No. TW-ALL-DS-20150901
Date: Sep. 1, 2015

To: Service Managers of MG Distributors
Cc: Sales Managers of MG Distributors

SUBJECT: SAIC SIPS User Manual

Vehicle concerned: ALL

Introduction

SAIC Integrated Program System (hereinafter referred to as SIPS) is an online program system for AP13 and subsequent new models with electrical appliance architecture. Unlike the previous VDS diagnostic software, SIPS acquires data files and vehicle manufacturing data in the manufacturer's server through the network. It accomplishes vehicle update, configuration, replacement, etc by using client App to write the acquired data and files into the vehicle ECU. This manual takes AP13 model as an example, which introduces the functions and operating instructions of the SIPS. The purpose of this manual is to facilitate maintenance engineers in daily work and help them to fully understand and correctly use the diagnostic tools so as to improve work efficiency.

The content of this manual is based on the SIPS Diagnostic System (version No. 1.0.0.2). With the update of version, manuals of new version will be released. Upon release of the new version, this manual will become null and void automatically. Please pay attention to the release of new versions.

Chapter 1 of this manual briefly introduces the function and operating environment of SAIC Integrated Program System (SIPS).

Chapter 2 introduces the procedures for operating SIPS Boot function.

Chapter 3 describes SIPS client App functions and operating instructions of all functions.

Chapter 4 introduces ServiceNow web functions and operating instructions of all functions.

Version Information

Release File	Version Number	Release Date	Description
SAIC Integrated Program System (SIPS) User Manual	V1.0	2015-09-01	First release. Cover AP13 AS21 model

Contents

Chapter 1 SAIC Integrated Program System (SIPS)

Unlike the previous VDS diagnostic software, SAIC Integrated Program System (hereinafter referred to as SIPS) is based on the data files and vehicle manufacturing data in the manufacturer's server. In online mode, it uses client App to update, configure and replace the vehicle ECU. The AP13 is the first application model, for this model, the VDS accomplishes vehicle diagnosis (DTCs reading, real-time display, ECU information, etc); the SIPS system accomplishes Programming and Coding, etc (including update, configuration, replace, key addition/deletion, etc).

The SIPS system consists of two parts: SIPS client App and ServiceNow web:

- SIPS client App: communicate with the vehicle and accomplish the relevant function of programming and coding through VDI (Vehicle Diagnostic Interface),.
- ServiceNow web: the SIPS is a subfunction under the menu of SNW diagnostic function, which includes SIPS Boot, Vehicle Config. Search, Controller Information Query, and SIPS Info View.

Note

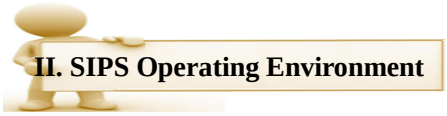
The SIPS system continues to use original VDI equipment. For description of VDI, please refer to ***VDI_User_Manual*** issued on SNW.

I. Accounts and Permissions

The accounts of technical manager and workshop supervisor own the permission of SIPS system. This permission has been added automatically when SIPS is online, so no additional application is required. Technical manager and workshop supervisor may also use the offline diagnostic system under the diagnostic function. Under the "Diagnose" option, they can use relevant functions of the SIPS system.

Note

1. Operation of the SIPS client App does not affect other functions of the website;
2. If the client App doesn't exit normally (e.g. force shutdown, crash, etc), the account will be locked for 30 minutes. The account will not be able to boot the SIPS client App within 30 minutes, but the user can access the ServiceNow and use other functions of the website.



