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How to make a multi-language application in C#

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How to make a multi-language application in C#.

Download source code - 67.1 KB

Introduction

We know that a software prerequisite is that if it is being used all over the world, it must have a multi-language interface because not everyone speaks English. The problem is, how does one create a multi-language software which can edit and add other languages easily?

This article presents a solution to solving this problem using C# and Visual Studio 2008.

First we will present how to create an application in Vietnamese and English. Then we will present the procedure to add other languages (for instance, French).
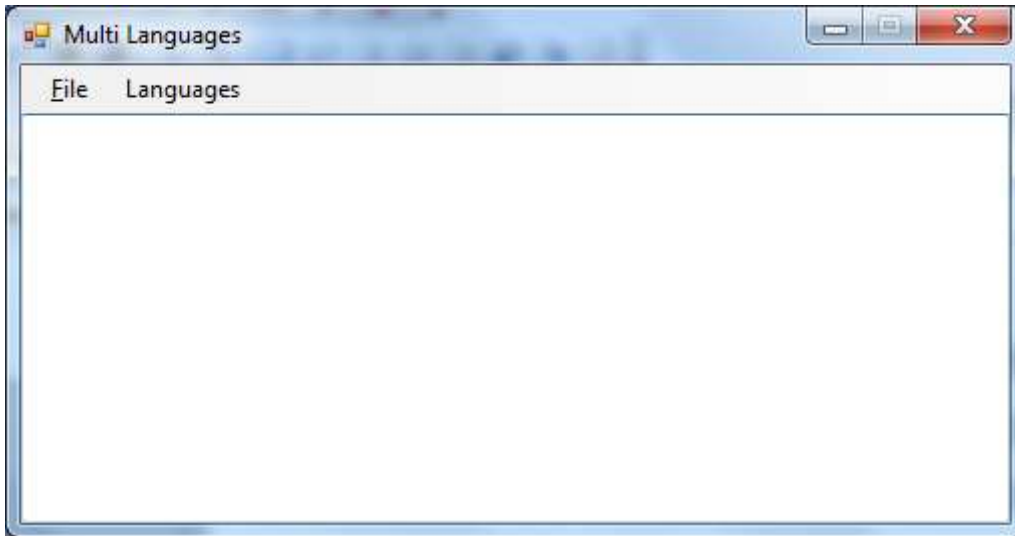
Using the Code

Creating an Application in Vietnamese and English

Creating a new project as the following:

Drag & drop the **menuStrip** toolbox. Add a **File ToolStripMenuItem** with an **Exit sub-menu**. Then add a **Language ToolStripMenuItem** with **Vietnamese and English sub-menus**

Drag & drop the **textbox** toolbox with properties: multi lines = true, dock = fill.

Add new folder "Resource" to project (project>New Folder) to contain Language Files.

Add two new Resource File to Resource folder (just created above): right-click on Resource folder icon> Add>New Items> Resources File with File1 name is "*vi.resx*", File2 name is "*en.resx*". Then Create Items in this Resource files as following:

Go to Code

Add namespaces

C#

```csharp
using System.Globalization;
using System.Resources;
```

Declare resource manager and culture info to access Resources

C#

```csharp
ResourceManager res_man;    // declare Resource manager to access to specific cultureinfo
CultureInfo cul;            // declare culture info
```

Create new function to switch language

Create cultureinfo for each language:

C#

```csharp
void switch_language(void)
{
  if (vietnameseToolStripMenuItem.Checked == true)    //in vietnamese
  {
    cul = CultureInfo.CreateSpecificCulture("vi");    //create culture for vietnamese
  }
  else                                                //in english
  {
   cul = CultureInfo.CreateSpecificCulture("en");     //create culture for english
  }
```

Extract the "MainForm_text" value in *Res.vi.resx* or *Res.en.resx*, respectively:

C#

```csharp
this.Text = res_man.GetString("MainForm_text", cul);
 ...
```

With this code line when we choose the English `this.text` equal column's value named "MainForm_text" is multi-language. Same to when we choose Vietnamese.

Default language: create a main form `Load` event to set default language (here is Vietnamese):

C#

```csharp
vietnameseToolStripMenuItem.Checked = false;    //default language is english
englishToolStripMenuItem.Checked = true;
res_man = new ResourceManager("MultiLanguageApp.Resource.Res", typeof(MainForm).Assembly);
        //switch to vietnamese
switch_language();
```

Now, IF you want to edit TEXT, only must edit in *Res.vi.resx* or *Res.en.resx*, respectively. Next, add another language (for instance, French):

Create a new Resource File: *Right-click on Resource icon>Add>New Item...*then Enter name is *Res.fr.resx*

Copy all of content in *Res.en.resx* into *Res.fr.resx*, then translate "value column" into French.

Add a **menu item** (name = French) in **language menu**. And create click event, add code:

C#

```csharp
if (frenchToolStripMenuItem.Checked == true)      //in french, switch to default language
{
    frenchToolStripMenuItem.Checked = false;
    vietnameseToolStripMenuItem.Checked = false;
    englishToolStripMenuItem.Checked = true;      //default language
}
else            //current language is not french, switch french
{
    frenchToolStripMenuItem.Checked = true;
    vietnameseToolStripMenuItem.Checked = false;
    englishToolStripMenuItem.Checked = false;
}
//switch language
switch_language();
```

Replace this code in `switch_language()` function:

C#

```csharp
if (vietnameseToolStripMenuItem.Checked == true)         //in vietnamese
{
    cul = CultureInfo.CreateSpecificCulture("vi");       //create culture for vietnamese
}
else  //in english
{ cul = CultureInfo.CreateSpecificCulture("en");    //create culture for english}
```

by this code:

C#

```csharp
if (vietnameseToolStripMenuItem.Checked == true)         //in vietnamese
{
  cul = CultureInfo.CreateSpecificCulture("vi")//create culture for vietnamese
  else if (englishToolStripMenuItem.Checked == true)      //in english
  {
```

```
    cul = CultureInfo.CreateSpecificCulture("en");          //create culture for english
  }
  else
  {
    cul = CultureInfo.CreateSpecificCulture("fr");          //create culture for french
  }
```

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I like making my own software...

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