Microsoft Dynamics NAV

Creating Custom Platform Translations

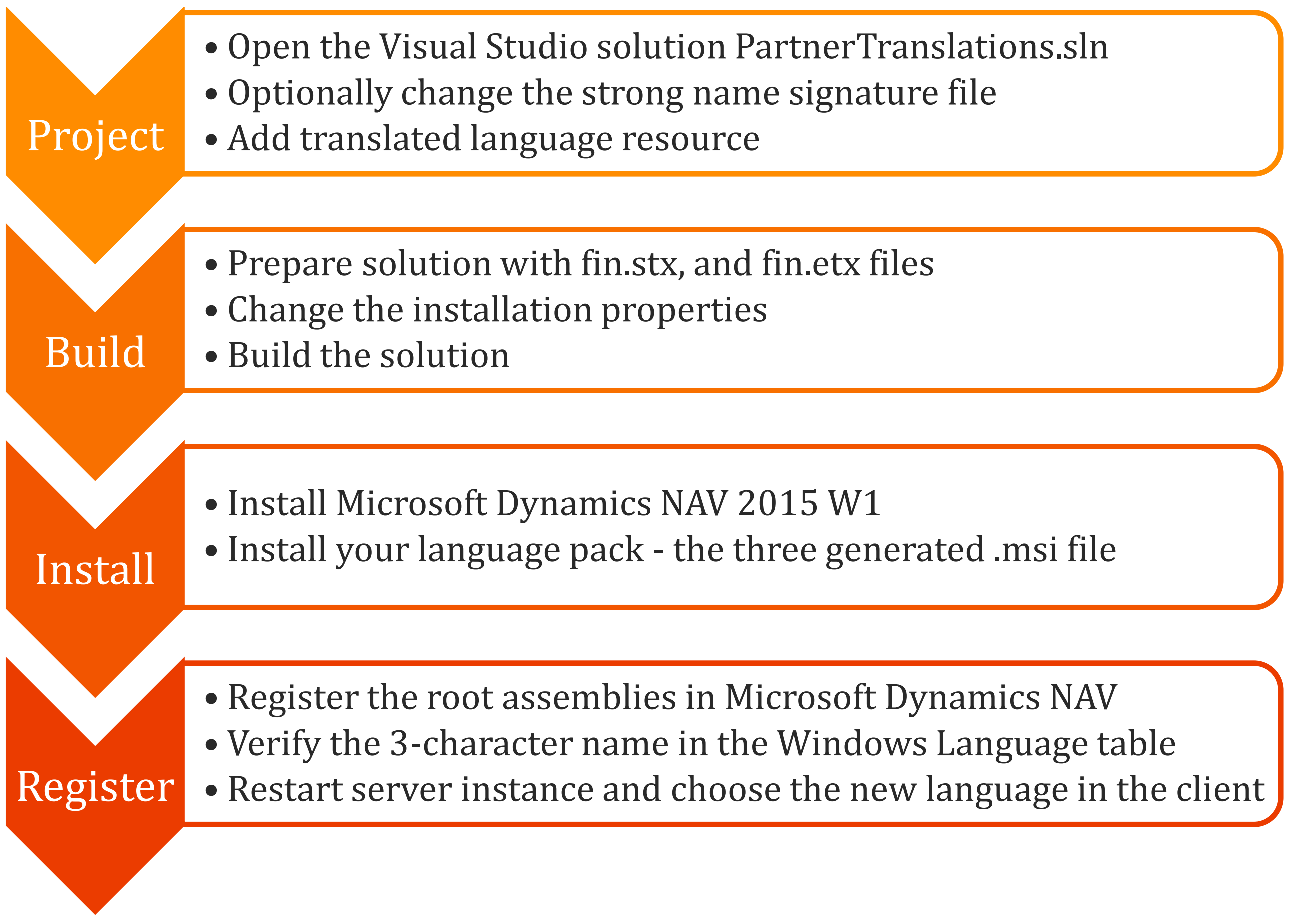
White Paper

September 2014

Contents

High-level overview of the process

The following graphic illustrates the main steps in deploying Microsoft Dynamics NAV in a new localized version:


Project
• Open the Visual Studio solution PartnerTranslations.sln
• Optionally change the strong name signature file
• Add translated language resource
Build
• Prepare solution with fin.stx, and fin.etx files
• Change the installation properties
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• Verify the 3-character name in the Windows Language table
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The following sections describe the steps you must take in order to deploy Microsoft Dynamics NAV in a new localized version.

The Partner Localization and Translation Licensing Program and custom translations of the Microsoft Dynamics NAV platform resources

Microsoft Dynamics NAV 2015 includes three large areas for translation:

- Application code and metadata in application objects in the database.
- Platform strings maintained in managed assemblies, and fin.stx and fin.etx files.
- Creating a country/region-specific installer.

This document covers only the second and third bullets, mainly focusing on providing partner translated resources for platform .NET assemblies, and building localized language packs.

Platform strings maintained in managed assemblies and fin.stx and fin.etx files.

Translated resources for the assemblies that Microsoft Dynamics NAV uses are provided in satellite assemblies. A satellite assembly contains the translated resources for another assembly, in another language, in a resource set for that language. It has the same name as the target assembly, but instead of the file name ending in .dll, it ends in .resources.dll. In addition, a satellite assembly for a certain language must be placed in a subdirectory of the target assembly with the name of the language identifier for that language. For more information, see Language Identifier Constants and Strings.

For example, for the assembly with common strings that are used by the Microsoft dynamics NAV platform, Microsoft.Dynamics.Nav.Language.dll, the satellite assembly for the Catalan language can be provided in the following subdirectory:

ca-ES\Microsoft.Dynamics.Nav.Language.resources.dll

Typically, satellite assemblies are provided by the vendor of the originating assemblies. The default rule in the .NET Framework is that if a vendor has signed an assembly with a strong name signature, the satellite assembly must also be signed with that same signature; otherwise it will not be recognized by the.NET Framework. This behavior creates a problem for third-party vendors of partner translations for the Microsoft Dynamics NAV platform, because those vendors do not have access to the Microsoft strong name signature and signing process.

