

Translate

1.1

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Chapter 1

Multi-Language Translator

A console-based translator application that works with multiple language pairs using JSON dictionaries.

1.1 Features

- Translation between various language pairs (English-Ukrainian, Polish-English, etc.)
- Easy-to-navigate menu system
- Handles word and phrase translations
- Preserves capitalization and punctuation
- Extensible dictionary system

1.2 Project Structure

- **Services/** - Core services implementation
 - **Interfaces/** - Service interfaces
 - **ConsoleUIService.cs** - Console user interface implementation
 - **TranslationService.cs** - Text translation logic
 - **DictionaryLoaderService.cs** - Loading dictionaries from JSON files
- **Models/** - Data models
 - **Language.cs** - Language pair and configuration models
- **Data/Languages/** - Contains language dictionaries
 - Each language pair has a dedicated folder (e.g., `en-ua`, `pl-en`)
 - Each folder contains `words.json` and `phrases.json` files
- **translator.Tests/** - Unit tests for all components

1.3 Getting Started

1.3.1 Prerequisites

- .NET 6.0 or later

1.3.2 Running the Application

From the command line, navigate to the project directory and run:

```
dotnet run
```

1.3.3 Navigation

The application has a three-level menu system:

1. **Main Menu** - Select to start translation, get help, or exit
2. **Language Selection** - Choose a language pair or return to the main menu
3. **Translation Mode** - Enter text to translate, navigate back to previous menus, or exit

1.3.4 Extending Dictionaries

To add new words or phrases:

1. Find the appropriate language pair directory in `Data/Languages/`
2. Edit the `words.json` or `phrases.json` files
3. Follow the existing JSON format

1.4 Running Tests

```
dotnet test translator.Tests
```

See the test README for more details.

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

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Chapter 3

Hierarchical Index

3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Translator.Application.ApplicationInitializer	11
Translator.Infrastructure.Constants.UIConstants.Emojis	17
Translator.Infrastructure.Constants.FileStructureConstants	18
Translator.Core.Interfaces.IConsoleUIService	20
Translator.Services.UI.ConsoleUIService	12
Translator.Core.Interfaces.IDictionaryLoader	21
Translator.Infrastructure.FileSystem.DictionaryLoaderService	15
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Translator.Program	28
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Chapter 4

Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Translator.Application.ApplicationInitializer	Handles the initialization of the application, including console setup, path configuration, and service initialization	11
Translator.Services.UI.ConsoleUIService	Provides console-based user interface functionality for the translation application. Implements the IConsoleUIService interface to handle user interactions and display information	12
Translator.Infrastructure.FileSystem.DictionaryLoaderService	Service for loading dictionaries and language configurations from the file system	15
Translator.Infrastructure.Constants.UIConstants.Emojis	17
Translator.Infrastructure.Constants.FileStructureConstants	Contains constants and utility methods for managing file system paths in the application	18
Translator.Core.Interfaces.IConsoleUIService	Defines the interface for console-based user interface services. Provides methods for user interaction and information display	20
Translator.Core.Interfaces.IDictionaryLoader	Defines the interface for loading dictionaries and language configurations from the file system .	21
Translator.Core.Interfaces.ITextProcessor	Defines the interface for text processing utilities such as normalization and punctuation handling	22
Translator.Core.Interfaces.ITranslationService	Defines the interface for translation services	23
Translator.Infrastructure.FileSystem.JsonFileLoader	24
Translator.Core.Models.Language	Represents a language pair and associated metadata for translation	24
Translator.Core.Models.LanguageConfig	Represents the configuration containing a list of available language pairs for translation	25
Translator.Services.UI.MainMenuManager	Manages the main menu flow and user interactions in the translation application. Handles the coordination between different parts of the application based on user choices	25
Translator.Services.UI.MenuManager	Provides centralized management of all console UI messages and menus in the application . .	26
Translator.Program	The main entry point class for the translation application. Handles the initialization and main program loop	28
Translator.Services.Translation.TextProcessor	Provides text processing utilities for normalization, capitalization, and punctuation handling . .	29

[Translator.Services.Translation.TranslationService](#)

Provides translation functionality using a dictionary and language configuration 32

[Translator.Infrastructure.Constants.UIConstants](#)

Contains constants used for UI elements in the application 33

Chapter 5

Namespace Documentation

5.1 Translator Namespace Reference

Classes

- class [Program](#)

The main entry point class for the translation application. Handles the initialization and main program loop.

