Unity Application Translator ©

Contents

1. Disclaimer:

These tools are provided as is and may not have been tested exhaustively. The use of the tool does not imply any responsibility for Schneider-Electric.

2. License:

This tool and the associated source is delivered under MIT license. Please read the associated license file.

3. General purpose:

These tools are intended to provide help to fasten action in unity and or do bulk operations.

They are provided primarily as command line tools. For the sake of example it can also provide an Excel add Ins or any other GUI. Excel extensions are provided as a zipped setup.

NB: Excel add Ins require at least excel 2010 installed

4. Trouble shooting:

In some cases the “add in” may not load on excel 2010. This is usually due to a wrong version of the [Microsoft VSTO 2010 Runtime] (vstor_redist.exe) – Minimum required version: 10.0.60724

The folder Pre-Requisite contains the redistribution for:

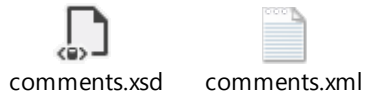
- .net 4.61
- Microsoft VSTO 2010 runtime

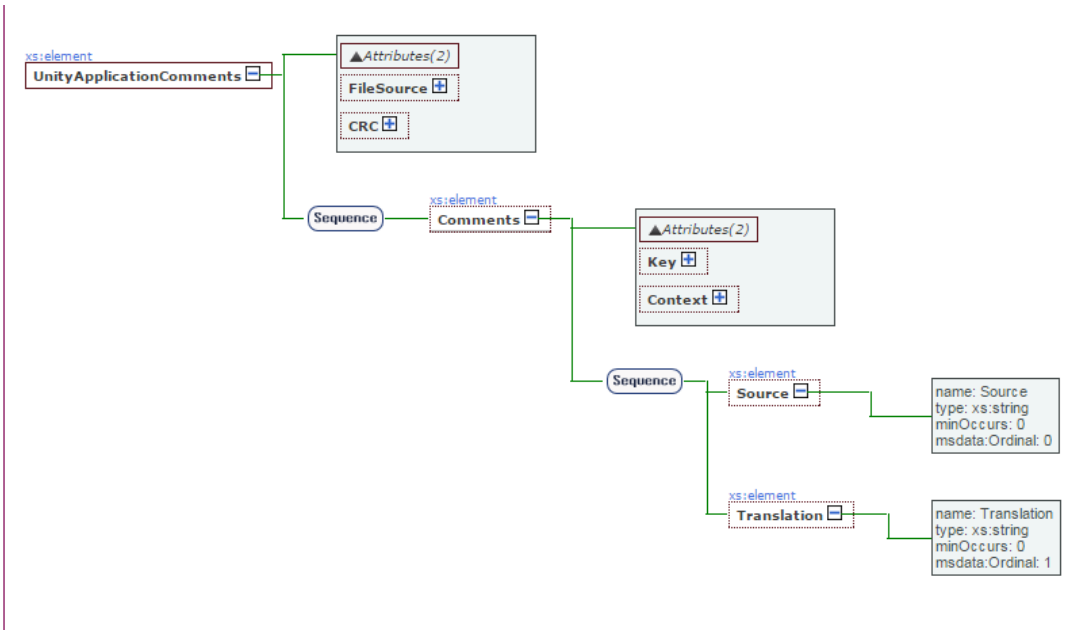
5. Unity Comments extraction:

This tool allows to extract and re-inject translated/modified comments into unity applications. The comments can be translated outside. It allows bulk operations.

5.1. Extracted file format (pivot format)

The extracted informations are stored in xml format. The xml schema and example:





Example:

(Arabic translation)

5.2. Command Line tool:

UnityTranslator.exe {command} {parameter1} {parameter2}

Command	Parameters1:	Parameter 2:	Comments
Extract	IN: Path of the Unity application file to read comments from. Could be STU/STA/ZEF.	OUT : xml file to store the resulting model (comments)	Pre-condition: {parameter1} is a valid unity application file. Reads all comments from application {parameter1} and save it into (parameter2). ⇨ Post-Condition: the file contains all comments from the unity applications.
Translate	IN-OUT :Path of the xml file which contains the comments to translate	IN : Language to translate to	Pre-condition: {parameter 1} is a valid comment xml model. {parameter2} is the code of a supported language. The tool will automatically translates the comments into the given language using Microsoft translate service. NB: a key for Microsoft translate is included but is limited to 2 000 000 char per month. 1. The resulting xml contains all comments and their translation in the given language {parameter2}. Remark: the original xml (parameter1) file is saved as .back before being translated.
Apply	IN :Path of the xml file containing the comments and their translations	OUT: Path of the Unity application file to update comments (.ZEF).	Pre-condition: {parameter1} is a valid file. Updates application provided in {Paramater2} with the translations in the model {Parameter1}. 2. The resulting applications are conform to the model.