In order to allow partners to provide translations in custom satellite assemblies, the Microsoft Dynamics NAV platform has been equipped with a mechanism that loads non-Microsoft satellite assemblies if the following requirements are fulfilled:

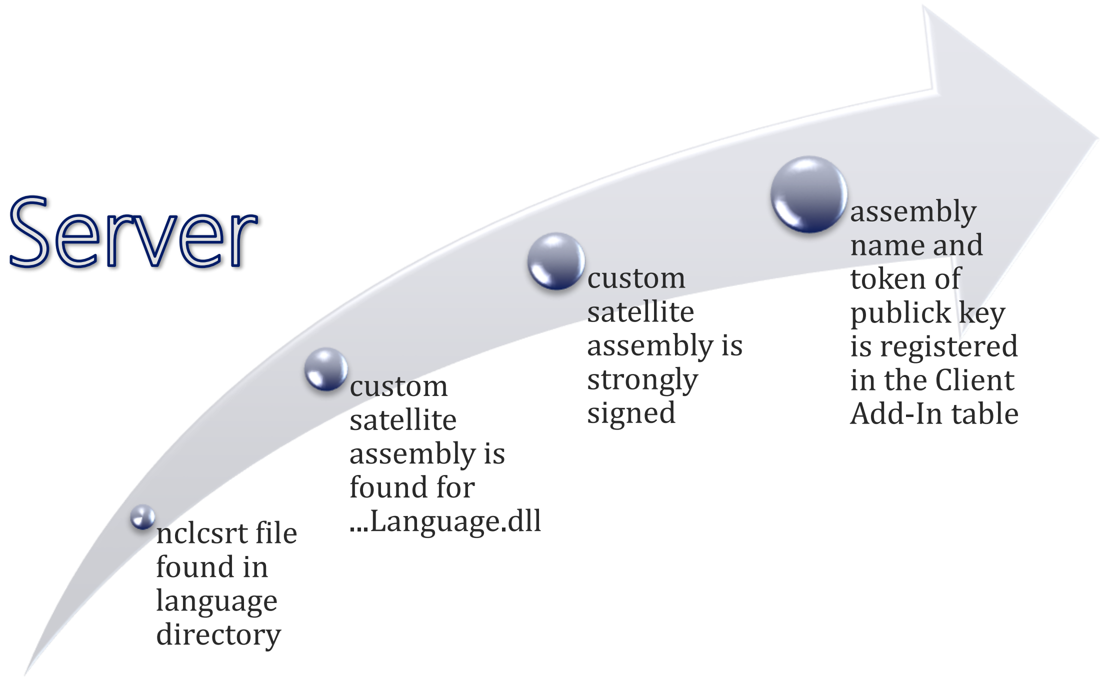
- The assembly follows the naming scheme for satellite assemblies and is placed in the respective folder with the correct language identifier.
- The assembly is fully strong name signed and the token of the public key is registered in the Client Add-in table, table 2000000069, in the database.

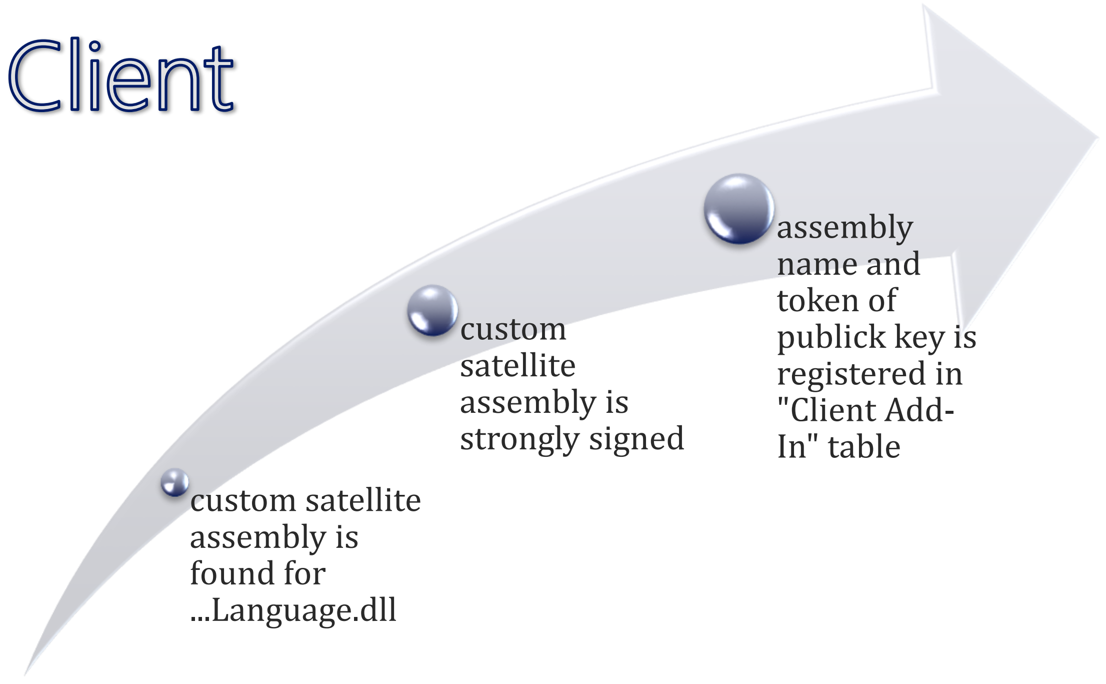
If the assembly targets an assembly that is stored in a subdirectory of the respective process executable (for example, for an add-in or .NET interop component), the custom satellite assembly is still placed in the folder with the language identifier in the directory of the executable.

For example, for the assembly Microsoft.Dynamics.Nav.Client.TimelineVisualization.dll that contains the Timeline visualization control from a control add-in in folder the RoleTailored Client\Add-ins\Timeline folder, a custom satellite assembly for Catalan would have the following file path:

RoleTailored Client\ca-ES\Microsoft.Dynamics.Nav.Client.TimelineVisualization.resources.dll.

The following diagram shows the checks that are done by an installation of Microsoft Dynamics NAV 2015 when a PLLP translation is loaded. If only checks on both the client and server machine are successful, then a PLLP translation will be available for selection to a client.


Server
nclcsrt file found in language directory
custom satellite assembly is found for ...Language.dll
custom satellite assembly is strongly signed
assembly name and token of publick key is registered in the Client Add-In table


Client
custom satellite assembly is found for ...Language.dll
custom satellite assembly is strongly signed
assembly name and token of publick key is registered in "Client Add-In" table

NEW: Creating a country/region-specific installer

After all translated artifacts have been made available, the .msi files are built and can be installed individually.

