



## Trans APEX EA 1.09

19-June-2018

### Version history :

4-March-2016 :

*Initial release.*

#### **10 March-2016 : EA 1.01**

*Changes to TRS\_TRANSLATE\_STRING\_JSON, from now on APEX\_JSON is used so PL/JSON is no longer needed (this was also missing from the initial manual).*

#### **15 March-2016 : EA 1.02**

*Changes to TRS\_TRANSLATE\_STRING\_JSON, fixed limitation of 2000 characters per translation string.*

#### **16 March-2016 : EA 1.03**

*Addition : Create synonym for WWV\_FLOW\_LANGUAGES.*

#### **21 March-2016 : EA 1.04**

*Changes to TRS\_TRANSLATE\_STRING\_GOOGLE so this supports longer strings and works similar to the "commercial" version TRS\_TRANSLATE\_STRING\_JSON which requires HTTPS and a Google API key. Now the default installation should be sufficient for most environments.*

#### **22 March-2016 : EA 1.05**

*Changes to TRS\_TRANSLATE\_STRING\_GOOGLE, no need to use the JSON version with API key anymore as long as google translate does not change the format. Default install should work just as good as the API version of google.*

#### **22 November-2016 : EA 1.06**

*Typos in document. Created workspace selector on create project screen to first select a workspace. Value is also shown on the project overview report..*

#### **15 October-2017 : EA 1.07**

*Corrected typos in document. Fixed 32k limit for translation strings. Improved default for "translation setting" REGEXP\_INSTR\_SKIP\_DISTINCT\_STRING\_SOURCE\_TXT which enables you to exclude strings containing a certain pattern from the automatic ( google ) translation.*

#### **28-November-2017 : EA 1.08**

*Added installation check for execute grant on UTL\_HTTP*



#### **19-June-2018 : EA 1.09**

*Added support for APEX text messages. These are now integrated as part of the translation process. Only text messages which are already defined in the standard application language will be included and suggested for translation. The field "SOURCE" on the "Translation strings" contains either the value "APPLICATION" for standard application texts, or "MESSAGES" for APEX text messages. The translation process for standard texts and text messages is the same, the only difference is that changes for messages don't need to be published in order to be visible ( similar to standard APEX ).*



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## Trans APEX installation guide.

Trans APEX is an APEX application which enables you to translate APEX applications in a fast and controllable way.

Trans APEX consists out of 2 components :

1. The application combined with its supported objects. This application can be imported into your APEX 5 environment and creates all the tables needed. Upfront the needed rights etc automatically are checked during the import/installation process.
2. A translation function which does the automatic translation via for example google.  
Two examples of this function are provided of which one is automatically installed together with the APEX application ( `TRS_TRANSLATE_STRING_GOOGLE` ).  
All you need to do is create the function and open up an ACL for the website called in this function. This translation function works fairly well.  
A second variant for this function ( `TRS_TRANSLATE_STRING_JSON` ) is also provided in this download which works based on the google commercial API interface ( which should not change without notice from google ). You need to setup a wallet allowing the google certificates to be used since it uses https, you need to create a google API key for translation services on the google site and again you need to open up a ACL for the website used in this function. This second variant works better but requires some more manual configuration.  
The third option is to create your own translation function which has to have three parameters ( source text, input language, output language ), similar to the examples.  
After creating any of the previous three variants you have to set the synonym used by Trans APEX ( `TRS_TRANSLATE_STRING` ) to the function of your preference. For example :  
`CREATE OR REPLACE SYNONYM TRS_TRANSLATE_STRING FOR TRS_TRANSLATE_STRING_JSON;`  
If you just install the application the `TRS_TRANSLATE_STRING_GOOGLE` is automatically installed which works fairly well for most environments.



