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# I18n (Internationalization)

OpenStack Summit | Shanghai 2019 - Project update

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**OpenStack I18n**

**7 years of**

**#ForTheLoveOfOpen**

**#WeAreOpenStack**

## Team Mascot



**I18N**

*an OpenStack Community Project*

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# I18N

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

## Back to 2012...

Documentation &  
Translation enthusiasts  
met together!



# Documentation translation

Proposal & workflows  
successfully defined

(April - May, 2012)

## Proposal for translation workflows for both code source and documentation source

### Goal

Set up a translation process for both code source and documentation source

### Background

OpenStack Manuals are in **DocBook** format. The source is on **GitHub**: <http://github.com/openstack/openstack-manuals>. Launchpad and Transifex are free web based tools used for crowd translation. Both of them provide a simple web interface in which non-technical people can help translation. They don't support **DocBook** format, but support the popular GNU Gettext file formats (PO Template or PO).

### Translation Process

In order to translate **OpenStack** Manuals to multiple languages, which are in **DocBook** format, we can slice the documents into short statements, then use a web based translation management tool to manage the translation process, and finally converge the translated content into a new copy of **DocBook**.

Here are the five steps of the translation process:

1. Slicing - extract translatable content from **DocBooks** and generate Gettext compatible POT files (PO Template or PO);
2. Uploading - upload the POT (or PO) files to a web based translation management tool;
3. Downloading - download PO (or MO) files from the web tool after translation and review;
4. Converging - converge the translated contents into new copies of **DocBook**, create **DocBooks** in multiple languages
5. Generating - generate HTML/PDF in multiple languages from **DocBooks** in multiple languages

The picture in the attachment describes these steps. (See attached file: **DocBook** translation process.png)

# Horizon + Python projects translation

Translation !=

Internationalization !=

Localization

(August, 2012)

## Translation, Internationalization and Localization in **OpenStack**

**OpenStack** is committed to broad international support, and as such there must be an ongoing concern with making **OpenStack** usable for all audiences. This includes proper use of internationalization and localization tools by developers, and high-quality translations for both user-facing messages and documentation.

### Translation & Management

Let's start with a working definition: translation is the act of taking the written materials in one language and converting them into another language in the most meaningful way possible. In terms of **OpenStack**, translation happens on both the written documentation and on strings marked for translation in the projects' codebases.

*NOTE: information on how to prepare your code or documentation for translation, see the section on internationalization below.*

...

### How To Localize Your Project

#### Horizon (Django)

Horizon has excellent localization tools available since it is built on top of the Django web framework. Most conversions happen automatically when the localization framework is active. Full support for a localized user dashboard experience is a high-priority feature.

#### Other **OpenStack** Projects

Python's ``locale`` and ``gettext`` modules offer most of the tools necessary to localize a Python project with some effort. More information on this will be added in the future.

[https://www.slideshare.net/ben\\_duyujie/openstack-document-for-apac-v3-13980689](https://www.slideshare.net/ben_duyujie/openstack-document-for-apac-v3-13980689)



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2012 OpenStack APAC Conference  
11 Aug 2012



OpenStack 文档及其翻译管理  
OpenStack Documentation and  
Translation Management

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# More Summits, More People, and More Translators!

Grizzly → Havana → Icehouse →  
Juno → Kilo → Liberty Design  
Summits...

Total 172 translators by June 2015  
across 16 languages  
: Chinese, Japanese, Korean, German, French,  
Polish, Russian, Portuguese, Spanish, ...

## The Migration of OpenStack Translations to Zanata

The OpenStack infrastructure team that I'm part of provides tooling for OpenStack developers, translators, documentation writers and more. One of the commitments the OpenStack Infrastructure team has to the project, as outlined in our [scope](#), is:

“ All of the software that we run is open source, and its configuration is public.