5.2 Translator.Application Namespace Reference

Classes

- class [ApplicationInitializer](#)

Handles the initialization of the application, including console setup, path configuration, and service initialization.

5.3 Translator.Core Namespace Reference

5.4 Translator.Core.Interfaces Namespace Reference

Classes

- interface [IConsoleUIService](#)

Defines the interface for console-based user interface services. Provides methods for user interaction and information display.

- interface [IDictionaryLoader](#)

Defines the interface for loading dictionaries and language configurations from the file system.

- interface [ITextProcessor](#)

Defines the interface for text processing utilities such as normalization and punctuation handling.

- interface [ITranslationService](#)

Defines the interface for translation services.

5.5 Translator.Core.Models Namespace Reference

Classes

- class [Language](#)
Represents a language pair and associated metadata for translation.
- class [LanguageConfig](#)
Represents the configuration containing a list of available language pairs for translation.

5.6 Translator.Infrastructure Namespace Reference

5.7 Translator.Infrastructure.Constants Namespace Reference

Classes

- class [FileStructureConstants](#)
Contains constants and utility methods for managing file system paths in the application.
- class [UIConstants](#)
Contains constants used for UI elements in the application.

5.8 Translator.Infrastructure.FileSystem Namespace Reference

Classes

- class [DictionaryLoaderService](#)
Service for loading dictionaries and language configurations from the file system.
- class [JsonFileLoader](#)

5.9 Translator.Services Namespace Reference

5.10 Translator.Services.Translation Namespace Reference

Classes

- class [TextProcessor](#)
Provides text processing utilities for normalization, capitalization, and punctuation handling.
- class [TranslationService](#)
Provides translation functionality using a dictionary and language configuration.

5.11 Translator.Services.UI Namespace Reference

Classes

- class [ConsoleUIService](#)
Provides console-based user interface functionality for the translation application. Implements the [IConsoleUIService](#) interface to handle user interactions and display information.
- class [MainMenuManager](#)
Manages the main menu flow and user interactions in the translation application. Handles the coordination between different parts of the application based on user choices.
- class [MenuManager](#)
Provides centralized management of all console [UI](#) messages and menus in the application.

Chapter 6

Class Documentation

6.1 Translator.Application.ApplicationInitializer Class Reference

Handles the initialization of the application, including console setup, path configuration, and service initialization.

Public Member Functions

- **ApplicationInitializer** ()

Initializes a new instance of the [ApplicationInitializer](#). Sets up the console encoding, base path, and initializes required services.

Properties

- string **BasePath** [get]

Gets the base path for the application's data directory.

- [IDictionaryLoader](#) **DictionaryLoader** [get]

Gets the dictionary loader service instance.

- [IConsoleUIService](#) **UiService** [get]

Gets the console [UI](#) service instance.

- [LanguageConfig](#) **Config** [get]

Gets the language configuration containing available language pairs.

6.1.1 Detailed Description

Handles the initialization of the application, including console setup, path configuration, and service initialization.

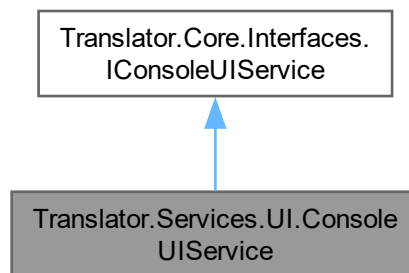
The documentation for this class was generated from the following file:

- Translator/Application/ApplicationInitializer.cs

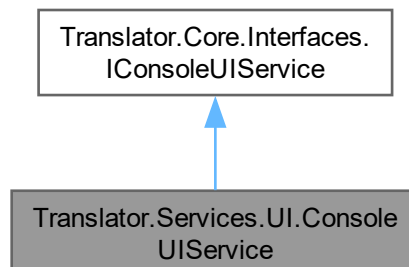
6.2 Translator.Services.UI.ConsoleUIService Class Reference

Provides console-based user interface functionality for the translation application. Implements the [IConsoleUIService](#) interface to handle user interactions and display information.

Inheritance diagram for Translator.Services.UI.ConsoleUIService:



Collaboration diagram for Translator.Services.UI.ConsoleUIService:



Public Member Functions

- void [DisplayMessage](#) (string message)
Displays a message to the user using the [MenuManager](#).
- string [GetUserInput](#) ()
Gets user input from the console, trimming any whitespace.
- void [ClearScreen](#) ()
Clears the console screen using ANSI escape sequences if available, falling back to `Console.Clear()` if ANSI is not supported.
- [Language](#) [SelectLanguage](#) ([LanguageConfig](#) config)
Handles the language selection process, displaying available languages and processing user input.
- bool [RunTranslationLoop](#) ([ITranslationService](#) translator)
Runs the main translation loop, handling user input and displaying translation results.

