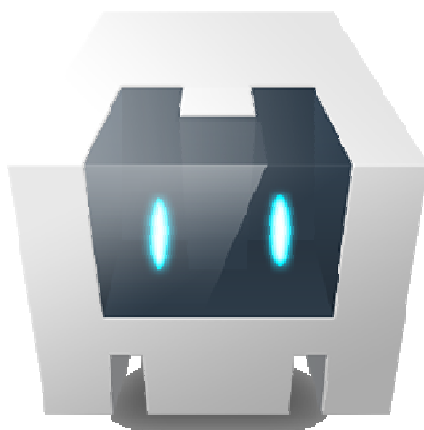


Crowd Sourcing Translations

A Look at How Apache Cordova's Documentation is Available in Multiple Languages



Lisa Seacat DeLuca

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www.lisaseacat.com

ApacheCon

April 7th 2014

Goal

- Make Apache Cordova ubiquitously accessible to people of all language backgrounds



Machine Translation

- “On a basic level, MT performs simple substitution of words in one natural language for words in another, but that alone usually cannot produce a good translation of a text because recognition of whole phrases and their closest counterparts in the target language is needed” - http://en.wikipedia.org/wiki/Machine_translation





Crowd Translation

- “Crowd-assisted translation refers to employing large numbers of bilingual human translators”

Transifex™

 *crowdin*



STAR TS Translation Services

Confidence in a Translated World.

Translation Startups

- <https://angel.co/translation>
 - \$4.2M Average Valuation
 - 94 companies
 - 804 investors

Translation Startups

\$4M AVERAGE VALUATION



94 COMPANIES

804 INVESTORS

2,216 FOLLOWERS

10 JOBS

Free Open Source and Academic Licenses

Unlimited projects, unlimited
strings and collaborators

Other Open Source Projects doing Crowd Translation





1. Markdown (.md) file support
2. Free for open source projects

crowdin.net/project/cordova

Projects / cordova

cordova

Apache Cordova is a set of device APIs that allow a mobile app developer to access native device function such as the camera or accelerometer from JavaScript. Combined with a UI framework such as jQuery Mobile or Dojo Mobile or Sencha Touch, this allows a smartphone app to be developed with just HTML, CSS, and JavaScript.



Owner:



Lisa Seacat DeLuca
ldeluca
[Contact](#)

Source language:



English



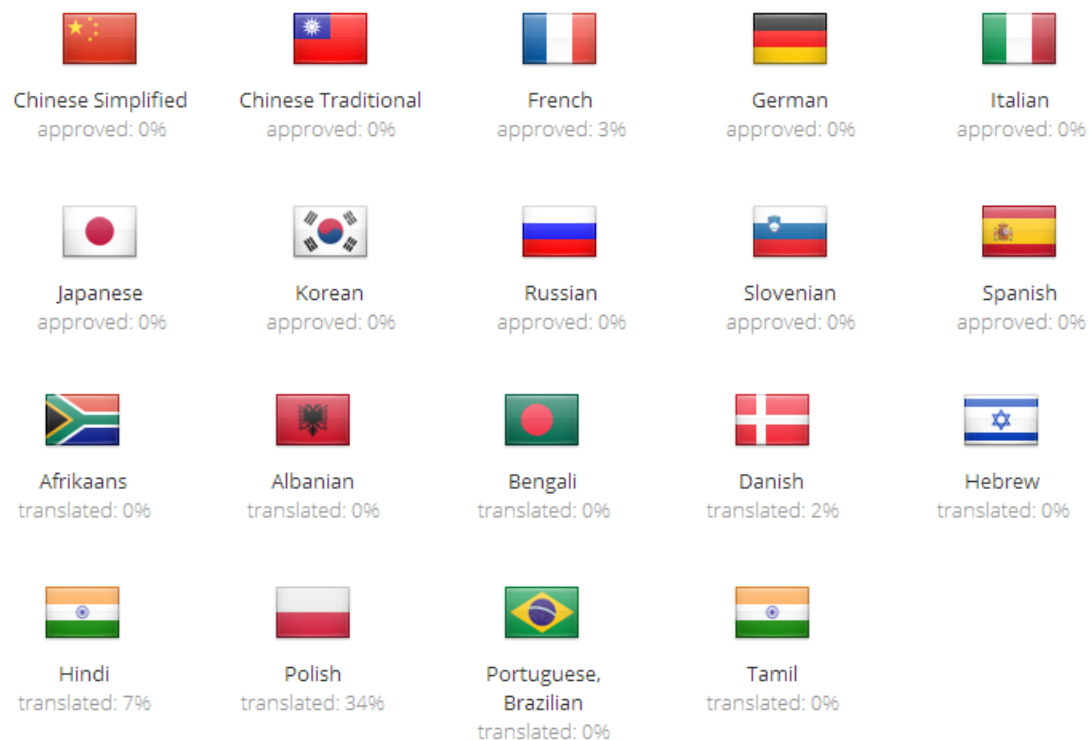
Created: 7 months ago
Last Activity: 46 minutes ago



