

Microsoft® Terminology Service API

Last updated: June 2014

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Microsoft Terminology Service API

The Microsoft Terminology Service API allows applications to look up terminology translations and user-interface translations from actual Microsoft products. The Terminology Service API is provided as a SOAP API, and it can be used with any technology capable of creating SOAP requests and parsing SOAP responses.

New features in version 2.0 (June 2014)

There are several new features provided in the version 2.0 release of the Microsoft Terminology Web Service. These features are:

- Support for "any to any" language translation searches. In previous versions of the API, searching was restricted to either en-us to a target language, or to en-us from a source language. You can now search from any language to any language.
- The ability to filter your search with string case and hotkey sensitivity. A new parameter in the GetTranslations method allows you to specify the sensitivity level.

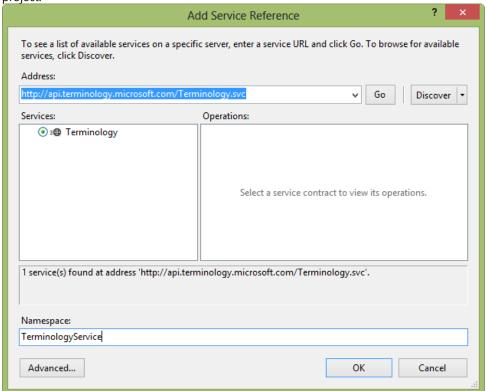
Although the GetTranslations method signature has an added parameter, existing client code will remain compatible and will not break existing programs. To take advantage of the new features, however, applications will need to regenerate their client proxy to retrieve the new method signature.

Using the Terminology Service API in Visual Studio

You can add the Terminology Service API as a Windows® Communication Foundation (WCF) service reference to a Microsoft Visual Studio® project so that SOAP requests and responses are handled automatically for your application. Here are the general steps for adding a service reference to a Visual Studio 2012 project:

- Ensure that your Visual Studio project is configured to use the Microsoft .NET 3.5 Framework, .NET Framework 4, or .NET Framework 4.5. If not, you will have to add a web reference instead of a WCF service reference.
- 2. Right-click the project, and then select **Add Service Reference**.
- 3. Enter the URL http://api.terminology.microsoft.com/Terminology.svc into the Address field, and then click Go. A SOAP service should appear in the **Services** list.

4. Set the 'TerminologyService' in the **Namespace** box, and then click **OK**. Client proxy classes are added to the project.



5. Now you can create an instance of the TerminologyClient proxy class in the TerminologyService namespace to call methods of the SOAP API.

```
C#
TerminologyService.TerminologyClient service = new
TerminologyService.TerminologyClient();
```

6. After creating an instance of the TerminologyClient proxy class, you can call its GetTranslations method to retrieve translations. A simple example of calling GetTranslations is illustrated in the following code snippet:

```
C#
using System;
using SampleApplication.TerminologyService;
namespace SampleApplication
{
    class Program
    {
        static void Main(string[] args)
        {
            // Create a collection to define the desired sources of translations
            TranslationSources translationSources = new TranslationSources() ←
              {TranslationSource.Terms, TranslationSource.UiStrings};
```

```
// Create the proxy for the Terminology Service SOAP client
            TerminologyClient service = new
TerminologyService.TerminologyClient();
            // Call GetTranslations to get the results
            Matches results = service.GetTranslations("start button", "en-us",
"es-es", ←
             SearchOperator.Contains, translationSources, false, 20, true,
null);
            // Use the results
            foreach (Match match in results)
                Console.WriteLine(match.OriginalText);
                Console.WriteLine(match.Translations[0].TranslatedText);
            }
        }
    }
}
```

Public Methods

The following public methods are available in the Terminology Service API:

- GetCapability
- **GetLanguages**
- **GetProducts**
- GetTranslations

Each method is covered in more detail on the subsequent pages.

GetCapability Method

The **GetCapability** method returns an object that defines the capabilities of the current version of the Terminology Service API. For example, it allows checking whether the API supports a reverse translation from a target language to English (United States).