Changes from the Microsoft Dynamics NAV 2013 Partner Translation Toolkit

Changes to installation of Help content

Microsoft Dynamics NAV 2013 R2 introduced a new format for the product Help. As a result, the language package installers for the Microsoft Dynamics NAV Windows client and Microsoft Dynamics NAV Server do not include .chm and .hh files for the application Help. Instead, you must translate the .html files that are included in the en folder on the Microsoft Dynamics NAV Help Server that you install as part of the W1 installation process, and you must make the translated Help files available in your Help Server deployment. For example, if you provide a Catalan localization of Microsoft Dynamics NAV, the Help Server must contain a ca-ES folder with the Help in Catalan.
You can deploy new translated Help content to your Help Server website by copying the transalted files to the relevant locale-specific folder. For more information, see Configuring Microsoft Dynamics NAV Help Server in the MSDN Library.

New resource assemblies

Additional resource assemblies have been added since Microsoft Dynamics NAV 2013. These assemblies cover new functionality that has been introduced since Microsoft Dynamics NAV 2013.

Assembly name	Description
Microsoft.Dynamics.Nav.DocumentService.Types.dll	Service
Microsoft.Dynamics.Nav.ExcelAddin.dll	Windows client
Microsoft.Dynamics.Nav.OpenXml.dll	Windows client, Service

Project - Translate Existing Resource Files to the New Language

Unpack the PLLP Translation Toolkit

After you have downloaded the PLLP Translation toolkit, unpack it to a top-level directory on your computer. This eliminates a limitation in the length of the file name and directory name within Visual Studio, which otherwise will be reached when compiling.

NEW: Install the WiX Toolset

The Visual Studio solution contains three projects, which will output the language pack installers for the Microsoft Dynamics NAV 2015 Server, Windows Client, and Web Client.
Building these projects requires that you have the WiX Toolset version 3.8 is installed on the computer. The WiX Toolset can be downloaded and installed from here: http://wix.codeplex.com/
Install the WiX Toolset according to the instructions. You can open the Visual Studio solution without errors when the WiX Toolset has been installed.

Identify Visual Studio Solution in the Partner Translation pack

The Partner Translation pack contains the Visual Studio solution translation projects PartnerTranslations.sln for the following target Microsoft Dynamics NAV libraries.

Target library name	Usage
Microsoft.Dynamics.Framework.UI.dll	All clients
Microsoft.Dynamics.Framework.UI.UX2006.dll	All clients
Microsoft.Dynamics.Framework.UI.UX2006.WinForms.dll	Windows client
Microsoft.Dynamics.Framework.UI.Web.dll	Web client
Microsoft.Dynamics.Framework.UI.Web.WebClient.dll	Web client
Microsoft.Dynamics.Framework.UI.WebBase.dll	Web client
Microsoft.Dynamics.Framework.UI.Windows.dll	Windows client
Microsoft.Dynamics.Framework.UI.Winforms.dll	Windows client
Microsoft.Dynamics.Framework.UI.Winforms.Controls.dll	Windows client
Microsoft.Dynamics.Framework.UI.Winforms.DataVisualization.dll	Windows client
Microsoft.Dynamics.Framework.UI.Winforms.DataVisualization.Timeline.dll	Windows client
Microsoft.Dynamics.Nav.Client.DynamicsOnlineConnect.dll	Windows client
Microsoft.Dynamics.Nav.Client.TimelineVisualization.dll	Windows client
Microsoft.Dynamics.Nav.Client.WebClient.dll	Web client
Microsoft.Dynamics.Nav.Client.WebCommon.dll	Web client
Microsoft.Dynamics.Nav.DocumentService.Types.dll	Service
Microsoft.Dynamics.Nav.ExcelAddin.dll	Windows client
Microsoft.Dynamics.Nav.Language.dll	All clients, Service
Microsoft.Dynamics.Nav.OpenXml.dll	Windows client, Service

Each project contains the platform resource files (.resx) for all languages shipped by Microsoft.

The Visual Studio solution file, PartnerTranslations.sln, contains a project for each of the platform assemblies that contain translatable resources. In order to create a custom translation, you add the respective resource files with custom translations to the respective project.

Customize strong name signature

It is necessary to apply a strong name signature to each of the assemblies for which a custom partner translation will be created. The strong name signature is defined in the Signing tab of the Project Designer properties in Visual Studio for each respective project.

The projects in the template solution are already configured with a strong name signature, which can be used for testing. The public key token for this signature is: 15e5b2499d4875c1. This signature is kept in one single signature file, SampleStrongName.snk, which has been linked into all projects.

The public key token of the strong name signature is needed to register the custom translations so that they can be picked up at run time.

Create and add language resource files

In order to generate satellite assemblies, each of the projects in the Visual Studio solution, PartnerTranslations.sln, must contain the respective resource files in the language for the satellite assembly culture.

The resource files can be found in every project directory. These files contain the platform translations that Microsoft provides for the various countries/regions. These are provided in order to give a good start for creating a custom translation from an existing translation.

In order to create a new translation, for example, for Catalan, ca-ES, a translator could take the following manual steps (below is a description of a tool that automates this process):

1. Select a language to translate from and identify the respective .resx file that is shipped with the translation pack. For example, for Spanish this would be the .resx files that contain the term "es-ES" in the file name.
2. Use a translation tool to open the .resx file. The translation result must be saved in a file that is renamed according to the target language, for example, Common.Language.Lang.ca-ES.resx for Catalan.

Important information when translating NAV resource strings

When translating strings, the person translating must make sure to keep format instructions in their respective translations (for example, "{0}"), and for certain strings which represent an enumeration, to provide the same separator between the translated term as in the original resource file. This is the case for the resource string named BooleanTypeOptions in the resource file Common.Language.Lang.[…].resx, which must preserve the comma between the translated terms for No and Yes in the target translation.

Without the respective translation of the application objects, the client might report an error on startup. In that situation, try to keep the original non-translated string for the string resource BooleanTypeOptions.