II. SIPS Operating Environment

1 Requirement for SIPS Operating Environment

To ensure normal operation of the SIPS, the following basic conditions shall be satisfied:

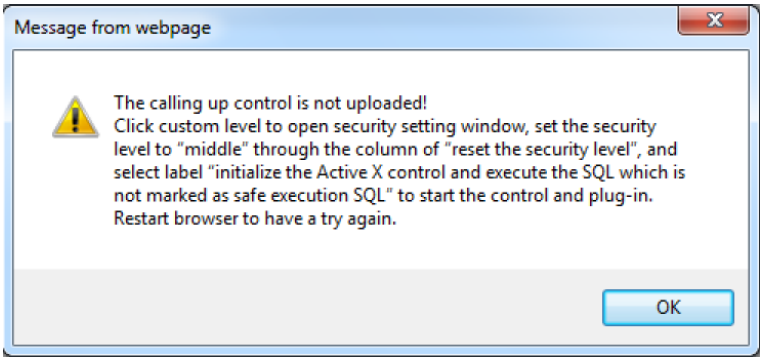
- The computer software and hardware meets the requirements for configuration standardized diagnosis computer.
- When using SIPS client App, the user shall acquire information from the manufacturer's database. When running SIPS client App, ensure that the network is connected normally.
- Since VDS, GDS and SIPS shares the same VDI, once VDI is used by a certain program, other programs will be unable to communicate with the vehicle. When using SIPS client App, please ensure VDI works normally, and not be used by VDS, GDS or VCI Manager.

Note

1. For software and hardware requirement for standardized diagnosis computer, please see configuration requirement for standardized diagnostic computer.
2. To ensure normal operation of the SIPS client App, the **.Net Framework 3.5&4.0** program is added to the software requirement.

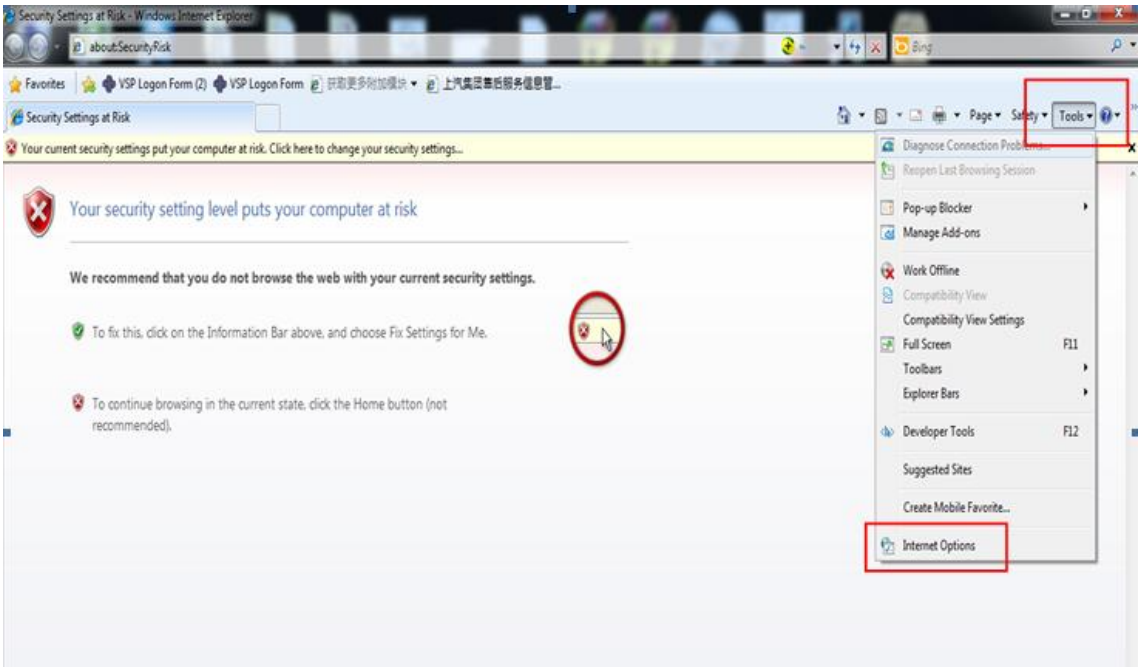
2 Security Setting of IE Browser

Prior to the use of SIPS system, please do the security setting of IE browser. Otherwise, during the use of SIPS Boot function, the condition is shown as below.