75 users participate in this project

Crowdin Stats

- 75 users
- 72 markdown files
- 10 Primary Languages
- 9 Additional Languages





English documentation entered on github

Push .md files to crowdin.net

100% translated, test docs & push languages to github

Translation Flow

Build project within crowdin build settings

Documented at <http://wiki.apache.org/cordova/CordovaTranslations>

Manually ignore code

If < 100% translated, machine translation

Translators Translate



English documentation entered on github

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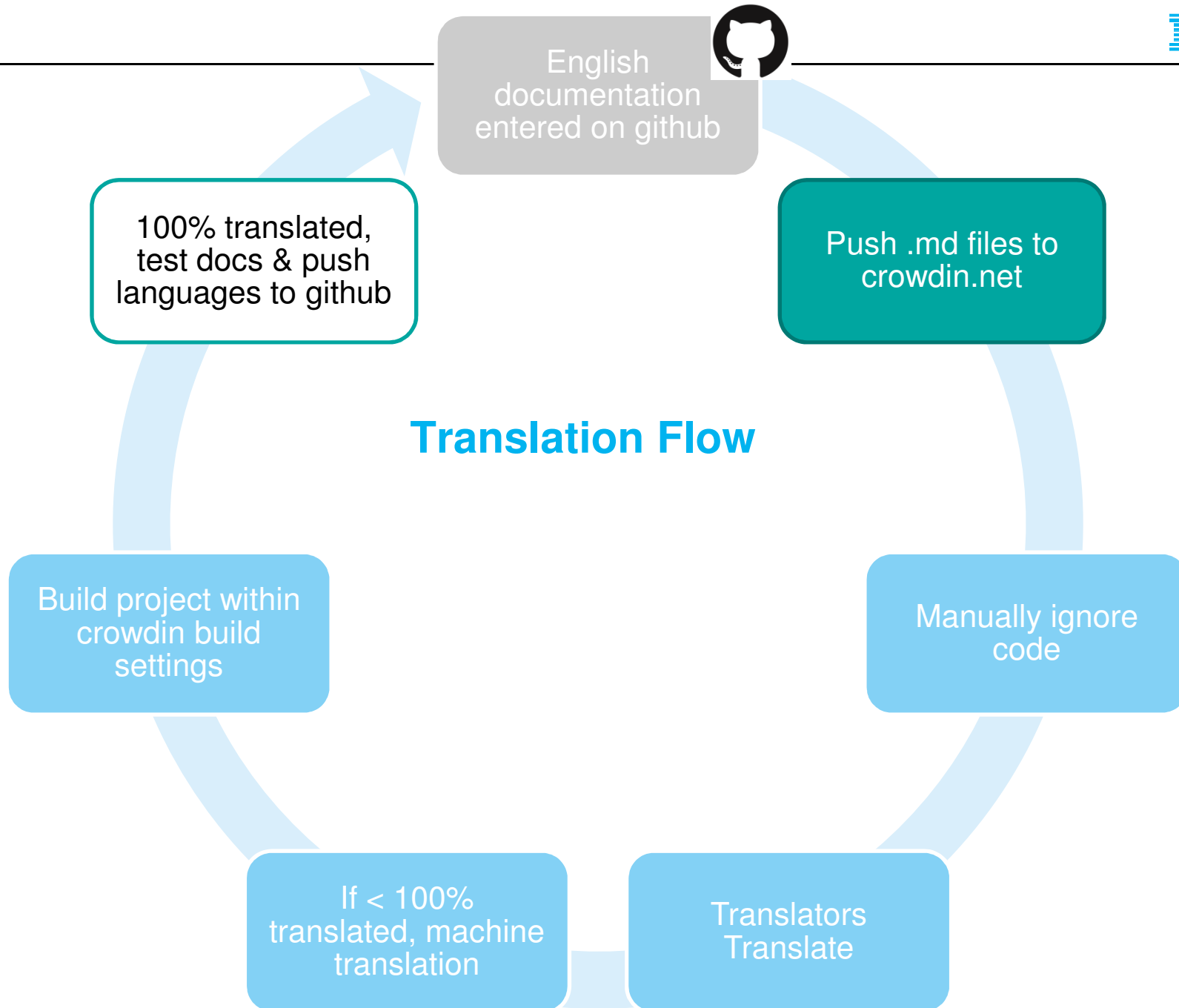
Translation Flow

Build project within crowdin build settings

Manually ignore code

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Translators Translate



Automation Script

- Pulls markdown (.md) files from github fork
- Pushes to crowdin

```
#FIRST make sure fork is up to date

$ git checkout master
$ git pull apache master
$ git push origin master

#next, move into a branch that is tied to a JIRA issue for pulling the latest

$ git checkout -b CB-1234
$ git branch -----this lists which branch you are on to double check
```

Administrative Scripts

- Crowdin CLI
 - Jar file must be installed
 - crowdin.yaml

```
project_identifier: cordova
api_key: _____ourAPIkey_____
base_path: /home/<username>/git/cordova-docs #working copy path

files:
  -
    source: "/docs/en/edge/**/* .md"
    translation:
      "/docs/%two_letters_code%/edge/**/%original_file_name%"
    ignore:
      - /.git
```

- github-crowdin.sh

```

DOMAIN_NAME='http://api.crowdin.net'

--- #---CHANGE THE VARIABLES BELOW---
GIT_REPO_PATH=/home/<username>/git/cordova-docs
CROWDIN_CLI_PATH=/path/to/crowdincli
PROJECT_IDENTIFIER='cordova'
PROJECT_KEY='_____same API key as above_____'

#---

cd $GIT_REPO_PATH
git pull origin master
git push origin

cd $CROWDIN_CLI_PATH

java -jar crowdin-cli.jar upload sources

curl $DOMAIN_NAME/api/project/$PROJECT_IDENTIFIER/status?key=$PROJECT_KEY > result.xml

read_dom () {
    local IFS=>
    read -d \< ENTITY CONTENT
}

while read_dom; do
    if [[ $ENTITY = "code" ]]; then
        code=( "${code[@]}" "$CONTENT" )
    fi
    if [[ $ENTITY = "translated_progress" ]]; then
        progress=( "${progress[@]}" "$CONTENT" )
    fi
done < result.xml

for (( i = 0; i < ${#progress[@]}; i++ )); do
    if [ "${progress[$i]}" = "100" ]; then
        index=( "${index[@]}" "$i" )
    fi
done

for element in "${index[@]"; do
    java -jar crowdin-cli.jar download -l ${code[$element]}
done

# fix crowdin issues:
echo "About to fix crowdin errors with resulting files"
find /home/<username>/git/cordova-docs/docs -name \*.md -exec sed -i "s/\* \* \*/---/1" {} \;
find /home/<username>/git/cordova-docs/docs -name \*.md -exec sed -i "s/## under the License./ under the License.\n---/g" {} \;
echo "Done with crowdin fix"

cd $GIT_REPO_PATH
git add .
git commit -m 'Synchronization with Crowdin'
git push origin

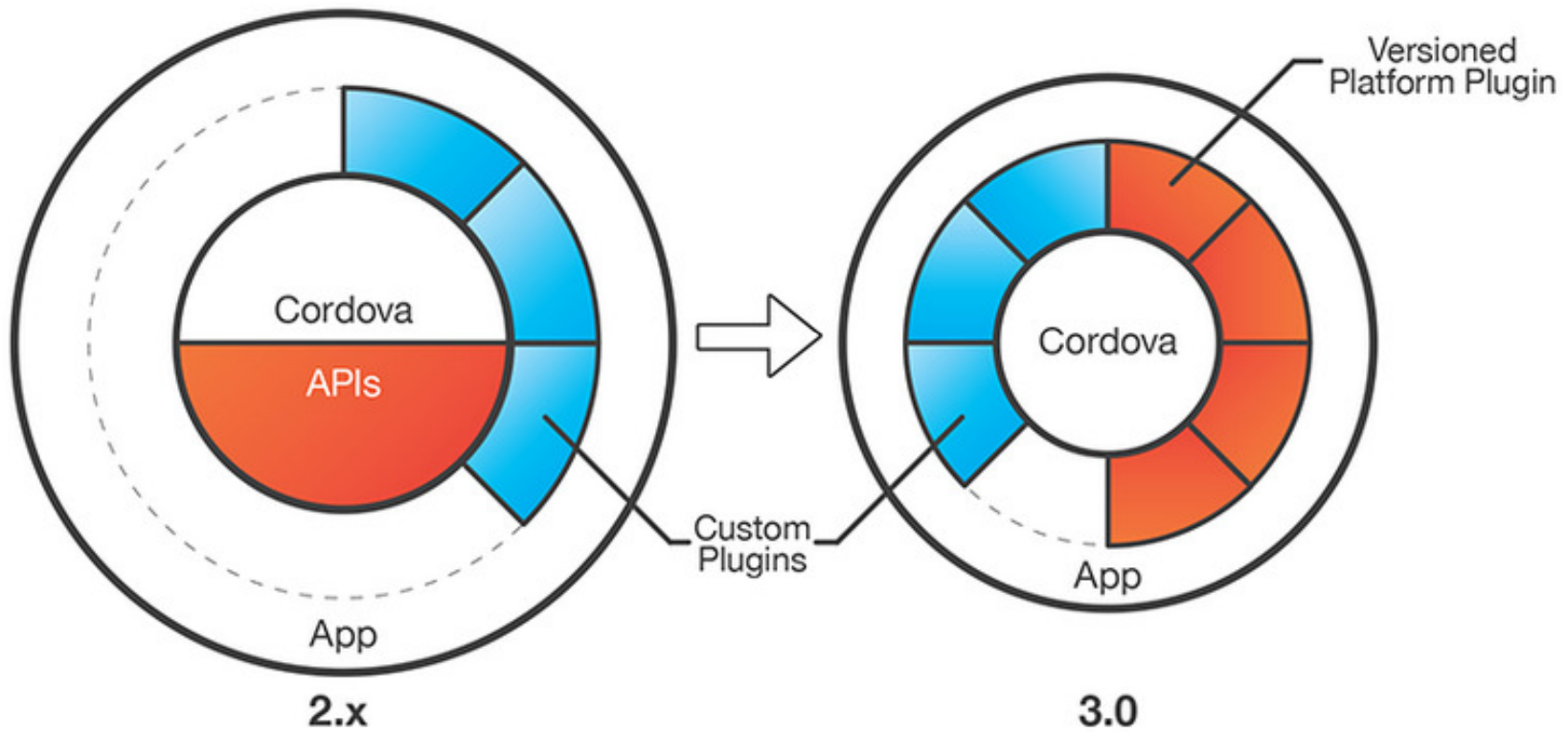
```

```

French fr 6076 6076 208 100 3 Spanish es-
ES 6076 6076 23 100 0 Afrikaans af 6076 0 0 0 0 Danish da 6076 152 0 2 0 Ger
man de 60766076 0 100 0 Hebrew he 6076 46 0 0 0 Italian it 6076 6076 0 100 0
Japanese ja 6076 6076 0 100 0 Korean ko 6076 6076 0 100 0 Polishpl 6076 211
7 0 34 0 Russian ru 6076 6076 2 100 0 Slovenian sl 6076 6076 0 100 0 Albanian
sq 6076 0 0 0 0 Chinese Simplified zh-CN6076 6076 0 100 0 Chinese
Traditional zh-TW 6076 6076 0 100 0 Portuguese, Brazilian pt-
BR 6076 42 0 0 0 Tamil ta 6076 0 0 0 0 Bengalibn 6076 34 0 0 0 Hindi hi 6076 4
55 0 7 0

