

KaiOS 字符串本地化工具指南

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1. 语言列表

Languages_all.json

语言本地化文件夹

- KaiOS 2.0: ../distribution/locales/languages_all.json
- KaiOS 2.5: ../gaia/tree/app-split/locales/language_all.json

打开json文件，里面是对应的各语言缩写及其全称

language_all.json:

```
languages_all.json 995 Bytes
{
  "af-ZA" : "Afrikaans",
  "ar-SA" : "عربي",
  "bn-IN" : "বাংলা (IN)",
  "de-DE" : "Deutsch",
  "en-GB" : "English (GB)",
  "en-US" : "English (US)",
  "es-US" : "Español (US)",
  "es-ES" : "Español (ES)",
  "fa-IR" : "فارسی (IR)",
  "fr-CA" : "French (CA)",
  "fr-FR" : "Français (FR)",
  "hi-HI" : "हिन्दी",
  "hu-HU" : "Magyar",
  "id-ID" : "Bahasa Indonesia",
  "it-IT" : "Italiano",
  "ms-MY" : "Melayu",
  "ne-IN" : "नेपाली",
  "nl-NL" : "Nederlands",
  "pl-PL" : "Polski",
  "pt-BR" : "Português (do Brasil)",
  "pt-PT" : "Português (Portugal)",
  "ro-RO" : "Română",
  "ru-RU" : "Русский",
  "sw-ZA" : "Kiswahili",
  "ta-IN" : "தமிழ்",
  "th-TH" : "ไทย",
  "tr-TR" : "Türkçe",
  "ur-PK" : "اردو",
  "vi-VN" : "Tiếng Việt",
  "zh-CN" : "中文 (简体)",
  "zu-ZA" : "isiZulu"
}
```

2. 语言翻译

2.1 en-US 翻译（开发阶段的默认翻译）

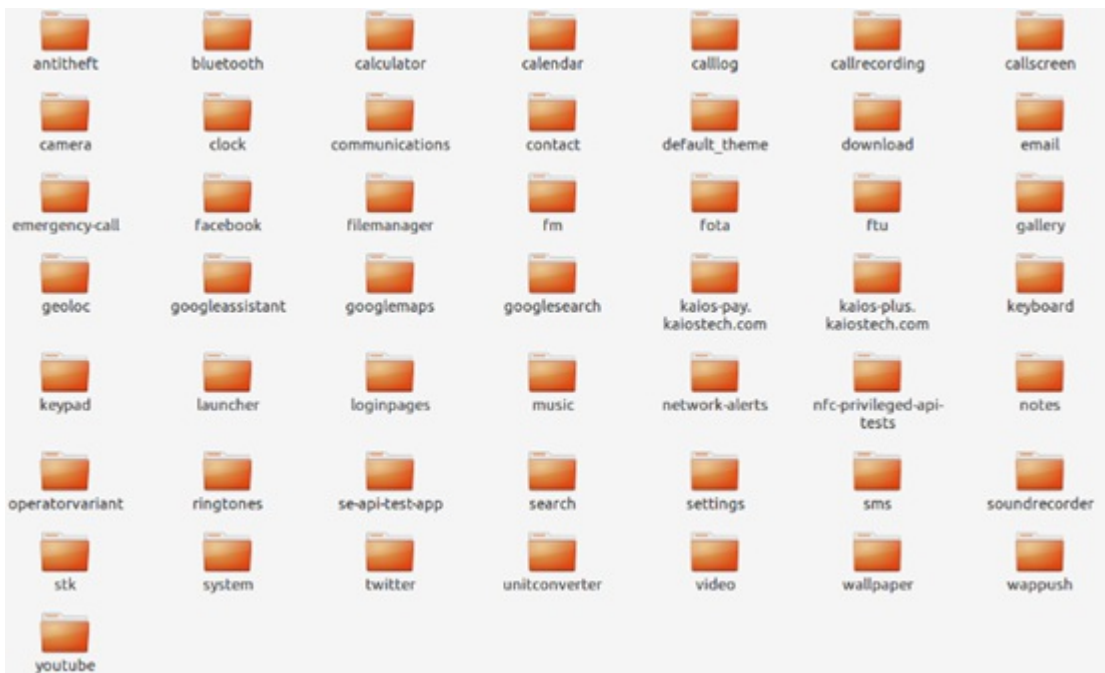
开发人员会根据UX spec来创建string对应的en-US翻译，其他所有语言的翻译都要以en-US作为base。