Using the ResX Translator tool in order to automatically translate all resources

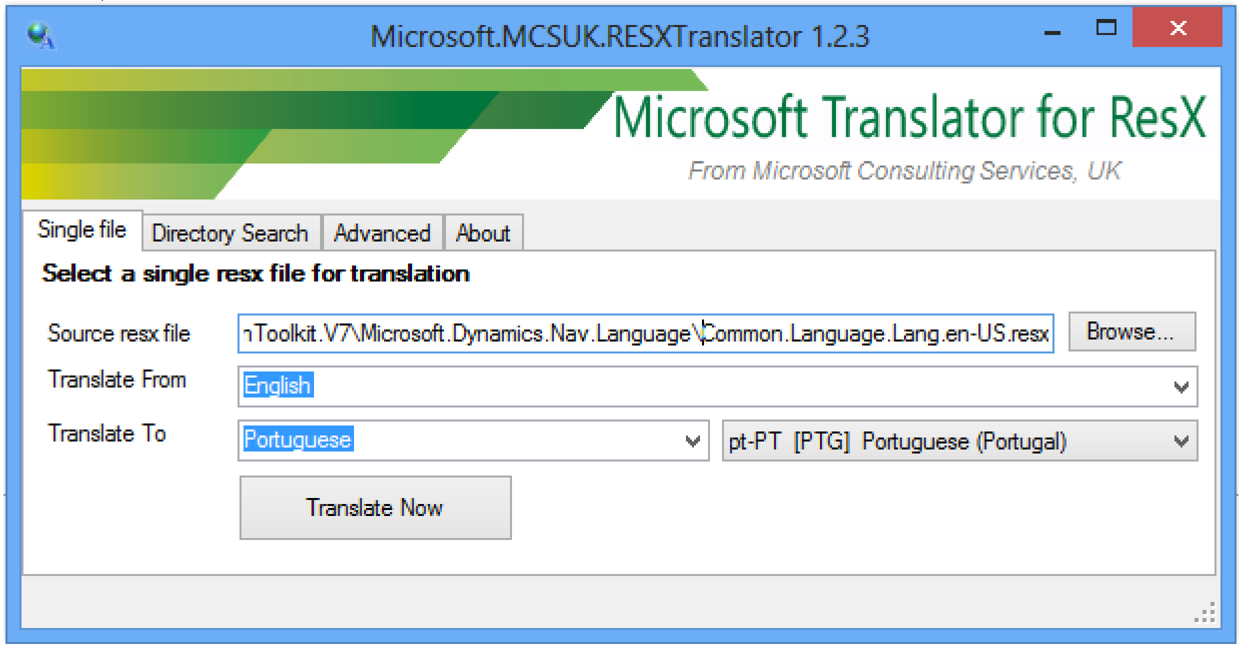
In order to ease the process of translating, translation professionals typically use a toolset of their choice that often includes targeted dictionaries, review tools, and version management. For a quick evaluation, you can use an easy translation tool such as ResX Translator, Microsoft.MCSUK.RESXTranslator.exe, which is based on the Microsoft Translator service on Azure. This tool not only creates a translation of an individual resource file from the selected source language to a selected target language, it also translates all resource files for all assembly projects to a target language in one step. By using this tool, you can create a new platform translation in a few seconds.

When using this tool, keep in mind that many translations will not be correct in the context where they are used in the Microsoft Dynamics NAV platform. The translation result will need a major review and correction by a professional translator with a background in business software, before the translated files can be used in a business environment.

Creating an account for Microsoft Translator

There is a broad set of translation tools available on the market that can help in the development process for translations. A simple tool for prototyping and experimenting with creating platform translations is the Microsoft Translator-based tool Microsoft Translator for ResX, which is available on CodePlex. For more information, see Microsoft Translator for ResX.

Recommendation: You should not use translations of resources created by any translation service in a production version of a Microsoft Dynamics NAV solution. Instead, we recommend that you use translation professionals and domain experts to deliver and review a translation.


Microsoft.MCSUK.RESXTranslator 1.2.3
Microsoft Translator for ResX
From Microsoft Consulting Services, UK
Single file
Directory Search
Advanced
About
Browse...
Translate Now

Select a single resx file for translation

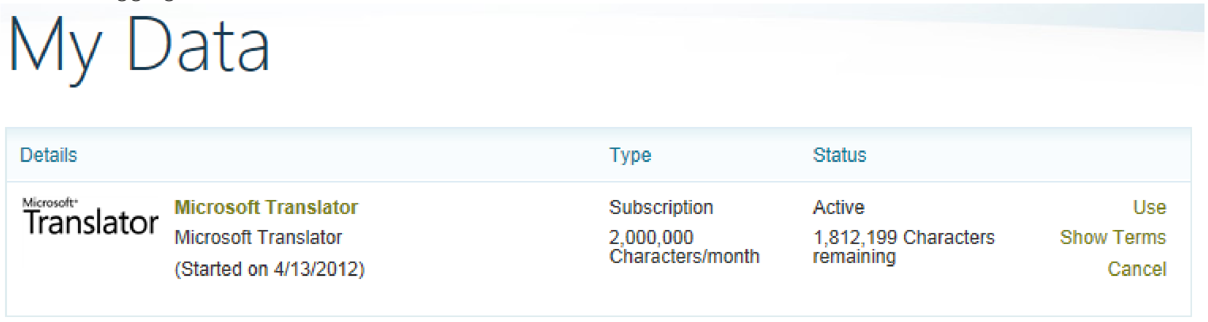
Source resx file: ıToolkit.V7\Microsoft.Dynamics.Nav.Language\Common.Language.Lang.en-US.resx
Translate From: English
Translate To: Portuguese | pt-PT [PTG] Portuguese (Portugal)

Microsoft Translator is a service on the Windows Azure Marketplace that translates text between many languages. This is a billed service that comes with many different pricing plans. For example, one plan allows the translation of 2,000,000 characters per month for free.

The creation of the access credentials on Windows Azure Marketplace is not simple. The requirements for billing lead to a more complex and subscription model. For a typical company, there will be one billing account created for multiple service subscriptions and applications.

The following section walks you through the process of creating an account on the Microsoft Data Market and creates an application on top of the Microsoft Translator service. This application delivers a client ID and client secret, which are needed in order to use the ResX Translation tool.

1. In order to use the ResX Translation tool for Microsoft Translator you need to get an account on the Azure Data Market with your Microsoft Live ID.
2. After logging into the Azure Data Market (ADM), subscribe to the Microsoft Translator Service.