## Installation process :

### Important note

***Although it might not always be needed, probably the best result for translation to all kinds of languages/characters-sets can be achieved if you use a Unicode database character set like AL32UTF8!!!***

1. Create the grants for the Trans APEX schema (do this as user sys) :

```
grant select on APEX_050000.WWV_FLOW_LANGUAGES to <<Trans APEX schema>>;  
grant execute on DBMS_CRYPTO to <<Trans APEX schema>>;  
grant execute on UTL_HTTP to <<Trans APEX schema>>;
```

and create a synonym for the wwv\_flow\_languages:

```
create synonym <<Trans APEX schema>>.WWV_FLOW_LANGUAGES for  
APEX_050000.WWV_FLOW_LANGUAGES;
```

2. Open the ACL so the translation function may access the google site (do this as user sys or system if possible), the code below provides access for both variations of the translation function so you could remove one if needed :

```
declare  
  cn_acl constant varchar2(100) := 'googleapis.xml';  
begin  
  dbms_network_acl_admin.create_acl  
  ( acl      => cn_acl  
    , description => 'Google Translate API'  
    , principal  => '<<Trans APEX schema>>'  
    , is_grant   => true  
    , privilege  => 'connect'  
    , start_date => null  
    , end_date   => null  
  );  
  dbms_network_acl_admin.add_privilege  
  ( acl      => cn_acl  
    , principal => '<<Trans APEX schema>>'  
    , is_grant => true  
    , privilege => 'resolve'  
  );  
  
  dbms_network_acl_admin.assign_acl  
  ( acl => cn_acl
```

```
, host => 'translate.googleapis.com'
);

dbms_network_acl_admin.assign_acl
( acl => cn_acl
, host => 'www.googleapis.com'
);
commit;
end;
/
```

3. After this you can import the Trans APEX application ( with supported objects ) into an APEX workspace. The import file is "TRANS APEX EA1.sql".
4. Optionally if you want Trans APEX to be able to translate any application within any workspace of your current APEX instance you should grant the Trans APEX schema owner the APEX\_ADMINISTRATOR\_ROLE. If you don't do this you can only translate applications within the same workspace as where Trans APEX is installed :

**grant APEX\_ADMINISTRATOR\_ROLE to <<Trans APEX schema>>;**

Optional step :

*If you choose to use the more complex but better translation function TRS\_TRANSLATE\_STRING\_JSON you first need to setup a google account and request for a translation API key. You need to sign up with a credit card but there is a free start translation volume which you can use with no cost. Check [https://cloud.google.com/translate/v2/getting\\_started](https://cloud.google.com/translate/v2/getting_started) for the procedure.*

*After this you need to create an Oracle wallet containing the certificates of the website [www.googleapis.com](https://cloud.google.com/translate/v2/getting_started). The procedure for this can be found on [https://oracle-base.com/articles/misc/utl\\_http-and-ssl](https://oracle-base.com/articles/misc/utl_http-and-ssl)*

*Now open the script TRS\_TRANSLATE\_STRING\_JSON.sql and enter your google API key, wallet location and wallet password behind the variable declaration of LV\_GOOGLE\_API\_KEY, LV\_WALLET\_PATH and LV\_WALLET\_PASSWORD. Now compile the function TRS\_TRANSLATE\_STRING\_JSON. After that create a synonym to this function so Trans APEX knows which function to use :*

**CREATE OR REPLACE SYNONYM TRS\_TRANSLATE\_STRING for TRS\_TRANSLATE\_STRING\_JSON;**

Now you should be all set to translate APEX applications.

Tip : To start you can use Trans APEX to translate itself. Whenever languages are added they should appear in the menu to choose from. This way you can explore the functionality of the application and see the result instantly. Remember to apply the translation to the APEX application otherwise the translation won't show with the latest translated texts!

Safe travels around the translation world!



## Disclaimer

Trans APEX is provided free of charge and can be used for any commercial or non commercial application. Use it at your own risk.

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Suggestions, improvements and encouragement can be send to transapex at [freedba.nl](mailto:transapex@freedba.nl)