...  
We were aware of the popular [Pootle](#) software, so we started there with evaluations. At the OpenStack Summit in Atlanta the i18n team first met up with Carlos Munoz and were given a demo of [Zanata](#). As our need for a new solution increased in urgency, we worked with Pootle developers (thank you Dwayne Bailey!) and Zanata developers to find what was right for our community. Setting up development servers for testing for both and hosting demos through 2014. At the summit in Paris I had a great meeting with Andreas Jaeger of the OpenStack i18n team (and so much more!) and Carlos about Zanata.



Me, Carlos and Andreas in Paris

# "I18n" as an OpenStack official team!

Discussed during  
Liberty Design  
Summit (Vancouver)  
and announced on  
June 2015

## [Openstack-i18n] I18n team, OpenStack Project Team!

Ying Chun Guo [guoyingc at cn.ibm.com](mailto:guoyingc@cn.ibm.com)

Wed Jun 3 10:06:18 UTC 2015

- Previous message: [\[Openstack-i18n\] IRC meeting tomorrow](#)
- Next message: [\[Openstack-i18n\] I18n team, OpenStack Project Team!](#)
- Messages sorted by: [\[ date \]](#) [\[ thread \]](#) [\[ subject \]](#) [\[ author \]](#)

Hello, all

I'm pleased to announce that I18n team is approved by TC to become a OpenStack Project Team.

We are now under the authority of the OpenStack Technical Committee. In return, we could get some space and time to discuss our future development at the Design Summits.

Our contributors could vote in the Technical Committee election.

This is a great milestone after I18n team was created.

Next, we need to figure out the criteria of our core members and active members,

which might be different from dev team.

We will initialize the core team, then grow the team and increase the contributions.

Let's work together to make it a successful team.

Best regards

Ying Chun Guo (Daisy)

