Trans APEX EA 1.05

10-March-2016

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.

Contents

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 or system if possible) :

   grant select on APEX_050000.WWV_FLOW_LANGUAGES to <<Trans APEX schema>>;
   grant execute on DBMS_CRYPTO 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_ADMINISRATOR_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 for the procedure.

After this you need to create an Oracle wallet containing the certificates of the website www.googleapis.com. The procedure for this can be found on 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!


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Suggestions, improvements and encouragement can be send to transapex at freedba.nl