

# Wyslij-po Manual

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Sergey Poznyakoff.

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# 1 Introduction to Wyslij-po

It is a common practice for a program to be documented and to produce its diagnostics in English. However, the waste majority of us would prefer their computer to speak our native language instead. This goal is already achieved for many free software programs, and is going to be achieved for still more of them using the methods called *internationalization* and *localization*. These terms are often written abbreviated as *i18n* and *l10n*, correspondingly. In short, *i18n* consists in modifying a program in such a way that, while still producing its output in English, it would allow this output to be translated to any given language on the fly. Similarly, *l10n* consists in supplying an already internationalized program enough information for it to be able to translate its output to a particular language. Both terms are discussed in further detail in [Section “I18n” in GNU gettext manual](#).

While internationalization is usually taken care of by programmers, localization is the responsibility of translators. Usually this process consists of creating a special file, called *PO file*, which is basically a table of all the messages the program ever issues, which, for each such message, lists its translation to a given language (see [Section “PO Files” in GNU gettext manual](#)).

When translator finishes writing a PO file, he submits it via electronic mail to the *free Translation Project* (<http://translationproject.org>), or TP for short, which acts as a repository for the existing translations. It is from the Translation Project that maintainers download PO files for inclusion into their projects, when preparing them for the release.

There are several ways to submit a translation. First, it can, of course, be submitted manually. Secondly, you can use the *M* (`po-send-mail`) command in GNU Emacs *po-mode* (see [Section “PO Files” in GNU gettext manual](#)). Finally, you can use some specialized program to do that.

If you choose the last possibility, `wyslij-po` is for you. It is a specialized program which verifies PO files and submits them to the TP.

The program name<sup>1</sup> means ‘`send-po`’ in Polish and is pronounced roughly like ‘`vishleey-po`’.

The program is built using [GNU Mailutils](#) — a powerful collection of libraries and utilities for handling electronic mail.

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<sup>1</sup> It should more properly have been written ‘`wyślij-po`’.



## 2 Submitting Translations.

To submit one or several PO files, simply give them as arguments to `wyslij-po` in the command line, like this:

```
$ wyslij-po pl.po uk.po bg.po
```

For each file, specified in the command line, the utility will do the following steps:

1. Retrieve PO headers

PO headers contain important information about the translation. These headers are stored in the first entry of each PO file.

2. Restore canonical PO name.

A canonical PO name consists of the project name and version, separated by dash, which are followed by a dot, the language code as per ISO 639, and the suffix `.po`. To determine the canonical name, `wyslij-po` uses the contents of `Project-Id-Version` and `Language` PO headers. The value of `Project-Id-Version` supplies the name and version of the project this file is for, and the value of `Language` gives the ISO-639 abbreviation of the language name. For example, if the two headers in question were:

```
Project-Id-Version: cflow 1.2
Language: pl
```

then the canonical name for that file is `cflow-1.2.pl.po`.

If the PO file lacks the `Language` header, `wyslij-po` analyzes the `Language-Team` header. The full language name extracted from this header is looked up in a *language table* file to find the corresponding ISO-639 code (see [Chapter 5 \[Langtab\]](#), page 11).

3. Verify the consistency of PO file.

This step ensures that the file corresponds to the latest version of the package in question and that it does not contain obvious formatting errors. For the detailed description of the checks performed, see [Section 2.1 \[Verification\]](#), page 3, below.

4. Form the message to be submitted.

The message is a MIME 1.0 message, whose body contains the compressed PO file, and the headers contain the necessary registration information (see [Section 2.2 \[Message\]](#), page 4).

5. Send the message.

See [Section 2.3 \[Sending\]](#), page 6, below.

The following sections describe each step in detail.

### 2.1 Verification

Before constructing a submission message, `wyslij-po` first verifies if the PO file in question matches several important conditions. It is done in order to reduce the unwanted traffic and the impact on the TP mail server and robot.

