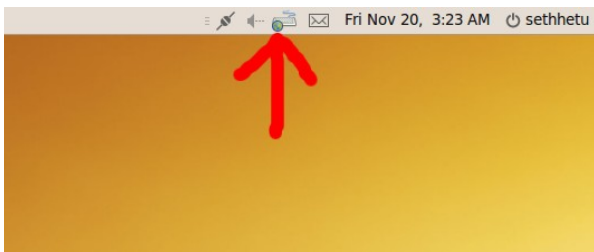


Your other settings are not important. For example, “English (Singapore)” is only because the `ibus-waitzar` developer is located in Singapore. You can change it to whatever is best for you.

You should now log out of Ubuntu and log back in. (Click on your user name in the upper-right and choose “Log Out...”. Then, when you get back to the password screen, just log in again.) This will ensure that your settings have been applied. (You could also Restart, if you want; it won't matter.)

## 2.3 Configuring iBus

You should now see the iBus icon on the top-right of your screen. It looks like a small keyboard. Right-click once on it, then click “Preferences”.



If you don't see this icon, click on “System” then “Preferences” then “IBus Preferences”, and then click “Yes” when it asks you to to start the process, and “Ok” if it prompts you to edit your `~/.bashrc`. Then, it will open your Preferences automatically.

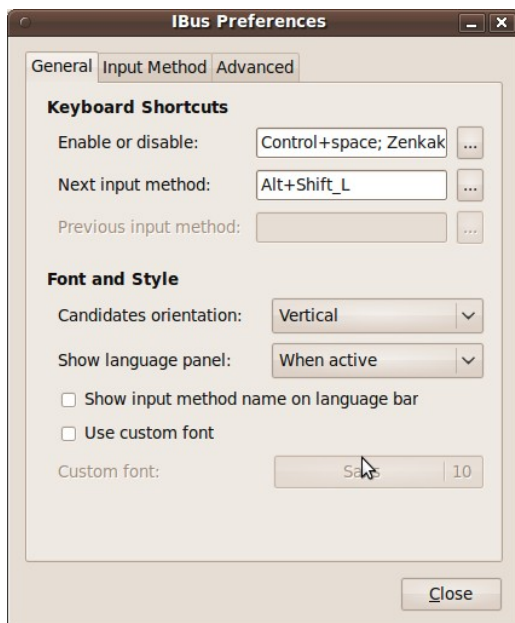
You should now see the “General” settings window for iBus.

Under “Keyboard Shortcuts”, you can click the “...” button to change which keys trigger iBus. If you are a programmer, you might want to change “Ctrl + Space” to “Ctrl + Alt + Space” to keep iBus from interfering with AutoComplete. (We won't show you this now; it's easy to figure out.)

You might also want to click on “Input Method” to see which input methods are available by default. There is a kbd module for Burmese, which will help you type letter-by-letter. If you want Chinese or Japanese input, you will have to install “ibus-pinyin” or “ibus-anthy” from the Package Manager. Then, choose it in the “Input Method” section of iBus and click “Add”. (We won't show you this; this is just mentioned for your convenience.) You can add as many languages as you want -WaitZar won't cause any conflicts.

The one setting you probably should check is on the “General” tab. Change “Show language panel” from “When active” to “Always” and then click “Close”. Beginners usually prefer this option.

## 2.4 Installing the Required Packages



We will now install some packages which ibus-waitzar needs in order to work properly. Open a Terminal (click “Applications” then “Accessories” then “Terminal”) and type the following:

```
sudo apt-get install libboost-python1.38-dev scons
```

Type your password if it asks you to, then type “y” and press “Enter” when it asks you if you want to continue installing the packages. It might also ask you if you want to “Install these packages without verification”. Type “y” and press “Enter”. Then, wait for the install to complete. (When it's done, you'll see the blinking cursor, and the bash symbol “\$”, which lets you know the console is ready for input.)