所在文件夹：

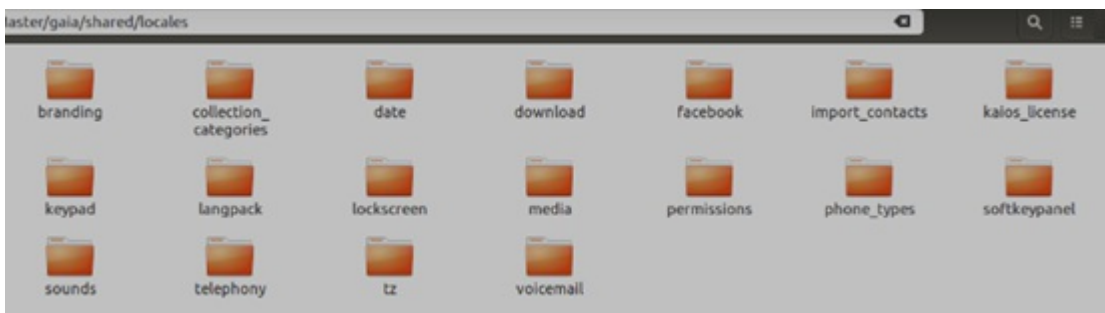
- ../apps/**APP**/locales/APPROCAL.properties => en-US: ../apps/APP/locales.APPen-US.properties
- ../shared/locales/**APP**/APPROCAL.properties => en-US: ../shared/locales/APP/APPen-US.properties
- ../apps/**APP**/manifest.webapp => APP 名称

APP => 在实际目录下会被不同的APP名称所替代

Apps文件夹：



gaia/shared文件夹：



manifest.webapp:

```

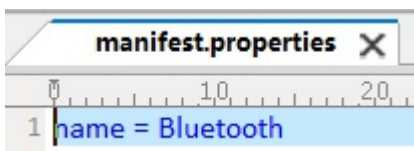
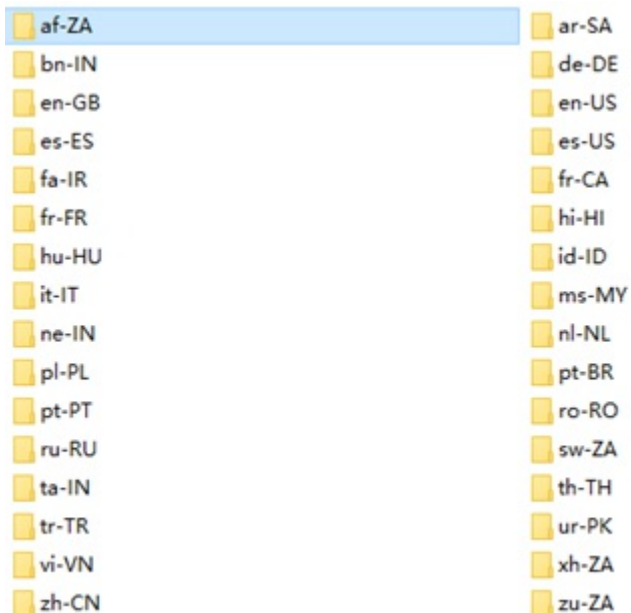
    },
    "locales": {
        "en-US": {
            "name": "Bookmark",
            "description": "Bookmark Manager"
        },
    },