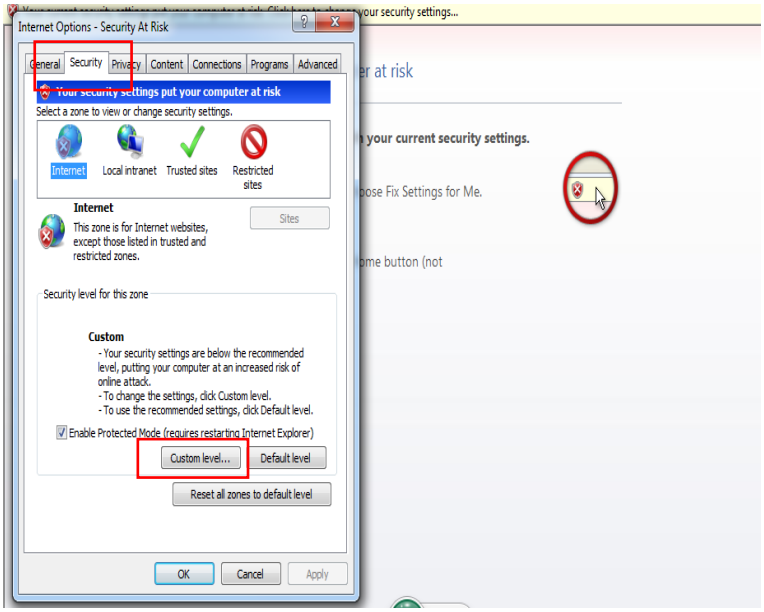


Procedures for IE Browser Security Setting:

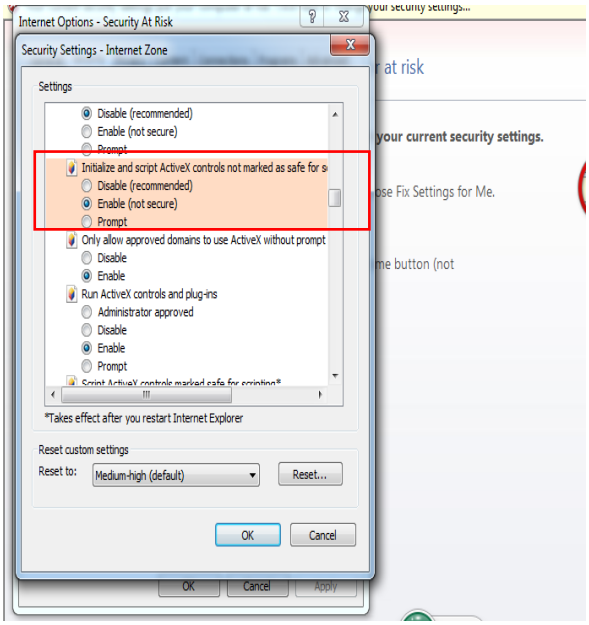
Step 1: Click "Tools" in the IE browser, then select "Internet" Option.



Step2: Select "Security" tab and then click Custom Level button.



Step 3: “Initialize and script ActiveX controls not marked as safe for script”, check "Enable" and then click OK button.