As of version 3.3, the following tests are implemented:

1. PO revision date.

The values of the PO headers `PO-Revision-Date` and `POT-Creation-Date` are compared. If `POT-Creation-Date` is newer than `PO-Revision-Date`, the PO file is obviously outdated and therefore it is not submitted.

This test is controlled by the following command line options:

**--verify-po-time**

Verify PO modification time (default).

**--no-verify-po-time**

Disable PO modification time verification.

In configuration file, this test is controlled by the `verify-po-time` boolean statement (see [Chapter 4 \[Config\]](#), page 9).

## 2. Package version

This test verifies if this PO file is created for the latest version of the package available. To verify this the following algorithm is used. First, the *textual domain url* is built using the following schema:

```
http://translationproject.org/domain/${domain}.html
```

where `${domain}` is replaced with the project name obtained from the `Project-Id-Version` PO header.

Then, the contents of this page is retrieved, and the following extended *regular expression* is applied to it:

```
The current template for this domain is <a href=".[^"]*/(.[^"]*)">
```

If the expression matches, the value of the first parenthesized subexpression is retrieved, the optional `.pot` suffix is removed from it and the result is compared with the value of `Project-Id-Version` PO header, converted as described in [\[canonical-name\]](#), page 3. The two strings must be equal in order for the test to succeed.

This test is controlled by the following command line options:

**--verify-version**

Enable package version verification (default).

**--no-verify-version**

Disable package version verification.

In configuration file, this test is controlled by the `verify-version` boolean statement (see [Chapter 4 \[Config\]](#), page 9).

Two configuration file statements are provided for tuning this test. The `tp-url` statement changes the textual domain template (see [Chapter 4 \[Config\]](#), page 9) and the `pot-regex` statement changes the regular expression (see [Chapter 4 \[Config\]](#), page 9).

## 2.2 Message

The minimal message headers are:

```
From: sender
To: robot-address
Subject: TP-Robot canonical-name
X-Mailer: wyslij-po 3.3
```

Where:

*sender*      The email of the sender. Unless otherwise specified, it is constructed by concatenating the actual user name, a '@' sign, and the host name of the local host.



This value can be set explicitly using `--from` (`-F`) command line option. When used without additional arguments, as in:

```
$ wyslij-po -F pl.po
```

this option instructs `wyslij-po` to extract sender name from the value of `Last-Translator` PO header. This is equivalent to setting `from-po true` in the configuration file (see [Chapter 4 \[Config\], page 9](#)).

This option can also be used with an explicit argument, which specifies the email to be used as a sender address. It is important to remember that when the short option form is used, this argument must follow the option letter immediately, without any intervening whitespace. If the long option form is used, this argument must be delimited from the option name by an equals sign with no extra whitespace on either side of it. The following invocations illustrate this:

```
wyslij-po -Ftrans@gnu.org.ua
wyslij-po --from=trans@gnu.org.ua
```

This can be requested in configuration file by using `from` statement (see [Chapter 4 \[Config\], page 9](#)).

#### *robot-address*

The email of the TP robot. By default it is:

```
robot@translationproject.org
```

It can be changed using `--to` (`-t`) command line option, or `to` configuration statement (see [Chapter 4 \[Config\], page 9](#)).

#### *canonical-name*

The canonical name of the PO file. It is determined as described in [\[canonical-name\], page 3](#).

Additionally, you can require the message to be copied to any number of emails by using `--cc` command line option or `cc` configuration statement. In both cases, the argument is a string containing a comma-separated list of valid email addresses, as in:

```
$ wyslij-po --cc "tp-keeper@dom.ain,root@remote.org"
```

If you wish to make those additional addresses invisible, use the `--bcc` command line option (or `bcc` configuration statement) instead.

The `--fcc` option specifies the folder to store the copy of the message into. Its argument is any *mailbox URL* supported by Mailutils (see [Section “URL” in GNU Mailutils Manual](#)). For example, the following option will place copies of the PO files in the MH folder `Mail/sent`:

```
$ wyslij-po --fcc mh://Mail/sent
```

In configuration file, this is done via the `fcc` statement (see [Chapter 4 \[Config\], page 9](#)).