Syntax

```
C#
Capability GetCapability();
```

Return Value

Type: TerminologyService.Capability

A **Capability** object with the following properties:

Property	Description	
SupportsEnUsToAny	If true, GetTranslations supports translating en-us text to any other language returned by the GetLanguages method.	
SupportsAnyToEnUs	If true, GetTranslations supports translating to en-us from any other language returned by the GetLanguages method.	
SupportsAnyToAny	If true, GetTranslations supports translating from any language to any other language, provided both languages are returned by the GetLanguages method.	

```
C#
// Create the proxy for the Terminology Service SOAP client
TerminologyClient service = new TerminologyService.TerminologyClient();
// Call GetCapability
Capability capability = service.GetCapability();
Console.WriteLine("Can the service translate from any language to any other language?"
+ capability.SupportsAnyToAny);
Console WriteLine("Can the service translate from any language to en-us? " +
capability.SupportsAnyToEnUs);
Console.WriteLine("Can the service translate from en-us to any other language? " +
capability.SupportsEnUsToAny);
```

```
SOAP Request
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
       xmlns="http://api.terminology.microsoft.com/terminology">
  <soapenv:Header/>
  <soapenv:Body>
    <GetCapability/>
  </soapenv:Body>
</soapenv:Envelope>
```

GetLanguages Method

The GetLanguages method returns the list of language codes supported by the Terminology Service API.

Syntax

```
C#
Languages GetLanguages();
```

Return Value

Type: TerminologyService.Languages

This method is a Languages collection of Language objects. A Language object consists of the following property:

Property	Description
Code	The language code (for example, en-us, es-es) that can be used as a "to" or "from" parameter on the GetTranslations method.

```
C#

// Create the proxy for the Terminology Service SOAP client
TerminologyClient service = new TerminologyService.TerminologyClient();

// Call GetLanguages
Languages languages = service.GetLanguages();

// Use the results
foreach (Language language in languages)
{
    Console.WriteLine(language.Code);
}
```

GetProducts Method

The GetProducts method returns the list of Microsoft products and versions for which this Terminology Service API provides user-interface translations.

Syntax

```
C#
Products GetProducts();
```

Return Value

Type: TerminologyService.Products

This method is a **Products** collection of **Product** objects. A **Product** object consists of the following properties:

Property	Description
Name	The name of the Microsoft product (such as Windows).
Versions	A Versions collection of Version objects, representing the versions of the product for which the Terminology Service API provides user-interface translations.

A **Version** object consists of the following property:

Property	Description
Name	The name of the Microsoft product version (for example, Windows 7 or Windows Vista).

```
C#
// Create the proxy for the Terminology Service SOAP client
TerminologyClient service = new TerminologyService.TerminologyClient();
// Call GetProducts
Products products = service.GetProducts();
// Use the results
foreach (Product product in products)
    Console.WriteLine(product.Name);
    foreach (TerminologyService.Version version in product.Versions)
    {
        Console.WriteLine("\t" + version.Name);
    }
}
```

SOAP Request <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre> xmlns="http://api.terminology.microsoft.com/terminology"> <soapenv:Header/> <soapenv:Body> <GetProducts/> </soapenv:Body> </soapenv:Envelope>

GetTranslations Method

The **GetTranslations** method returns a list of translations for the given text by searching actual Microsoft product translations and Microsoft terminology glossaries.

Syntax

C#

Matches GetTranslations(string text, string from, string to, SearchOperator searchOperator, TranslationSources sources, bool? unique, int maxTranslations, bool includeDefinitions, Products products);

Parameters

Parameter	Description		
text	Required. A string represent	Required. A string representing the text to translate.	
from		Required. A string representing the language code of the provided text. The language codes used for this parameter must be a language code returned by GetLanguages .	
to	language codes used for this GetLanguages . In version 1.0 of the Terminol	Required. A string representing the language code in to which to translate the text. The language codes used for this parameter must be a language code returned by GetLanguages. In version 1.0 of the Terminology Service API, either the from or the to parameter must be "en-us." In version 2.0, this restriction no longer applies.	
sensitivity			
	CaseInsensitive	(default) Return translations in which the "from" text searched disregards the case of the text. A search for "Cat" would return both: "Cat" and "cat"	
	CaseSensitive	Return translations in which the "from" text searched takes the case of the text into account. Only results matching the case of the "from" are returned. A search for "Cat" would return: "Cat" but not: "cat"	
	HotKeyAndCaseSensitive	Return translations in which the "from" text searched takes the case of the text into account, along with any hotkeys in the string. Only results matching the case of the "from" are returned. A search for "&Cat" would return: "&Cat" but not: "&cat" or "Cat"	