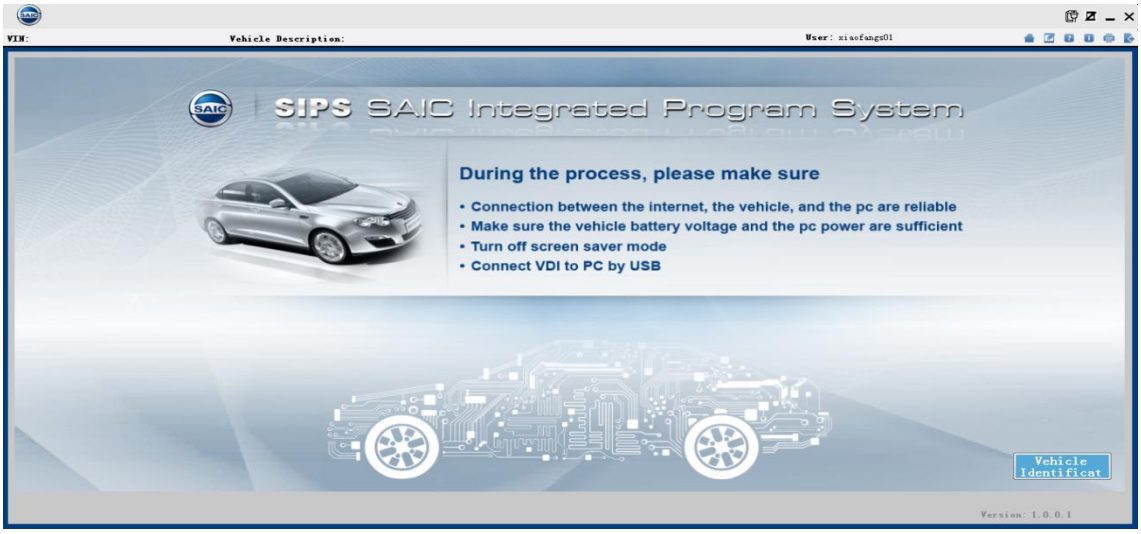
Step 5: Exit Settings interface and then restart the IE browser.

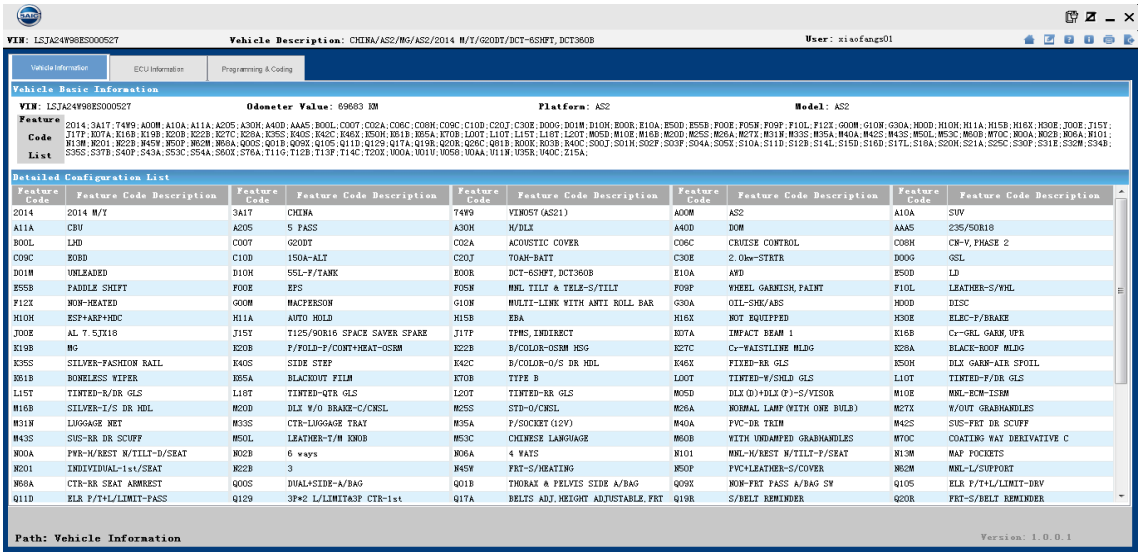
III.SIPS Client App

SIPS client App is installed to the local computer by installation client App. It connects with the vehicle through VDI and accomplishes diagnosis and maintenance of the vehicle.

After booting and opening the SIPS client App, default is the main interface of vehicle Identification. After finishing vehicle identification, the SIPS interface contains 3 tabs: "Vehicle Information", "ECU Information" and "Programming and Coding". The default interface is "Vehicle Information" tab.

