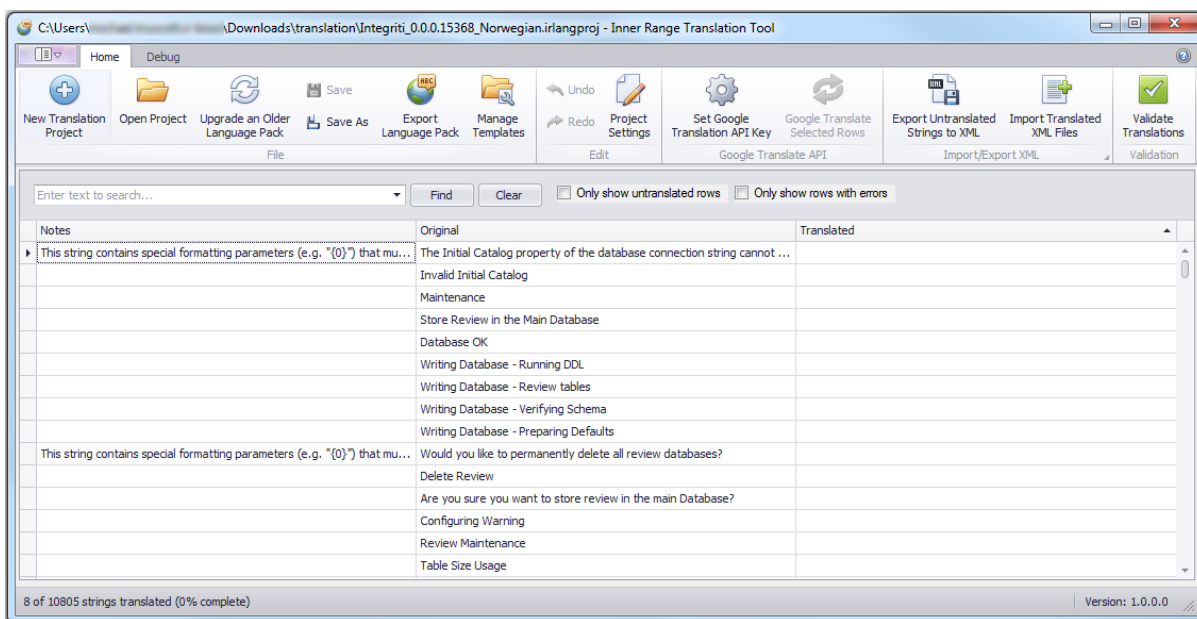# Inner Range Translation Tool Guide

Contents

Introduction

Certain Inner Range software products such as Integriti and Inception can have their text strings customised to display text in other languages through the use of **Language Pack (.irlanguage)** files. The language pack file contains all the English text strings used by the software along with the translated version of each string which the software can use to translate its user interface. These files are created with the aid of the Inner Range Translation Tool application, which allows a translator to import a translation template file and assign translated text for each of the user-facing text strings contained in the firmware.

Once complete, these text string translations can be exported as a language pack file that can be loaded into the software. See the product-specific documentation for the software you are translating to find information on how to upload and apply the language pack to the software.

Overview of the Application

The Inner Range Translation Tool is a standalone application designed to aid in the creation and editing of Language Packs for Inner Range products such as Inception and Integriti. It allows translators to view and edit translations from within the application itself, to batch translate strings directly inside the application via the Google Translation API, or to export the translatable strings to XML for external processing by a third-party service.

The installation file for the Inner Range Translation Tool can be downloaded from the Technician Downloads section on the Inner Range website. Once the Translation Tool software has been downloaded and installed on your PC, additional documentation files can be found in the start menu (Inner Range/Translation Tool by default), which explain the software and its functionality in greater detail.

There are 3 types of files that the Translation Tool can interact with or produce, each with their own specific purpose:

- **Translation Template (.irlanguagetemplate)** – This file contains information about all the translatable English strings that are in the software product. See the product-specific documentation for information on how to obtain the translation template for that product. The Translation Tool can import these files and use them to generate new Language Project or update an existing older Language Project.