6.2.1 Detailed Description

Provides console-based user interface functionality for the translation application. Implements the [IConsoleUIService](#) interface to handle user interactions and display information.

6.2.2 Member Function Documentation

6.2.2.1 ClearScreen()

```
void Translator.Services.UI.ConsoleUIService.ClearScreen () [inline]
```

Clears the console screen using ANSI escape sequences if available, falling back to `Console.Clear()` if ANSI is not supported.

Implements [Translator.Core.Interfaces.IConsoleUIService](#).

6.2.2.2 DisplayMessage()

```
void Translator.Services.UI.ConsoleUIService.DisplayMessage (
    string message) [inline]
```

Displays a message to the user using the [MenuManager](#).

Parameters

<i>message</i>	The message to display.
----------------	-------------------------

6.2.2.3 GetUserInput()

```
string Translator.Services.UI.ConsoleUIService.GetUserInput () [inline]
```

Gets user input from the console, trimming any whitespace.

Returns

The trimmed user input, or an empty string if null.

6.2.2.4 RunTranslationLoop()

```
bool Translator.Services.UI.ConsoleUIService.RunTranslationLoop (
    ITranslationService translator) [inline]
```

Runs the main translation loop, handling user input and displaying translation results.

Parameters

<i>translator</i>	The translation service to use for translating text.
-------------------	--

Returns

True if the user wants to return to the main menu, false if they want to change language.

Implements [Translator.Core.Interfaces.IConsoleUIService](#).

6.2.2.5 SelectLanguage()

```
Language Translator.Services.UI.ConsoleUIService.SelectLanguage (  
    LanguageConfig config) [inline]
```

Handles the language selection process, displaying available languages and processing user input.

Parameters

<i>config</i>	The language configuration containing available language pairs.
---------------	---

Returns

The selected language pair.

Exceptions

<i>OperationCanceledException</i>	Thrown when the user chooses to exit the selection.
-----------------------------------	---

Implements [Translator.Core.Interfaces.IConsoleUIService](#).

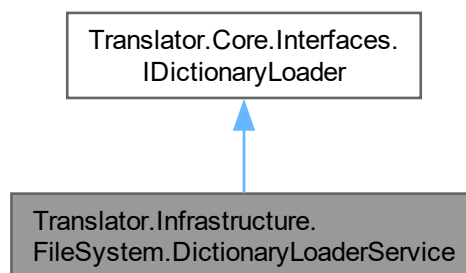
The documentation for this class was generated from the following file:

- Translator/Services/UI/ConsoleUIService.cs

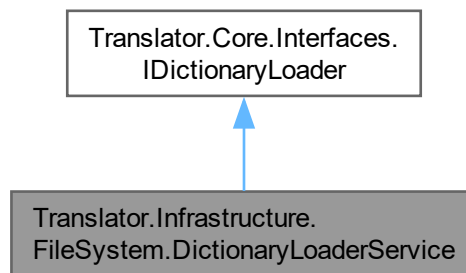
6.3 Translator.Infrastructure.FileSystem.DictionaryLoaderService Class Reference

Service for loading dictionaries and language configurations from the file system.

Inheritance diagram for Translator.Infrastructure.FileSystem.DictionaryLoaderService:



Collaboration diagram for Translator.Infrastructure.FileSystem.DictionaryLoaderService:



Public Member Functions

- **DictionaryLoaderService ()**
Initializes a new instance of the [DictionaryLoaderService](#).
- Dictionary< string, string > **LoadDictionary** ([Language](#) language, string basePath)
Loads a dictionary for the specified language by combining words and phrases from corresponding JSON files.
- [LanguageConfig](#) **LoadLanguageConfig** (string basePath)
Loads the language configuration from a JSON file.

6.3.1 Detailed Description

Service for loading dictionaries and language configurations from the file system.

6.3.2 Member Function Documentation

6.3.2.1 LoadDictionary()

```
Dictionary< string, string > Translator.Infrastructure.FileSystem.DictionaryLoaderService.↵
LoadDictionary (
    Language language,
    string basePath) [inline]
```

Loads a dictionary for the specified language by combining words and phrases from corresponding JSON files.

Parameters

<i>language</i>	The language for which to load the dictionary.
<i>basePath</i>	The base path to the data directory.

Returns

A dictionary containing all words and phrases for the specified language.