5.3. Restriction / usage

The extract and apply commands does not require any connection with Microsoft Translator. The Translate command do. In order to use this automatic translation you need to have access to Microsoft Translator©. By default, the tool is delivered with 2 limited (free) sample account access.

The keys used to require automatic translations (translate command) are stored in **SE.UnityTranslator.exe.config** file for the command line tool and **SE.UnityTranslatorExcel.dll.config** file for the excel plugin.

The tool support up to 4 keys.
To replace the keys with your own account:

1) Create a keys in Microsoft translate tool as defined here: (steps1-4)
   https://msdn.microsoft.com/en-us/library/mt146806.aspx
2) Update the config file with `MicrosoftTranslatorAccountkey` as your client ID
   And `MicrosoftTranslatorAccountPwd` as your client secret.

NB: the keys are ordered. The tool will try the first, if it fails the second …. So put your own at first.

Example of .config file to update the credentials for Microsoft translator account:

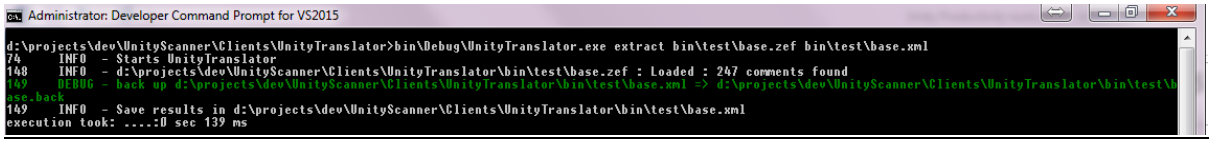
```
<appSettings>
    <!--first Microsoft account credentials - provided as sample-->
    <add key="MicrosoftTranslatorAccountkey1" value ="owned-app"/>
    <add key="MicrosoftTranslatorAccountPwd1" value ="xyzvft="/>
    <!--second alternative Microsoft account credentials - provided as sample-->
    <add key="MicrosoftTranslatorAccountkey2" value =""/>
    <add key="MicrosoftTranslatorAccountPwd2" value =""/>
    <!--third alternative Microsoft account credentials-->
    <add key="MicrosoftTranslatorAccountkey3" value =""/>
    <add key="MicrosoftTranslatorAccountPwd3" value =""/>
    <!--forth alternative Microsoft account credentials-->
    <add key="MicrosoftTranslatorAccountPwd4" value =""/>
    <add key="MicrosoftTranslatorAccountkey4" value =""/>
  </appSettings>
```

5.4. Log

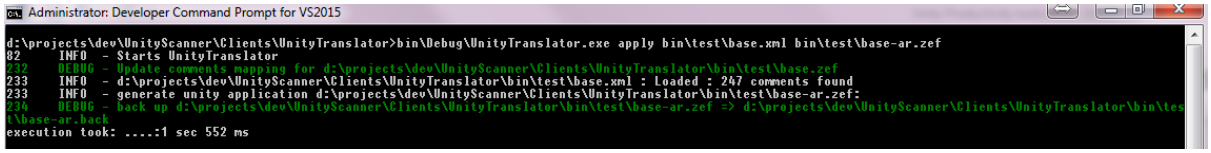
A log file is created and contain all actions/ errors.
It is located in: %programdata%\Schneider Electric\Translator

5.5. Examples:

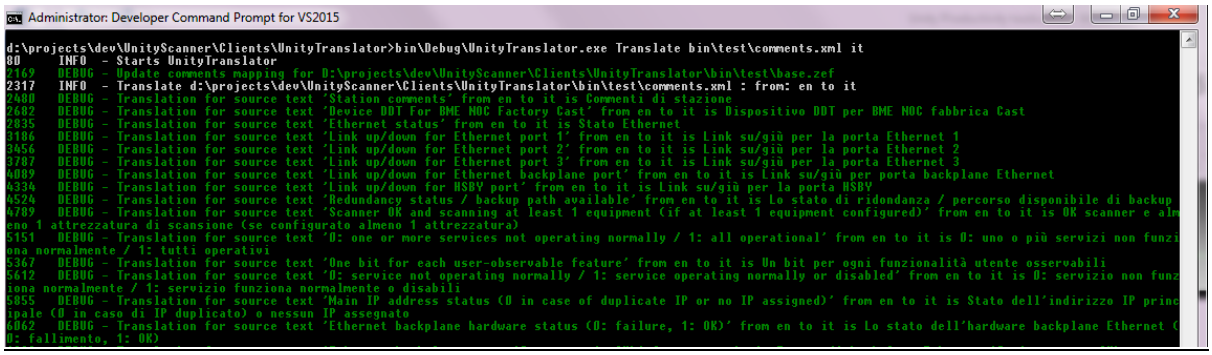
Extract:



Apply:



Translate:

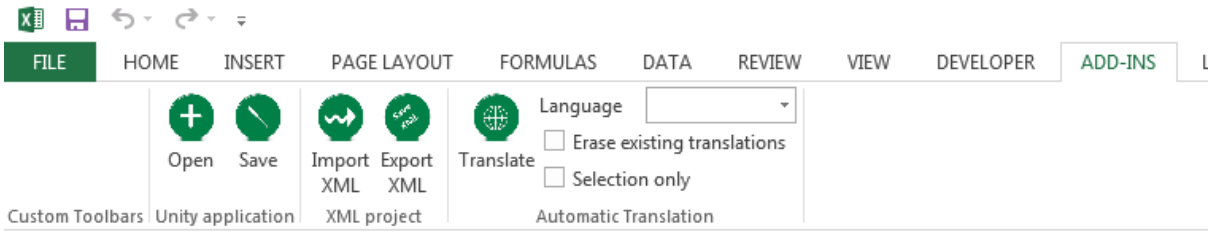


5.6. Excel add ins:

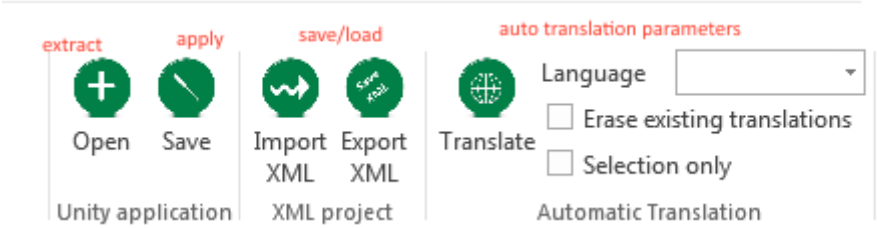
The Excel add in is designed to help doing bulk modifications/translations to all comments in a unity application. It allows to display, and modify the displayed comments using the power of excel. As it is based on the same xml model (cf 5.1), it may be useful to mix batch operations using command lines and edition operation using excel sheet.

After installation of the unity comment excel plugin, open Excel.

In the add-ins tab, you will find a bar with green buttons:

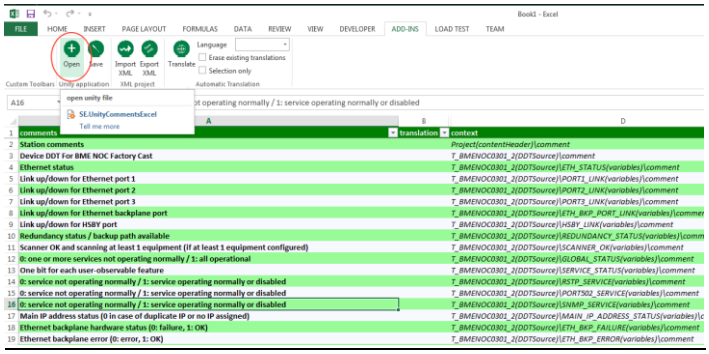


The buttons allow to pilot the extraction translation and generation of the comments.



<u>Usually the flow is:</u>

- open unity project.