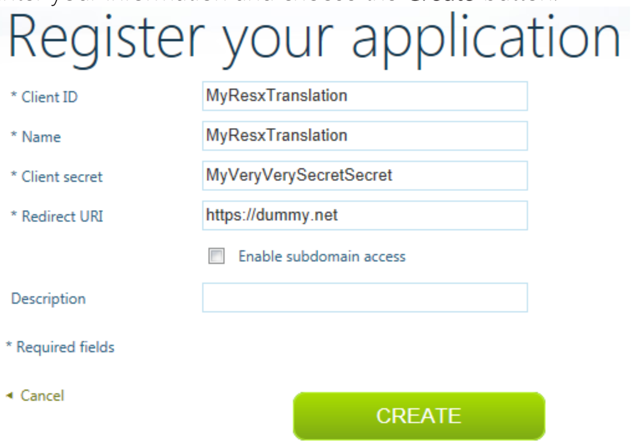


My Data

Details	Type	Status	
Microsoft Translator Microsoft Translator (Started on 4/13/2012)	Subscription 2,000,000 Characters/month	Active 1,812,199 Characters remaining	Use Show Terms Cancel

3. While you are still logged into the ADM, you have to create an application on top of this service in order to use the service in the ResX Translator tool. Go the developer application registration at https://datamarket.azure.com/developer/applications/.
   Choose the **Register** button to create a new application.

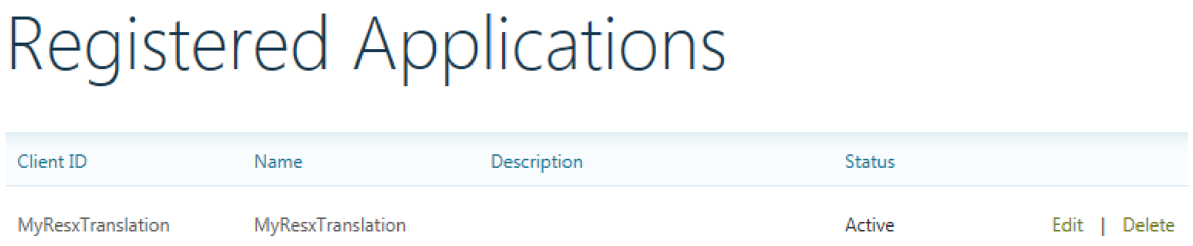
4. Enter your information and choose the **Create** button.



Register your application

* Client ID	MyResxTranslation
* Name	MyResxTranslation
* Client secret	MyVeryVerySecretSecret
* Redirect URI	https://dummy.net
	☐ Enable subdomain access
Description	

This will create your application for ResX translation.

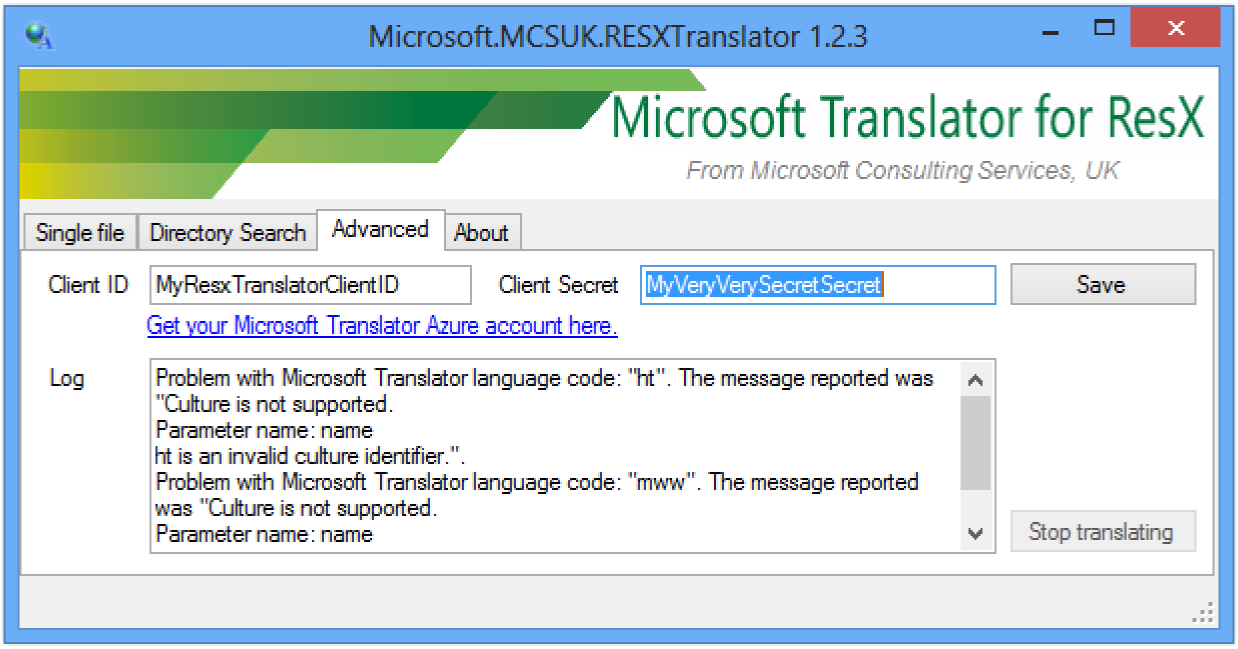


Registered Applications

Client ID	Name	Description	Status	
MyResxTranslation	MyResxTranslation		Active	Edit | Delete

Make note of the values that you have entered in the **Client ID** and the **Client Secret** fields from the application registration. You will have to enter them into the ResX Translator.