```

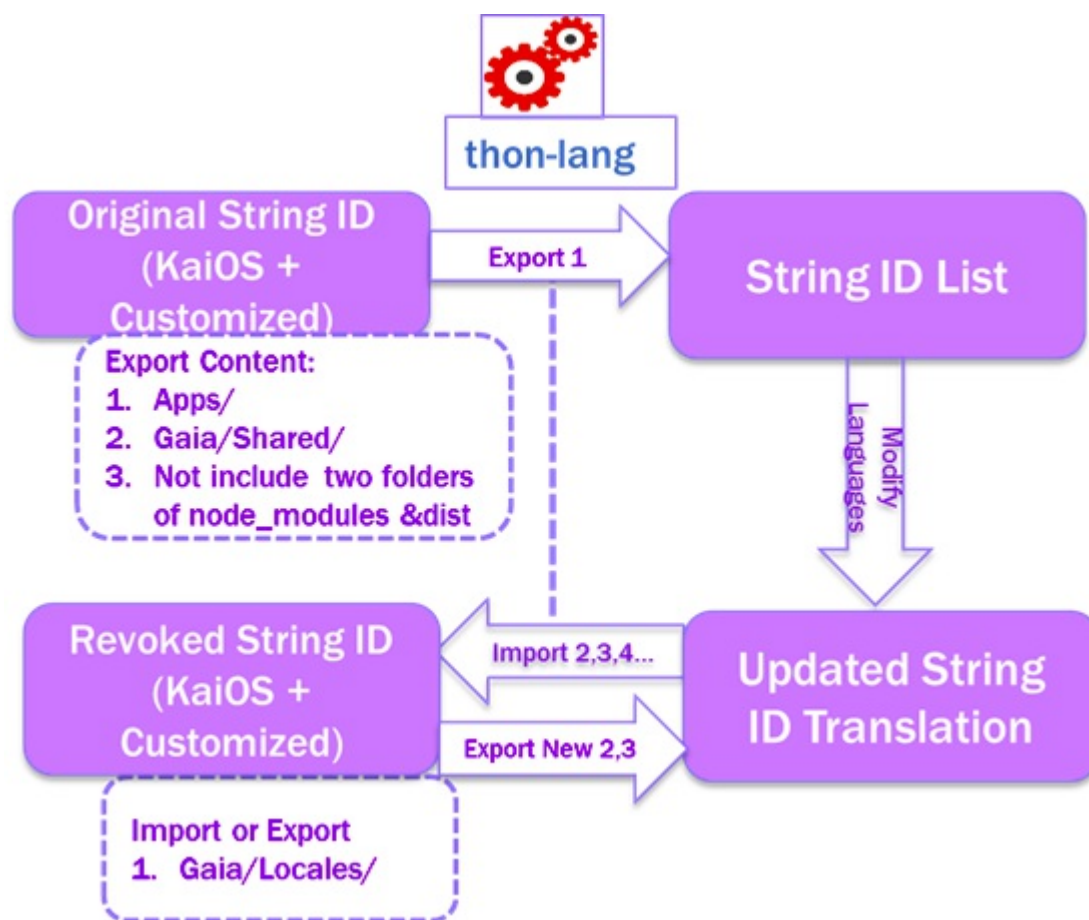
2.2 多语言翻译(语言也会包含en-US，因为有时候需要对en-US翻译做定制)

- 每个语言的翻译都会对应不同的文件夹
- gaia/locales/**LOCALE**/apps (/Apps文件夹中用到的字符串所对应的翻译,此处的string对应2.1章节中的../apps/**APP**/locales/APP.LOCALE.properties)
- gaia/locales/**LOCALE**/shared (Apps文件夹中用到的字符串所对应的翻译, 此处的string对应2.1章节中的../shared/locales/**APP**/APP.LOCAL.properties)
- gaia/locales/**LOCALE**/apps/APP/manifest.properties (APP 名称)

LOCALE => 在实际目录下会被不同的语言名称所替代



3. Thon-lang



4. 环境配置

操作系统: Ubuntu

工具: Perl [下载路径](#)

```
kaios@kaios1604:~$ cat /etc/issue
Ubuntu 16.04 LTS \n \l
```

```
This is perl 5, version 22, subversion 1 (v5.22.1) built for x86_64-linux-gnu-th
read-multi
(with 73 registered patches, see perl -V for more detail)

Copyright 1987-2015, Larry Wall
```

5. 使用perl工具导出/导入/复用翻译

5.1 导出字符串

首先，请更新代码库至最新版本。然后使用perl工具从Apps和gaia/shared目录下导出一份Excel表格（见下图示例），其中会包含最新的en-US，string ID，refname等列，同时将从gaia/locales中导出对应的其他语言的翻译。

将工具包放在gaia/locales目录下，然后运行以下命令：

命令行：

- `cd /home/kaio/Desktop/kaio2.5/KaiOS/gaia/locales/thon-lang`

- perl -CS langexportT2M.pl -f xx.xls -x

(ps: 请重命名xx.xls文件)

导出的字符串表示例:

A	B	C	D	E	F	G	H	I	J
path	filename	string	refname	en-US	uz-Cyrl	or-IN	as-IN	lo-LA	fr-FR
/apps/antitheft/	anti-theft	remote-ring-header	antitheft:anti-theft:remote-ri	Remote Ring					Sonnerie
/apps/antitheft/	anti-theft	remote-ring-text1	antitheft:anti-theft:remote-ri	This device is ringing by					Sonnerie
/apps/antitheft/	anti-theft	remote-ring-text2	antitheft:anti-theft:remote-ri	remote Anti-theft account.					compte an
/apps/antitheft/	anti-theft	ringer-dismiss	antitheft:anti-theft:ringer-di	Dismiss					Ignorer
/apps/bluetooth/	bluetooth	active-pair	bluetooth:bluetooth:active-pai	Confirm devices to pair					
/apps/bluetooth/	bluetooth	active-pair-confirmation	bluetooth:bluetooth:active-pai	To pair with {{device}}, make sure that both devices currently have					
/apps/bluetooth/	bluetooth	active-pair-passkey	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the passkey on the device.					
/apps/bluetooth/	bluetooth	active-pair-pincode	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the PIN on the device.					
/apps/bluetooth/	bluetooth	bluetooth	bluetooth:bluetooth:bluetooth	Bluetooth					
/apps/bluetooth/	bluetooth	bluetooth-address	bluetooth:bluetooth:bluetooth	Bluetooth Address					
/apps/bluetooth/	bluetooth	bluetooth-address-unavaila	bluetooth:bluetooth:bluetooth	Not available					
/apps/bluetooth/	bluetooth	bluetooth-devices-nearby	bluetooth:bluetooth:bluetooth	Nearby Devices					
/apps/bluetooth/	bluetooth	bluetooth-enable-msg	bluetooth:bluetooth:bluetooth	Turn Bluetooth on to view devices in the area.					
/apps/bluetooth/	bluetooth	bluetooth-header	bluetooth:bluetooth:bluetooth-	{{bluetooth}}					
/apps/bluetooth/	bluetooth	bluetooth-name-maxlength-a	bluetooth:bluetooth:bluetooth-	Your device name exceeds {{length}} characters. Please retry again.					
/apps/bluetooth/	bluetooth	bluetooth-new-name	bluetooth:bluetooth:bluetooth-	New name					

处理manifest(APP名称)字符串时, 需手动从以下目录拷贝, (locales/LOCALE/apps/APP/manifest.properties), 然后粘贴整理在表格中, 具体请参照章节2.2及下图的示例表格格式。

示例表格:

path	filename	string	refname	en-US
../apps/bluetooth/locales	manifest	name	bluetooth:manifest:name	Bluetooth

5.2 将翻译导入DB

导入DB的翻译格式同样是Excel表格, 前面几列请保持和从Apps和gaia/shared导出的英文string表格(详情见章节5.1)一致的内容, 另外还有Manifest字符串。然后在表格添加要导入的语言列。

将工具包放在../gaia/locales同级目录下, 然后运行以下命令:

命令行:

- 路径: cd /home/kaio/Desktop/kaio2.5/KaiOS/gaia/locales/thon-lang
- 导入Excel文件, 导出locales文件: perl -CS langimport.pl -f xx.xls

示例表格:

A	B	C	D	E	F	G	H	I	J
path	filename	string	refname	en-US	uz-Cyrl	or-IN	as-IN	lo-LA	fr-FR
/apps/antitheft/	anti-theft	remote-ring-header	antitheft:anti-theft:remote-ri	Remote Ring					Sonnerie
/apps/antitheft/	anti-theft	remote-ring-text1	antitheft:anti-theft:remote-ri	This device is ringing by					Sonnerie
/apps/antitheft/	anti-theft	remote-ring-text2	antitheft:anti-theft:remote-ri	remote Anti-theft account.					compte an
/apps/antitheft/	anti-theft	ringer-dismiss	antitheft:anti-theft:ringer-di	Dismiss					Ignorer
/apps/bluetooth/	bluetooth	active-pair	bluetooth:bluetooth:active-pai	Confirm devices to pair					
/apps/bluetooth/	bluetooth	active-pair-confirmation	bluetooth:bluetooth:active-pai	To pair with {{device}}, make sure that both devices currently have					
/apps/bluetooth/	bluetooth	active-pair-passkey	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the passkey on the device.					
/apps/bluetooth/	bluetooth	active-pair-pincode	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the PIN on the device.					
/apps/bluetooth/	bluetooth	bluetooth	bluetooth:bluetooth:bluetooth	Bluetooth					
/apps/bluetooth/	bluetooth	bluetooth-address	bluetooth:bluetooth:bluetooth	Bluetooth Address					
/apps/bluetooth/	bluetooth	bluetooth-address-unavaila	bluetooth:bluetooth:bluetooth	Not available					
/apps/bluetooth/	bluetooth	bluetooth-devices-nearby	bluetooth:bluetooth:bluetooth	Nearby Devices					
/apps/bluetooth/	bluetooth	bluetooth-enable-msg	bluetooth:bluetooth:bluetooth	Turn Bluetooth on to view devices in the area.					
/apps/bluetooth/	bluetooth	bluetooth-header	bluetooth:bluetooth:bluetooth-	{{bluetooth}}					
/apps/bluetooth/	bluetooth	bluetooth-name-maxlength-a	bluetooth:bluetooth:bluetooth-	Your device name exceeds {{length}} characters. Please retry again.					
/apps/bluetooth/	bluetooth	bluetooth-new-name	bluetooth:bluetooth:bluetooth-	New name					

