Grandstream Networks, Inc.

XML Configuration File Generator User Guide
(For Windows Users)

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INTRODUCTION

All Grandstream SIP products support being provisioned by an XML configuration file which consists of <Pxxxxx > tags (xxxxx is a number that can be 0-99999) known as P values. Every P value is mapped to a configurable option of the device. By setting/changing the values of those P values, we can provision the device with zero touch. This XML provisioning mechanism is beneficial to every GS customer since the very beginning. To learn more about Grandstream SIP device provisioning, please refer GS SIP Device Provisioning Guide.

Since there are thousands of P values for each product, and all required configurations come with a default value, usually there is no need to set all the P values but only the ones to be customized in real usage. Also, some users, especially resellers and VoIP providers, need to deploy a lot of devices by using the XML files that only have different SIP credentials while all other settings such as network settings, call feature settings, audio settings and etc are the same. Creating XML file one by one for each device is very time consuming. This XML configuration file generator is designed to save time for these customers in this situation.

The principle of this software is use a TXT format file to store all these "same" values of P values, and use a CSV format file to store the "various" value of P values, and generate a batch of XML configuration files from the two input files, with most identical settings having only a few fields different.

This user guide introduces how to use the windows-based XML configuration file generator to create XML configuration files.

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CHANGE LOG

Version 3.1

Added IP address setting in CSV file.

Fixed encrypt xml file could crash because of some template have non-ascii string issue.

Version 3.0

Initial Version of 3.x, changed GUI frame work from windows 2.3.

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FILES IN THE PACKAGE

After unzipping the software package, you will find all the files similar to below screenshot.

📁 Example_Configure_CSV_file	7/21/2017 8:16 AM	File folder		
🔧 GSXmlGenerator_3.1.exe	7/21/2017 8:13 AM	Application	14,890 KB	
📄 xml_configuration_file_generator_windows_user_guide.docx	7/23/2017 4:42 PM	Microsoft Word D...	436 KB	

Figure 1: Files in the package

GSXmlGenerator_[version].exe: the program to generate XML configuration file.

Example_Configure_CSV_file: It's a folder contains two example files. One example file is the "TXT format file" which is the configuration template containing all the constant P values (SIP credential P values can be different). The other is a CSV file which contains variables for SIP credential related P values.

xml_configuration_file_generator_windows_user_guide.docx: User Manual.

Example TXT Config Template (Config_Example.txt)

Below is the txt config template in the downloaded folder. It only includes a few P values for the most basic SIP account settings. You can always add as many P values as you need. To find all the P values, you can download the full P value config template for all the devices from Grandstream Networks official website tools page.

```
################################################################################
####    Configuration Template Example for testing the converting tool    ####
################################################################################
######################################################
## Example P values                                ##
######################################################

# Account 1:
# Account Active. 0 - No, 1 - Yes. Default value is 0
# Number: 0, 1
P271 =

# Account Name
P270 =

# SIP Server
P47 =

# SIP User ID
P35 =

# SIP Authenticate ID
P36 =

# SIP Authenticate Password
P34 =
```

```
# Name (Display Name, e.g., John Doe)
P3 =

# Account 2:
# Account Active. 0 - No, 1 - Yes. Default value is 0
# Number: 0, 1
P401 =

# Account Name
P417 =

# SIP Server
P402 =

# SIP User ID
P404 =

# SIP Authenticate ID
P405 =

# SIP Authenticate Password
P406 =

# Name (Display Name, e.g., John Doe)
P407 =

### IP Address.
### Note: Please change Subnet mask, Gateway, DNS Servers to your network.
### GS_XML_Generator will only configure the IP address.

# IP Address Mode. 0 - DHCP, 1 - Static IP, 2 - PPPoE
# Number: 0,1,2
# Mandatory
# Reboot required
# If you want to use this tool to set IP address, set P8=1 then.
P8=1

#IP Address. Ignore if DHCP or PPPoE is used
P9=
P10=
P11=
P12=

#Subnet mask. Ignore if DHCP or PPPoE is used
P13=
P14=
P15=
P16=

#Gateway. Ignore if DHCP or PPPoE is used
P17=
P18=
P19=
P20=

#DNS server 1. Ignore if DHCP or PPPoE is used
P21=
```