5. Start the **ResX Translator** and enter this information.



Microsoft.MCSUK.RESXTranslator 1.2.3
Microsoft Translator for ResX
From Microsoft Consulting Services, UK
Single file
Directory Search
Advanced
About
Save
Get your Microsoft Translator Azure account here.
Stop translating

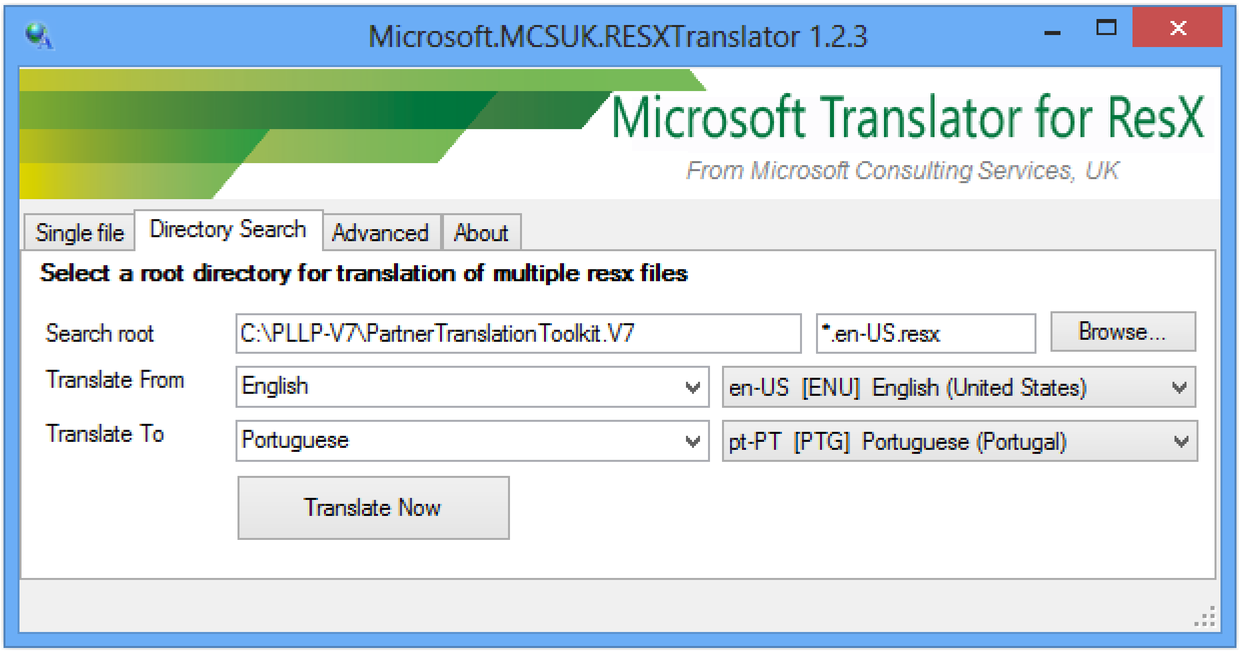
Client ID: MyResxTranslatorClientID
Client Secret: MyVeryVerySecretSecret

```
Log
Problem with Microsoft Translator language code: "ht". The message reported was
"Culture is not supported.
Parameter name: name
ht is an invalid culture identifier.".
Problem with Microsoft Translator language code: "mww". The message reported
was "Culture is not supported.
Parameter name: name
```

6. Choose the Save button. After you choose Save, the tool will try to connect the service and load all available languages. Some error messages are expected for languages that cannot be mapped for software localization purposes.

You might see error messages in the Log, as shown in the screenshot above. These error messages are related to services languages which the tool cannot yet map to languages. These messages can be ignored.

Use the ResX Translator to translate .resx files for Platform Assemblies


Microsoft.MCSUK.RESXTranslator 1.2.3
Microsoft Translator for ResX
From Microsoft Consulting Services, UK
Single file
Directory Search
Advanced
About
Browse...
Translate Now

Select a root directory for translation of multiple resx files

Search root: C:\PLLP-V7\PartnerTranslationToolkit.V7 — *.en-US.resx

Translate From: English — en-US [ENU] English (United States)

Translate To: Portuguese — pt-PT [PTG] Portuguese (Portugal)

To translate the resource files, perform the following steps in the ResX Translator:

1. Switch to the Directory Search tab.
2. Set Search root to the folder where you have the original resource files.
3. Set the Translate From field to English / en-US.
4. Set the Translate To field to Catalan / ca-ES.
5. Choose the Translate Now button.

A message will appear after the translation is complete.

Add translated resource files to Visual Studio solution

1. Open the Visual Studio PartnerTranslations.sln solution in the translation kit.
2. Add all your translated resource files to the respective projects in the solution. In the sample, these files all have the .ca-ES.resx resource extension and are found in the same folder of the original resource files that were translated. Note: For PLLP translations, the satellite for add-ins should be placed in the satellite directories for the platform, and not in satellite directories for the add-in assemblies.

Build – Create new language pack installers

In addition to the satellite assemblies, the fin.stx files, and the fin.etx files are also picked up for deployment by the language pack installers. Visual Studio does not translate these files. Instead they must be placed in the folder structure where they will be picked up during the build process.

Copy text resource files

Typically, a partner who created a custom platform translation for Microsoft Dynamics NAV has had to translate the strings in the fin.stx file, get the translation file *sealed* by Microsoft, and distribute it to customer installations. This is still a requirement for Microsoft Dynamics NAV 2015, even though the overwhelming majority of translated strings are read by the platform from the resources in the .NET assemblies and the respective satellite assemblies.
The PLLP translation kit has a folder that contains all .stx and .etx files as they are shipped by Microsoft in the various countries/regions and languages. The files are shipped in order to ease the translation into a new language. These files, along with the Cronus.flf file, must be copied to the Payload\Local text files folder. Also in this case, a set of files have been added to make sure that the solution builds.

Change installation properties

The properties of the installation determine which folders are created during the installation of the language packs and what files are placed in the folders. The properties can be found in the Locals.wxi file located in the root directory of the translation kit. Open the Locals.wxi file and change the following properties:

- CountryRegionCode, to one of the country/region codes in Globals.wxi or create a new.
- ModuleLanguage, to the language of your choice.
- LocalLangFolder, to the .Net culture of the satellite assemblies.
- LocalIsoFolder, to the three letter ISO code for your language.

Sample of Locals.wxi (partial):

```
<?xml version="1.0" encoding="utf-8"?>
<Include xmlns="http://schemas.microsoft.com/wix/2006/wi">

  <!-- Installation properties related to the culture of the generated installer -->

  <!-- Set to the build number of Microsoft Dynamics NAV 2015, that you are building language packs for. -->
  <?define BuildVersion = "7.1.35473.0"?>

  <!-- Set to the correct CountryRegionCode from Globals.wxi if one has already been assigned to your
language packs or create new if this is not the case. -->
  <?define CountryRegionCode = "ACF7"?>

  <!-- Name of the language in English -->
  <?define ModuleLanguage = "Catalan"?>

  <?define ResourceAssemblies = "..\Payload\Resource assemblies"?>

  <!-- .Net culture of the resource assemblies i.e. "ca-ES" -->
  <?define LocalLangFolder = "ca-ES"?>

  <!-- Three letter ISO code of the language i.e. "CAT" -->
  <?define LocalIsoFolder = "CAT"?>
```

You do not need to change the rest of the properties in the file.