The PO file contents is by default sent in compressed form. To produce it, `gzip` program is used (see [Section “Overview” in Gzip Manual](#)). Notice, that the `gzip` binary must be in your `PATH`, otherwise `wyslij-po` won't be able to find it. You can specify the full path to the binary and/or supply any additional options by using the `--gzip` (`--compress`) command line option. For example, to use `/usr/bin/gzip` with the highest possible compression level, use:

```
$ wyslij-po --gzip "/usr/bin/gzip -c --best"
```

Use the `compress` statement to set the compression command from the configuration file (see [Chapter 4 \[Config\]](#), page 9).

Notice, that when setting compression command (either from command line or from configuration file), *you must always include -c option in the gzip command line.*

## 2.3 Sending

As any mailutils-based program, `wyslij-po` uses a special logical entity called *mailer* in order to actually submit messages. By default it uses the MTA facilities of the machine it runs on, so you usually don't have to explicitly specify which mailer to use. There may, however, be some cases when this becomes necessary. This section describes how to do so.

A mailer is specified by its *URL*. An URL begins with a protocol specification. Two protocol specifications are currently supported: 'sendmail' and 'smtp'. The former means to use a sendmail-compatible program to send mails. Such a program must be able to read mail from its standard input and must support the following options:

- oi        Do not treat '.' as message terminator.
- f *addr*    Use *addr* as the address of the sender.
- t        Get recipient addresses from the message.

These conditions are met by most existing MTA programs, such as `exim` or `postfix` (to say nothing of `sendmail` itself).

Following the protocol specification is the *mailer location*, which is separated from it with a colon. For the 'sendmail' protocol, the mailer location sets the full file name of the sendmail-compatible MTA binary, for example:

```
sendmail:/usr/sbin/sendmail
```

A special form of sendmail URL, consisting of protocol specification only ('sendmail:') is also allowed. It means "use the sendmail binary from the `_PATH_SENDMAIL` macro in your `/usr/include/paths.h` file". This is the default mailer.

The 'smtp' protocol means to use an SMTP server directly. In this case the mailer location consists of two slashes, followed by the IP address or host name of the SMTP server, and, optionally, the port number. If the port number is present, it is separated from the rest of URL by a colon. For example:

```
smtp://remote.server.net
smtp://remote.server.net:24
```

The URL of the mailer to use is set using `--mailer (-M)` command line option. For example:

```
$ wyslij-po --mailer=smtp://127.0.0.1 pl.po
```

An alternative way is to set it in the configuration file, using `mailer` statement (see [Section "Mailer Statement" in GNU Mailutils Manual](#)).

As an example of a rather extreme approach, here is how to deliver mails directly to the TP mail server:

```
$ wyslij-po --mailer=smtp://mail.vrijdschrift.org ...
```

### 3 Debugging, Verbose Output and Dry-run Mode.

Usually `wyslij-po` operates silently. It issues a diagnostics only if something serious has happened (an error, for example). You may wish to change this behavior in order to trace the progress of the submission.

The `--verbose` command line option instructs the program to increase its verbosity level. Each occurrence of this option in the command line raises the level by one, so to get the verbosity level 3 you would type:

```
$ wyslij-po -vvv ...
```

The bigger the level, the more information will be produced on the output.

Here is an example of the output produced in level 1:

```
$ wyslij-po -v pl.po
pl.po: cflow-1.2.pl.po

Message headers:
Content-transfer-encoding: base64
Content-Type: application/x-gzip; name="cflow-1.2.pl.po.gz"
MIME-Version: 1.0
From: trans@gnu.org.ua
To: robot@translationproject.org
Subject: TP-Robot cflow-1.2.pl.po
X-Mailer: wyslij-po 3.3
```

Here, the first line shows the input file name and the corresponding canonical PO name for it. The remaining lines show RFC 2822 message headers.