## 2.5 Downloading and Installing LibWaitZar

We're now ready to install WaitZar. Open a terminal, and type:

```
cd ~
```

This brings you to your **home** directory, which is where we will be doing all of our work. Keep entering commands into this terminal for the rest of this chapter. First, we need to build **libwaitzar**, the waitzar C++ library. Type:

```
wget http://waitzar.googlecode.com/files/libwaitzar_1.0.1.zip
unzip libwaitzar_1.0.1.zip
rm libwaitzar_1.0.1.zip
```

This will download our library, unzip it, and then remove the zipped file. Type

```
cd waitzar-lib
```

...to switch to the directory you just created. All our source files are located here. (Type "ls" or "nautilus ." if you want to see them.) In your terminal, type the following command to compile the library:

```
scons
```

You will see a lot of lines of text scroll by. At the end, you should see "scons: done building targets." If the build failed, you will see an error, which you will have to fix. (Make sure you followed this guide; ask for help if you still can't figure out what went wrong.)

A few notes:

- **ibus-waitzar** requires python version 2.6 to run. This is the default included with ubuntu karmic. If you switched it to 2.5 or 3.0, **ibus-waitzar** might not compile, or it might not run. We will fix this for version 1.0.0.
- We require boost 1.38 in order to link Python to our C++ library. If you prefer the newer boost 1.40, **ibus-waitzar** might not work. Again, we will fix this for 1.0.0.
- We use **scons** to build our system. If you download **libwaitzar** from subversion, you will see a Makefile -do **not** use it; it won't install the Python bindings. We will release version 1.0.0 as a package, so this won't be a problem. :)

Once the system has built properly, type the following to install it:

```
sudo scons install
```

This will copy all the necessary files into your system. You could delete `~/waitzar-lib` now, if you want to, and the library would still work. But we recommend keeping the source.

Congratulations! You now have half of the necessary files for running WaitZar on Linux. Close your terminal.

## 2.6 Downloading and Installing iBus-WaitZar

Open a new terminal. We will now install **ibus-waitzar**; the steps are similar.

First, type:

```
cd ~
```

To go to your home directory. Now, type:

```
wget http://scim-waitzar.googlecode.com/files/ibus-  
waitzar_0.0.1.zip  
unzip ibus-waitzar_0.0.1.zip  
rm ibus-waitzar_0.0.1.zip
```

...to download the ibus-waitzar project. Now type:

```
cd ibus-waitzar
```

...to change into the directory with all the code. You need to set the permissions of two scripts; this step is **very important**. Type the following:

```
chmod 755 ibus-*waitzar
```

Now, let's run a test to see if everything works:

```
scons
```

You should see “scons: done building targets.”, and no errors printed. If there is an error, then most likely something went wrong with the install of libwaitzar, in the previous chapter. However, there are some **unavoidable errors** –if you see an error, you might choose to continue to the next step.

Type:

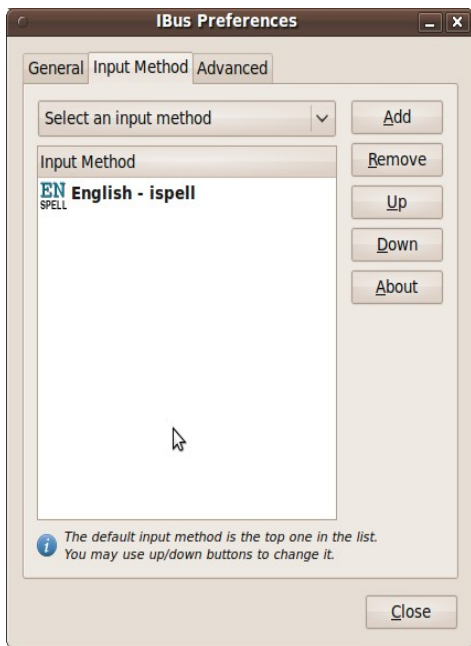
```
sudo scons install
```

This will install ibus-waitzar. You should definitely **not** see any errors in this step, just the usual “scons: done building targets.”.