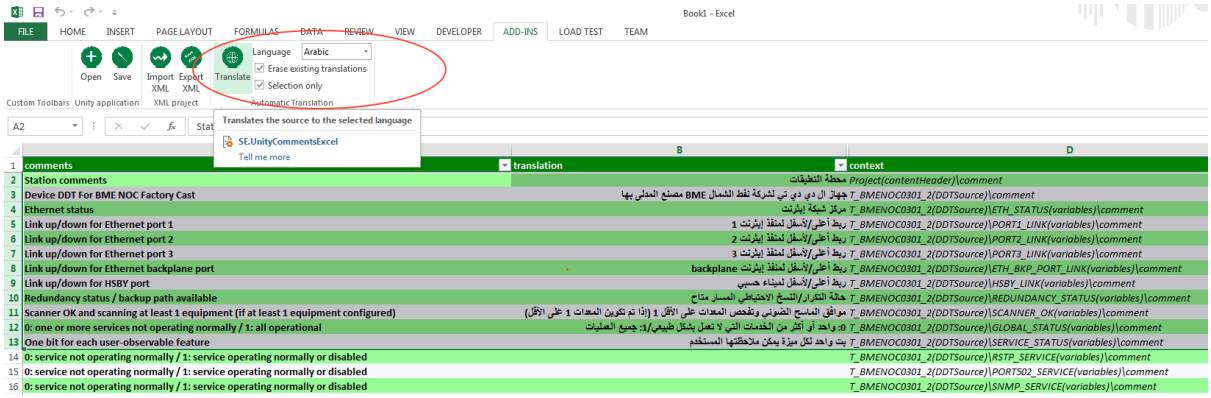
This will open the project, read the content, extract the comments and display them.
In this result sheet, the model structure is flat. Each line represent one comment in the source application. The second column will contain the translations/modifications of the comment at this

stage it is empty (just read an application), and then in column D the context is displayed. The context helps the operator to understand from where comes the comment: is it a comment in a code section or in the station properties or on a variable etc….

- Modify / translate the comments for example copy column A in column B and modify some of them. NB: during the save operation, if a comment is not translated/modified (empty col B) the original comment is used.

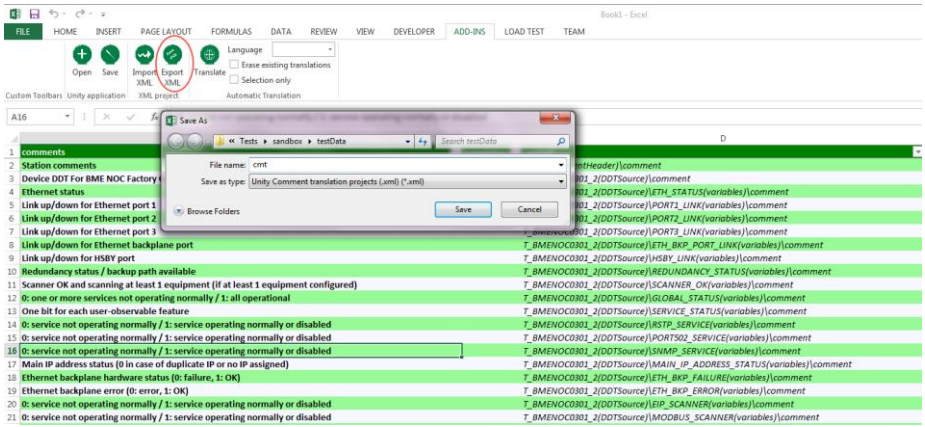
- Use the automatic translation: the tool allow to use Microsoft translator to propose a first version of the translation for the comments. For sure it needs to be checked but could be a quick first loop.

  When using the automatic translation, you need to:
  - Select the target language (source language will be determined automatically)
  - Adapt the combinable options as desired:
    - Check “erase existing translation” if and only if you want to re translate all comments, even the one already done (non-empty col B). If this option is unselected, only the non Blanc items will be translated.
    - Check “selection only” if you want to submit only the selected items to the translator. If not selected, the whole file is submitted.