Exceptions

<i>Exception</i>	Thrown when the language directory is not found.
------------------	--

Implements [Translator.Core.Interfaces.IDictionaryLoader](#).

6.3.2.2 LoadLanguageConfig()

```
LanguageConfig Translator.Infrastructure.FileSystem.DictionaryLoaderService.LoadLanguageConfig  
(  
    string basePath) [inline]
```

Loads the language configuration from a JSON file.

Parameters

<i>basePath</i>	The base path to the data directory.
-----------------	--------------------------------------

Returns

The language configuration containing a list of available language pairs.

Exceptions

<i>FileNotFoundException</i>	Thrown when the configuration file is not found.
------------------------------	--

Implements [Translator.Core.Interfaces.IDictionaryLoader](#).

The documentation for this class was generated from the following file:

- Translator/Infrastructure/FileSystem/DictionaryLoaderService.cs

6.4 Translator.Infrastructure.Constants.UIConstants.Emojis Class Reference

Static Public Attributes

- const string **THINKING** = ""
- const string **ERROR** = ""
- const string **TRANSLATIN** = ""
- const string **LANGUAGE** = ""
- const string **MENU** = ""
- const string **HELP** = ""

The documentation for this class was generated from the following file:

- Translator/Infrastructure/Constants/UIConstants.cs

6.5 Translator.Infrastructure.Constants.FileStructureConstants Class Reference

Contains constants and utility methods for managing file system paths in the application.

Static Public Member Functions

- static string [GetLanguageDirectoryPath](#) (string basePath, string languageCode)
Gets the full path to a language directory.
- static string [GetLanguagesConfigPath](#) (string basePath)
Gets the full path to the languages configuration file.
- static string [GetWordsFilePath](#) (string basePath, string languageCode)
Gets the full path to a language's words dictionary file.
- static string [GetPhrasesFilePath](#) (string basePath, string languageCode)
Gets the full path to a language's phrases dictionary file.

Static Public Attributes

- const string **LANGUAGES_DIR** = "Languages"
The name of the directory containing language data.
- const string **LANGUAGES_CONFIG_FILE** = "languages.json"
The name of the language configuration file.
- const string **WORDS_FILE** = "words.json"
The name of the words dictionary file.
- const string **PHRASES_FILE** = "phrases.json"
The name of the phrases dictionary file.

6.5.1 Detailed Description

Contains constants and utility methods for managing file system paths in the application.

6.5.2 Member Function Documentation

6.5.2.1 GetLanguageDirectoryPath()

```
static string Translator.Infrastructure.Constants.FileStructureConstants.GetLanguageDirectory↵
Path (
    string basePath,
    string languageCode) [inline], [static]
```

Gets the full path to a language directory.

Parameters

<i>basePath</i>	The base path of the application.
<i>languageCode</i>	The language code (e.g., "en-uk").

Returns

The full path to the language directory.

6.5.2.2 GetLanguagesConfigPath()

```
static string Translator.Infrastructure.Constants.FileStructureConstants.GetLanguagesConfigPath (
    string basePath) [inline], [static]
```

Gets the full path to the languages configuration file.

Parameters

<i>basePath</i>	The base path of the application.
-----------------	-----------------------------------

Returns

The full path to the languages configuration file.

6.5.2.3 GetPhrasesFilePath()

```
static string Translator.Infrastructure.Constants.FileStructureConstants.GetPhrasesFilePath (
    string basePath,
    string languageCode) [inline], [static]
```

Gets the full path to a language's phrases dictionary file.

Parameters

<i>basePath</i>	The base path of the application.
<i>languageCode</i>	The language code (e.g., "en-uk").

Returns

The full path to the phrases dictionary file.

6.5.2.4 GetWordsFilePath()

```
static string Translator.Infrastructure.Constants.FileStructureConstants.GetWordsFilePath (
    string basePath,
    string languageCode) [inline], [static]
```

Gets the full path to a language's words dictionary file.

Parameters

<i>basePath</i>	The base path of the application.
<i>languageCode</i>	The language code (e.g., "en-uk").

Returns

The full path to the words dictionary file.

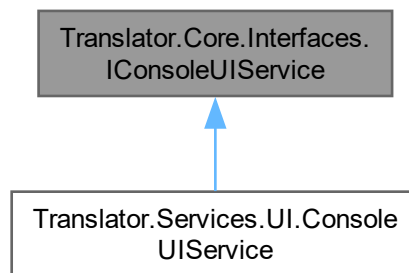
The documentation for this class was generated from the following file:

- Translator/Infrastructure/Constants/FileStructureConstants.cs

6.6 Translator.Core.Interfaces.IConsoleUIService Interface Reference

Defines the interface for console-based user interface services. Provides methods for user interaction and information display.