Table 1-1 shows main SIPS icons, buttons and tab functions. For details, please refer to ***Function of SIPS Client App, Chapter 3***.





Item	Description	Function
	Battery level	Diagnosis computer battery level and state of charge.
	VDI connection mode	VDI connection, connection mode includes USB, wireless, and wired networks.

	Minimize	Minimize the SIPS client App window.
	Close	Close the SIPS client App window and then exit the client App.
VIN	VIN	Display the vehicle frame number identified during vehicle identification and subsequent operations are based on this VIN.
Kilometer	Kilometer	Display mileage of current maintenance vehicle.
Vehicle Description	Vehicle Description	Information of current maintenance vehicle.
User	User	Display the account information of SIPS current user.
	Main interface	During SIPS runtime process, after being clicked, SIPS goes back to the main interface (Figure 1-1).
	VDI Manager	Click VDI Manager.
	Help	Click SIPS help information.
	Version information	Version update and explanation.
	Print	Print current interface displayed.
	Log file export	Export the log file of SIPS client App.
Please ensure during opeartion	Prompt	Notes for running SIPS client App.
Vehicle identification	Vehicle identification	Including automatic identification and manual identification.
Version number	Version information	The version information of SIPS client App.
Vehicle information	Vehicle information tab	Display vehicle relevant information.
ECU information	ECU information tab	Display vehicle ECU information and data released by the manufacturer.
Programming and coding	Programming and coding tab	Accomplish vehicle update, configuration, replacement, etc.
Path	Path	The path of currently running SIPS function.

Table 1-1

IV. ServiceNow Web

The SIPS system is released through the ServiceNow website (http://dmsportal.saicmotor.com/dmsportal/). Login the ServiceNow website and then under the "diagnose" option, open relevant functions of SIPS system: SIPS Boot, Vehicle Config Search, Controller Information Query, and SIPS Info View, as shown in the following figure.

- SIPS Boot: install, upgrade and boot the SIPS client App.
- Vehicle Config Search: query the vehicle configuration information.
- Controller Information Query: query the latest software information of maintenance vehicle in the manufacturer's database.
- SIPS Info View: view and download the user manual and bulletin information of SIPS system.

Chapter 2 SIPS Boot Function

Login ServiceNow, and then use the path “Diagnose→SAIC Integrated Program System (SIPS) →SIPS Boot” to enable SIPS Boot function.

SIPS boot function: accomplish installation, upgrade and boot of SIPS client App.

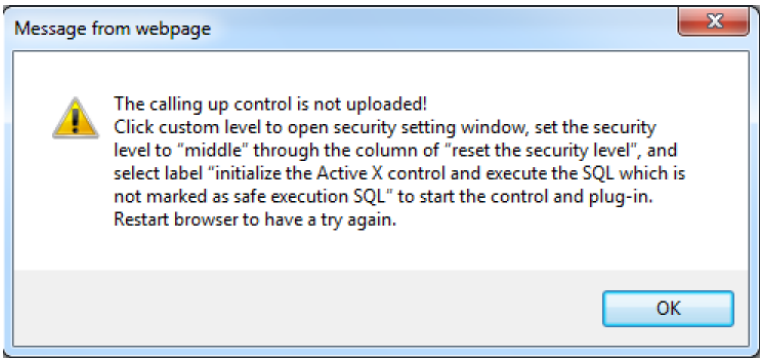
I. First Use of SIPS

Procedures for Booting SIPS:

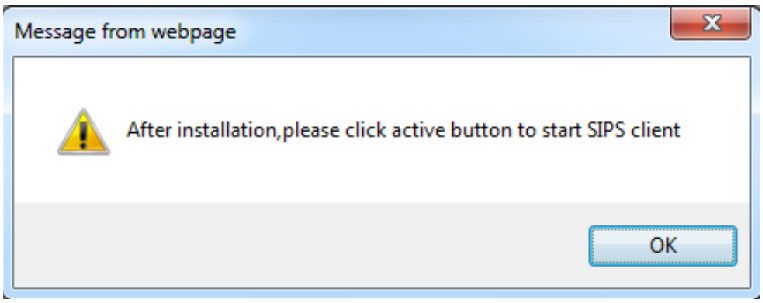
Step 1: Use the path “Diagnose→SAIC Integrated Program System (SIPS) →SIPS Boot” to enter into SIPS Boot function.