The verbosity level 2 shows additional information about the progress:

```
$ wyslij-po -vv pl.po
Sourcing language table './wyslij-po.lc'
Restoring canonical file name for 'pl.po'
Verifying POT file version for 'mailutils'
Verifying creation vs. revision date
pl.po: cflow-1.2.pl.po
executing gzip -c pl.po...

Message headers:
Content-transfer-encoding: base64
Content-Type: application/x-gzip; name="cflow-1.2.pl.po.gz"
MIME-Version: 1.0
From: trans@gnu.org.ua
To: robot@translationproject.org
Subject: TP-Robot cflow-1.2.pl.po
X-Mailer: wyslij-po 3.3

Submitting pl.po
```

The levels 3 and 4 print lots of information concerning actual SMTP transaction. These are mainly useful for debugging.

It is often desirable to know what `wyslij-po` would do, without actually sending translations. The special command line option `--dry-run (-n)` is designed for this purpose. When this option is given, `wyslij-po` will do all its usual processing, except for actually sending the result. This option automatically sets verbose level to 1 (of course you can push it higher by supplying additional `-v` options along with `--dry-run`):

```
$ wyslij-po --dry-run pl.po
pl.po: cflow-1.2.pl.po
```

Message headers:

```
Content-transfer-encoding: base64
Content-Type: application/x-gzip; name="cflow-1.2.pl.po.gz"
MIME-Version: 1.0
From: trans@gnu.org.ua
To: robot@translationproject.org
Subject: TP-Robot cflow-1.2.pl.po
X-Mailer: wyslij-po 3.3
```

NOT submitting

## 4 Configuration Files.

If you have a set of commonly used `wyslij-po` options, it is convenient to keep them in a configuration file, instead of typing them again each time you invoke the program. `Wyslij-po` uses the Mailutils concept of configuration files, which is described in detail in [Section “configuration” in \*GNU Mailutils Manual\*](#).

There are two possible locations for the `wyslij-po` configuration. System-wide configuration is kept in the main configuration file (see [Section “configuration” in \*GNU Mailutils Manual\*](#)), in section `program wyslij-po`, or in the file named `wyslij-po` in the configuration include directory, if the `include` statement is used (see [Section “Include” in \*GNU Mailutils Manual\*](#)). Per-user configuration is kept in file `~/wyslij-po`.

To set default mailer (similar to `--mailer` option, see [Section 2.3 \[Sending\], page 6](#)), use the `mailer` statement, See [Section “Mailer Statement” in \*GNU Mailutils Manual\*](#).

**compress *command*** [Configuration]

Set command line of the utility used for file compression. For example:

```
compress "/usr/bin/bzip2 -c";
```

See [\[gzip\], page 5](#), for a detailed discussion of file compression.

See also [Appendix C \[Invoke\], page 19](#), for another way to set this value.

**langtab *file*** [Configuration]

Set the name of the language table file. See [Chapter 5 \[Langtab\], page 11](#).

**to *email*** [Configuration]

Set TP robot (recipient) email address. See [Section 2.3 \[Sending\], page 6](#).

**cc *email*** [Configuration]

Set emails of carbon copy recipients. *Email* may contain multiple email addresses, separated by commas:

```
cc "<tp@localhost>,<bitbucket@remote.tld>";
```

Notice the use of quote characters.

See also [Appendix C \[Invoke\], page 19](#), for another way to set this value.

**bcc *email*** [Configuration]

Set emails of carbon copy recipients.

See also [Appendix C \[Invoke\], page 19](#), for another way to set this value.

**fcc *folder*** [Configuration]

Store a copy of the sent message in the specified mail folder. *Folder* can be any valid mailbox URL (see [Section “URL” in \*GNU Mailutils Manual\*](#)). The following example instructs `wyslij-po` to keep copies of the messages it sends in a MH folder ‘+po-out’:

```
fcc "mh:~/Mail/po-out";
```

**from *email*** [Configuration]

Set sender e-mail address. See [Section 2.2 \[Message\], page 4](#), for a detailed description.

