Multilingualization of iRIC

1．Overview

iRIC support multiple languages. Language setting can be changed with menu [Option]-[Preferences...]. When you change language setting, you have to restart iRIC to apply the setting.

This document describes the procedure to prepare translation dictionaries of iRIC.

Language dictionary files needed to prepare translation for iRIC software are follows. (Fig1.)

Fig1. Dictionary file

Extension	Description	Solver	GUI
*.ts	Xml text file This file contains the translated texts for English texts used in iRIC.	✕	✕
*.qm	Binary file This file is created from "*.ts" file by "lrelease.exe". *"lrelease.exe" is a executable program which is included in Qt SDK. Detail can be seen at Appendix.		✕

You can find out the translation file(*.ts and *.qm) for GUI system at the following folder.

¥¥Your Computer ¥installed folder <u>¥iRIC2.0¥languages</u>

The languages currently supported in iRIC, and the file names of translation files for each language are shown in Fig2 (July 2012). If you want to add translation for additional languages, please contact us.

Fig2. Translation languages file

language	File name
Japanese	iRIC_ja_JP.ts
Korean	iRIC_ko_KR.ts
Thai	iRIC_th_TH.ts
Indonesian	iRIC_id_ID.ts
Chinese	iRIC_zh_CN.ts

2．GUI translation

Step1: Find the translation file (*.ts) you want to edit, which is located in " <installed folder >¥iRIC 2.0¥languages".

Step2: Open the translation file with text editor and add translations for each English word.

Fig3. Before edit *.ts file

```
<message>
    <location filename="../main/animationcontroller.cpp" line="48"/>
    <source>Animation ToolBar</source>
    <translation type="unfinished"></translation>
</message>
```

Fig4. After edit *.ts file

```
<message>
    <location filename="../main/animationcontroller.cpp" line="48"/>
    <source>Animation ToolBar</source>
    <translation>アニメーションツールバー</translation>
</message>
```

i.   Delete "type=unfinished"

ii.   Add translated text between <translation> and </translation>

iii. Save

Step3: Compile "*.ts" file using "lrelease.exe"
You should install Qt SDK before following this step. See Appendix for detail.

i.   Start up the "Qt 4.6.3 Command Prompt" from [Windows Start Menu] -> [Qt by Nokia v4.6.3 (VS2008 OpenSource)]->[Qt 4.6.3 Command Prompt]

ii.   Move to the folder which contains "*.ts" file.

iii. Execute the following command.

    lrelease.exe (dictionary file name)

    Ex. "lrelease.exe iRIC_ja_JP.ts" (for Japanese)

    When you execute the command, you'll see that iRIC_ja_JP.qm is created in the same folder.

Step4: Finish
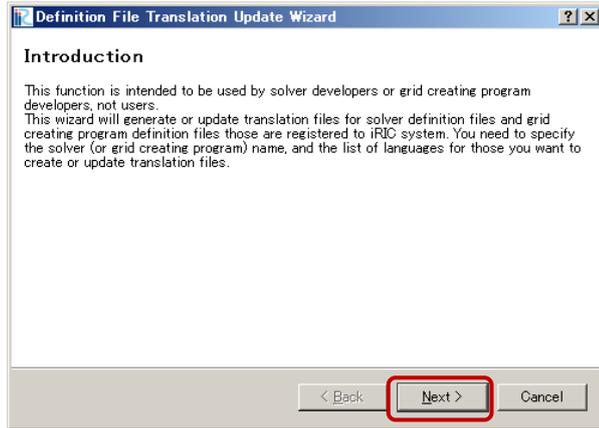You can see the translated text in the iRIC software when you restart the iRIC software.

3. Solver translation

Step1: Create or update the translation file (*.ts) for the solver you want to prepare translation.
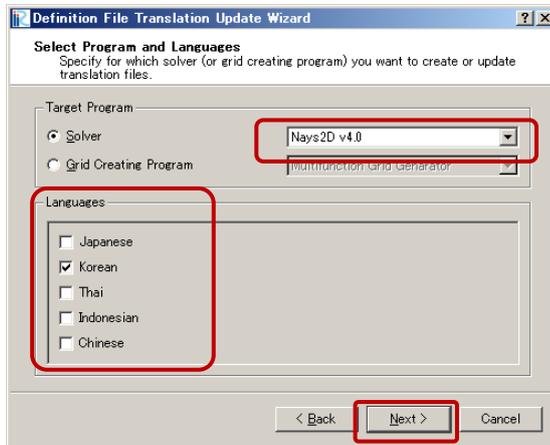
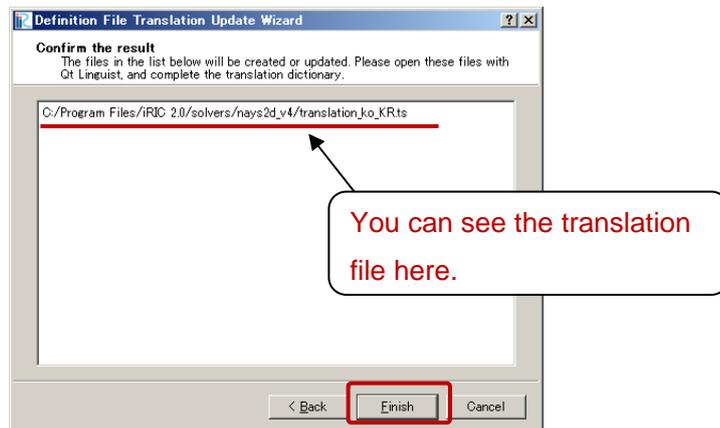   i.   Select [Option]>[Create/Update Translation Files]

    ii.   Click the next button.

    iii.   Select Solver and Languages. And Click the Next button.

    iv.   Click the Finish button. You can get the translation file (*.ts) at the indicated folder.

You can see the translation file here.

Step2: Open the translation file with text editor and add translations for each English word.

Fig5. Before edit *.ts file

```
       :
<message>
    <source>Boundary Condition</source>
    <translation></translation>
</message>
<message>
    <source>Periodic boundary condition</source>
    <translation></translation>
</message>
       :
```

Fig6. After edit *.ts file

```
       :
<message>
    <source>Boundary Condition</source>
    <translation>境界条件</translation>
</message>
<message>
    <source>Periodic boundary condition</source>
    <translation>周期境界条件</translation>
</message>
       :
```

   i.   Add translated text between \<translation> and \</translation>

  ii.   Save

Step3: Finish

You can see the translated text in the iRIC software when you restart the iRIC and starts a project for the solver you prepared translation file.

<Appendix>

*Install Qt SDK

i.   You can download the Qt SDK installer from following url.

   http://qt.nokia.com/downloads/windows-cpp-vs2008

ii. Double click the downloaded installer to install the Qt SDK.

iii. Finish.

You can use "lrelease.exe" on the "Qt 4.6.3 Command Prompt".

"Qt 4.6.3 Command Prompt" can be started from the following:

[Windows Start Menu] -> [Qt by Nokia v4.6.3 (VS2008 Open Source)]->[Qt 4.6.3 Command Prompt]