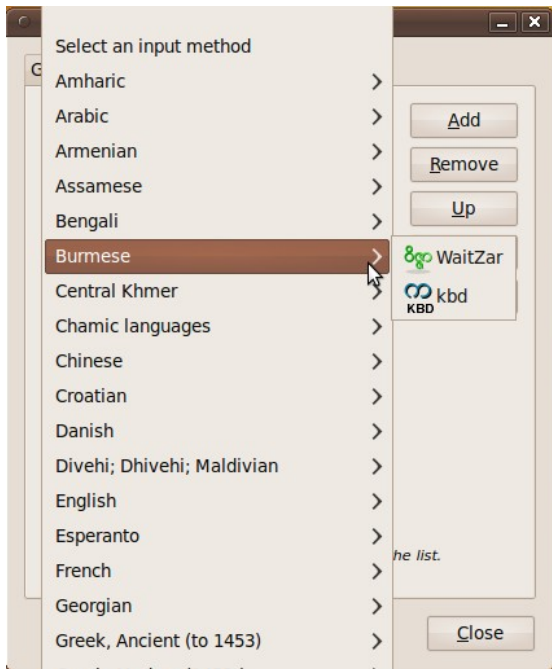
Congratulations, you have successfully installed ibus-waitzar. All that's left is to configure it.

## 2.7 Configuring iBus to use WaitZar

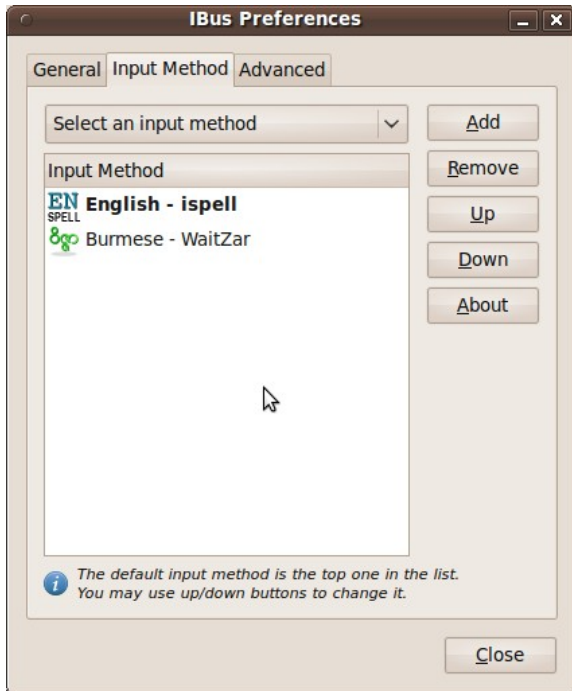
Right-click on the iBus ico and choose “Preferences”. Now, switch to the “Input Method” tab.



At the moment, there is only one Input Method installed. Click on the box labeled “Select an input method” and then click on “Burmese” for the language. You should see “WaitZar” listed --if you don't, then close this box, right-click on the iBus icon, and choose “Restart”. Then, open the Preferences dialog and try again.



After clicking on “WaitZar”, click “Add”, and then you will see WaitZar listed in the Input Methods section. Then, click “Close”.



Now, there is one more thing you should probably do. Ubuntu ships a very old version of Padauk, and Myanmar text will look very ugly in Open Office. You can add an override by doing the following, in a new terminal:

```
mkdir ~/.fonts
cp ~/ibus-waitzar/fonts/* ~/.fonts
```

Padauk is covered under the Open Font License, so we have included it with `ibus-waitzar`. Hopefully, we will be able to update the Ubuntu package before the release of 1.0.0.

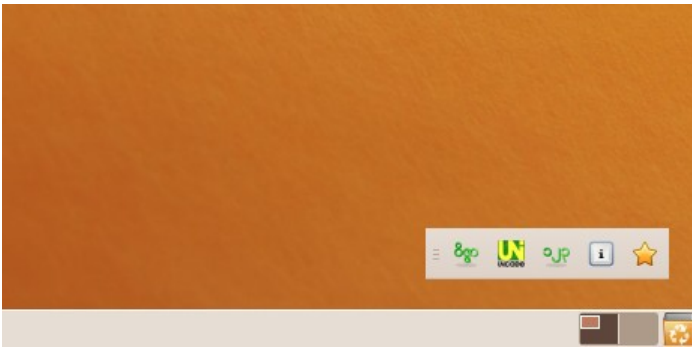
Close any programs that you opened (like Open Office) in order to make them reload their fonts. WaitZar is now fully installed.