```

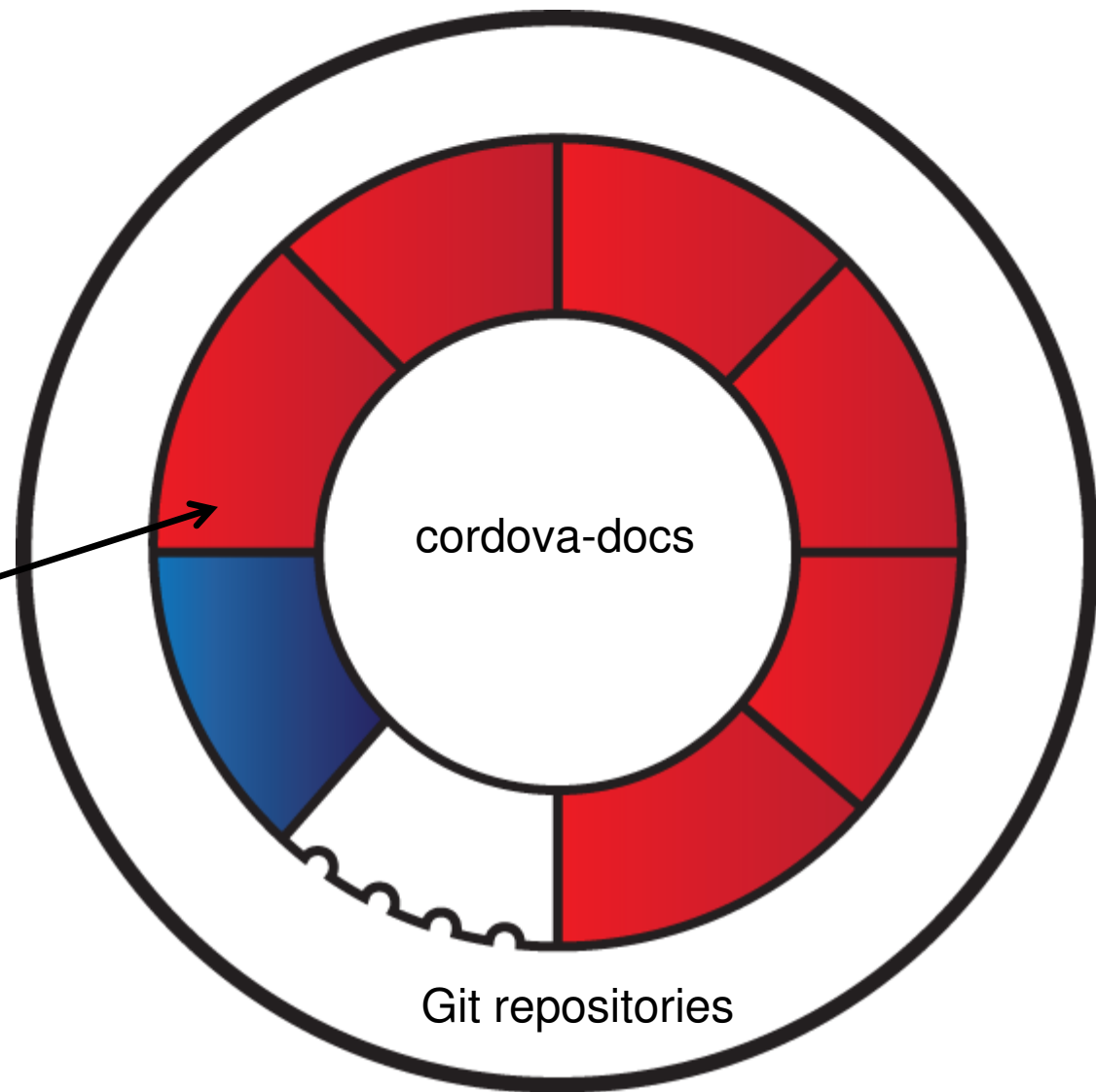

Cordova Plugin Change in Version 3.x



Cordova documentation git repositories

cordova-plugin-*

- Battery status
- Camera
- Contacts
- Device
- Device motion
- Device orientation
- Dialogs
- File
- File transfer
- Geolocation
- Globalization
- In app browser
- Media
- Media capture
- Network information
- Splashscreen
- Vibration