# Journey of translators : during Tokyo Summit in 2015 as an official team



I18n contributors meetup

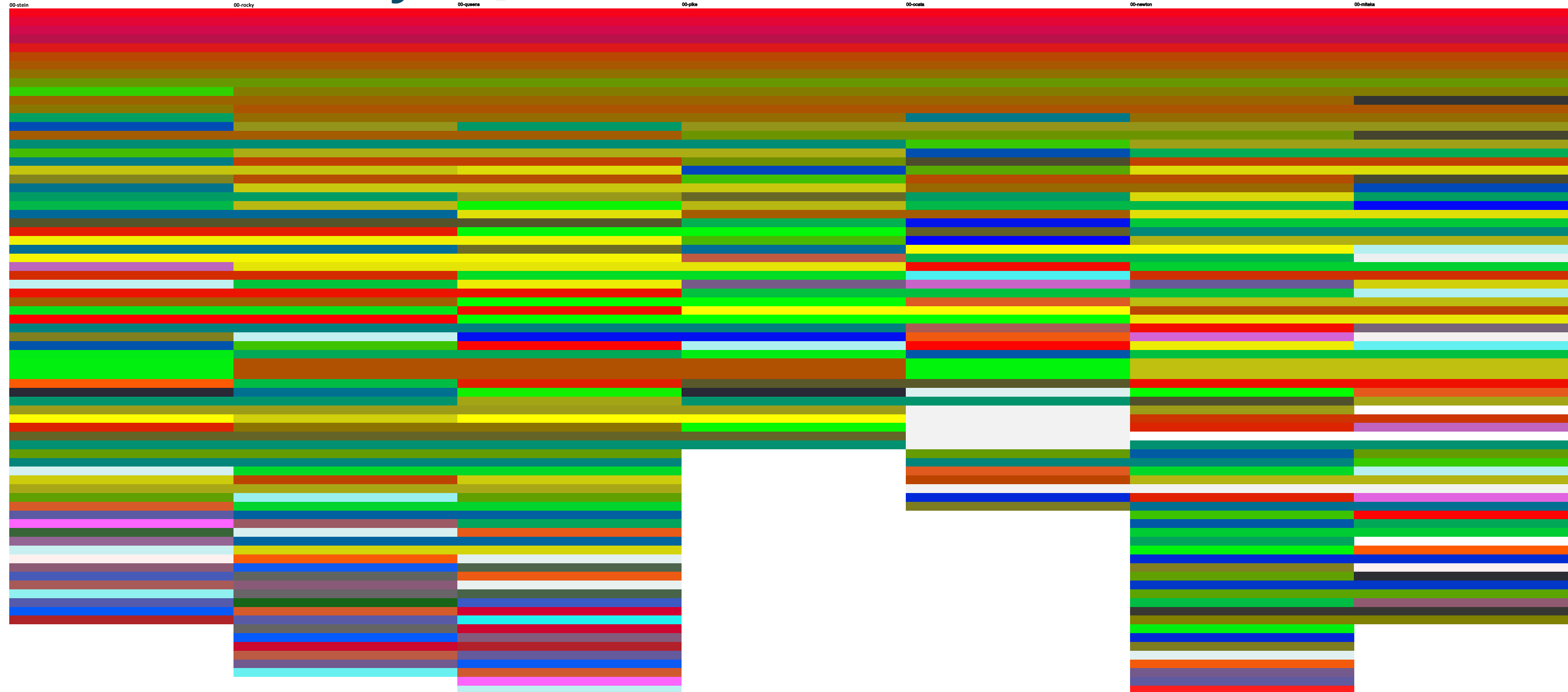


Translations/i18n roundtable  
sessions attendees



Daisy, Carlos and  
KATO giving the i18n talk

Stein Rocky Queens Pike Ocata Newton Mitaka



**Timeline I18n contributor Stein-Mitaka**



3,795,555  
words translated

## Facts

40 companies support

102 software modules, documentations, books, white papers

332 contributors

## Memories during years

1. Migration from Transifex to Zanata
2. Closely working with Documentations team
3. OpenStackID authentication issues
4. Stackalytics translation stats
5. Zanata development termination
6. New languages joined: Indonesian, Esperanto, ...
7. ...

# Fantastic team moments





# Ready to join in I18n team?

## Visit I18n Contributor Guide

: <https://docs.openstack.org/i18n/latest> (English)

: [https://docs.openstack.org/i18n/latest/zh\\_CN/index.html](https://docs.openstack.org/i18n/latest/zh_CN/index.html) (Chinese)



The screenshot shows the OpenStack I18n Contributor Guide page in Chinese. The page title is "OpenStack I18n 指南". The page is updated as of 2019-08-26 23:34:08. The page is available in multiple languages: English, 日本語, English (United Kingdom), 한국어 (대한민국), русский, 中文 (简体, 中国), Deutsch, Indonesia, and Türkçe (Türkiye). The page features the I18N logo and the text "an OpenStack Community Project". The main content area contains the following text: "国际化 (I18n) 对于使 OpenStack 无处不在至关重要。OpenStack I18n 小组的使命是通过增强 OpenStack 软件国际化, 提供翻译, 维护翻译平台和管理翻译流程以获得更好的产出质量, 使 OpenStack 无处不在地被所有语言背景的人们所访问。本指南提供了有关 I18n 贡献工作流程和所有参与人员要考虑的公约的详细说明。"

OpenStack I18n 指南

THIS PAGE LAST UPDATED: 2019-08-26 23:34:08

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 **I18N**  
*an OpenStack Community Project*

国际化 (I18n) 对于使 OpenStack 无处不在至关重要。OpenStack I18n 小组的使命是通过增强 OpenStack 软件国际化, 提供翻译, 维护翻译平台和管理翻译流程以获得更好的产出质量, 使 OpenStack 无处不在地被所有语言背景的人们所访问。

本指南提供了有关 I18n 贡献工作流程和所有参与人员要考虑的公约的详细说明。

# THANKS

Questions?

I18n mailing list

- <http://lists.openstack.org/cgi-bin/mailman/listinfo/openstack-i18n>

IRC

- #openstack-i18n IRC channel
- More information on IRC: <https://wiki.openstack.org/wiki/IRC>

I18n IRC Team Meeting (on demand)

- More information:

<https://wiki.openstack.org/wiki/Meetings/I18nTeamMeeting>



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