See also [Appendix C \[Invoke\], page 19](#), for another way to set this value.

**from-po** *bool* [Configuration]  
Read sender e-mail address from the value of `Last-Translator` PO header. It is equivalent to specifying the `--from` (`-F`) command line option without argument.

**verify-po-time** *bool* [Configuration]  
Controls whether to verify PO modification time before sending the message.  
See [Section 2.1 \[Verification\], page 3](#), for a description of this test.

**verify-version** *string* [Configuration]  
Controls whether to verify package version before sending the message.  
See [Section 2.1 \[Verification\], page 3](#), for a description of this test.

**tp-url** *template* [Configuration]  
Sets template for the textual domain URL. See [Section 2.1 \[Verification\], page 3](#), for a description of its purpose.  
*Template* must be a valid HTTP URL. It must contain at least one occurrence of `${domain}`, which will be replaced by the actual name of the textual domain.

**pot-regex** *regex* [Configuration]  
Set the regular expression matching the name of the last POT file for the textual domain. See [Section 2.1 \[Verification\], page 3](#), for a detailed description of its purposes.  
*Regex* must be an *extended regular expression* (see [Section “Extended regular expressions” in GNU sed](#)) with exactly one parenthesized group.

## 5 Language Tables.

To recreate the canonical PO name (see [canonical-name], page 3) for a given translation, `wyslij-po` needs to know the *language code* associated with this language. Normally this information is kept in the `Language` header of the PO file<sup>1</sup>. If this header is not present, `wyslij-po` will first obtain the full language name from the `Language-Team` PO header, and then use this value as a look-up key in a set of *language tables*. If the key is found, its value gives the language code.

This language code lookup is retained as a fallback mechanism for handling old PO files and will be removed in future releases. This chapter describes the format of language table files used by `wyslij-po`.

The language tables are stored in plain text files. Their format is as follows:

- Empty lines are ignored.
- Any lines whose first non-whitespace character is ‘#’ are comments and are ignored as well.
- Unless ignored by the above reasons, any line is split at the whitespace. The first word in line gives the language code (usually corresponding to ISO 639). The rest of words is taken as a literal string that gives the full language name (the look-up key) for that code.

For example, the following entry:

```
pt_BR Brazilian Portuguese
```

means that when the string ‘Brazilian Portuguese’ is encountered at the beginning of the `Language-Team` PO header, the language code ‘pt\_BR’ will be used.

There are two language table files: a *system-wide* and a *per-user* one.

The system-wide language table is stored in file `wyslij-po.lc` in your system configuration directory (by default it is `/usr/local/etc`, but can be changed at compile time).

The per-user language table is read after the system-wide one. It is located in the user’s home directory and is named `.wyslij-po.lc`. You can also supply another file name, using the `--langtab` command line option, e.g. `--langtab=mytab.lc`.

The contents of both files are concatenated and stored in a single table.

Notice that it is not an error if a language table file does not exist. `Wyslij-po` will silently ignore non-existing files. Therefore, if you get the similar error:

```
wyslij-po: Unknown language: Bulgarian
```

you should make sure the right tables are read, by running `wyslij-po` with the `-vv` (or, better yet, `--dry-run --verbose`) command line option. In normal case, it will at least read the site-wide language table, which will be reflected in its output:

```
$ wyslij-po --dry-run -v bg.po
Sourcing language table '/usr/local/etc/wyslij-po.lc'
Restoring canonical file name for 'bg.po'
```

If it does not, make sure you install the table or supply its alternate name using `--langtab`. Otherwise, inspect the table and add an entry for the language in question.

<sup>1</sup> The `Language` header is present in PO files created by `gettext` version 0.18 or later.

The package is shipped with a system wide configuration file built using the data from <http://translationproject.org/team>, so most of the time you won't have to edit it (unless, of course, new language teams are added to the TP)



## 6 How to Report a Bug

Email bug reports to [bug-wyslij-po@gnu.org.ua](mailto:bug-wyslij-po@gnu.org.ua).

