muchiii Localization Solution

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Used Technologies

- CodeIgniter Language Class: PHP Language Utility
- PHP Internalization Functions: Formatting Date and Number in PHP
- YUI 3 Internationalization Utility: JavaScript Language Utility
- YUI 3 Data Type Utility: Formatting Date and Number in JavaScript

Standard Language Tag Format

The format of all language tags should be consistent. It has no difference between languages. (JavaScript and PHP should use the same language format.)

Language Tag	Description
zh-CN	Chinese, China
zh-TW	Chinese, Taiwan
en-US	English, United States
en-CA	English, Canada
jp-JP	Japanese, Japan

- Use hyphen (-) only, no underscore!
- Only provide [language]-[country] as our standard resource bundles. Script sub tag will only be applied on special situation.
- Language tag in lowercase (ex. zh), Country tag in uppercase (ex. CN).

For more details - BCP47 Tag

Language Key

There are 3 segments to compose a language key. They are CodeIgniter module name, view file name, and user defined label name.

```
[CodeIgniter Module Name]-[View File Name]-[Label Name]
```

So if you need to define key for new device detected message in _hp_device.php view file, miiicasa module. Your key would be something like miiicasa-hp_device-new_detected.

```
<?php
// ~/muchiii/index/language/en-US/miiicasa_lang.php
$lang["miiicasa-hp_device-new_detected"] = "{total} new device(s) detected!
?>
```

It's similar in JavaScript:

```
<script>
// ~/muchiii/static/miiicasa/lang/miiicasa_en-US.js
YUI.add("lang/miiicasa_en-US", function (Y) {
    Y.Intl.add("miiicasa","en-US", {
        "miiicasa-hp_device-new_detected" : "{total} new device(s) detected!
    });
}, "3.1.1");
</script>
```

Localization Process

1. Engineer wraps string with muchiii's customized language helper. (~/muchiii /index/helper/language_helper.php)

```
<?php
// file : ~/muchiii/index/modules/miiicasa/views/_hp_device.php
// echo get_lang(<key>, <default translation>, [array arguments for for

// CASE 1 (simple <key>, <default translation>):
echo get_lang("this_is_test", "This is test");

// CASE 2 (have variable replace, {variable key} match with array key =
echo get_lang("warning_str", "You have {warn_num} warnings.", array

// CASE 3 (return string of get_lang helper, DO NOT injected translatec
echo get_lang("warning_str", "You have {warn_num} warnings.", array

// CASE 4 (for fixed html tag injected):
$new_detected_arr = array (
    "dev_num" => array (
        "_tag" => "<em class=\"warn\">",
        "_val" => $not_joined_devices_count
    ),
);
echo get_lang("new_detected", "{dev_num} New device detected.", $nev

// CASE 5 (for flexible html tag, like link injected):
$reg_url = "http://tw.yahoo.com/";
$reg_link = get_lang("reg_link", "Register device now");
$register_now_msg_arr = array (
    "reg_link" => array (
        "_tag" => "<a href=\"{$reg_url}\">",
        "_val" => $reg_link
    ),
);
echo get_lang("register_now_msg", "{reg_link} then you can remote ac

// This will check if the language resource "miiicasa-hp_device-registe
// If not, it will use default string you provides.
?>
```

- By using the language helper, engineer doesn't have to know module name and view file name to define a key.

2. Engineer updates centralized language keys in database by executing a shell script. It will find and compose language keys by searching echo_lang keyword in all view files.

```
$ php ~/muchiii/cms/cli.php l10n/l10n/update_lang_to_db miiicasa
#miiicasa is module
```

3. Engineer/Producer adds/modifies strings for different languages on L10N Tool.
4. Engineer/Producer generates new translation files by using this L10N Tool.
    - Dictionary files will be automatically committed and push to Git centralized

repository.

5. Engineer have to pull code from Git centralized repository so that he/she can get the latest dictionary files.
    - (Whether should we have a test machine for producer to test?)

Output Language File Location

PHP

CodeIgniter has defined the location of language files.

```
~/muchiii/index/modules/language/[Language Tag]/[Module Name]_lang.php
```

JavaScript

YUI 3 has defined the location of language files.

```
~/muchiii/static/[Module Name]/lang/[Module Name]_[Language Tag].js
```

View File Rename Issue

A Git pre-commit hook will help to check if there are any view files were created, renamed or removed. If yes, this hook script will prompt you that a displayed SQL query will be executed to update influenced language keys in L10N Tool database. You can press y to update database automatically.

Inline Translating

Just like facebook inline translating, producer and engineer can localize strings on web page directly at alpha environment.

- For string which was not translated with current locale, the language helper wraps it with <span class="intl-translatable" id="trans:$key"/> tag.
- For string which was translated with current locale, the language helper wraps it with <span class="intl-translated" id="trans:$key"/> tag.

A JavaScript file will be injected on alpha environment so that all the locale string will be highlighted. Green means translated, red means not translated but translatable. User can click the highlighted string to do localization.

Related Documentation

- Localization Tool EDD
- JavaScript Localization