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```
P22=
P23=
P24=

#DNS server 2. Ignore if DHCP or PPPoE is used
P25=
P26=
P27=
P28=
###################################################################
## Example P values End                                          ##
###################################################################
```

There are some regulations for the txt config template file:

1. Lines starting with "#" will be commented in XML file.

2. Lines starting with "Pxxxxx = value" will be set in XML as <Pxxxxx>values</Pxxxxx>

3. The SIP account 1 and account 2 related P values in template will be replaced with the value in the CSV file and all other values will use the same ones in template. For example, if we set SIP server P47 = Grandstream.com in the template, all the XML files will be <P47>Grandstream.com</P47>.
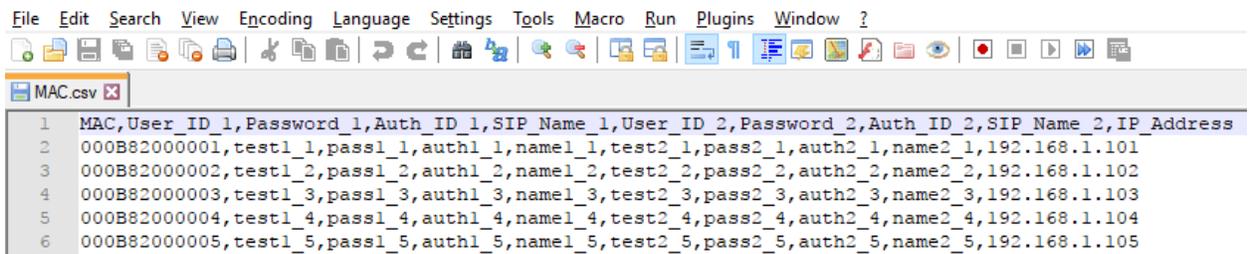
Example CSV File (MAC.csv)

You can open and edit the CSV file in MS Office Excel or editor like Notepad++ (be aware of the comma).

MS Office Excel:

	A	B	C	D	E	F	G	H	I	J
1	MAC	User_ID_1	Password_1	Auth_ID_1	SIP_Name_1	User_ID_2	Password_2	Auth_ID_2	SIP_Name_2	IP_Address
2	000B82000001	test1_1	pass1_1	auth1_1	name1_1	test2_1	pass2_1	auth2_1	name2_1	192.168.1.101
3	000B82000002	test1_2	pass1_2	auth1_2	name1_2	test2_2	pass2_2	auth2_2	name2_2	192.168.1.102
4	000B82000003	test1_3	pass1_3	auth1_3	name1_3	test2_3	pass2_3	auth2_3	name2_3	192.168.1.103
5	000B82000004	test1_4	pass1_4	auth1_4	name1_4	test2_4	pass2_4	auth2_4	name2_4	192.168.1.104
6	000B82000005	test1_5	pass1_5	auth1_5	name1_5	test2_5	pass2_5	auth2_5	name2_5	192.168.1.105

Figure 2: Example CSV file in Excel

Notepad++

File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins   Window   ?

MAC.csv