- **Language Project (.irlangproj)** – The project file created by the Translation Tool which contains the translation progress information. Translations can be saved and continued with this file and once complete, a Language Pack can be generated.
- **Language Pack (.irlanguage)** – The finalised translation file that gets exported from the Translation Tool. Contains the English and translated versions of each text string, which can be imported into the software product to change its language.

A typical workflow for creating a language pack with the Translation Tool is generally:

- Download the Translation Template for the version of the software that you want to translate, and import it into the Translation Tool.
- Use the Translation Tool to create a new Language Project with the imported template.
- Begin filling in the translations, while saving your progress in the Language Project file, until all strings have translations. Optionally, an external service like the Google Translator Toolkit can be used to gain a head start on translations.
- Validate and export the finished translation project to a Language Pack, ready to be imported into the product.

If a translation already exists for a previous version of a product, the existing translation can be updated with the newest version of the translation template. A new project can be made from the template and either the old language project or the language pack file. This allows the translation work to be continued on the new strings while keeping the work you've already done for the previous version of the language pack.
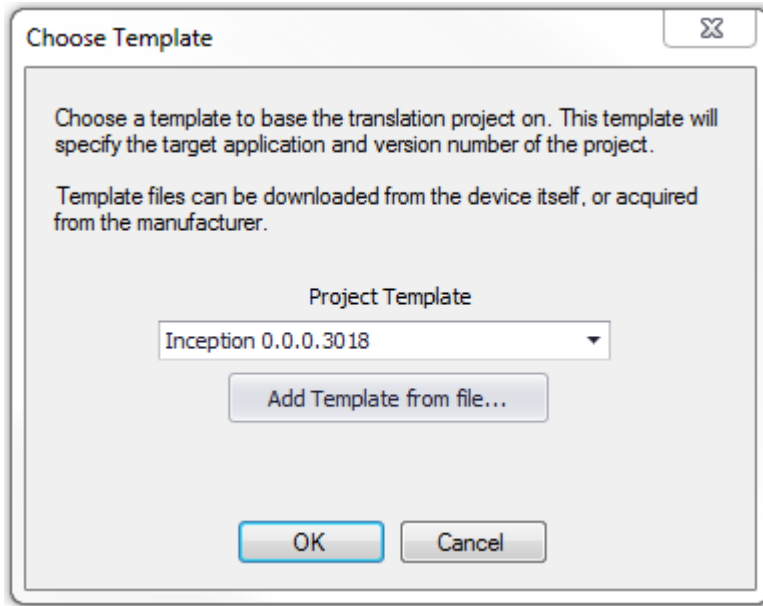
Creating a Language Project

A **Language Project (.irlangproj)** is the primary file type that the Inner Range Translation Tool is designed to work with. The language project file contains all of the translation progress and can be saved and re-opened to continue a translation.

To create a new language project using the Translation Tool, you must first acquire the translation template file for the version of the software that you want to begin translating. See the product-specific documentation for information on where to obtain the translation template file. **NOTE:** Different versions of the software may contain slightly different sets of strings (i.e. for new features introduced in a new version), so make sure you are acquiring the translation template for the specific software version you intend on targeting (generally the latest available version).

Once you have acquired the translation template, it can then be imported into the Translation Tool software to allow you to create a new language project based on this template. Open the Translation Tool software, and then click the *New Translation Project* button. This will bring up a dialog with the list of available Translation Templates that can be used to generate a new project (the list will be empty if this is the first time using the program). Click the *Add Template* from file button and find the translation template file you acquired in the first step. The program should import the template and add its name to the drop down box. Choose the template from the drop down box and press the OK button to continue.