Step 2: Enter into the SIPS Boot interface, display relevant version information of the SIPS client App, and then click SIPS;

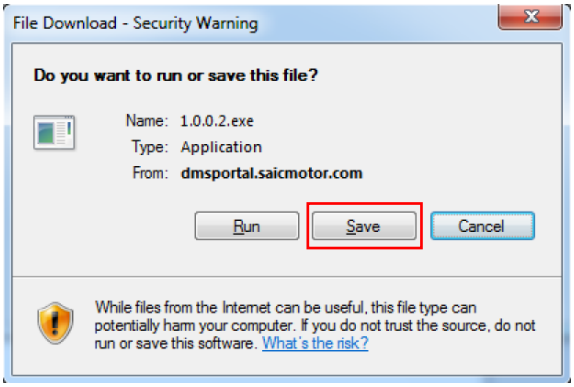
Step 3: When using the SIPS client App, it may appear the prompt message shown as below. Please do the settings according to the instructions described in the ***Security Setting of IE Browser***, and then repeat Step 1.

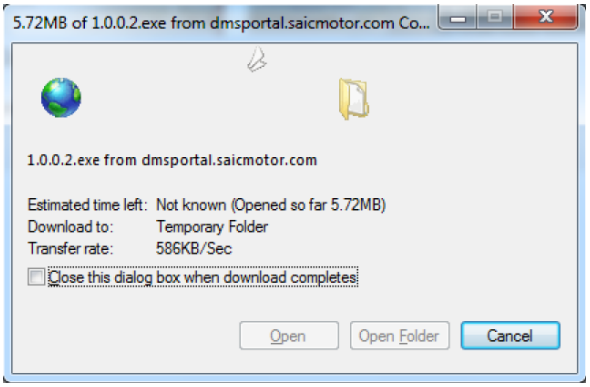


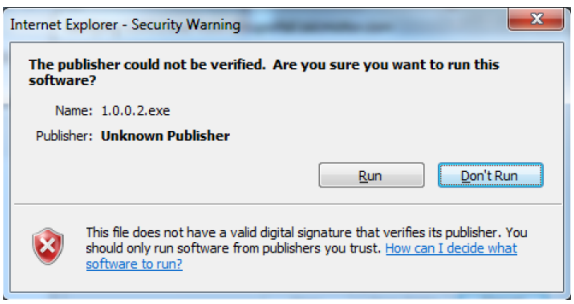
Step 4: If the SIPS client App (for first use or after manually deleting SIPS) isn't installed, it may appear the prompt message shown as below. Click "OK" to execute the downloading and installation operation of SIPS client App; if the SIPS client App has been installed, please directly execute Step 8.



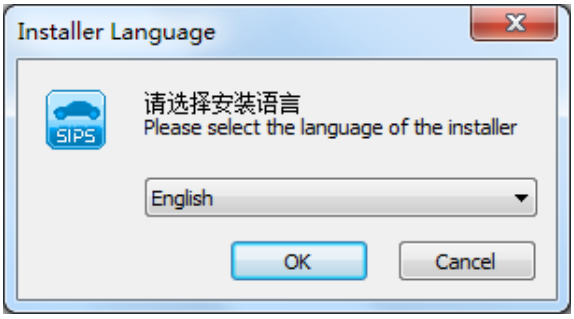
Step 5: Start to execute the downloading process of SIPS client App. After finishing downloading，click "Run" to execute installation process. Click "Save" to execute program downloading only. After finishing downloading, you may manually click the program to execute installation. Click "Cancel" to exit.