```
1  MAC,User_ID_1,Password_1,Auth_ID_1,SIP_Name_1,User_ID_2,Password_2,Auth_ID_2,SIP_Name_2,IP_Address
2  000B82000001,test1_1,pass1_1,auth1_1,name1_1,test2_1,pass2_1,auth2_1,name2_1,192.168.1.101
3  000B82000002,test1_2,pass1_2,auth1_2,name1_2,test2_2,pass2_2,auth2_2,name2_2,192.168.1.102
4  000B82000003,test1_3,pass1_3,auth1_3,name1_3,test2_3,pass2_3,auth2_3,name2_3,192.168.1.103
5  000B82000004,test1_4,pass1_4,auth1_4,name1_4,test2_4,pass2_4,auth2_4,name2_4,192.168.1.104
6  000B82000005,test1_5,pass1_5,auth1_5,name1_5,test2_5,pass2_5,auth2_5,name2_5,192.168.1.105
```

Figure 3: Example CSV file in Notepad++

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There are some regulations for the CSV file:

1. The first line of the CSV must not be changed. This applies to the content as well as the order.

2. The MAC address is used for identifying each XML files. Therefore, the value of MAC address in CSV file cannot be duplicated or blank. Duplicated MAC address will cause an error and stop the process; a blank MAC address will cause a warning and bypass the line to keep processing.

3. The MAC address must start with 000b82 or 000B82 which means it is a Grandstream product.

4. Other than MAC address, all other settings in CSV file are optional and can be left blank.

USE THE XML CONFIGURATION GENERATOR
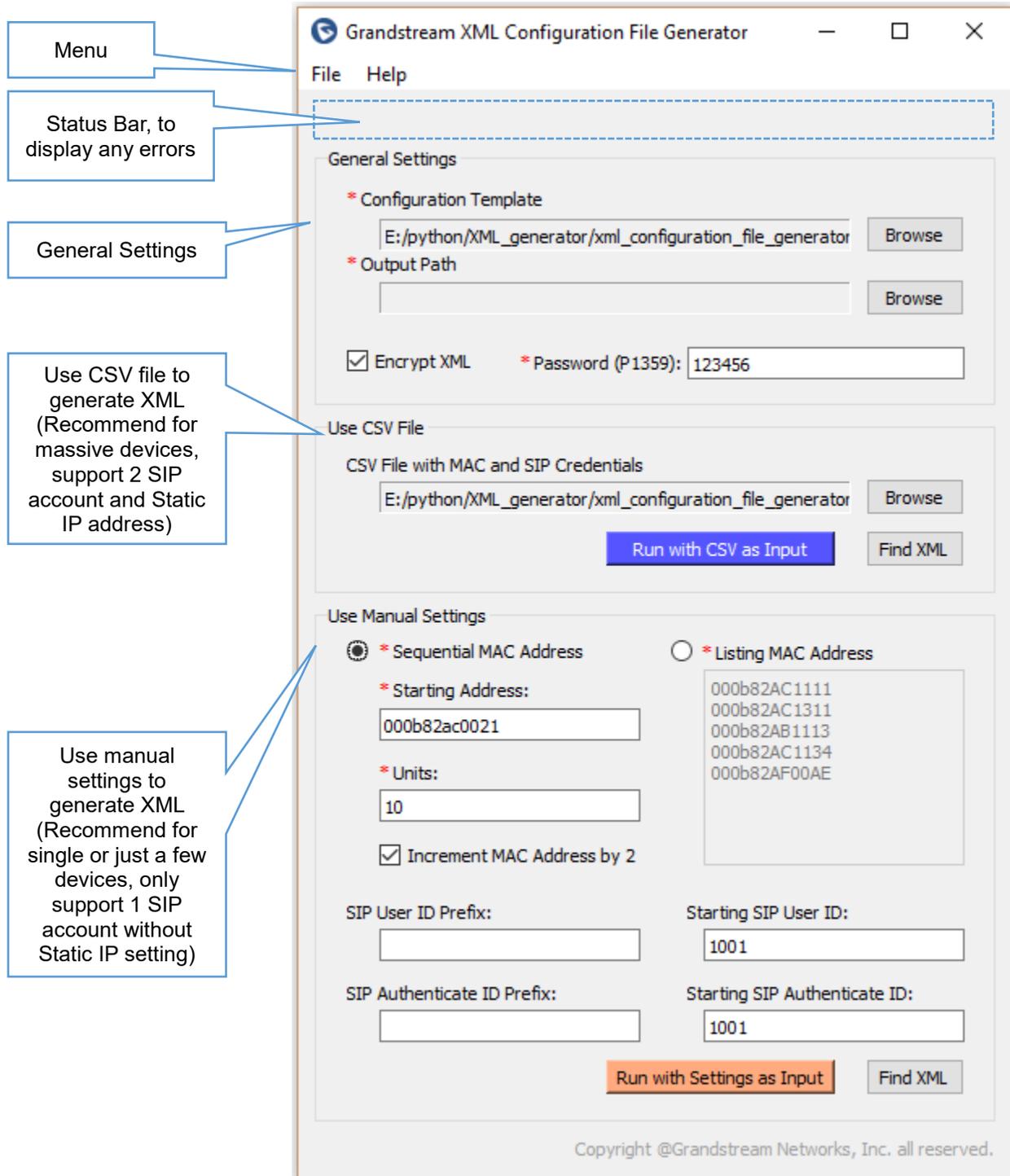
Familiar with Program GUI

Menu

Status Bar, to display any errors

General Settings

Use CSV file to generate XML (Recommend for massive devices, support 2 SIP account and Static IP address)

Use manual settings to generate XML (Recommend for single or just a few devices, only support 1 SIP account without Static IP setting)

Figure 4: Program GUI

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Program Menu

Program menu provide 2 functions allow user to change the XML header text and reset all the field to make this tool more helpful for general users. You can use the help menu to access the user manual online.

Figure 5: Program Menu

Menu	Description
Set XML Header	Default XML header is "Grandstream XML Provisioning Configuration", you can change the file header to others. Shortcut is Ctrl + S.
Reset All Fields	Click to clear all the input on the program GUI. Shortcut is Ctrl + R.