## 3.0 Using WaitZar

Using `ibus-waitzar` is easy. It works with most applications.

### 3.1 Switching to Burmese

Open an application like Open Office (“Applications” then “Office” then “OpenOffice.org Word Processor”). Now, left-click on the iBus icon and choose “Burmese – WaitZar”. The icon should switch to show WaitZar's icon, and you should see a toolbar in the lower-right of your screen.



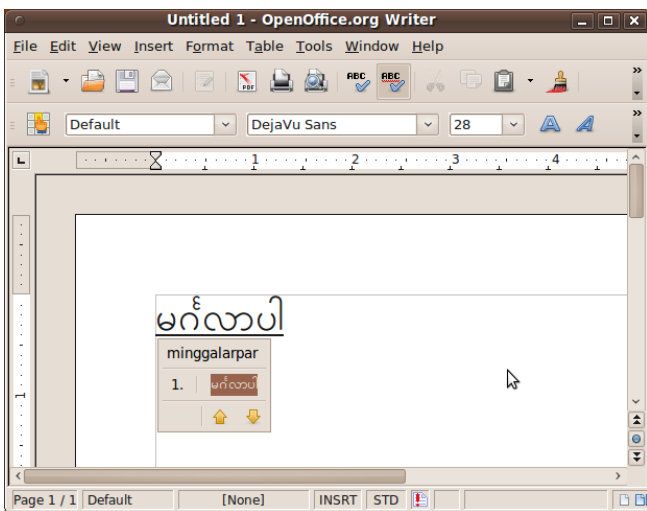
If the system seems to “hang”, you probably did not perform the “chmod” described earlier. You will have to delete the two files in “/usr/lib/ibus-waitzar/”, run the chmod command, and then re-run “sudo-scons install”. Then, you'll have to restart iBus.

At this point, you can now type in Burmese. If you want to revert back to regular typing, left-click on the iBus icon and choose “Turn off input method”. The WaitZar icon will disappear.

If you put WaitZar first in the list of Input Methods in iBus, you can switch to WaitZar using “Ctrl + Space” (or “Ctrl + Alt + Space”, if you changed it). This is much quicker than using the menu.

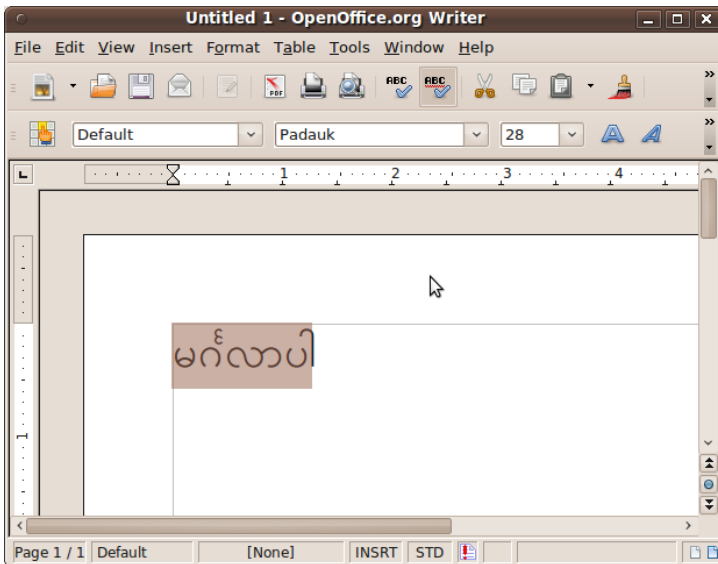
### 3.2 Typing a sentence - Fixing Open Office

In Open Office, switch to Burmese and type “minggalarpar”.



If you're lucky, you will see the text properly. If the text is garbled, you probably have fontconfig defaulting to Bitstream Vera Sans. This is very common, **don't worry!** --We can fix it.