表格中的语言缩写必须与language_all.json文件中的名称保持一致。详情参见章节1。

5.3 复用翻译

很多新提交/更新的字符串都可以从翻译库中复用翻译。同样, 使用对应的perl复用工具可以完成复用。

命令行:

- 路径: `cd /home/kaios/Desktop/kaios2.5/KaiOS/gaia/locales/thon-lang`
- 执行复用:
 - Step 1: `perl -CS inNpatheng.pl -n original excel.xls -f xx.xls(1) -x`
 - Step 2: `perl -CS inNpatheng2.pl -n xx.xls(1) sheet + translation from DB.xls -f xxx.xls -x`

(ps: 请重命名xx.xls文件)

在step 1中, 原始表格包含两个sheet, 前一个sheet中是新string列表, 后一个sheet是要复用的string列表。

在step 2中, 表格 **xx.xls(1) sheet + translation from DB.xls** 同样也要包含两个sheet。第一个sheet是你在step 1中导出的表格内容, **xx.xls(1)**。第二个sheet和step 1中的第二个sheet相同。

这里对此操作稍作解释。step 1中用到的脚本是 `inNpatheng.pl`, 复用的原理是比较两个sheet中的refname和en-US, 如果两项都匹配, 那么会直接复用sheet2中的翻译到sheet1中。而step 2中用到的 `inNpatheng2.pl`脚本, 是拿step 1中没法复用的string, 去比较翻译DB中的英文, 如果两个sheet中英文一致, 并且英文是包含两个单词以上, 脚本也会做一个复用, 这样在保证翻译质量的前提下最大限度的降低待翻译的string数量。

两个sheet中的翻译语言缩写需要完全一致, 但语言顺序可以打乱。比如你想要复用ABC三个语言, sheet 2中只需要保证有ABC这三个语言列, 顺序没有要求, 可以是ABC,ACB.BCA等等。

Sheet 1

path	filename	string	refname	en-US	fr-FR	km-KH	zu-ZA	kok-IN
/apps/antitheft/	anti-theft	remote-ring-header	antitheft:anti-theft:remote-ri	Remote Ring	Sonnerie à distanc	Ukwenza Idivayisi		
/apps/antitheft/	anti-theft	remote-ring-text1	antitheft:anti-theft:remote-ri	This device is ringir	Sonnerie de l' app	Le divayisi iyakha		
/apps/antitheft/	anti-theft	remote-ring-text2	antitheft:anti-theft:remote-ri	remote Anti-theft acc	compte antivol à cye	akhawunti evinal		
/apps/antitheft/	anti-theft	ringer-dismiss	antitheft:anti-theft:ringer-di	Dismiss	Ignorer	Chitha		
/apps/bluetooth/	bluetooth	active-pair	bluetooth:bluetooth:active-pai	Confirm devices to pair				
/apps/bluetooth/	bluetooth	active-pair-confirmation	bluetooth:bluetooth:active-pai	To pair with {{device}}, make sure that both devices cur				
/apps/bluetooth/	bluetooth	active-pair-passkey	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the passkey on the device.				
/apps/bluetooth/	bluetooth	active-pair-pincode	bluetooth:bluetooth:active-pai	To pair with {{device}}, enter the PIN on the device.				
/apps/bluetooth/	bluetooth	bluetooth	bluetooth:bluetooth:bluetooth	Bluetooth				
/apps/bluetooth/	bluetooth	bluetooth-address	bluetooth:bluetooth:bluetooth	Bluetooth Address				
/apps/bluetooth/	bluetooth	bluetooth-address-unavaila	bluetooth:bluetooth:bluetooth	Not available				
/apps/bluetooth/	bluetooth	bluetooth-devices-nearby	bluetooth:bluetooth:bluetooth	Nearby Devices				
/apps/bluetooth/	bluetooth	bluetooth-enable-msg	bluetooth:bluetooth:bluetooth	Turn Bluetooth on to view devices in the area.				
/apps/bluetooth/	bluetooth	bluetooth-header	bluetooth:bluetooth:bluetooth	{{bluetooth}}				
/apps/bluetooth/	bluetooth	bluetooth-name-maxlength-a	bluetooth:bluetooth:bluetooth	Your device name exceeds {{length}} characters. Please r				
/apps/bluetooth/	bluetooth	bluetooth-new-name	bluetooth:bluetooth:bluetooth	New name				
/apps/bluetooth/	bluetooth	bluetooth-paired-devices	bluetooth:bluetooth:bluetooth	Paired devices				
/apps/bluetooth/	bluetooth	bluetooth-pairing-request	bluetooth:bluetooth:bluetooth	Bluetooth pairing request				
/apps/bluetooth/	bluetooth	bluetooth-status-descripti	bluetooth:bluetooth:bluetooth	Bluetooth is disabled				