Inheritance diagram for Translator.Core.Interfaces.IConsoleUIService:



Public Member Functions

- void [ClearScreen](#) ()
- [Language SelectLanguage](#) ([LanguageConfig](#) config)
- bool [RunTranslationLoop](#) ([ITranslationService](#) translator)

6.6.1 Detailed Description

Defines the interface for console-based user interface services. Provides methods for user interaction and information display.

6.6.2 Member Function Documentation

6.6.2.1 ClearScreen()

```
void Translator.Core.Interfaces.IConsoleUIService.ClearScreen ()
```

Implemented in [Translator.Services.UI.ConsoleUIService](#).

6.6.2.2 RunTranslationLoop()

```
bool Translator.Core.Interfaces.IConsoleUIService.RunTranslationLoop (  
    ITranslationService translator)
```

Implemented in [Translator.Services.UI.ConsoleUIService](#).

6.6.2.3 SelectLanguage()

```
Language Translator.Core.Interfaces.IConsoleUIService.SelectLanguage (
    LanguageConfig config)
```

Implemented in [Translator.Services.UI.ConsoleUIService](#).

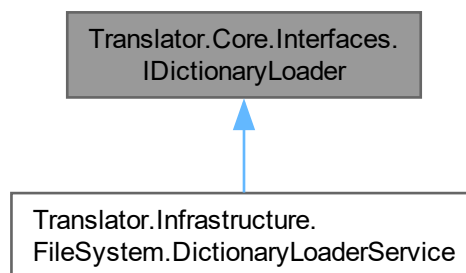
The documentation for this interface was generated from the following file:

- [Translator/Core/Interfaces/IConsoleUIService.cs](#)

6.7 Translator.Core.Interfaces.IDictionaryLoader Interface Reference

Defines the interface for loading dictionaries and language configurations from the file system.

Inheritance diagram for [Translator.Core.Interfaces.IDictionaryLoader](#):



Public Member Functions

- `Dictionary< string, string > LoadDictionary (Language language, string basePath)`
- `LanguageConfig LoadLanguageConfig (string basePath)`

6.7.1 Detailed Description

Defines the interface for loading dictionaries and language configurations from the file system.

6.7.2 Member Function Documentation

6.7.2.1 LoadDictionary()

```
Dictionary< string, string > Translator.Core.Interfaces.IDictionaryLoader.LoadDictionary (
    Language language,
    string basePath)
```

Implemented in [Translator.Infrastructure.FileSystem.DictionaryLoaderService](#).

6.7.2.2 LoadLanguageConfig()

```
LanguageConfig Translator.Core.Interfaces.IDictionaryLoader.LoadLanguageConfig (
    string basePath)
```

Implemented in [Translator.Infrastructure.FileSystem.DictionaryLoaderService](#).

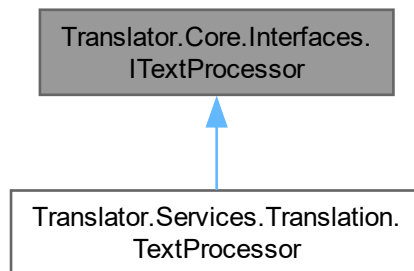
The documentation for this interface was generated from the following file:

- [Translator/Core/Interfaces/IDictionaryLoader.cs](#)

6.8 Translator.Core.Interfaces.ITextProcessor Interface Reference

Defines the interface for text processing utilities such as normalization and punctuation handling.

Inheritance diagram for [Translator.Core.Interfaces.ITextProcessor](#):



Public Member Functions

- string [NormalizeInput](#) (string input)
- string string punctuation **SplitWordFromPunctuation** (string input)

Public Attributes

- string **word**

6.8.1 Detailed Description

Defines the interface for text processing utilities such as normalization and punctuation handling.

6.8.2 Member Function Documentation

6.8.2.1 NormalizeInput()

```
string Translator.Core.Interfaces.ITextProcessor.NormalizeInput (
    string input)
```

Implemented in [Translator.Services.Translation.TextProcessor](#).

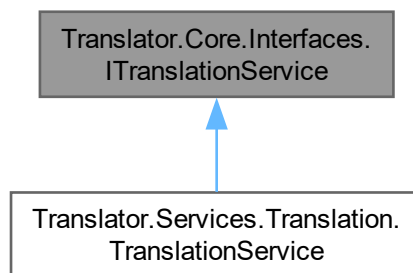
The documentation for this interface was generated from the following file:

- Translator/Core/Interfaces/ITextProcessor.cs

6.9 Translator.Core.Interfaces.ITranslationService Interface Reference

Defines the interface for translation services.