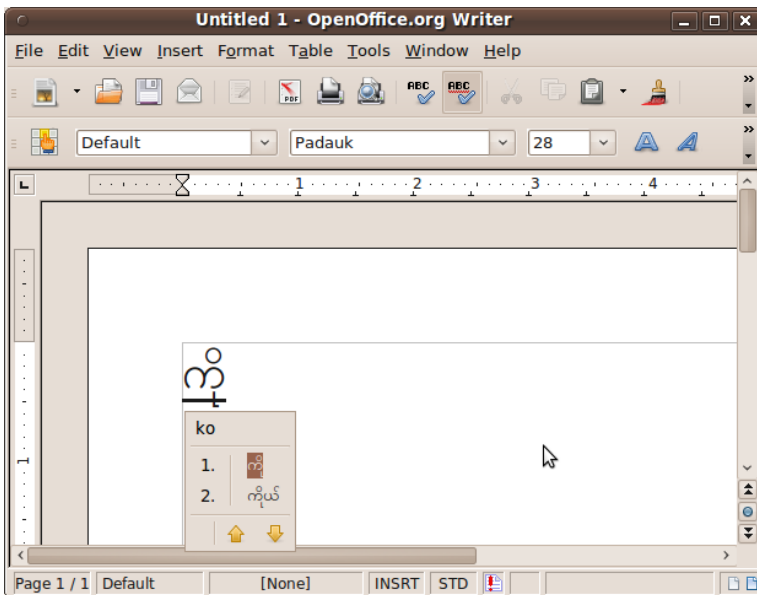
No matter what you see, press “Space” and then “Space” again to type the word into Open Office. Now, press “Ctrl + A” to select all the text, and then click on the Font and change it to “Padauk”. You should now see the text properly.



This is something of a bug in Open Office; it assumes you want the default font. (On Windows, the bug is even worse: it shows you **NO** text!) Once you change the font to Padauk, Open Office will keep it that way for you.

### 3.2 Typing a sentence - For Real Now

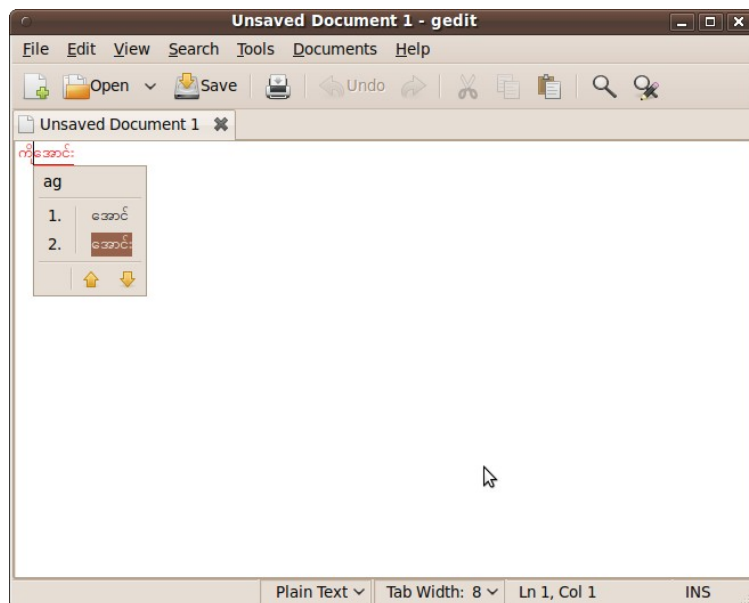
Ok, let's do some typing. In Open Office, switch to WaitZar. Now, type any word you want, like "ko". Type each letter (you can use "Backspace" if you mess up) and you'll see a list of options:



These are the various words that you can type with "ko". You can use the arrow keys (Left, Right, Up, Down) to choose which version you want, and then press "Space" or "Enter" to choose it. Or, you can press each number ("1" or "2") to immediately select the word -this is often much faster than using the spacebar.

After pressing "Space", the word remains underlined, or sometimes in red, depending on the application. Type another word (e.g., "ag") and then "Space" to enter another word. Now, you are starting to type a sentence. You can use

the arrow keys to move the cursor left and right. Open Office will always show an underline, but for other programs, you will see an underline only under the word you are typing:



This is very useful, because pressing “Left” or “Right” will move cursor one “word”. When you are done, you can press “Return” to type the entire sentence into Open Office. Or, you can press the “comma” or “period” keys (“,” or “.”) to type the sentence followed by a Burmese “half stop” or “full stop”. (You can also type Burmese numbers, by the way.)