Sheet 2

path	filename	string	refname	en-US	fr-FR	km-KH	zu-ZA
/apps/antitheft/	anti-theft	remote-ring-header	antitheft:anti-theft:remote-ri	Remote Ring	Sonnerie à distanc	Ukwenza I	
/apps/antitheft/	anti-theft	remote-ring-text1	antitheft:anti-theft:remote-ri	This device is ringir	Sonnerie de l' app	Le divayi	
/apps/antitheft/	anti-theft	remote-ring-text2	antitheft:anti-theft:remote-ri	remote Anti-theft acc	compte antivol à cye	akhawu	
/apps/antitheft/	anti-theft	ringer-dismiss	antitheft:anti-theft:ringer-di	Dismiss	Ignorer	Chitha	
/apps/bluetooth/	bluetooth	device-status-pairing	bluetooth:bluetooth:device-sta	Pairing with device...	Association avec l	Ukubhangq	
/apps/bluetooth/	bluetooth	device-status-tap-connect	bluetooth:bluetooth:device-sta	Press \'Select\' to	Appuyer sur S	électChofoza \	
/apps/bluetooth/	bluetooth	device-status-waiting	bluetooth:bluetooth:device-sta	Waiting for other dev	Attente d' un autr	Ilinde en	
/apps/bluetooth/	bluetooth	error-connect-msg	bluetooth:bluetooth:error-con	Check that the device	Vérifiez que l' ap	Hlola uku	
/apps/bluetooth/	bluetooth	error-connect-title	bluetooth:bluetooth:error-con	Unable to connect de	Impossible de con	Ayikwazi	
/apps/bluetooth/	bluetooth	error-pair-checkpin	bluetooth:bluetooth:error-pai	Do you want to try p	Voulez-vous réess	Uyafuna y	
/apps/bluetooth/	bluetooth	error-pair-fail	bluetooth:bluetooth:error-pai	{{devicename}} isn't {{devicename}}	ne {{devicen		
/apps/bluetooth/	bluetooth	error-pair-pincode	bluetooth:bluetooth:error-pai	Unable to pair with	Impossible de s' a	Ayikwazi	
/apps/bluetooth/	bluetooth	error-pair-title	bluetooth:bluetooth:error-pai	Unable To Pair Devi	Appairage de l' ap	Ayikwazi	
/apps/bluetooth/	bluetooth	error-pair-toofast	bluetooth:bluetooth:error-pai	Unable to pair with	Impossible de s' a	Ayikwazi	
/apps/bluetooth/	bluetooth	error-transfer-settings	bluetooth:bluetooth:error-tran	Bluetooth file trans	échéec du transfert	Ukuthumel	
/apps/bluetooth/	bluetooth	error-transfer-title	bluetooth:bluetooth:error-tran	Bluetooth file trans	échéec du transfert	Ukuthumel	
/apps/bluetooth/	bluetooth	ok	bluetooth:bluetooth:ok	OK	OK	KULUNGILE	
/apps/bluetooth/	bluetooth	pair	bluetooth:bluetooth:pair	Pair	Appairer	Bhangqa	
/apps/bluetooth/	bluetooth	pair-view-title	bluetooth:bluetooth:pair-view	Bluetooth Request	Demande Bluetooth	Isicelo S	
/apps/bluetooth/	bluetooth	paired-failed	bluetooth:bluetooth:paired-fai	Failed to pair with	Impossible d' appa	Yehluleki	

6. COMPILE FLAG

local.mk => To overw rite language translation source file

- n Makefile#L62-75

- Setting in Dev phase, stored in Makefile#L470

- ## 故障排除 (TBC...)