Build the solution
To build the PartnerTranslation solution from inside Visual Studio, choose **Build Solution** from the **Build** menu. This will pick up all translated artifacts, and create three installer files (.msi):

- Server.msi – Located in the Server\Bin\Debug folder.
- RTC.msi – Located in the RTC\Bin\Debug folder.
- WebClient.msi – Located in the WebClient\Bin\Debug folder.

Warnings about obsolete constructor can be ignored, such as the following:
“'System.Reflection.AssemblyFlagsAttribute.AssemblyFlagsAttribute(int)' is obsolete: 'This constructor has been deprecated”
.

Install – Add your language pack to W1

If have not already done so, install Microsoft Dynamics NAV 2015 W1 from the product media.

Install the new language lack

Next, install the new language pack on the same computer. To do this, select and click each of the three .msi files listed below, one after the other. The order is not significant:

- Server\Bin\Debug\Server.msi
- RTC\Bin\Debug\RTC.msi
- WebClient\Bin\Debug\WebClient.msi

Each installer quickly shows a dialog, which disappears when the installer has completed.

The language pack is now installed, but you must make some final configuration.

Register - Set trusted assemblies and select new language

Manually register root assemblies with strong name key token in the Add-ins table

Microsoft Dynamics NAV cannot load untrusted assemblies. To enable your custom resource assemblies as trusted, you must register the strong name key in the database:

1. Open the Microsoft Dynamics NAV Development Environment.
2. On the View menu, choose Object Designer, and then choose Table.
3. Navigate to the Client Add-in table, table 2000000069, and then choose Run.
4. For each assembly, enter the name and the public key token used when signing the files. The assemblies to add can be found in the Output folder, or can be seen in the table in the PROJECT section of this document.

To find the public key token, use the Strong Name tool (sn.exe) with the -T parameter. At the command prompt, enter the following command:

```
sn.exe –T <assembly>
```

For example, enter the following command to find the public key token for the Microsoft.Dynamics.Framework.UI.dll file:

```
sn.exe –T Microsoft.Dynamics.Framework.UI.dll.
```

The sample assemblies that are included in the Partner Translation solution have the following signature:
15e5b2499d4875c1.

Finally, you need to update the Languages page:

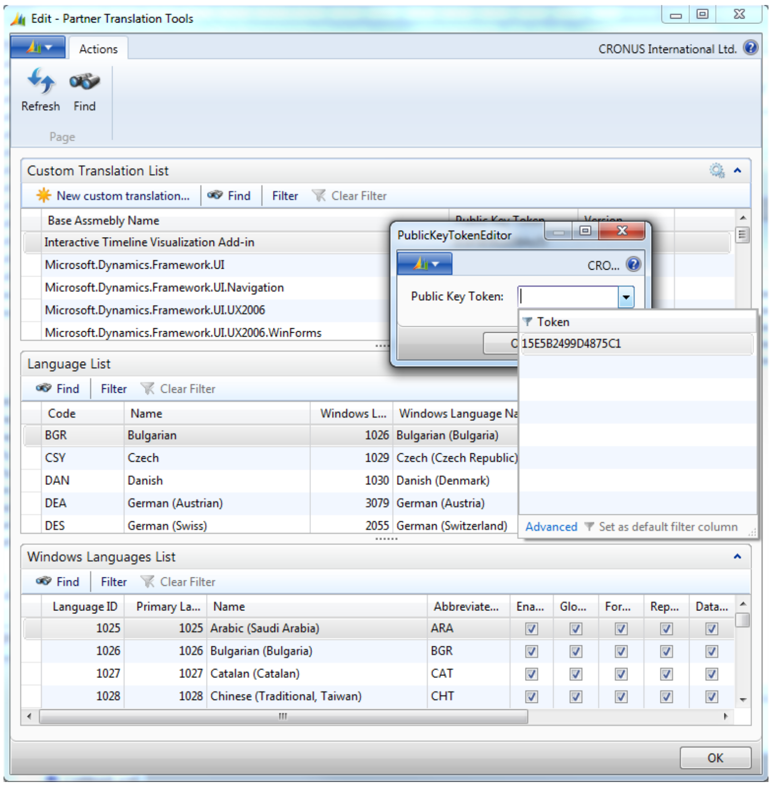
1. In the Object Designer, choose Pages.
2. Navigate to the Languages page, page 9, and then choose Run.
3. Add the Catalan (CAT) language to it. The Windows code required can be looked up here: http://msdn.microsoft.com/en-us/library/dd318693.aspx

Register root assemblies with the Partner Translation Tools

Import the PartnerTranslationTools.fob file into the Microsoft NAV Development Environment.

Place the library Microsoft.DynamicsNAV.AddInToolkit.dll under the Add-Ins directory of the client directory, Program Files (x86)\Microsoft Dynamics NAV\71\RoleTailored Client\Add-ins\AddInToolkit.

If you run the Partner Translation Tools page, page 58886, the result should yield a setup such as what is shown in the following illustration.


Edit - Partner Translation Tools

Custom Translation List

Base Assmebly Name
Interactive Timeline Visualization Add-in
Microsoft.Dynamics.Framework.UI
Microsoft.Dynamics.Framework.UI.Navigation
Microsoft.Dynamics.Framework.UI.UX2006
Microsoft.Dynamics.Framework.UI.UX2006.WinForms

PublicKeyTokenEditor

Public Key Token:

Token
15E5B2499D4875C1

Language List

Code	Name	Windows L...	Windows Language Na
BGR	Bulgarian	1026	Bulgarian (Bulgaria)
CSY	Czech	1029	Czech (Czech Republic)
DAN	Danish	1030	Danish (Denmark)
DEA	German (Austrian)	3079	German (Austria)
DES	German (Swiss)	2055	German (Switzerland)

Windows Languages List

Language ID	Primary La...	Name	Abbreviate...	Ena...	Glo...	For...	Rep...	Data...
1025	1025	Arabic (Saudi Arabia)	ARA	✓	✓	✓	✓	✓
1026	1026	Bulgarian (Bulgaria)	BGR	✓	✓	✓	✓	✓
1027	1027	Catalan (Catalan)	CAT	✓	✓	✓	✓	✓
1028	1028	Chinese (Traditional, Taiwan)	CHT	✓	✓	✓	✓	✓

Actions
CRONUS International Ltd.
Refresh
Find
Page
New custom translation...
Find
Filter
Clear Filter
CRO...
Advanced
Set as default filter column
OK

The New custom translation action opens a token editor where you can enter the public key token of the strong name signature of the PLLP translation libraries. The lookup delivers a list of different public key tokens of the libraries with the file name, Microsoft.Dynamics.Nav.Language.dll, that can be found in one of the subdirectories of the RoleTailored Client directory, which represent a valid language identifier.