.yaml Update

```

project_identifier: cordova
api_key: _____ourAPIkey_____
base_path: /home/<username>/git #working copy path





files:
  -
    source: "/cordova-docs/docs/en/edge/**/*.*.md"
    translation: "/cordova-
docs/docs/%two_letters_code%/edge/**/%original_file_name%"
    ignore:
      - /.git
  -
    source: "**/doc/*.*.md"
    translation: "**/doc/%two_letters_code%/%original_file_name%"
    ignore:
      - /.git

```

branch: master

cordova-plugin-splashscreen / doc

History

This branch is 0 commits ahead and 0 commits behind master		Pull Request	Compare
Lisa testing pulling in plugins for plugin: cordova-plugin-splashscreen			
 ldeluca	authored 2 hours ago	latest commit	fca4e5c351
..			
 es	Lisa testing pulling in plugins for plugin: cordova-plugin-splashscreen		a day ago
 fr	Lisa testing pulling in plugins for plugin: cordova-plugin-splashscreen		2 hours ago
 index.md	CB-5658 Update license comment formatting of doc/index.md		2 months ago

.sh Update

```
declare -a gitrepos=("cordova-docs" "cordova-plugin-battery-  
status" "cordova-plugin-camera" "cordova-plugin-contacts"  
"cordova-plugin-device" "cordova-plugin-device-motion" "cordova-  
plugin-dialogs" "cordova-plugin-file" "cordova-plugin-file-  
transfer" "cordova-plugin-geolocation" "cordova-plugin-  
globalization" "cordova-plugin-inappbrowser" "cordova-plugin-  
media" "cordova-plugin-media-capture" "cordova-plugin-network-  
information" "cordova-plugin-splashscreen" "cordova-plugin-  
vibration")
```

```
## now loop through the gitrepos array  
for i in "${gitrepos[@]}"  
do  
    echo "***** $i *****"  
    cd $BASE_GIT_REPO_PATH/$i  
  
    # below pushes changes from local to fork  
    git pull origin master  
    git push origin  
done
```

Demo

SEE THE CORDOVA CROWDIN SCRIPT IN ACTION

[CROWDINCORDOVADEMO-LISA.SWF](#)



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Push .md files to crowdin.net

100% translated, test docs & push languages to github

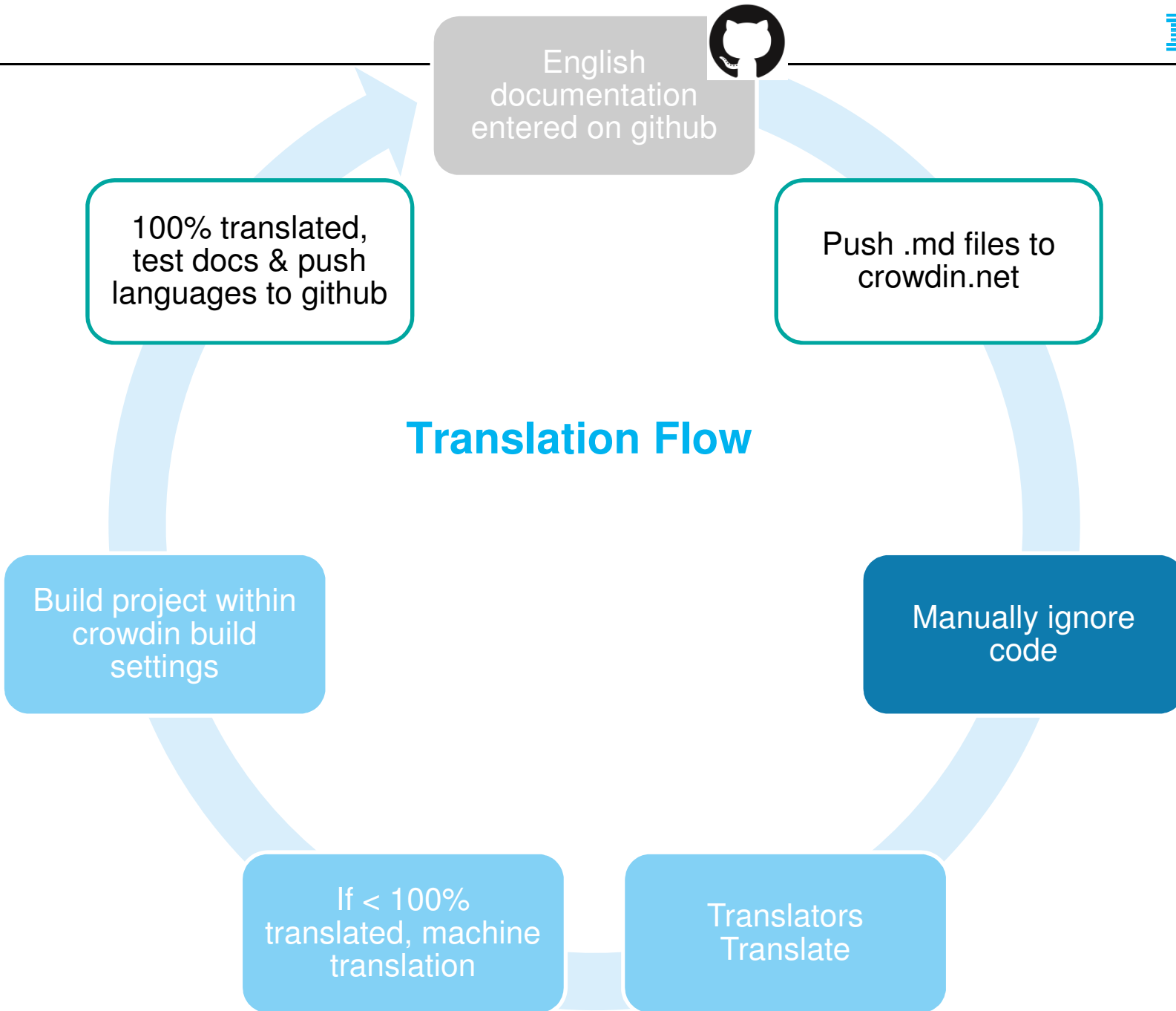
Translation Flow

Build project within crowdin build settings

Manually ignore code

If < 100% translated, machine translation

Translators Translate



Manual Step: Ignoring Code Snippets

cordova File Project Languages Team Help Aa Glasses Settings User

TEXTS TO TRANSLATE Refresh Light Dark Search

Plataformas soportadas

- Android
- BlackBerry WebWorks 5.0 +
- iOS
- Tizen
- Windows Phone 7 y 8
- Windows 8

Ejemplo rápido

```
function onSuccess(acceleration) {
    alert('Acceleration X: ' + acceleration.x + '\n' +
        'Acceleration Y: ' + acceleration.y + '\n' +
        'Acceleration Z: ' + acceleration.z + '\n' +
        'Timestamp: ' + acceleration.timestamp);
};
```