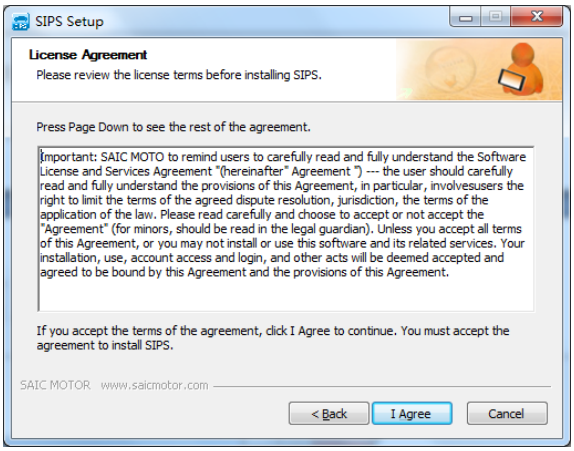


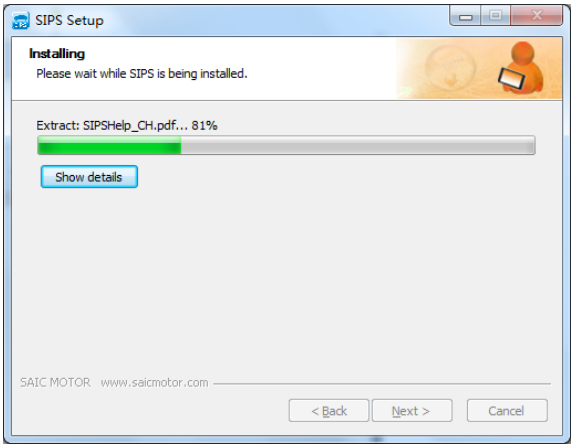


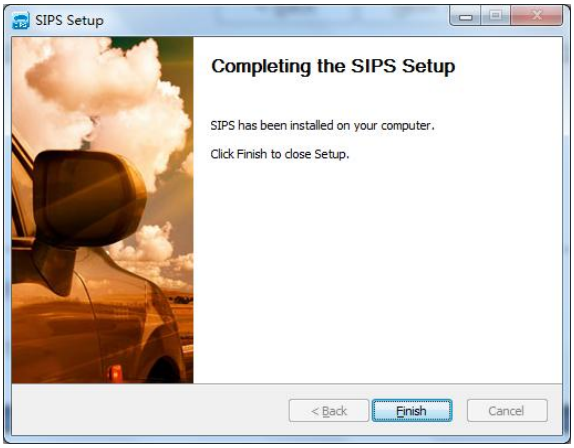


Step 6: Start the installation of SIPS client App.



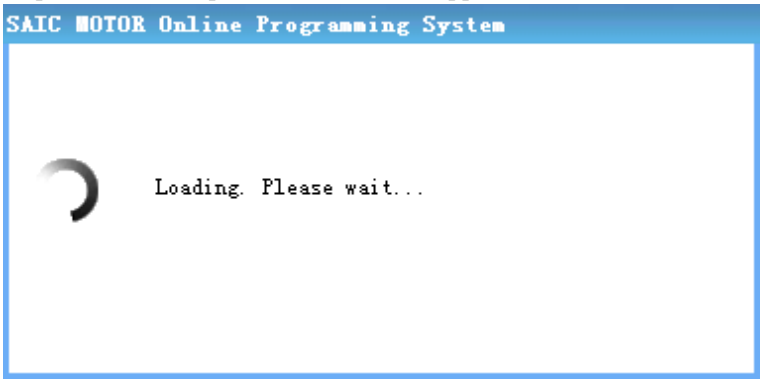






Step 7: After finishing downloading and installation of the SIPS client App, re-enter into the SIPS Boot interface, and then click ;

Step 8: Boot and open the SIPS client App.