Parameter	Description	
operator		SearchOperator enum value representing the type of matching operation to e can be one of the following:
	Exact	Return translations in which the provided text has an exact match to the translation pair's "from" text (that is, Match.OriginalText).
	Contains	Return translations in which the "from" text contains the provided translation text.
	AnyWord	Return translations in which the "from" text contains any word in the provided translation text. This means that a search for:
		"Lorem rutrum risus quis nulla ullamcorper"
		Can even result in the hit:
		"Lorem ipsum dolor sit amet, {0}, consectetur adipiscing elit" Notice that there is only one word that matches. However, realize that results with more matching words will be ranked higher. A one word match isn't likely to be in the top results.
		parameter is not provided, the Exact operator is used. Even though this not required in a SOAP request, a proxy class generated by Visual Studio will
source	Required. A TranslationSources type collection representing the sources in which to search for a translation. The collection must contain one or more of the following TerminlogySource enum values:	
	Terms	If provided, Microsoft terminology collections are searched.
	UiStrings	If provided, Microsoft product strings are searched for translations.
unique	Optional. A nullable bool indicating whether or not only unique (that is, distinct) translations should be returned. If true is specified, the results are aggregated so that each distinct translation only appears once. If false is specified, the results are not aggregated, but each instance is returned. If null is provided or if this parameter is omitted from the SOAP request, the default value is true .	
maxTranslations	Optional. An int representing the maximum number of translations to return. The maximum allowed value is 20. If this parameter is omitted from the SOAP request, the default value, 1, is used.	
include Definitions	Optional. A bool indicating whether or not to include term definitions. If true , definitions are returned for the terms in the result set (if available in the data source). If unique is specified as true , the first definition for each unique set of translation pairs is used. If this parameter is omitted from the SOAP request, the default value, false , is used.	
products	Optional. A Products collection representing the products and product versions for which to filter the search results. Each Product entity in the collection may include a Versions collection to further restrict the results for that product. Valid products and versions are returned by the GetProducts method. If this parameter is omitted from the SOAP request or if the parameter is set to null, results are not filtered by products and versions. If the Versions collection for a product is null or empty, results matching the product are not filtered by version.	
		oducts parameter is provided, the search only includes items from the urce of translations.

Note: Even though the optional parameters listed are optional in the SOAP request, a WCF proxy generated by Visual Studio will not create these parameters as C# optional parameters.

Return Value

Type: TerminologyService.Matches

This method is a **Matches** collection of **Match** objects. A **Match** object consists of the following properties used to represent a translation pair, and to define where the translation pair comes from.

Property	Description		
OriginalText	may be differ	The from text version of the translation pair. If the Contains operator is used, this text may be different than the input translation text. Additionally, even if the Exact operator is used, there may be differences in punctuation and character casing.	
Translations	contains one	A Translations type collection of Translation objects. In version 1, this collection only contains one entry. In future versions, the API may support returning more than one language translation at a time.	
Count		This property specifies how many matches with the same OriginalText and TranslatedText are in the combined data sources.	
ConfidenceLevel	value is set ac • If the Punc • If the 50. If the Con	Punctuation and text case are ignored when comparing the text. • If the OriginalText is not an exact match, but contains the input text, this value is	
Source		nSource enum value indicating the sounce unique parameter is false. It can be conficted by Microsoft terminology collections.	
	UiStrings	Microsoft product string translations.	
Product		A string representing the Microsoft product to which this translation belongs. This value is only provided if the unique parameter is false, and if the Source of the match is UiStrings .	
ProductVersion		A string representing the Microsoft product version to which this translation belongs. This value is only provided if the unique parameter is false, and if the Source of the match is UiStrings .	
Definition	If the includeDefinitions parameter is provided, this string represents the definition of the matching term.		

A **Translation** object consists of the following properties:

Property	Description
Language	A string representing the language code of the translation.
TranslatedText	The translated text, in the language specified by the Language property.

Sorting

The sorting of the **Match** objects in the return value depends on the following rules:

- If the **unique** parameter is true, the **Match** objects are sorted in the following priority:
 - o ConfidenceLevel (descending)

- Count (descending)
- If the **unique** parameter is false, the **Match** objects are sorted in the following priority:
 - Source (UiStrings first)
 - Product (ascending)
 - ProductVersion (descending)
 - ConfidenceLevel (descending)
 - Count (descending)