Ejemplo rápido

```
function onSuccess(acceleration) {
    alert('Acceleration X: ' + acceleration.x + '\n' +
        'Acceleration Y: ' + acceleration.y + '\n' +
        'Acceleration Z: ' + acceleration.z + '\n' +
        'Timestamp: ' + acceleration.timestamp);
};

function onError() {
    alert('onError!');
};

navigator.accelerometer.getCurrentAcceleration(onSuccess, onError);
```

TEXT FOR TRANSLATION Link Chat Home Up

```
function onSuccess(acceleration) {
    alert('Acceleration X: ' + acceleration.x + '\n' +
        'Acceleration Y: ' + acceleration.y + '\n' +
        'Acceleration Z: ' + acceleration.z + '\n' +
        'Timestamp: ' + acceleration.timestamp);
};

function onError() {
    alert('onError!');
};

navigator.accelerometer.getCurrentAcceleration(onSuccess, onError);
```

Copy source Skip Do not translate 382 / 0

Enter translation here

Clear Commit Translation

SUGGESTIONS Spanish Other Languages Concordance

✓ Translation was hidden successfully



English documentation entered on github

Push .md files to crowdin.net

100% translated, test docs & push languages to github

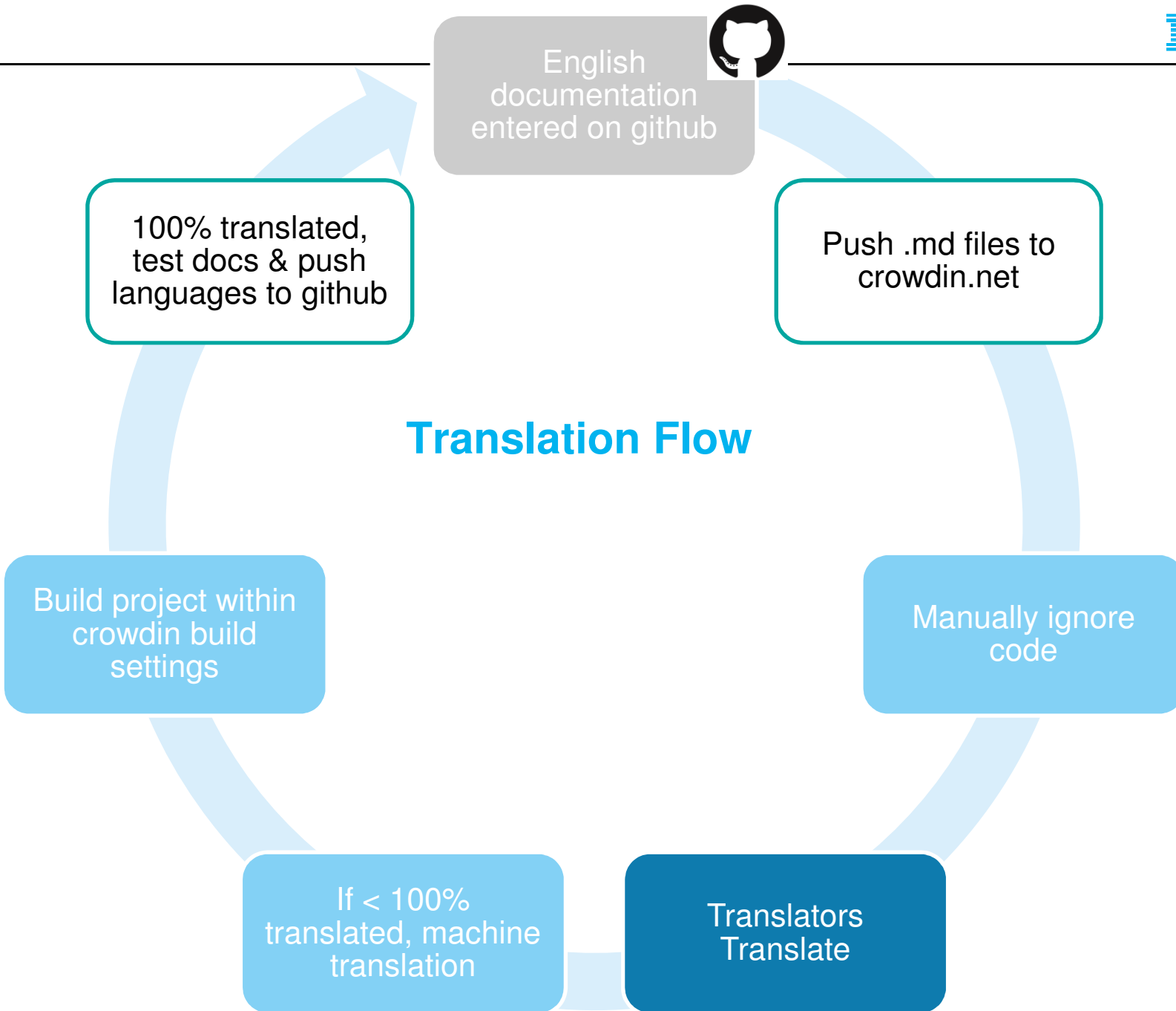
Translation Flow

Build project within crowdin build settings

Manually ignore code

If < 100% translated, machine translation

Translators Translate



Translators

cordova settings







General Translations Screenshots Glossary TM & MT File Manager Translators Strings Reports API Branding Extras			
👤 Invite 👤 Professional Translations 🔍 Filter 🗑️ Select all on this page ✉️ Contact all selected ✉️ Contact all			
Name	Role	Status	Info
<input type="checkbox"/> alexandresantos	translator	active	>
<input type="checkbox"/> badneoguy	translator	active	>
<input type="checkbox"/> bdyivr	translator	active	>
<input type="checkbox"/> bugmeniet	translator	active	>
<input type="checkbox"/> carloshbcabral	translator	active	>
<input type="checkbox"/> creakie92	translator	active	>
<input type="checkbox"/> csantana23	translator	active	>
<input type="checkbox"/> daniel009840	translator	active	>
<input type="checkbox"/> danigomez	translator	active	>
<input type="checkbox"/> DavidHormigo	translator	active	>
<input type="checkbox"/> delkant	translator	active	>
<input type="checkbox"/> dnm	translator	active	>
<input type="checkbox"/> eobriot	translator	active	>
<input type="checkbox"/> erikusaj	translator	active	>
<input type="checkbox"/> ewaldhorn	translator	active	>

🔍
⏪
⏩
Page of 5
⏪
⏩
🔄
Displaying 1 to 15 of 73 items

Process for Translators

1. Create a free account with Crowdin.net <http://crowdin.net>
2. Search for and find the Cordova project <http://crowdin.net/project/cordova/>
3. Scroll down to find the languages that are currently being translated.
4. Choose a language and click on the language to start contributing. e.g. Spanish <http://crowdin.net/project/cordova/es-ES>
5. Next to each of the markdown files you will see a button labeled "Translate". Clicking that button will open a translate page where the English version of the file is on the left.

cordova Spanish translation

File	Progress	Actions
 Files  Activity  Discussions		
 config_ref	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	
 images.md	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	Proofread Translate
 index.md	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	Proofread Translate

- Click on a phrase in the left-hand panel. Then type a translation in the text area. Click the "Commit" button.