That's all there is to learn about using WaitZar. The only other thing to remember is that WaitZar can sometimes guess the word you're trying to type. If you type “singa”, you will see “singa(pore)” in the word list -WaitZar knows that's the word you want, since it's the only option. WaitZar can also figure out some shortcuts like “mg” for “maung”.

### 3.0 Troubleshooting

If you have any questions, please email [help@waitzar.com](mailto:help@waitzar.com). But first, here is a list of common questions.

- **How do I uninstall the program?**
  - Currently, you cannot uninstall ibus-waitzar or libwaitzar. The libraries will not conflict with anything on your system, so there is no way either one can cause your computer to crash. If you really want to uninstall them, however, you can look at the **Sconscript** files in each project directory -they list all the files that are installed, and which directories to find them in.
- **Does WaitZar work on Windows?**
  - WaitZar was originally designed for Windows. Please see <http://www.waitzar.com> for more information.
- **Does it work on MacOS?**

- No. We are planning to port it to Open Vanilla, but this will take some time. If you would like to help (and you know how to use a Mac) please email the developers ([help@waitzar.com](mailto:help@waitzar.com)) and let us know.
- **Help! My text does not look right on forums or my blog!**
  - WaitZar will output Unicode-compliant text by default. This is the standard, but a lot of Burmese web sites use Zawgyi-One. Unfortunately, you cannot change the encoding of WaitZar on Linux in version 0.0.1. (You will be able to change it in 1.0.0). (See the next question if you're desperate).
- **I really NEED to type Zawgyi! (Or Win Innwa!)**
  - Ok, you *can* change ibus-waitzar to use these encodings... but it's kind of tricky. Open a terminal and type the following:

```
sudo gedit /usr/share/ibus-waitzar/engine/engine.py
```

This will open the source file in an editor. Now, choose “Edit” then “Go to Line” and type in “88”. You will see the following line:

```
self.__encoding = ENCODING_UNICODE
```

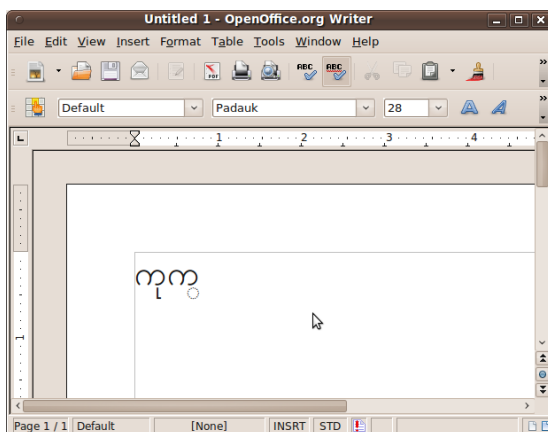
Change it to either:

```
self.__encoding = ENCODING_ZAWGYI
```

...for Zawgyi-One, or:

```
self.__encoding = ENCODING_WININNWA
```

...for Win Innwa. Now, click “Save”, and then close the file. You will have to restart iBus (right-click on the iBus icon, choose “Restart”). Now, when you type Burmese, it will appear corrupted in Open Office:



...but it will look fine on your blog. You should download the Zawgyi-One font and put it in your `~/fonts` folder; that way, you will be able to see Zawgyi-One text in Open Office or Firefox.