Inheritance diagram for Translator.Core.Interfaces.ITranslationService:



Public Member Functions

- string [Translate](#) (string input)

6.9.1 Detailed Description

Defines the interface for translation services.

6.9.2 Member Function Documentation

6.9.2.1 Translate()

```
string Translator.Core.Interfaces.ITranslationService.Translate (
    string input)
```

Implemented in [Translator.Services.Translation.TranslationService](#).

The documentation for this interface was generated from the following file:

- Translator/Core/Interfaces/ITranslationService.cs

6.10 Translator.Infrastructure.FileSystem.JsonFileLoader Class Reference

Public Member Functions

- **T? LoadFromFile< T >** (string filePath)

The documentation for this class was generated from the following file:

- Translator/Infrastructure/FileSystem/JsonFileLoader.cs

6.11 Translator.Core.Models.Language Class Reference

Represents a language pair and associated metadata for translation.

Properties

- string **Code** = string.Empty [get, set]
- string **SourceLanguage** = string.Empty [get, set]
- string **TargetLanguage** = string.Empty [get, set]
- string **SourceFlag** = string.Empty [get, set]
- string **TargetFlag** = string.Empty [get, set]

6.11.1 Detailed Description

Represents a language pair and associated metadata for translation.

The documentation for this class was generated from the following file:

- Translator/Core/Models/Language.cs

6.12 Translator.Core.Models.LanguageConfig Class Reference

Represents the configuration containing a list of available language pairs for translation.

Properties

- List< [Language](#) > **AvailableLanguages** = new() [get, set]

6.12.1 Detailed Description

Represents the configuration containing a list of available language pairs for translation.

The documentation for this class was generated from the following file:

- Translator/Core/Models/LanguageConfig.cs

6.13 Translator.Services.UI.MainMenuManager Class Reference

Manages the main menu flow and user interactions in the translation application. Handles the coordination between different parts of the application based on user choices.

Public Member Functions

- [MainMenuManager](#) ([IConsoleUIService](#) uiService, [IDictionaryLoader](#) dictionaryLoader, string basePath, [LanguageConfig](#) config)
Initializes a new instance of the [MainMenuManager](#) with required services and configuration.
- bool [HandleUserChoice](#) (string? input)
Handles the user's menu choice and executes the corresponding action.

6.13.1 Detailed Description

Manages the main menu flow and user interactions in the translation application. Handles the coordination between different parts of the application based on user choices.

6.13.2 Constructor & Destructor Documentation

6.13.2.1 MainMenuManager()

```
Translator.Services.UI.MainMenuManager.MainMenuManager (  
    IConsoleUIService uiService,  
    IDictionaryLoader dictionaryLoader,  
    string basePath,  
    LanguageConfig config) [inline]
```

Initializes a new instance of the [MainMenuManager](#) with required services and configuration.

Parameters

<i>uiService</i>	The console UI service for user interaction.
<i>dictionaryLoader</i>	The service for loading translation dictionaries.
<i>basePath</i>	The base path for dictionary files.
<i>config</i>	The language configuration containing available language pairs.

6.13.3 Member Function Documentation

6.13.3.1 HandleUserChoice()

```
bool Translator.Services.UI.MainMenuManager.HandleUserChoice (
    string? input) [inline]
```

Handles the user's menu choice and executes the corresponding action.

Parameters

<i>input</i>	The user's input choice.
--------------	--------------------------

Returns

True if the application should continue running, false if it should exit.

The documentation for this class was generated from the following file:

- Translator/Services/UI/MainMenuManager.cs

6.14 Translator.Services.UI.MenuManager Class Reference

Provides centralized management of all console [UI](#) messages and menus in the application.

Static Public Member Functions

- static void **ShowMainMenu** ()
Displays the main menu options to the user.
- static void **ShowHelp** ()
Displays the help information and usage tips to the user.
- static void **ShowTranslationResult** (string translation)
Displays the translation result to the user.
- static void **ShowTranslationPrompt** ()
Displays the prompt for entering text to translate.
- static void **ShowTranslationError** (string message)
Displays a translation-related error message to the user.
- static void **ShowAfterTranslationMenu** ()
Displays the menu options available after a translation is completed.