The screenshot displays the IBM Watson Language Translator interface. On the left, a document titled "Icons and Splash Screens" is open, with the text "This section shows how to configure an app's icon and optional splash screen for various platforms, both when working in the Cordova CLI (described in The Command-Line Interface) or using platform-specific SDK tools (detailed in the Platform Guides)." highlighted in green. Below this, the section "Configuring Icons in the CLI" is also highlighted in green, containing text about icon source files and resolutions for Android and iOS. On the right, the "TEXT FOR TRANSLATION" panel shows the selected text: "Iconos y pantallas de Splash". Below this, a "SUGGESTIONS" panel lists two suggestions: "Iconos y pantallas de Splash" by jorgecasar and "Iconos y pantallas de inicio" by bugmeniet. A "MACHINE TRANSLATIONS" panel at the bottom shows a suggestion from Microsoft Translator: "Los iconos y las pantallas Splash". The interface includes a "Commit" button and a "Copy source" button.



English documentation entered on github

Push .md files to crowdin.net

100% translated, test docs & push languages to github

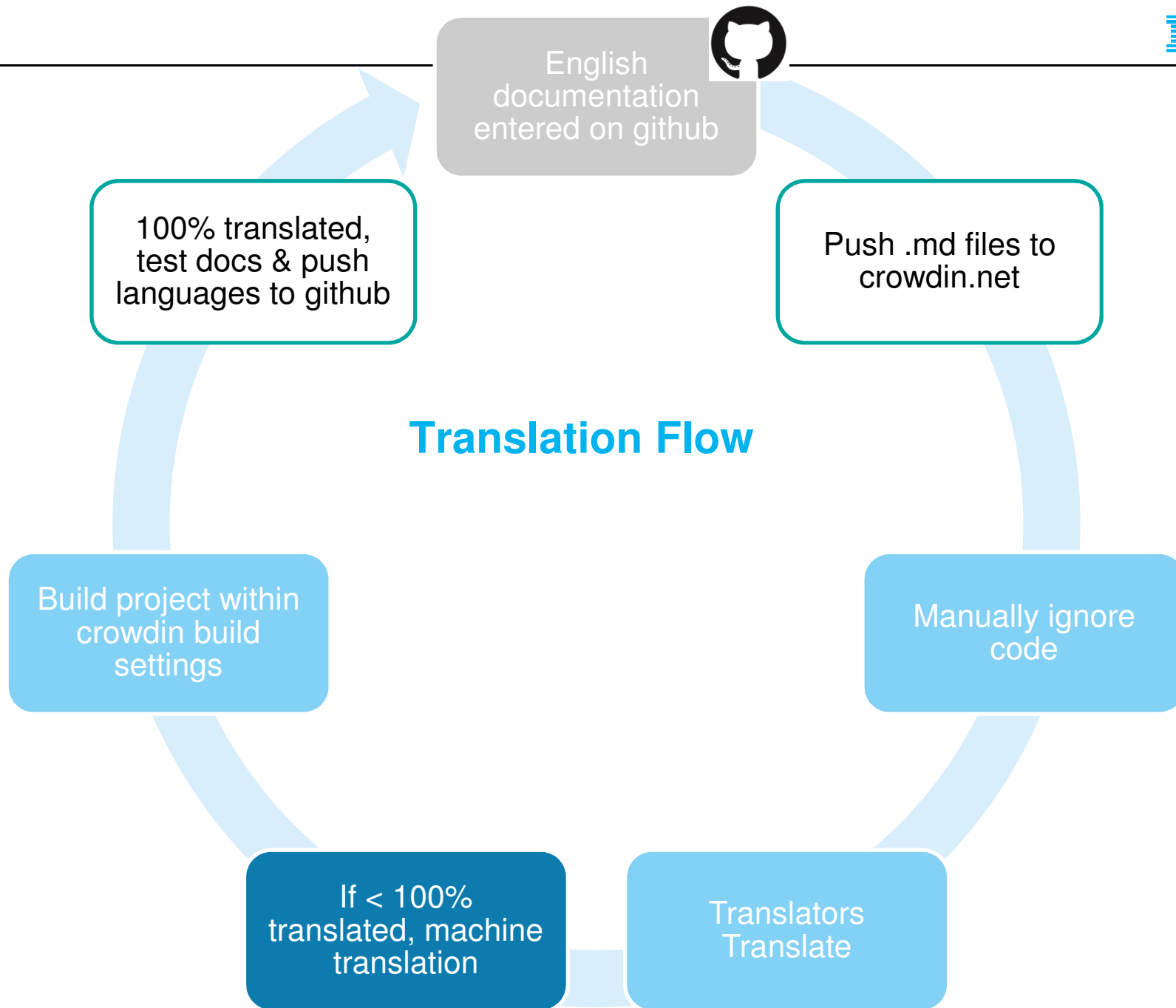
Translation Flow

Build project within crowdin build settings

Manually ignore code

If < 100% translated, machine translation

Translators Translate



Manual Step: Machine Translation

Pre-Translate cordova via Machine
✕

TRANSLATION ENGINE

Google Translate
 Microsoft Translator

Configure machine translation engines

TARGET LANGUAGES

- Afrikaans
- Albanian
- Bengali
- Chinese Simplified
- Chinese Traditional
- Danish
- French
- Select all languages

FILES

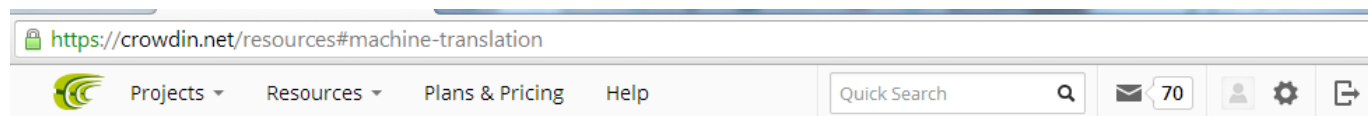
- config_ref
- images.md
- index.md
- cordova
 - accelerometer
 - acceleration
 - acceleration.md
 - parameters
 - accelerometerError.md
- Select all files

Only source phrases that do not have suggestions can be pre-translated using this dialog.

Pre-Translate via Machine

Cancel

Machine Translation Engines for Crowdin



Ideluca's Resources

Managers Translation Memory

Microsoft Translator

Data

Use the form below to configure machine translation

Microsoft Translator

Client ID:

Client secret:

Use [Windows Azure Marketplace](#)

Google Translate

Like 553

Google translate API key:

Use your [Google APIs Console](#) to obtain Google Translate API key.