1. 导入过程中报错

```
Use of uninitialized value $result in substitution (s///) at langimport.pl line 253.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 254.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 255.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 251.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 252.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 253.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 254.
Use of uninitialized value $result in substitution (s///) at langimport.pl line 255.
-> ##### settings
-> Preparing ../bn-IN/apps/settings/settings.properties ...
Can't locate object method "copy" via package "../bn-IN/apps/settings/settings.properties" (perhaps you forgot to load "../bn-IN/apps/settings/settings.properties"?): at langimport.pl line 345.
cylinglang@a1-7638:~/kaio2.5_tcl/gala/locales/thon-lang
```

尝试在导入脚本 langimport.pl 第26行后面加入一行，然后重试：

```
use File::Copy;
```

```
21 use strict;
22 use warnings;
23 use utf8;
24 use Encode qw(decode);
25 use Spreadsheet::XLSX;
26 use File::Path;
27
```

2. 导出过程中出现warning

```

properties.../sw-ZA/shared/keypad/keypad.properties.../sw-ZA/shared/phone/types/phone/types.properties.../ko-KR/apps/kalos-plus/mainfest.properties...
.../ko-KR/apps/kalos-plus/service.properties.../ko-KR/apps/kalos-pay/kalos-pay.properties.../he-IL/apps/kalos-plus/mainfest.properties.../he-IL
apps/kalos-plus/service.properties.../he-IL/apps/kalos-pay/kalos-pay.properties[WARNING] Parsing Error in .../ks-IN/apps/kalos-plus/service.p
roperties : [ اسماعيل پوان گريو و استاليس - استاليس ]
[WARNING] Parsing Error in .../ks-IN/apps/kalos-plus/service.properties : [ کارکردگي د پايه د گريو و استاليس ]
[WARNING] Parsing Error in .../ur-PK/apps/kalos-plus/service.properties : [ انجومي کي جاني يي - استاليس ]
[WARNING] Parsing Error in .../ur-PK/apps/kalos-plus/service.properties : [ حوسباتي کي ليد استاليس کي يي - ]
[INFO] Languages in use: 85 ( do-IJ zh-TW and bod ur-PK si-VN az-Cyril-UZ sq-AL lv-LV bg-BG te-IN ml-IN nl-NL ne-IN sk-SK as-IN km-KH m-
y.kok-IN es-US ko-BN cn-SI km-BE by-BK bd-ID vi-VN zh-HK cs-CZ it-IT bn-BD hr-HR tr-TR sa-IN uk-UA is-IS et-EE th-TH fr-FR de-
ro-RO mo-RO pa-IN ru-RU sw-ZA or-IN da-UK zh-ZA es-IN ar-SA ke-GE sd-IN he-IL mi-IN gu-GU in-IT lt-PT hi-HI fi-FI az-Latn-AZ ps-AF en-US
nb-NO ta-IN lo-LA sat-IN mr-IN sr-Latn-CS es-ES fil-PH pt-BR mk-MK zu-ZA fa-IR si-LK fr-CA en-GB hu-HU hy-AM pl-PL bn-IN el-GR kk-KZ )
[INFO] Languages exported as: gaia_export.xls
cinglang@AL1-T638:~/kalos2.5_tcl/gaia/locales/thon-Langt

```

Kai: 此类warning是正常的，请忽略。

3. en-US 翻译定制不生效

Kai: 请先参考章节2.1

若要定制en-US翻译，请确保修改的properties文件在apps和 gaia/shared目录下，而不是在gaia/locales下。此路径下只有修改除en-US外其他语言的翻译才会生效。

4. 无法成功复用翻译

Kai:

- 检查两个sheet的表头，确保前七列是顺序和名称是一致的。两个sheet中的语言缩写名称也要保持一致。具体请参照章节5.5。
- 将A列“path”整列替换为D列的“pathimport”，然后重试。