Note: The top 20 results are determined first by making **ConfidenceLevel** the highest priority. After the top 20 are determined, the results are sorted by **Source**, **Product**, **ProductVersion**, **ConfidenceLevel**, and then **Count**.

```
C#
// Create a collection to define the desired sources of translations
TranslationSources translationSources = new TranslationSources() {
TranslationSource.UiStrings };
// Create a collection to define the desired products and versions from which to get the
translations
Product word = new Product() { Name = "Windows" };
word.Versions = new Versions() { new TerminologyService.Version() { Name = "Vista" },
new TerminologyService.Version() { Name = "7" } };
Products products = new Products() { word };
// Create the proxy for the Terminology Service SOAP client
TerminologyClient service = new TerminologyService.TerminologyClient();
// Call GetTranslations to get the results
Matches results = service.GetTranslations("start", "en-us", "es-es",
SearchOperator.Contains, translationSources, false, 20, true, products);
// Use the results
foreach (Match match in results)
    Console.WriteLine();
    Console.WriteLine("OriginalText: {0}", match.OriginalText);
Console.WriteLine("ConfidenceLevel: {0}", match.ConfidenceLevel);
    Console.WriteLine("Definition: {0}", match.Definition);
    Console.WriteLine("Count: {0}", match.Count);
    Console.WriteLine("Source: {0}", match.Source);
    Console.WriteLine("Product: {0}", match.Product);
    Console.WriteLine("ProductVersion: {0}", match.ProductVersion);
    Console.WriteLine("Translations");
    Console.WriteLine("
    foreach (Translation translation in match.Translations)
        Console.WriteLine("{0}: {1}", translation.Language, translation.TranslatedText);
    }
}
```

SOAP Request <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre> xmlns="http://api.terminology.microsoft.com/terminology"> <soapenv:Header/> <soapenv:Body> <GetTranslations> <text>start</text> <from>en-us</from> <to>es-es</to> <searchOperator>Contains</searchOperator> <sources> <TranslationSource>Terms</TranslationSource> <TranslationSource>UiStrings</TranslationSource> </sources> <unique>false</unique> <maxTranslations>20</maxTranslations> <includeDefinitions>true</includeDefinitions> cproducts> <Product> <Name>Windows</Name> <Versions> <Version> <Name>Vista</Name> </Version> <Version> <Name>7</Name> </Version> </Versions> </Product> </products> </GetTranslations> </soapenv:Body> </soapenv:Envelope>

Language and Locale Codes

The **GetLanguages** method returns the list of language codes supported by the Terminology Service API. The following table shows the names of the languages and locales represented by the codes.

Language Code	Language and country/region
af-ZA	Afrikaans (South Africa)
am-ET	Amharic (Ethiopia)
ar-EG	Arabic (Egypt)
ar-SA	Arabic (Saudi Arabia)
as-IN	Assamese (India)
az-Latn-AZ	Azerbaijani (Latin, Azerbaijan)
be-BY	Belarusian (Belarus)
bg-BG	Bulgarian (Bulgaria)
bn-BD	Bangla (Bangladesh)
bn-IN	Bangla (India)
bs-Cyrl-BA	Bosnian (Cyrillic, Bosnia and Herzegovina)
bs-Latn-BA	Bosnian (Latin, Bosnia and Herzegovina)
ca-ES	Catalan (Catalan)
ca-ES-valencia	Valencian
chr-cher-us	Cherokee (USA)
cs-CZ	Czech (Czech Republic)
cy-GB	Welsh (United Kingdom)
da-DK	Danish (Denmark)
de-AT	German (Austria)
de-CH	German (Switzerland)
de-DE	German (Germany)
el-GR	Greek (Greece)
en-AU	English (Australia)
en-CA	English (Canada)
en-GB	English (United Kingdom)
en-IE	English (Ireland)
en-MY	English (Malaysia)
en-NZ	English (New Zealand)
en-PH	English (Republic of the Philippines)
en-SG	English (Singapore)
en-US	English (United States)
en-ZA	English (South Africa)
es-ES	Spanish (Spain)
es-MX	Spanish (Mexico)
es-US	Spanish (United States)
et-EE	Estonian (Estonia)
eu-ES	Basque (Basque)
fa-IR	Persian
fi-FI	Finnish (Finland)
fil-PH	Filipino (Philippines)
fr-BE	French (Belgium)