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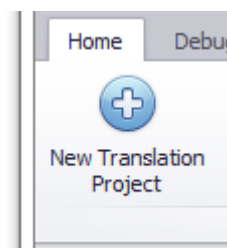
After choosing the template for the project, you will be taken to the Project Settings dialog. Enter the Language Name, Iso Code, and Iso Subcode for your new language project (picking a language name from the drop down box will automatically populate the Iso Code fields). Click OK to continue.
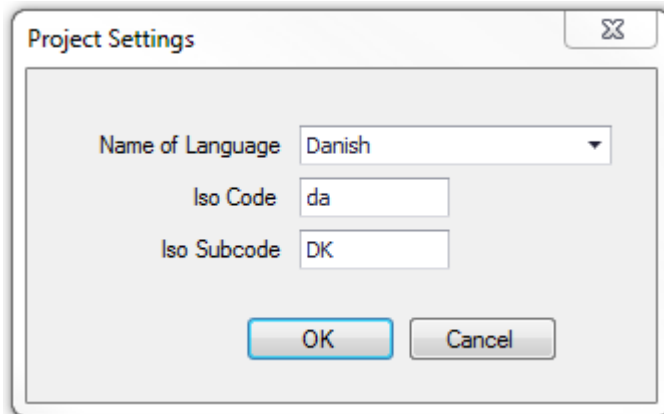

The initial project configuration is now complete and you should see the main form has now been populated with blank translation entries for each string from the template. You can now begin to translate the strings manually, or through batch translation using an external service like Google's Translator Toolkit, which allows users to upload XML files containing text strings and have them translated to a different language. **NOTE:** As of December 4th 2019, Google's Translator Toolkit service has been shut down; we recommend that batch translation is instead done with Google's Translation API, which the Inner Range Translation Tool has built-in support for. See the Using the Google Translation API for more information on using the API with this application.

Upgrading from an older Translation

When a new software version is released, translation packs produced for older versions of the software will still function correctly, however any new features or changed text in the new version will not have translation data available and will display the default English text. To save the work of having to start a new translation from scratch for the new version, the Translation Tool lets you upgrade an existing language pack or language project file to continue the translation by using the new software version's translation template file. When upgrading an old

language project, all of the existing translation work will be preserved and only the new strings will be left for you to translate, making it a much quicker process overall to produce the new language pack.

To upgrade a language project, you will need to have the new version of the translation template file, as well as the old version of the translation project (or alternatively, the old version of the language pack). Open the Translation Tool application and click the *Upgrade an Older Language Pack* button. You will be prompted to select the old version of the translation project/language pack you wish to upgrade. After selecting the original file, you will then be prompted to choose the new translation template that the old project will be upgraded to. Add the new translation template if it hasn't been imported yet, select it from the drop down list and click OK.
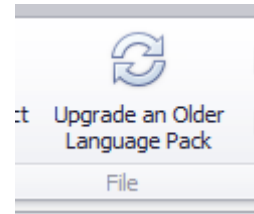
NOTE: If you attempt to upgrade to a translation template of an older or equal version number, the tool will warn you that you are about to downgrade the project, which may result in loss of data.
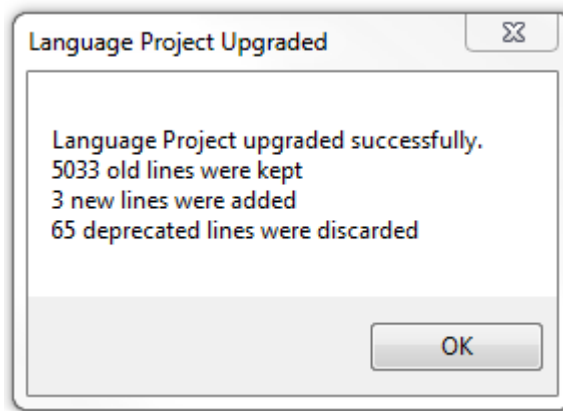
You should now have an upgraded version of the language project, which contains all the matching translations imported from the old project, plus empty translation entries for all of the lines from the new translation template. Save this upgraded project to a new file (the old project file will remain unmodified) and the project will be ready for further translation input.

Continue entering translations as normal for the new upgraded project, either manually or through exporting for external translation, then proceed to the "Validating and Exporting the Language Pack" section above for further steps.

Creating a new Translation Project by importing older XML Translations (Integriti)

Older versions of Integriti (version 19 and older) retrieve their translation data from a collection of XML files containing the translated strings. Translations in this format are still supported in newer versions of Integriti, but for newer versions (versions 20 and newer) we recommend that you upgrade these existing translations to the newer language pack format in order to utilise the features of the Translation Tool software.

To upgrade from the older format, you will first need to acquire the translation template for the version of Integriti that you want to target for the translation pack. In the Translation Tool application, click the *New Translation Project* button, add the translation template file to the list if it hasn't been added yet, click OK and then choose a target language to create an empty translation project.