Select or enter the key that you want to register a PLLP for. After closing the Token Editor, respective entries will be generated for the root names of the typical libraries in Microsoft Dynamics NAV.

Note: PLLP translations for other add-ins have to be registered manually in the Client Add-In table, table 2000000069, or in the Custom Translation List page, page 58887.

Restart the Microsoft Dynamics NAV Server service

To enable the newly added language, you must restart the Microsoft Dynamics NAV Server service:

1. Choose the Start button, point to Administrative Tools, and then choose Services.
2. In the Services window, right-click Microsoft Dynamics NAV Server, and on the shortcut menu, choose Restart.

Connect to the Microsoft Dynamics NAV Server and select the new language

After you have restarted the Microsoft Dynamics NAV Server service, you can then open the Microsoft Dynamics NAV Client and select the new language:

1. Choose the Start button, and then choose Microsoft Dynamics NAV.
2. Choose Microsoft Dynamics NAV, and then choose Select Language.
3. In the Language Selection field, select the new language, Catalan, and then choose the OK button.

Tips And Tricks

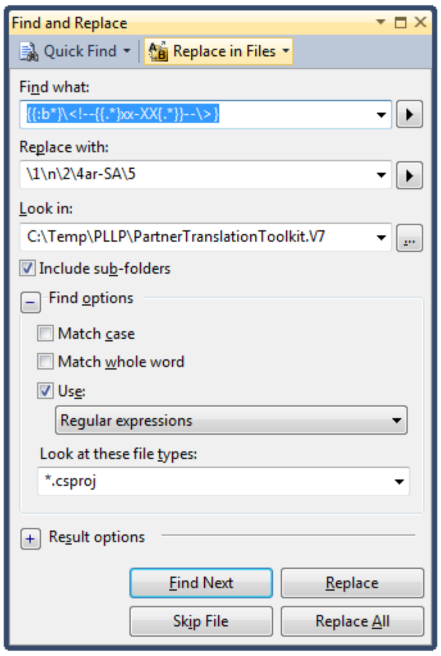
Add .resx files of a certain language to the satellite assembly projects

Each of the projects for the satellite assemblies in the PartnerTranslations.sln solution contains the references to the .resx files that should be used. If you open the .csproj file in text editor view in Visual Studio, you will be able to find XML instructions, as shown below:

```
<ItemGroup>
  <!--<EmbeddedResource Include="Resources.xx-XX.resX" />-->
  <EmbeddedResource Include="Resources.ca-ES.resX" />
</ItemGroup>
```

This XML instruction in the project file will compile a satellite assembly for Catalan in the ca-ES subdirectory.
In order to compile the satellite assembly for another culture, for example, Arabic, ar-SA, after you create all translated .resx files with the ResX Translator tool, you may use a regular expression based text modification of all .csproj files. In the Find and Replace dialog box in Visual Studio, you can add the new .resx files to all .csproj files with the following regular expressions:

- In the Find What: field:
  {{:b*}\<!--{{.*}xx-XX{.*}}--\>},
- In the Replace With: field:
  \1\n\2\4ar-SA\5.



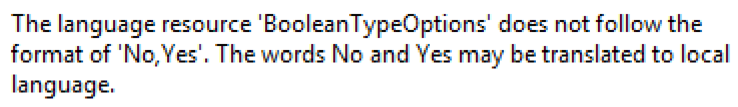
Find what: {{:b*}\<!--{{.*}xx-XX{.*}}--\>}
Replace with: \1\n\2\4ar-SA\5
Look in: C:\Temp\PLLP\PartnerTranslationToolkit.V7
Include sub-folders [✓]
Match case [ ]
Match whole word [ ]
Use: [✓] Regular expressions
Look at these file types: *.csproj

Validate correctly formatted strings in the translations

A number of the strings in the resources contain format elements that must also be found in your translated strings.
Microsoft.Dynamics.NAV.Language, Common.Language.Lang, BooleanTypeOptions
The most prominent string is the resource string BooleanTypeOptions in the Microsoft.Dynamics.NAV.Language library and Common.Language.Lang resource set. This string must use a comma (,) as the delimiter of the translated strings No and Yes. For example, in Arabic:

BooleanTypeOptions   لا, نعم

If this comma is replaced by a different respective local character, the client will crash after startup and an error message similar to the one that follows can be found in the error log:



The language resource 'BooleanTypeOptions' does not follow the format of 'No,Yes'. The words No and Yes may be translated to local language.

Ampersands in strings

Another source of error is the placement of the ampersand symbol (&), which appears in many strings as the indicator of its following character.

Troubleshooting

The following issues may occur when you add an unsupported language to Microsoft Dynamics NAV.

Error	Possible cause	Solution
An error about an unsealed .stx file is displayed when you restart the Microsoft Dynamics NAV Server service and connect to the Microsoft Dynamics NAV Client.	The nclcsrt.stx file has not been sealed.	Sealing an .stx file can only be performed by Microsoft. Contact Microsoft for assistance.
Text values are only shown in English after you change the language	The names for assemblies or folders are incorrect.	Ensure that the names for the assemblies and folders on the computers running the **Microsoft Dynamics NAV Client** and **Server** are correct.
	The assemblies are not signed or the signed assemblies are not registered in the **Client Add-in** table, table 2000000069.	Sign the assemblies and enter the public key tokens to the **Client Add-in** table.
Resources appear truncated in the user interface at run time.	Strings are too long.	Use shorter strings.

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Microsoft Dynamics NAV