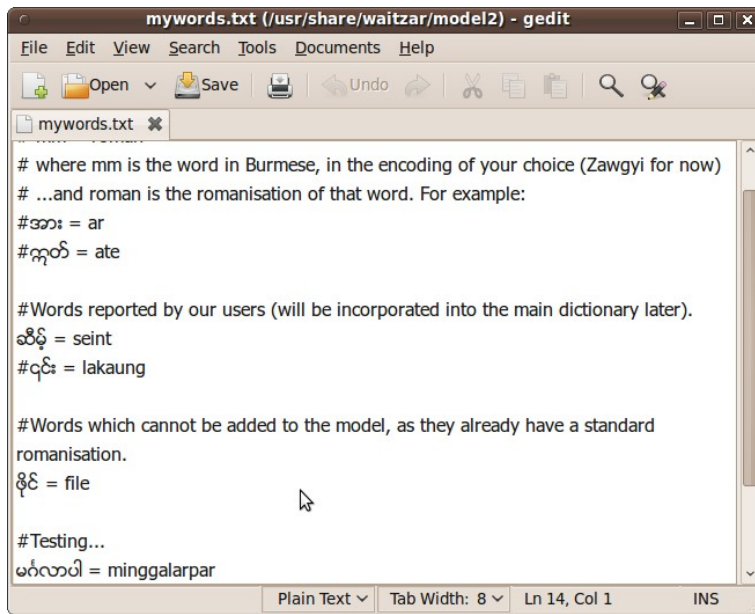
Again, we *really* recommend that you switch to Unicode, especially for Linux. Previously, Unicode for Myanmar was not very good, but with the 5.1 release, it is stable enough for everyone to use.

- **Can I add my own words to WaitZar?**

- Kind of. The 1.0.0 release will allow you to edit a file in your home directory. However, right now (0.0.1), that file is located in a very inconvenient place. Open a terminal and type:

```
sudo gedit sudo gedit /usr/share/waitzar/model2/mywords.txt
```

You can add words by putting lines of the form “**myanmar = roman**”, where “myanmar” is the way you type that word in Burmese **in the Zawgyi-One font** and “roman” is the way you wan to type it in WaitZar.



As you can see, this is particularly troublesome, because you don't have a way to type Zawgyi-One. We need to fix this for 1.0.0. For now, just type the text in ibus-waitzar, in Unicode, and use the following web page to convert it from “Padauk” to “Zawgyi-One” ...then copy and paste it into mywords.text.

<http://burglish.my-mm.org/latest/trunk/web/fontconv.htm>

- **Do you support any other scripts? Shan, Mon, etc?**
  - Currently, we don't, although we want to add this feature to the next version of WaitZar. New features usually appear in Windows, first, since more people are able to test them.
- **Help! WaitZar crashed! (I think...)**
  - Even though this is an “alpha” release, we still tested it heavily. However, there could be some bugs. To see if WaitZar crashed, open the file `~/.wz/log.txt` using any text editor. Most errors will be printed here. If you don't see any errors, but you still think the program crashed, then try to remember the **exact** steps you went through to cause the crash. Try to repeat the problem, after resetting iBus. When you are confident you know how to repeat the error, file a bug report online. Attach **log.txt** if it contained anything interesting. You can file bugs at:

<http://code.google.com/p/scim-waitzar/issues/entry>

- **Is WaitZar Free? How can I show my thanks?**

- WaitZar is free and open source. We are happy to give WaitZar away for free, on both Windows and Linux. If you would like to show your thanks, we would really appreciate it if you could help to translate Ubuntu into Burmese, so that everyone in Myanmar can use it:

<https://translations.launchpad.net/ubuntu/karmic/+lang/my>

Send us an email ([help@waitzar.com](mailto:help@waitzar.com)) if you have any questions.

- **Will version 1.0.0 be in the Ubuntu repository? Will I be able to type “sudo apt-get install ibus-waitzar” instead of following this guide?**

- We hope so. Our goal is to release ibus-waitzar, and to install it by default when the user clicks on “Burmese” in the “Language Support” menu.

## 4.0 License

The ibus-waitzar program is released under the GNU General Public License (GPL), version 3.0 The libwaitzar library is released under the Apache License, version 2.0. You can find these licenses online at (<http://www.gnu.org/licenses/gpl.html>) and (<http://www.apache.org/licenses/LICENSE-2.0>), respectively.

A lot of people think that a “License” is there to restrict you from copying this program. Actually, the opposite is true: we chose these licenses to **encourage** and **allow** you to copy these programs. If you change these programs, you are free to re-compile and release the source yourself, although for ibus-waitzar you must also license your changes under the GPL. Of course, we would be really happy if you emailed us with your changes; that way we could include them in the official release of ibus-waitzar.

Everything WaitZar is free to use, and free to modify. If you think that's a good idea, then we encourage you to donate your time to Free and Open Source Software projects, too. You'll find a friendly community that's happy to help you get started, and full of wisdom and experience.