You can now click the *Import Translated XML* files button to import the XML files comprising the older version's translation data. The import process will fill in all the translated strings that are relevant for the chosen version of the software. The strings from the old XML translation files should now be in your new translation project and you can now finish translating the remaining strings in the project and export a Language Pack file for the new version of Integriti.
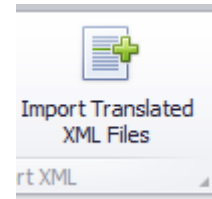
Editing Translations

The main window of the Translation Tool application allows you to view and edit translations for each string in the project.
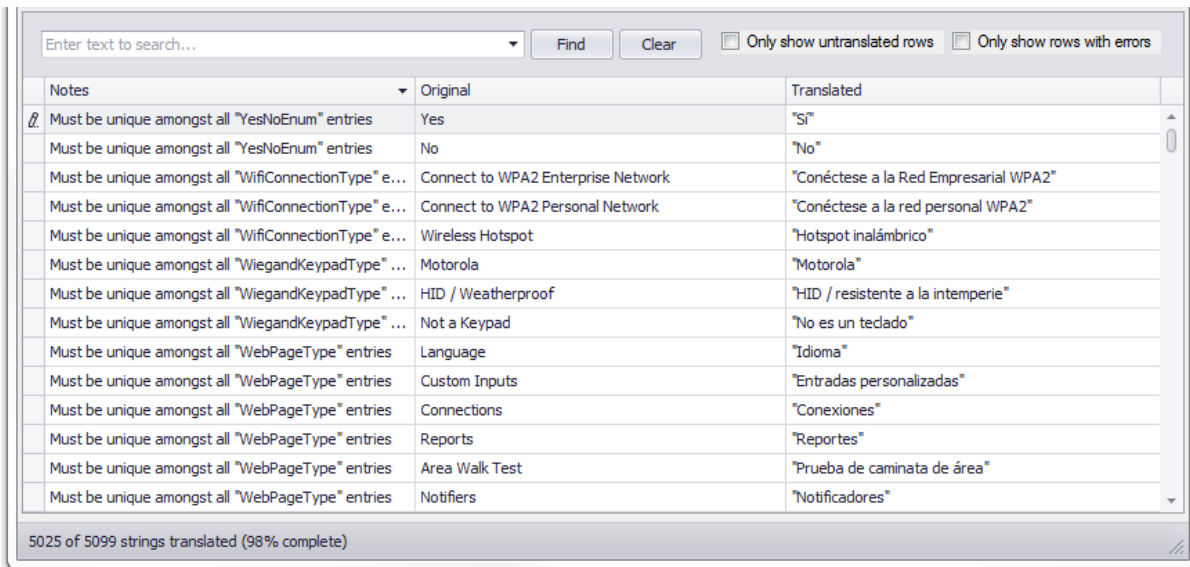
There are 3 columns that contain information about each string:

- **Notes** (read only) – Provides additional information about this particular string, e.g. a particular string may have a rule where it must be unique amongst a certain group of entries.
- **Original** (read only) – The original English string as it appears in the untranslated program.
- **Translated** – The translated string supplied by the user, which will replace the original string when the program is run using this language pack.

The list of entries can also be filtered and searched through to make it easier to find specific strings. Entering text into the search box will filter the list to just the entries that contain the entered text. Ticking the *Only show untranslated rows* option will show only rows with a blank translation to be visible. Ticking the *Only show rows with errors* option will show only the rows that have been found to be invalid by the *Validate Translations* button.

Using the Google Translation API (optional)

The Inner Range Translation Tool has built-in support for the Google Cloud Translation API, which allows users to dynamically translate text between many different languages, and place the results directly from the API into the translation project. This is an optional feature which can greatly reduce the overall amount of time required to complete a translation project if you have a valid Google Cloud Platform account and API key (Google account charges may apply).

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Go to the Google Cloud Console website and create a new cloud platform project. You will need to have a Google account in order to use the cloud console. Set up a free trial or billing method in order to gain access to Google Cloud APIs. Enable the Cloud Translation API from the cloud console, and set up a billing method or free trial (credit card required) in order to enable usage of the translation API.