Published by: Microsoft Translator
 Categories: Communications, Reference, Developer Services, High Tech & Electronics
 Date added: 8/31/2011
[Get support for this offering](#)

Microsoft Translator delivers automatic translation (Machine Translation) of a text into a specified language. It is a state-of-the-art statistical machine translation system translating between any of the supported languages, and powering millions of translations every day. It also provides additional functionality such as detection of the language of a given text. For more technical information about Microsoft Translator, please visit <http://api.microsofttranslator.com>.

Active Subscription	
2,000,000 Characters/month	\$0.00 per month CANCEL
4,000,000 Characters/month	\$40.00 per month UPDATE
6,000,000 Characters/month	\$60.00 per month UPDATE
8,000,000 Characters/month	\$80.00 per month UPDATE
16,000,000 Characters/month	\$160.00 per month UPDATE



English documentation entered on github

Push .md files to crowdin.net

100% translated, test docs & push languages to github

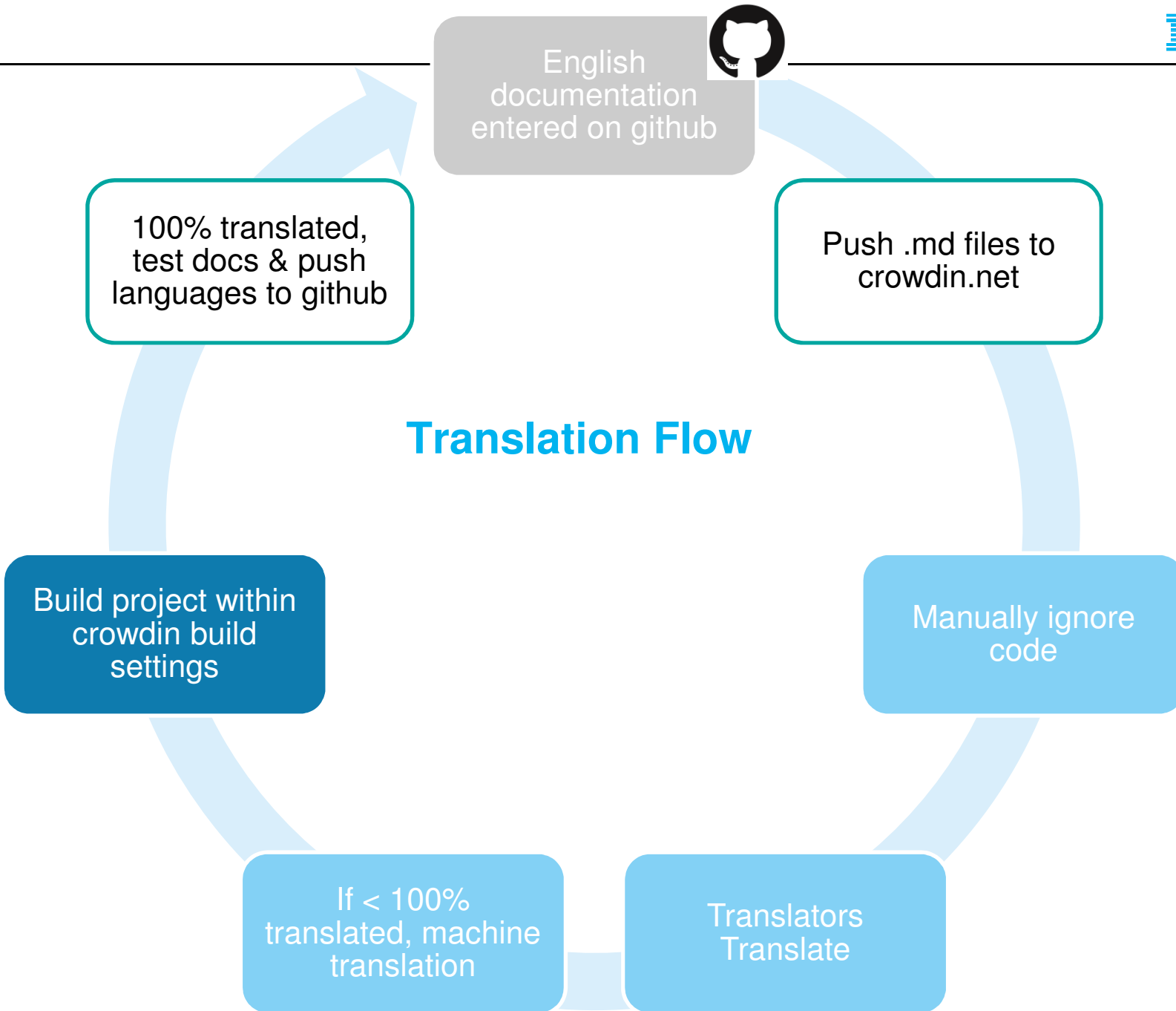
Translation Flow

Build project within crowdin build settings

Manually ignore code

If < 100% translated, machine translation

Translators Translate



Manual Step: Build Crowdin Project

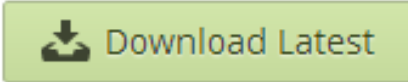

Projects / cordova / Settings

cordova settings

General	Translations	Screenshots	Glossary	T
---------	--------------	-------------	----------	---

Translations

Last Build: 19 Feb 2014, 15:07 (1 hour ago)
Last Activity: 08 Feb 2014, 15:04 (2 weeks ago)