- static void [ShowLanguageSelectionPrompt](#) (int count)
Displays the prompt for selecting a language pair.
- static void **ShowInvalidChoice** ()
Displays a message indicating an invalid user choice.
- static void **ShowEmptyInputError** ()
Displays a message indicating that empty input is not allowed.
- static void [ShowLanguageList](#) ([LanguageConfig](#) config)
Displays the list of available language pairs.
- static void [ShowError](#) (string message)
Displays a general error message to the user.
- static void [ShowExecutablePath](#) (string path)
Displays the executable path for debugging purposes.
- static void **ShowPressAnyKeyToExit** ()
Displays a prompt asking the user to press any key to exit.
- static void **ShowActionPrompt** ()
Displays a prompt asking the user to select an action.

6.14.1 Detailed Description

Provides centralized management of all console [UI](#) messages and menus in the application.

6.14.2 Member Function Documentation

6.14.2.1 ShowError()

```
static void Translator.Services.UI.MenuManager.ShowError (
    string message) [inline], [static]
```

Displays a general error message to the user.

Parameters

<i>message</i>	The error message to display.
----------------	-------------------------------

6.14.2.2 ShowExecutablePath()

```
static void Translator.Services.UI.MenuManager.ShowExecutablePath (
    string path) [inline], [static]
```

Displays the executable path for debugging purposes.

Parameters

<i>path</i>	The path to display.
-------------	----------------------

6.14.2.3 ShowLanguageList()

```
static void Translator.Services.UI.MenuManager.ShowLanguageList (
    LanguageConfig config) [inline], [static]
```

Displays the list of available language pairs.

Parameters

<i>config</i>	The language configuration containing available language pairs.
---------------	---

6.14.2.4 ShowLanguageSelectionPrompt()

```
static void Translator.Services.UI.MenuManager.ShowLanguageSelectionPrompt (  
    int count) [inline], [static]
```

Displays the prompt for selecting a language pair.

Parameters

<i>count</i>	The total number of available language pairs.
--------------	---

6.14.2.5 ShowTranslationError()

```
static void Translator.Services.UI.MenuManager.ShowTranslationError (  
    string message) [inline], [static]
```

Displays a translation-related error message to the user.

Parameters

<i>message</i>	The error message to display.
----------------	-------------------------------

6.14.2.6 ShowTranslationResult()

```
static void Translator.Services.UI.MenuManager.ShowTranslationResult (  
    string translation) [inline], [static]
```

Displays the translation result to the user.

Parameters

<i>translation</i>	The translated text to display.
--------------------	---------------------------------

The documentation for this class was generated from the following file:

- Translator/Services/UI/MenuManager.cs

6.15 Translator.Program Class Reference

The main entry point class for the translation application. Handles the initialization and main program loop.

Static Public Member Functions

- static void **Main** ()

The main entry point for the application. Initializes the application and runs the main program loop.

6.15.1 Detailed Description

The main entry point class for the translation application. Handles the initialization and main program loop.

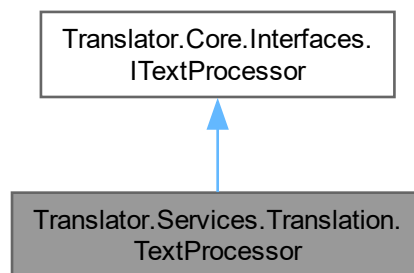
The documentation for this class was generated from the following file:

- Translator/Program.cs

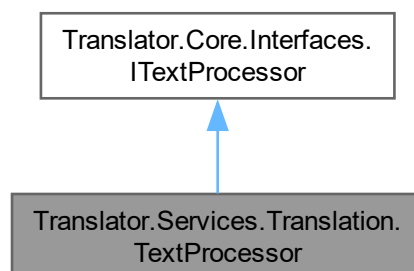
6.16 Translator.Services.Translation.TextProcessor Class Reference

Provides text processing utilities for normalization, capitalization, and punctuation handling.

Inheritance diagram for Translator.Services.Translation.TextProcessor:



Collaboration diagram for Translator.Services.Translation.TextProcessor:



Public Member Functions

- string [NormalizeInput](#) (string input)
Normalizes the input string by trimming whitespace and validating it is not empty.
- string [CapitalizeFirstLetter](#) (string input)
Capitalizes the first letter of the input string and makes the rest lowercase.
- string string punctuation [SplitWordFromPunctuation](#) (string input)

Public Attributes

- string [word](#)
Splits a word from its trailing punctuation.