About	Version and copyright about this program.
Help	Click to open the online User Manual. Shortcut is F1.

General Settings

You can use this tool to generate XML configuration either by CSV file or manual setting each time. For both method, user must configure this General Settings section. User must choose the configuration template which is a TXT file, and the output path. User can optional choose to encrypt the XML file or not. Any pre-check error will display in the Status Bar.
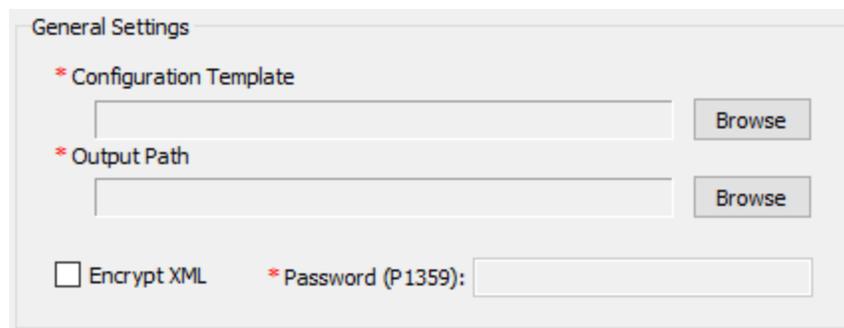

Figure 6: General Settings

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General Settings	Description
Configuration Template	Click "Browse" button to choose the TXT template you want to use. You can download all the P values from Grandstream Support page and add more P value to the template. Only SIP account 1, account 2 and IP address will be change to the ones in CSV files or manual setting, all others will use the same value in your template, this can be used to deploy a lot of devices that only have SIP account vary but all other codec, call features are the same.
Output Path	Click "Browse" button to choose the output path of your XML files.
Encrypt XML	Check this option if you want to encrypt your XML files.
Password	If you checked "Encrypt XML" option, you can enter the password here. The password cannot be null and should only contains ASCII characters between 33 to 126. If you choose to encrypt the XML files, make sure your devices have pre-configured P1359 with the same value of this password. When the device tries to be provisioned by the XML file, it will use P1359 to decrypt the XML file. More detailed please refer GS Provisioning Guide.

Use CSV file to Generate XML files

Use CSV file is one option to use this tool, after you click "Browse" button choose the CSV file, click the "Run with CSV as input" will start to generate the XML files, after completed, you will see a message box with either success info or error info. Any pre-check error will display in the Status Bar. You can click the "Find XML" file to open the Output Path you configured in the General Settings.
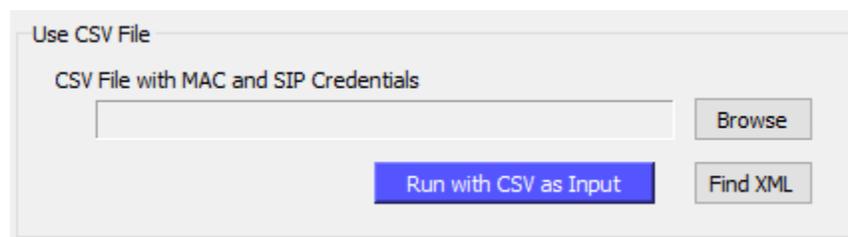

Figure 7: Use CSV file to generate XML