English documentation entered on github

Push .md files to crowdin.net

100% translated, test docs & push languages to github

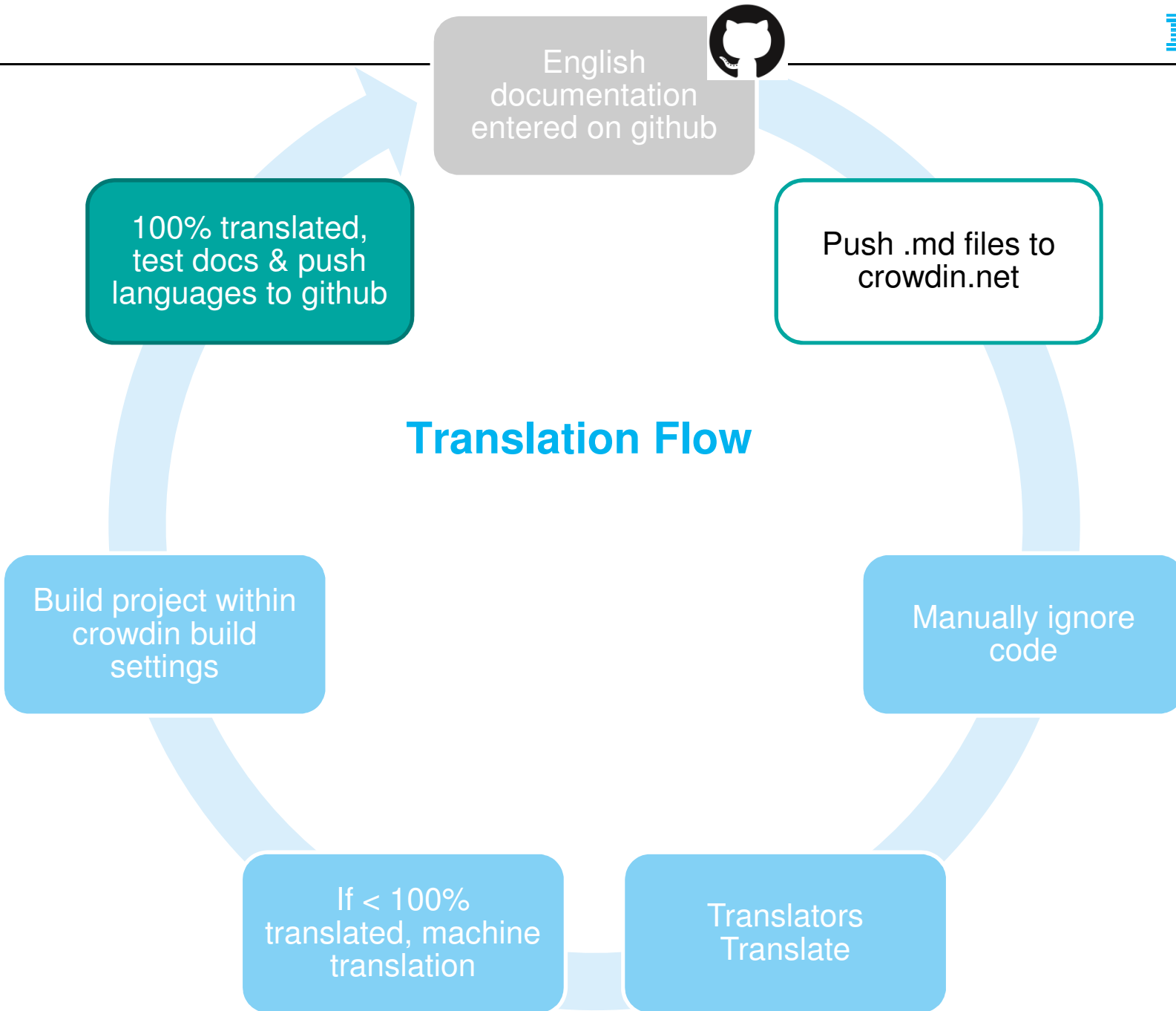
Translation Flow

Build project within crowdin build settings

Manually ignore code

If < 100% translated, machine translation

Translators Translate



Manual: Test Building Docs

- Generate the documentation

```
# test the languages (preferably before committing ☺)
~/git/cordova-docs$ bin/generate ru edge
```

- Watch out for headings!!
 - If a word is translated in two or more ways the links will be broken

The screenshot shows the Apache Cordova documentation website. The top navigation bar includes the title 'Documentación Apache Cordova' and a version selector set to 'edge'. The main content area is titled 'Home' and features a 'Guías' (Guides) section. A sidebar on the left lists various guide topics. The main content area displays six guide cards with titles and brief descriptions.

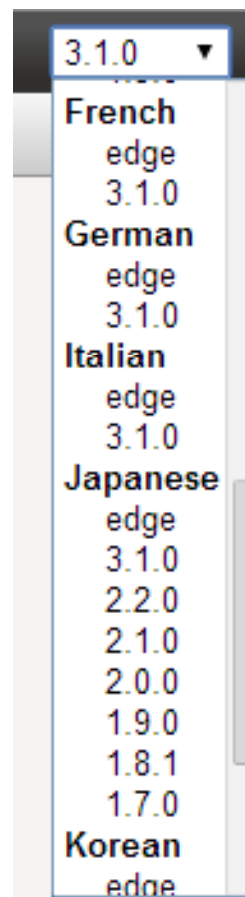
Guías	Perspectiva general	Soporte de plataformas	La interfaz de línea de comandos
Perspectiva general	Comience aquí si eres nuevo en Cordova.	Tabla de compatibilidad para todas las funciones principales.	Crear, construir y desplegar desde la línea de comandos.
Soporte de plataformas			
Guías de plataformas			
El archivo config.xml			
Iconos y pantallas de Splash			
Guía de desarrollo de Plugins			
Guía de privacidad			

Script – Committing translations

- Edit commit message

```
git add .  
git commit -m "Lisa @ApacheCon "  
git push origin
```

- Re-run github-crowdin.sh
- Push from fork to Apache stream
- Build documentation (Run rake)
- Visit documentation site:
<http://cordova.apache.org/docs/en/edge/index.html>



Other Gotchas

- Inline code is hard for translation
 - Can't select a single word or part of a paragraph to ignore.
- Languages must be at 100%
 - Specific to our script
- Machine Translation Limitations
 - There is a limit with the free MT services
 - Advice: Ignore before using MT
- Checkout projects using ssh
 - Ex. `git clone ssh://git@github.com/ldeluca/cordova-plugin-battery-status.git`
 - Otherwise prompted for credentials for each repo

Call to Action

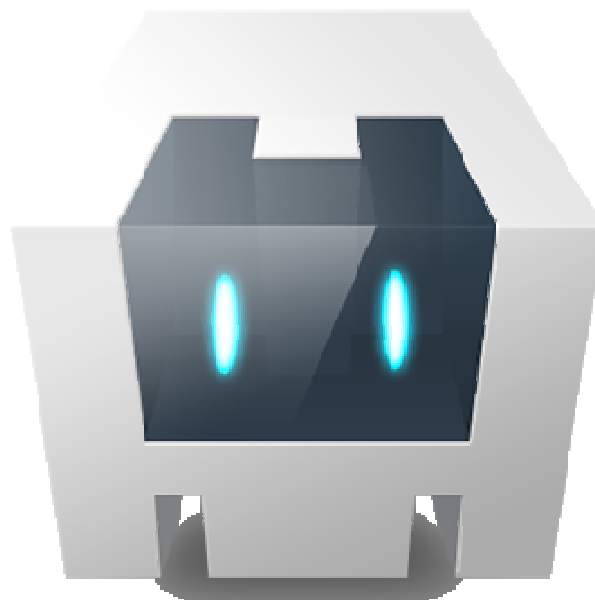
- We are still looking for translators! Join us!

<http://crowdin.net/project/cordova>

How to Add Crowdin To YOUR Open Source Project

- Visit our wiki to learn about what we're doing.
<http://wiki.apache.org/cordova/CordovaTranslations>
- Scripts are freely available
- Email me: ldeluca@us.ibm.com

Cordova Hackathon



Sponsored by
IBM & RedHat

- **When:** Tuesday
- **Where:** McCourt room
- **What:** Race to Apache Cordova Contribution & Hybrid Mobile App Challenge
- **Who:** Everyone is invited. 8+ Apache Cordova Committers will be in the room answering questions. Come stump the experts!
- **Why:** See what it's like to participate in the Apache Cordova community.



ibm.com/mobilefirst