Public Attributes inherited from [Translator.Core.Interfaces.ITextProcessor](#)

- string [word](#)

6.16.1 Detailed Description

Provides text processing utilities for normalization, capitalization, and punctuation handling.

6.16.2 Member Function Documentation

6.16.2.1 CapitalizeFirstLetter()

```
string Translator.Services.Translation.TextProcessor.CapitalizeFirstLetter (  
    string input) [inline]
```

Capitalizes the first letter of the input string and makes the rest lowercase.

Parameters

<i>input</i>	The input string to capitalize.
--------------	---------------------------------

Returns

The capitalized string, or the original string if it is empty.

6.16.2.2 NormalizeInput()

```
string Translator.Services.Translation.TextProcessor.NormalizeInput (  
    string input) [inline]
```

Normalizes the input string by trimming whitespace and validating it is not empty.

Parameters

<i>input</i>	The input string to normalize.
--------------	--------------------------------

Returns

The trimmed input string.

Exceptions

<i>ArgumentException</i>	Thrown if the input is empty or whitespace.
--------------------------	---

Implements [Translator.Core.Interfaces.ITextProcessor](#).

6.16.2.3 SplitWordFromPunctuation()

```
string string punctuation Translator.Services.Translation.TextProcessor.SplitWordFromPunctuation
(
    string input) [inline]
```

Implements [Translator.Core.Interfaces.ITextProcessor](#).

6.16.3 Member Data Documentation

6.16.3.1 word

```
string Translator.Services.Translation.TextProcessor.word
```

Splits a word from its trailing punctuation.

Parameters

<i>input</i>	The input string to split.
--------------	----------------------------

Returns

A tuple containing the word and the punctuation.

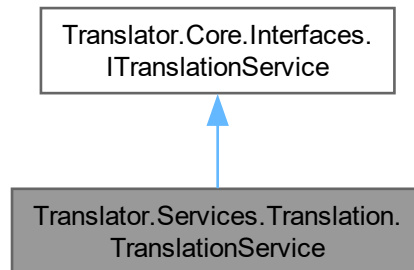
The documentation for this class was generated from the following file:

- Translator/Services/Translation/TextProcessor.cs

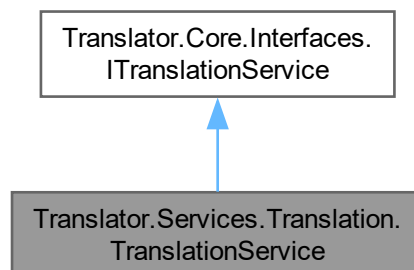
6.17 Translator.Services.Translation.TranslationService Class Reference

Provides translation functionality using a dictionary and language configuration.

Inheritance diagram for Translator.Services.Translation.TranslationService:



Collaboration diagram for Translator.Services.Translation.TranslationService:



Public Member Functions

- [TranslationService](#) (Dictionary< string, string > dictionary, [Language](#) language)
Initializes a new instance of the [TranslationService](#).
- string [Translate](#) (string input)
Translates the input text using the loaded dictionary. The method first replaces phrases, then translates individual words, and finally capitalizes the first letter of the result.

Properties

- [Language](#) **CurrentLanguage** [get]
Gets the current language configuration used for translation.

6.17.1 Detailed Description

Provides translation functionality using a dictionary and language configuration.

6.17.2 Constructor & Destructor Documentation

6.17.2.1 TranslationService()

```
Translator.Services.Translation.TranslationService.TranslationService (
    Dictionary< string, string > dictionary,
    Language language) [inline]
```

Initializes a new instance of the [TranslationService](#).

Parameters

<i>dictionary</i>	The dictionary containing words and phrases for translation.
<i>language</i>	The language configuration for the translation.

6.17.3 Member Function Documentation

6.17.3.1 Translate()

```
string Translator.Services.Translation.TranslationService.Translate (
    string input) [inline]
```

Translates the input text using the loaded dictionary. The method first replaces phrases, then translates individual words, and finally capitalizes the first letter of the result.

Parameters

<i>input</i>	The input text to translate.
--------------	------------------------------

Returns

The translated text.

Implements [Translator.Core.Interfaces.ITranslationService](#).

The documentation for this class was generated from the following file:

- Translator/Services/Translation/TranslationService.cs

6.18 Translator.Infrastructure.Constants.UIConstants Class Reference

Contains constants used for UI elements in the application.

Classes

- class [Emojis](#)

6.18.1 Detailed Description

Contains constants used for UI elements in the application.

The documentation for this class was generated from the following file:

- Translator/Infrastructure/Constants/UIConstants.cs

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