As the purpose of bug reporting is to improve software, please be sure to include maximum information when reporting a bug. The information needed is:

- Version of the package you are using.
- Compilation options used when configuring the package.
- Conditions under which the bug appears.



## Appendix A Downloading wyslij-po

Stable releases of `wyslij-po` can be downloaded from <http://download.gnu.org.ua/pub/release/wyslij-po><sup>1</sup>.

Each tarball in this directory is GPG signed and the corresponding signature is available in file with the `.sig` suffix. To verify the tarball, be sure to download both the tarball and its signature (e.g., for the latest version: `wyslij-po-3.3.tar.gz` and `wyslij-po-3.3.tar.gz.sig`). Then run a command like this:

```
gpg --verify wyslij-po-3.3.tar.gz.sig
```

If that command fails because you don't have the author's public key, then run this command to import it:

```
gpg --keyserver keys.gnupg.net --recv-keys 3602B07F55D0C732
```

A symbolic link to the latest release (and its signature) is provided: <http://download.gnu.org.ua/pub/release/wyslij-po/wyslij-po-latest.tar.gz>.

Pre-release and alpha versions of the package can be downloaded from <http://download.gnu.org.ua/pub/alpha/wyslij-po>.

Finally, development of the `wyslij-po` can be tracked from <https://puszcza.gnu.org.ua/projects/wyslij-po>.

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<sup>1</sup> Traditionally, the FTP protocol is supported as well:  
<ftp://download.gnu.org.ua/pub/release/wyslij-po>



## Appendix B How to Build the Package

Building `wyslij-po` is quite straightforward:

1.  
Make sure you have installed the GNU Mailutils, version 3.4 or later.
2.  
Run `./configure`
3.  
Run `make`
4.  
Run `make install`



## Appendix C Invocation Summary.

This appendix lists all `wyslij-po` command line options. For each option are given a short description and a reference to the part of this manual that fully describes it.

- `--bcc=email-list`  
Set blind carbon-copy recipients (see [Section 2.2 \[Message\]](#), page 4).
- `--cc=email-list`  
Set carbon-copy recipients (see [Section 2.2 \[Message\]](#), page 4).
- `--compress=command`
- `--gzip=command`  
Use this *command* for compression (see [Section 2.2 \[Message\]](#), page 4).
- `--dry-run`
- `-n` Do nothing, print what would have been done (see [Chapter 3 \[Dry-run\]](#), page 7).
- `--fcc=folder`  
Store copy of each message sent in the given folder.
- `--from[=email]`
- `-Femail` Set sender address (see [Section 2.2 \[Message\]](#), page 4).
- `--help`
- `-?` Give a short help summary
- `--langtab=file`  
Set the name of the per-user language table file (see [Chapter 5 \[Langtab\]](#), page 11).
- `--mailer=url`
- `-M url` Use the specified *url* as the default mailer. See [Section 2.3 \[Sending\]](#), page 6.
- `--no-verify-po-time`  
Disable PO modification time verification. See [Section 2.1 \[Verification\]](#), page 3.
- `--no-verify-version`  
Disable package version verification. See [Section 2.1 \[Verification\]](#), page 3.
- `--to=email`
- `-t email` Set TP robot (recipient) email address. See [Section 2.3 \[Sending\]](#), page 6.
- `--usage` Produce a listing of all command line options.
- `--verbose`
- `-v` Produce verbose output. See [Chapter 3 \[Dry-run\]](#), page 7.
- `--verify-po-time`  
Verify PO modification time. See [Section 2.1 \[Verification\]](#), page 3.
- `--verify-version`  
Make sure the submitted PO file matches the latest package version. See [Section 2.1 \[Verification\]](#), page 3.
- `--version`
- `-V` Print program version

Version 1.3, 3 November 2008

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This is a general index of all issues discussed in this manual

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