Go to the APIs & Services > Credentials page and create a new API key. This API key will be the key that you use with the Translation Tool application in order to batch translate strings with your Google Cloud account. You can also optionally restrict API keys to only work with certain services to help prevent API usage quota theft in the event the key is stolen.
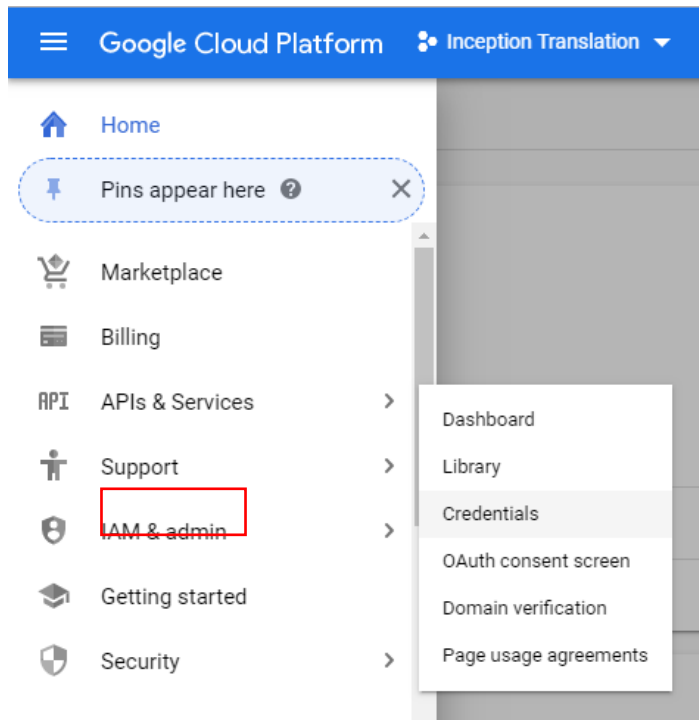
In the Translation Tool application, click the Set Google Translation API Key button and paste your API key into the dialog. If your Google Cloud account and API access was configured correctly, you should see a message box stating that the API key was set successfully. If there is an error setting the key, make sure you have copied the key correctly and that your Google Cloud Platform project is correctly configured and the Cloud Translation API is enabled.

Now that the API key has been successfully applied, you can now use the Google Translation API to automatically fill in translations for text strings in the project. In the main form of the Translation Tool application, select the rows you want to translate with the API, and then click the *Google Translate Selected Rows* button. A dialog box will appear with an approximate word count of the currently selected strings and a drop-down selector for the target translation language. A message box will appear to warn you that translating large volumes of text may result in charges to your Google account (see Google's pricing page for more details), click yes to proceed if you agree to incur any potential costs involved.

The strings should be translated by the API and filled into the project data automatically. If the API translation failed, check that you have set up your Cloud Platform project and API key correctly before trying again. It is a good idea to save your project after any large batches of translations to avoid potentially losing work and incurring extra fees to re-do API translations.

| Notes	Original	Translated
Must be unique amongst all "AlertPriority" entries	Priority 9	الأولوية 9
Must be unique amongst all "AlertPriority" entries	Priority 8	الأولوية 8
Must be unique amongst all "AlertPriority" entries	Priority 7	الأولوية 7
Must be unique amongst all "AlertPriority" entries	Priority 6	الأولوية 6
Must be unique amongst all "AlertPriority" entries	Priority 5	الأولوية 5
Must be unique amongst all "AlertPriority" entries	Priority 4	الأولوية 4
Must be unique amongst all "AlertPriority" entries	Priority 3	الأولوية 3
Must be unique amongst all "AlertPriority" entries	Priority 2	الأولوية 2

For the fastest translation results, we recommend using the Google Translation API in this way to save time by automatically performing the majority of the translation work. The initial results may not be 100% accurate; however they provide a good starting point where a translator can review and correct errors instead of writing every translation themselves. We recommend that an experienced translator checks over the results and manually corrects the ones that need attention.

Validating the Translation & Fixing Errors

Once all the entries in the translation project have been filled in, you can begin the validation and export process, which will produce a language pack file that can be imported into an Inner Range software product.