Use CSV File	Description
CSV File with MAC and SIP credentials	Click "Browse" button to choose the CSV file you want to use. The csv file requires a MAC field in each row and optional to have SIP account 1, SIP account 2 and IP address settings. The CSV file each row corresponding a XML file. Every XML file will be named as cfg{MAC}.xml and use the values in CSV file, if no values been find in CSV, it will use null value. If the P option is not in the TXT, it will also not be included in the XML file.
Run with CSV as Input	Click this button will start to generate the XML files.

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Find XML	Click this button will open the directory of your configured XML Output path.	

Use Manual Settings to Generate XML Files

If you don't have very much devices need XML files, you can choose to use manual settings which is convenient without any need to configure the CSV file. You can choose to use either sequential MAC address or listing Mac address to do so.

If you select "Sequential MAC Address", you will need set the starting address and units (how many device you have) and if the MAC address is increment by 2 (by default is increment by 1).

If you select "Listing MAC address", you will need emulate all the MAC address in the text field, break them by changing lines, must have no break signs like , ; : " " between the MAC address but just change the lines. The MAC address is not capital sensitive.

Click the "Run with Settings as Input" will start to generate the XML files, after completed, you will see a message box with either success info or error info. Any pre-check error will display in the Status Bar. You can click the "Find XML" file to open the Output Path you configured in the General Settings.
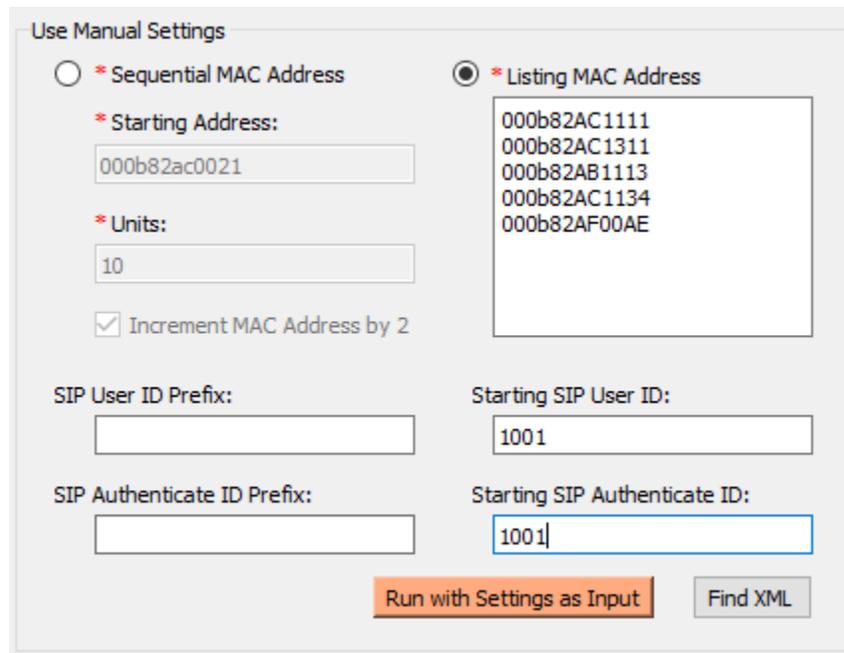

Figure 8: Use Manual Settings

Use Manual Settings		Description
Sequential MAC Address	Starting Address	Select "Sequential MAC address" will use this sequential MAC address settings. Will generate XML files by the 4 SIP User ID/Authenticate ID fields. All the P values will keep as the same as in

		the TXT file.
	Unites	Enter the units of device, this is the number of output XML files as well.
	Increment MAC address by 2	Check this option if you want to increment MAC address by 2 instead of default 1.