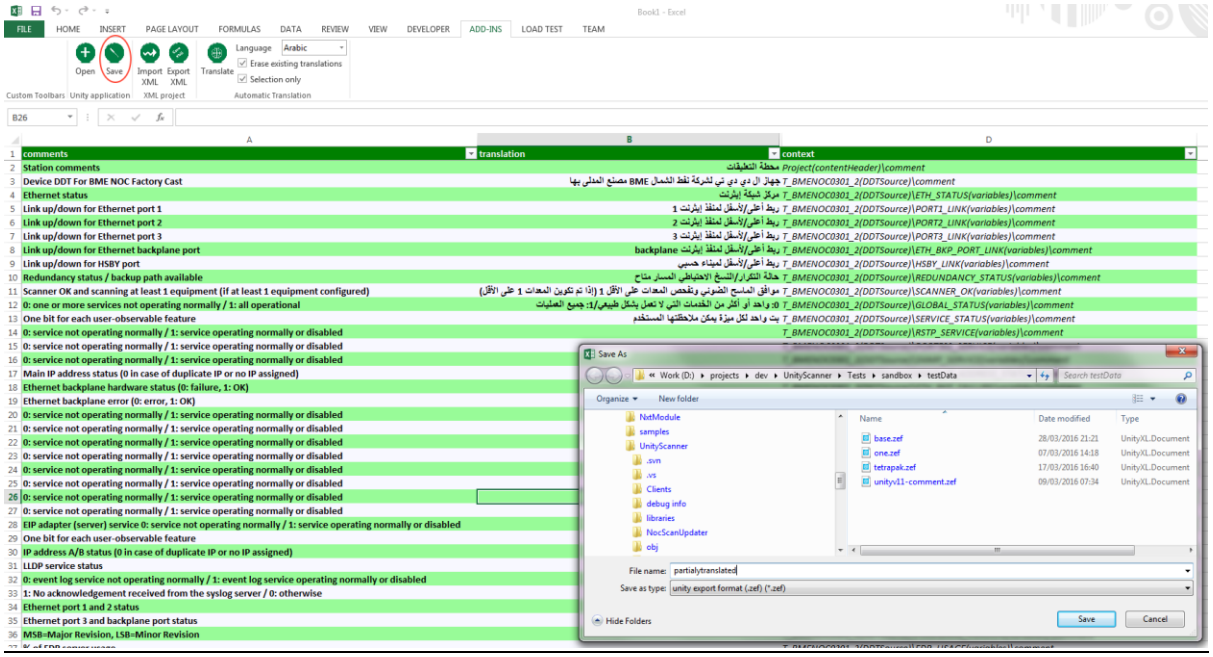
	comments	translation	context
2	Station comments	محطة التعليقات	Project(contentHeader)\comment
3	Device DDT For BME NOC Factory Cast	جهاز ال دي دي تي لشركة نقط الشمال BME مصنع المدلى بها	T_BMENOC0301_2(DDTSource)\comment
4	Ethernet status	مركز شبكة إيثرنت	T_BMENOC0301_2(DDTSource)\ETH_STATUS(variables)\comment
5	Link up/down for Ethernet port 1	ربط أعلى/أسفل لمنفذ إيثرنت 1	T_BMENOC0301_2(DDTSource)\PORT1_LINK(variables)\comment
6	Link up/down for Ethernet port 2	ربط أعلى/أسفل لمنفذ إيثرنت 2	T_BMENOC0301_2(DDTSource)\PORT2_LINK(variables)\comment
7	Link up/down for Ethernet port 3	ربط أعلى/أسفل لمنفذ إيثرنت 3	T_BMENOC0301_2(DDTSource)\PORT3_LINK(variables)\comment
8	Link up/down for Ethernet backplane port	ربط أعلى/أسفل لمنفذ إيثرنت backplane	T_BMENOC0301_2(DDTSource)\ETH_BKP_PORT_LINK(variables)\comment
9	Link up/down for HSBY port	ربط أعلى/أسفل لميناء حسبي	T_BMENOC0301_2(DDTSource)\HSBY_LINK(variables)\comment
10	Redundancy status / backup path available	حالة التكرار/النسخ الاحتياطي المسار متاح	T_BMENOC0301_2(DDTSource)\REDUNDANCY_STATUS(variables)\comment
11	Scanner OK and scanning at least 1 equipment (if at least 1 equipment configured)	موافق الماسح الضوئي وتفحص المعدات على الأقل 1 (إذا تم تكوين المعدات 1 على الأقل)	T_BMENOC0301_2(DDTSource)\SCANNER_OK(variables)\comment
12	0: one or more services not operating normally / 1: all operational	0: واحد أو أكثر من الخدمات التي لا تعمل بشكل طبيعي/1: جميع العمليات	T_BMENOC0301_2(DDTSource)\GLOBAL_STATUS(variables)\comment
13	One bit for each user-observable feature	بت واحد لكل ميزة يمكن ملاحظتها المستخدم	T_BMENOC0301_2(DDTSource)\SERVICE_STATUS(variables)\comment
14	0: service not operating normally / 1: service operating normally or disabled		T_BMENOC0301_2(DDTSource)\RSTP_SERVICE(variables)\comment
15	0: service not operating normally / 1: service operating normally or disabled		T_BMENOC0301_2(DDTSource)\PORT502_SERVICE(variables)\comment
16	0: service not operating normally / 1: service operating normally or disabled		T_BMENOC0301_2(DDTSource)\SNMP_SERVICE(variables)\comment

- Save the model, to be able to reopen it more quickly later.