In order to ensure that all the translated strings conform to the requirements of the software, the Translator Tool requires that the project passes a validation test before it can export a language pack. Some of the translatable text strings have restrictions that if broken, could cause the software to behave incorrectly and cause compatibility errors.

To validate the project, click the *Validate Translations* button in the main form of the Translation Tool application. The project will be scanned for invalid entries and will let you know how many entries are in need of attention and filter the visible rows to only show those invalid entries (if applicable).
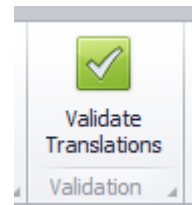
If there are any invalid entries in the list, there will be hints in the "Notes" field on how to correct the errors. For example, some translations must be unique amongst a set of other strings, or some translations must contain certain parameter elements like "{0}" if they occur in the original string. If you enter an invalid string into the translation field, the program will also display an error message explaining why the string is not valid.

Common error types and how to fix them

Invalid format string symbols

Sometimes, when importing translations that have been processed by Google's Translation API, the validation step will find out-of-place character sequences like "{0}", "{/1}", etc. strewn throughout some of the translations. The {0}, {1}, etc. symbols are special and are used as parameters for strings, such as "Area {0} will automatically arm at {1}". Only the symbols included in the original text are allowed in the translation, and no extras can be added. To resolve these errors, remove any parameter symbols that aren't in the original text, or add any that are missing in the translated text.

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Duplicate entries in the same group

Certain text strings are part of a set and are required to be unique within that set. To fix this type of error, ensure all translations are unique within the set (identifiable by the "Must be unique amongst all [set name] entries" in the notes column), and the error message should go away.

Exporting a Language Pack

Once all translations have been fixed and the validation step runs successfully, the project should be ready to export to a language pack. Click the *Export Language Pack* button and then select the option relevant to the software product you are targeting. Choosing the *Export to .irlanguage file* option will create a single .irlanguage pack file which can be imported into Inception or Integriti version 20 and newer, or alternatively, the *Export XML files to folder* option will create a collection of .xml files that are compatible with Integriti version 19 or older.
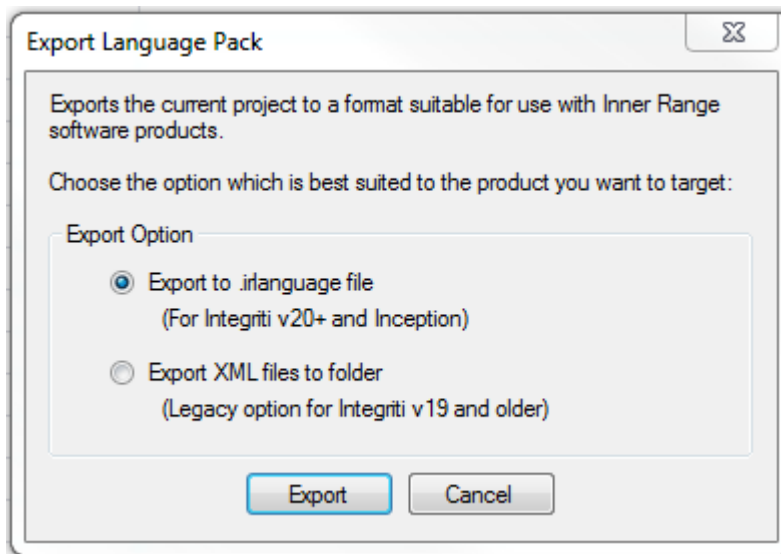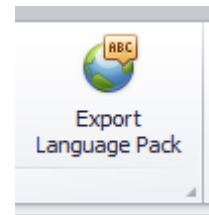
The exported language pack is now ready to be imported into the software product. See the documentation for the relevant software for more information on how to import and apply the language pack.

Managing Language Template Files

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If you have been using the Translation Tool to translate a number of different software versions, you may find that the list of templates in the New Translation Project dialog is getting filled up with older templates that are no longer necessary. To add or remove language template files from the system, click the Manage Templates button on the main form to open the Manage Language Templates dialog. From this window you can delete old template files or add new ones from disk.

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