Listing MAC address	Select "Listing MAC Address" will use all the listed MAC address in this text field. Every MAC address is divided by new line. Must not contain any special break sign such as , : ; "" in the MAC address.	
SIP User ID Prefix	The prefix for SIP User ID, it can be numbers or strings, if you set Prefix to 100, and Starting SIP User ID as 1, the SIP User ID be generated will be 1001, or if the prefix is "Company", and the start SIP User ID is 1001, the generated User ID will be "Company1001". It will increment by 1 since the first sequential MAC address or listing MAC address.	
Starting SIP User ID	The SIP User ID, it can be numbers or strings, if you set Prefix to 100, and Starting SIP User ID as 1, the SIP User ID be generated will be 1001, or if the prefix is "Company", and the start SIP User ID is 1001, the generated User ID will be "Company1001". It will increment by 1 since the first sequential MAC address or listing MAC address.	
SIP Authenticate ID Prefix	The prefix for SIP Authenticate ID, it can be numbers or strings, if you set Prefix to 100, and Starting SIP User ID as 1, the SIP User ID be generated will be 1001, or if the prefix is "Company", and the start SIP User ID is 1001, the generated User ID will be "Company1001". It will increment by 1 since the first sequential MAC address or listing MAC address.	
Starting SIP Authenticate ID	The SIP Authenticate ID, it can be numbers or strings, if you set Prefix to 100, and Starting SIP User ID as 1, the SIP User ID be generated will be 1001, or if the prefix is "Company", and the start SIP User ID is 1001, the generated User ID will be "Company1001". It will increment by 1 since the first sequential MAC address or listing MAC address.	

Troubleshooting

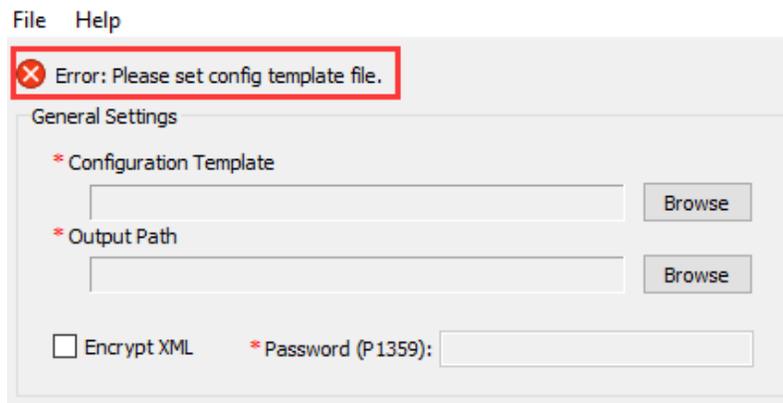The Status bar will indicate all the errors you might meet. Please fix the error and retry.

Figure 9: Status Bar Errors Example

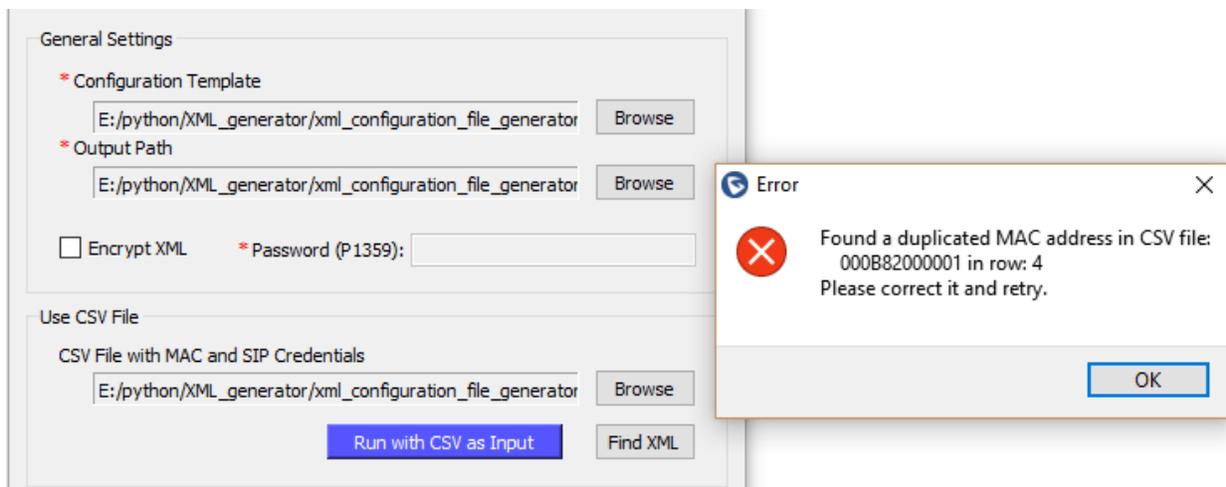There might be some critical error will prompt a message box. Please fix the error it prompt.

Figure 10: Message Box Errors Example

If you meet any program Exception Errors, you may contact our helpdesk or support engineer for more help.