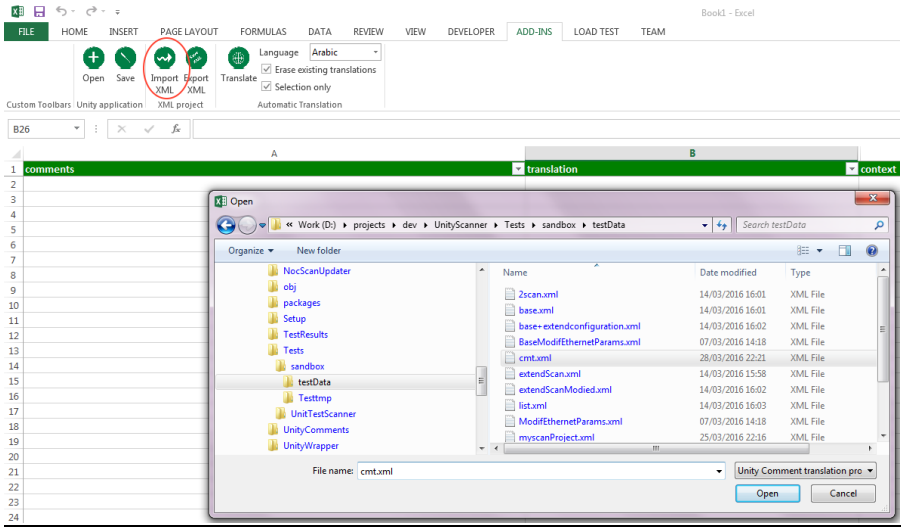
	comments	
2	Station comments	ntHeader)\comment
3	Device DDT For BME NOC Factory	01_2(DDTSource)\comment
4	Ethernet status	01_2(DDTSource)\ETH_STATUS(variables)\comment
5	Link up/down for Ethernet port 1	01_2(DDTSource)\PORT1_LINK(variables)\comment
6	Link up/down for Ethernet port 2	01_2(DDTSource)\PORT2_LINK(variables)\comment
7	Link up/down for Ethernet port 3	01_2(DDTSource)\PORT3_LINK(variables)\comment
8	Link up/down for Ethernet backplane port	T_BMENOC0301_2(DDTSource)\ETH_BKP_PORT_LINK(variables)\comment
9	Link up/down for HSBY port	T_BMENOC0301_2(DDTSource)\HSBY_LINK(variables)\comment
10	Redundancy status / backup path available	T_BMENOC0301_2(DDTSource)\REDUNDANCY_STATUS(variables)\comment
11	Scanner OK and scanning at least 1 equipment (if at least 1 equipment configured)	T_BMENOC0301_2(DDTSource)\SCANNER_OK(variables)\comment
12	0: one or more services not operating normally / 1: all operational	T_BMENOC0301_2(DDTSource)\GLOBAL_STATUS(variables)\comment
13	One bit for each user-observable feature	T_BMENOC0301_2(DDTSource)\SERVICE_STATUS(variables)\comment
14	0: service not operating normally / 1: service operating normally or disabled	T_BMENOC0301_2(DDTSource)\RSTP_SERVICE(variables)\comment
15	0: service not operating normally / 1: service operating normally or disabled	T_BMENOC0301_2(DDTSource)\PORT502_SERVICE(variables)\comment
16	0: service not operating normally / 1: service operating normally or disabled	T_BMENOC0301_2(DDTSource)\SNMP_SERVICE(variables)\comment
17	Main IP address status (0 in case of duplicate IP or no IP assigned)	T_BMENOC0301_2(DDTSource)\MAIN_IP_ADDRESS_STATUS(variables)\comment
18	Ethernet backplane hardware status (0: failure, 1: OK)	T_BMENOC0301_2(DDTSource)\ETH_BKP_FAILURE(variables)\comment
19	Ethernet backplane error (0: error, 1: OK)	T_BMENOC0301_2(DDTSource)\ETH_BKP_ERROR(variables)\comment
20	0: service not operating normally / 1: service operating normally or disabled	T_BMENOC0301_2(DDTSource)\EIP_SCANNER(variables)\comment
21	0: service not operating normally / 1: service operating normally or disabled	T_BMENOC0301_2(DDTSource)\MODBUS_SCANNER(variables)\comment

- Update unity applications



This will update the application with the translations/modifications.

- Load model



This will reload the xml file into the worksheet