

English Nepali Word List for Linux Interface

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Abstract

This document covers the translation process of GNOME Desktop Environment (<http://www.gnome.org>) and the development of the glossary.

This document gives information about total English words that have been translated till date to Nepali word equivalence. The total translated words sums up to 8,701. It will be updated as the translation work progresses.

This glossary contains the words from the GNOME Desktop Environment and Open Office (<http://www.openoffice.org>). The words from KDE are not included because the translation for this application has not started yet.

1. GNOME

GNOME refers to the GNU Network Object Model Environment. It is one of the desktop environments for GNU/Linux. GNOME belongs to the Free Software category and is a part of the GNU Project [1,4].

The GNOME Desktop Environment comprises developer libraries and a set of applications. In order to be able to use GNOME in the local language, both the developer libraries and the software packages that we are interested in, should be localized.

Some of the core libraries of GNOME are gtk+, glib, gconf, gail, libgnome, libgnomeui etc. The main software packages are gdm, gedit, gnome-terminal, evolution, epiphany, metacity, nautilus, gnome-desktop etc. Similarly, it includes various applications for audio/video, file viewers, CD writing, desktop theme selection, printing tools etc. Besides, office tools

like gnumeric, dia, planner etc. are also available in GNOME [1].

Localization of GNOME Desktop Environment involves [1]:

- Translation Process initiation,
- Collection of files for translation,
- Files for translation,
- Translation Testing
- Files Submission to GNOME Source Tree

1.1. Translation Process Initiation

After you decide to localise GNOME desktop environment, a team would need to be formed for the required language. This can be checked by going through the list of current language teams working on GNOME [1].

This list can be found at (<http://developer.gnome.org/projects/gtp/lists.html>).

A team of 8 members with two members working on each file and a linguist verifying the correctness of the translation constituted the working team structure of the Nepal Component.

A mail sent to the gnome-i18n@gnome.org mailing list confirmed about the team formation and Mr. Pawan Chitrakar, as being nominated as the co-ordinator.

Following the team approval by the GNOME mainstream, the language Nepali got added to the language status page (<http://110n-status.gnome.org>). Also the co-ordinator was provided with an account and password for future use.

All the GNOME source code and translatable files are kept online (<http://cvs.gnome.org/viewcvs/>).

GNOME has its CVS repository (Source code and translatable files of GNOME) kept online (<http://cvs.gnome.org/viewcvs/>). These files can be downloaded by anyone but changes can be committed only by few authorized people like the co-ordinator [1,2].

1.2. Collection of files for translation

GNOME uses gettext framework for localization. The files for translation are of PO format. The PO files consist of a list of strings, extracted from the source of the original application and space for providing the translations in the target language. Various methods exist for obtaining the PO files. The recommended way is to download the PO files from the language page (<http://110n-status.gnome.org/>) on the GNOME Translation Project website (<http://developer.gnome.org/projects/gtp/>) [1].

Incase, the translation has already initiated for any given application, the language status page contains the latest PO file. Otherwise, just the PO template files or POT files would be available. The POT files may be changed to PO format just by renaming it [1].

1.3. Files for Translation

The basic GNOME distribution has more than 25,000 strings to be translated. Generally, there are two sections requiring translation in GNOME, namely the developer-libs and the desktop. While error messages, text in menus and dialog buttons come from the developer-libs, rest of the texts come from the desktop. The developer-libs, which contains around 3000 strings covers the modules like gtk+, libgnome, libgnomeui etc. [1].

1.4. Translation Testing

Testing is undoubtedly a very important part of the localization process of any application. In the testing process, the translations are put in the test machines and examined for quality translation as well as bugs that would possibly crash the system. The PO files have to be converted into the MO files so that the machines can actually read them and depict the corresponding translations in the interface menus and dialog boxes. The PO to MO conversion may be administered by running the command 'msgfmt -cv' on the po file. Next the MO files would need to be placed in the */usr/share/locale/ne/LC_MESSAGES/* directory of the test machines[1].

1.5. Files submission to GNOME Source Tree

The files are ready to be submitted to the GNOME Source Tree after the translation and testing is completed. Sometimes, partially complete translations are also submitted. This is to facilitate using the translation by other people in the same language. As mentioned earlier, the submission and other updates privileges are available only to the co-ordinator.

The PO files to be submitted to the GNOME Source Tree would need to be in UTF-8 encoding and obviously error-free. The format correctness of the PO files may be verified by running the command

```
msgfmt -cv ne.po
```

Here, ne is the name of the file.

In case everything is normal, the following output message would be achieved.

```
xy.po: UTF-8 Unicode PO (gettext message catalogue) text.
```

In case the given PO file is not in the UTF-8 format, the following commands have to be run to make it of the required format.

- msgconv -t UTF-8 ne.po > ne.po.new
- mv ne.po.new ne.po

The translations are now ready to be submitted . This can be done using the command ‘cvs commit’, on the GNOME CVS server (cvs.gnome.org) [1].

2. Glossary Development

Maintaining a glossary of terms is a mandatory thing for translation. This serves several purposes, among a few being time saving and the other as maintenance of the consistency in translation. GNOME has a glossary of terms and can be downloaded from the following link[1]: (<http://developer.gnome.org/projects/gtp/glossary/>).

With time, the size of the glossary is increasing. There are 8,700 terms at the time of this report writing. All of these terms have been translated to Nepali. The English-to-Nepali technical or computer terms that the Nepal team has compiled also contains terms collected from Open Office, (<http://www.openoffice.org>).

2.1. Challenges Faced

- It was very difficult to find exact Nepali meaning for most of the technical words. So the standard dictionaries made by Royal Nepal Academy such as science dictionary and mathematical dictionary made by Mathematics department of Tribhuwan University were used and nearest or maximum closest meaning were taken.
- Since the translations were done by different parties, it increased the rate of inconsistency in the translation. It was rather difficult to do the translation work due to the lack of a common glossary.

3. Suggestions

- If there is less resource and less time, then only strings that show up in desktop frequently can be translated.

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- Tools like gtranslator (<http://gtranslator.sourceforge.net/>), poedit (<http://poedit.sourceforge.net/>) can be use to translate the PO files [5].
- Starting with something small in the beginning and getting used to translation and later gradually increasing the translation work is something that is advisable [1]. For e.g. applications like gnome-desktop (menus) can be started with.
- Coordinators are required to join gnome-i18n mailing list. (<http://developer.gnome.org/projects/gtp/contact.html>) [3].

4. Lesson Learnt

Translation work is not as trivial as it sounds. It is one of the most important jobs in localizing software. It is a huge task and lot of human effort and time goes into the translation and testing part. Moreover, it all goes wasted if the translation is not consistent.

5. References

- (1) <http://anakin.ncst.ernet.in>
- (2) <http://anakin.ncst.ernet.in/~aparna/consolidated/c3088.html>
- (3) <http://www.pms.ifi.lmu.de/publikationen/diplomarbeiten/Sacha.Berger/literatur/misc/hig-1.0.pdf>
- (4) http://www.eclickz.net/search.php?keywords=software&username=&adult_filter=1
- (5) <http://www.gnome.org.tr/?p=cevirinasil>

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