path	filename	string	refname	en-US	fr-FR	km-KH	zu-ZA
/apps/antitheft/	anti-theft	remote-ring-header	antitheft:anti-theft:remote-ri	Remote Ring	Sonnerie à distance	Ukwenza I	
/apps/antitheft/	anti-theft	remote-ring-text1	antitheft:anti-theft:remote-ri	This device is ringing	Sonnerie de l'ap	le divayi	
/apps/antitheft/	anti-theft	remote-ring-text2	antitheft:anti-theft:remote-ri	remote Anti-theft account	compte antivol à	cye-akhawu	
/apps/antitheft/	anti-theft	ringer-dismiss	antitheft:anti-theft:ringer-di	Dismiss	Ignorer	Chitha	
/apps/bluetooth/	bluetooth	device-status-pairing	bluetooth:bluetooth:device-sta	Pairing with device	Association avec l	Ukubhangq	
/apps/bluetooth/	bluetooth	device-status-tap-connect	bluetooth:bluetooth:device-sta	Press "Select" to	Appuyez sur S	électChofoza	
/apps/bluetooth/	bluetooth	device-status-waiting	bluetooth:bluetooth:device-sta	Waiting for other	Attente d'un autr	ilinde en	
/apps/bluetooth/	bluetooth	error-connect-msg	bluetooth:bluetooth:error-conn	Check that the device	Vérifiez que l'	aqHlola uku	
/apps/bluetooth/	bluetooth	error-connect-title	bluetooth:bluetooth:error-conn	Unable to connect de	Impossible de con	aqAyikwazi	
/apps/bluetooth/	bluetooth	error-pair-checkpin	bluetooth:bluetooth:error-pair	Do you want to try	Voulez-vous réess	aqUyafuna y	
/apps/bluetooth/	bluetooth	error-pair-fail	bluetooth:bluetooth:error-pair	{{devicename}} isn't	{{devicename}} ne	{{devicen	
/apps/bluetooth/	bluetooth	error-pair-pincode	bluetooth:bluetooth:error-pair	Unable to pair with	Impossible de s'	aqAyikwazi	
/apps/bluetooth/	bluetooth	error-pair-title	bluetooth:bluetooth:error-pair	Unable To Pair Device	Appairage de l'	aqAyikwazi	
/apps/bluetooth/	bluetooth	error-pair-toofast	bluetooth:bluetooth:error-pair	Unable to pair with	Impossible de s'	aqAyikwazi	
/apps/bluetooth/	bluetooth	error-transfer-settings	bluetooth:bluetooth:error-tran	Bluetooth file trans	Échec du transf	Ukuthumel	
/apps/bluetooth/	bluetooth	error-transfer-title	bluetooth:bluetooth:error-tran	Bluetooth file trans	Échec du transf	Ukuthumel	
/apps/bluetooth/	bluetooth	ok	bluetooth:bluetooth:ok	OK	OK	KULUNCILE	
/apps/bluetooth/	bluetooth	pair	bluetooth:bluetooth:pair	Pair	Appairer	Ehangqa	
/apps/bluetooth/	bluetooth	pair-view-title	bluetooth:bluetooth:pair-view	Bluetooth Request	Demande Bluetooth	Isicelo S	
/apps/bluetooth/	bluetooth	paired-failed	bluetooth:bluetooth:paired-fai	Failed to pair with	Impossible d'appa	ehluleki	

5. 如何新增/删除语言

Kai: 首先请在gaia/locales中新增/删除所需语言的locales文件。同时要修改language_all.json文件，按照原来的格式新加/删除所需的语言行。

languages_all.json 995 Bytes

```
1 {
2   "af-ZA" : "Afrikaans",
3   "ar-SA" : "عربي",
4   "bn-IN" : "বাংলা (IN)",
5   "de-DE" : "Deutsch",
6   "en-GB" : "English (GB)",
7   "en-US" : "English (US)",
8   "es-US" : "Español (US)",
9   "es-ES" : "Español (ES)",
10  "fa-IR" : "فارسی (IR)",
11  "fr-CA" : "French (CA)",
12  "fr-FR" : "Français (FR)",
13  "hi-IN" : "हिन्दी",
14  "hu-HU" : "Magyar",
15  "id-ID" : "Bahasa Indonesia",
16  "it-IT" : "Italiano",
17  "ms-MY" : "Melayu",
18  "ne-IN" : "नेपाली",
19  "nl-NL" : "Nederlands",
20  "pl-PL" : "Polski",
21  "pt-BR" : "Português (do Brasil)",
22  "pt-PT" : "Português (Portugal)",
23  "ro-RO" : "Română",
24  "ru-RU" : "Русский",
25  "sw-ZA" : "Kiswahili",
26  "ta-IN" : "தமிழ்",
27  "th-TH" : "ไทย",
28  "tr-TR" : "Türkçe",
29  "ur-PK" : "اردو",
30  "vi-VN" : "Tiếng Việt",
31  "zh-CN" : "中文 (简体)",
32  "zu-ZA" : "isiZulu"
33 }
```