fr-CA	French (Canada)
fr-CA fr-CH	French (Canada) French (Switzerland)
	· ·
fr-FR	French (France)
fr-LU	French (Luxembourg)
ga-IE	Irish (Ireland)
gd-GB	Scottish Gaelic (United Kingdom)
gl-ES	Galician (Galician)
gu-IN	Gujarati (India)
guc-VE	Wayuu
ha-Latn-NG	Hausa (Latin, Nigeria)
he-IL	Hebrew (Israel)
hi-IN	Hindi (India)
hr-HR	Croatian (Croatia)
hu-HU	Hungarian (Hungary)
hy-AM	Armenian (Armenia)
id-ID	Indonesian (Indonesia)
ig-NG	Igbo (Nigeria)
is-IS	Icelandic (Iceland)
it-CH	Italian (Switzerland)
it-IT	Italian (Italy)
iu-Latn-CA	Inuktitut (Latin, Canada)
ja-JP	Japanese (Japan)
ka-GE	Georgian (Georgia)
kk-KZ	Kazakh (Kazakhstan)
km-KH	Khmer (Cambodia)
kn-IN	Kannada (India)
kok-IN	Konkani (India)
ko-KR	Korean (Korea)
ku-arab-IQ	Central Kurdish
ky-KG	Kyrgyz (Kyrgyzstan)
Ib-LU	Luxembourgish (Luxembourg)
lo-LA	Lao (Lao P.D.R.)
It-LT	Lithuanian (Lithuania)
Iv-LV	Latvian (Latvia)
mi-NZ	Maori (New Zealand)
mk-MK	Macedonian (Former Yugoslav Republic of Macedonia)
ml-IN	Malayalam (India)
mn-MN	Mongolian (Cyrillic, Mongolia)
mr-IN	Marathi (India)
ms-BN	Malay (Brunei Darussalam)
ms-MY	Malay (Malaysia)
mt-MT	Maltese (Malta)
nb-NO	Norwegian, Bokmål (Norway)
ne-NP	Nepali (Nepal)
nl-BE	Dutch (Belgium)
nl-NL	Dutch (Netherlands)
nn-NO	Norwegian, Nynorsk (Norway)
nso-ZA	Sesotho sa Leboa (South Africa)
or-IN	Oriya (India)

pa-arab-PK	Punjabi (Pakistan)
pa-IN	Punjabi (India)
pl-PL	Polish (Poland)
prs-AF	Dari (Afghanistan)
ps-AF	Pashto (Afghanistan)
	Portuguese (Brazil)
pt-BR	
pt-PT	Portuguese (Portugal) K'iche' (Guatemala)
qut-GT	
quz-PE	Quechua (Peru)
rm-CH	Romansh (Switzerland)
ro-RO	Romanian (Romania)
ru-RU	Russian (Russia)
rw-RW	Kinyarwanda (Rwanda)
sd-arab-pk	Sindhi (Pakistan)
si-LK	Sinhala (Sri Lanka)
sk-SK	Slovak (Slovakia)
sl-SI	Slovenian (Slovenia)
sq-AL	Albanian (Albania)
sr-Cyrl-BA	Serbian (Cyrillic, Bosnia and Herzegovina)
sr-Cyrl-rs	Serbian (Cyrillic, Serbia)
sr-Latn-rs	Serbian (Latin, Serbia)
sv-SE	Swedish (Sweden)
sw-KE	Kiswahili (Kenya)
ta-IN	Tamil (India)
te-IN	Telugu (India)
tg-Cyrl-TJ	Tajik (Cyrillic, Tajikistan)
th-TH	Thai (Thailand)
Ti-ET	Tigrinya (Ethiopia)
tk-TM	Turkmen (Turkmenistan)
tn-ZA	Setswana (South Africa)
tr-TR	Turkish (Turkey)
tt-RU	Tatar (Russia)
ug-CN	Uighur (PRC)
uk-UA	Ukrainian (Ukraine)
ur-PK	Urdu (Islamic Republic of Pakistan)
uz-Cyrl-UZ	Uzbek (Cyrillic, Uzbekistan)
uz-Latn-UZ	Uzbek (Latin, Uzbekistan)
vi-VN	Vietnamese (Vietnam)
wo-SN	Wolof (Senegal)
xh-ZA	isiXhosa (South Africa)
yo-NG	Yoruba (Nigeria)
zh-CN	Chinese Simplified (People's Republic of China)
zh-HK	Chinese (Hong Kong S.A.R.)
zh-TW	Chinese Traditional (Taiwan)
zu-ZA	isiZulu (South Africa)

Version History

Description	Last updated
Terminology Service API, original SDK document	August 2013
AnyWord operator added to list of SearchOperator enum values	March 2014
Version 2.0 with "any to any" translation service and the sensitivity operator added	June 2014

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