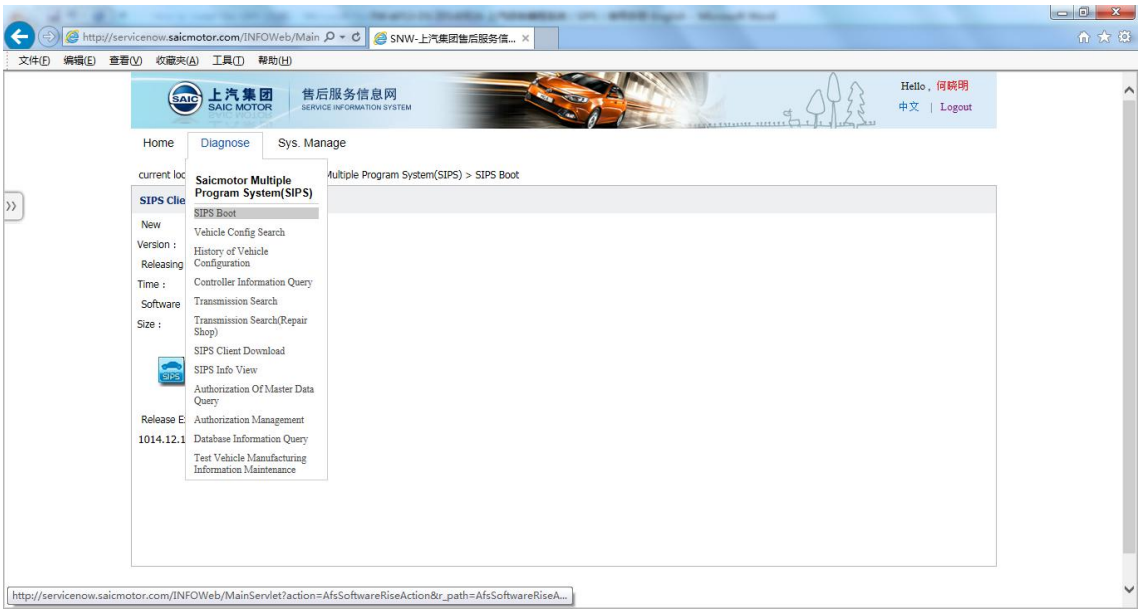
Step 9: Open the SIPS client App and start to use it.

II. Daily Use of SIPS

During daily use of the SIPS, if no upgrade of the client App shall be done, the client App will directly boot and open; if the client App shall be upgraded, it will boot after automatic upgrade.

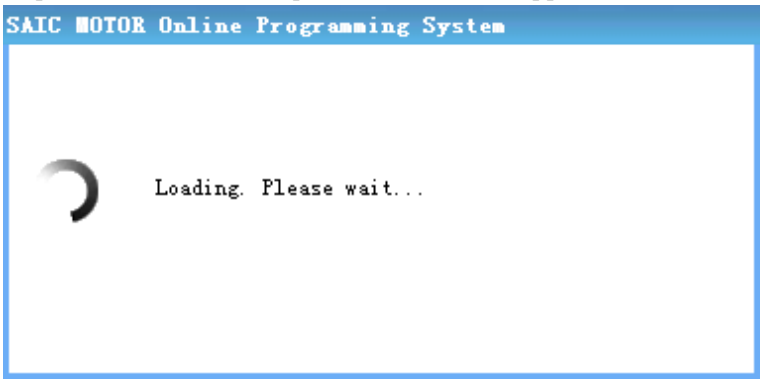
1 SIPS Boot (No Upgrade of Client Version)

Step 1: Use the path “Diagnose → SAIC Integrated Program System (SIPS) →SIPS Boot” to enter into SIPS Boot function.



Step 2: Enter into the SIPS Boot interface, display relevant information of the version for SIPS client App, and then click  ;

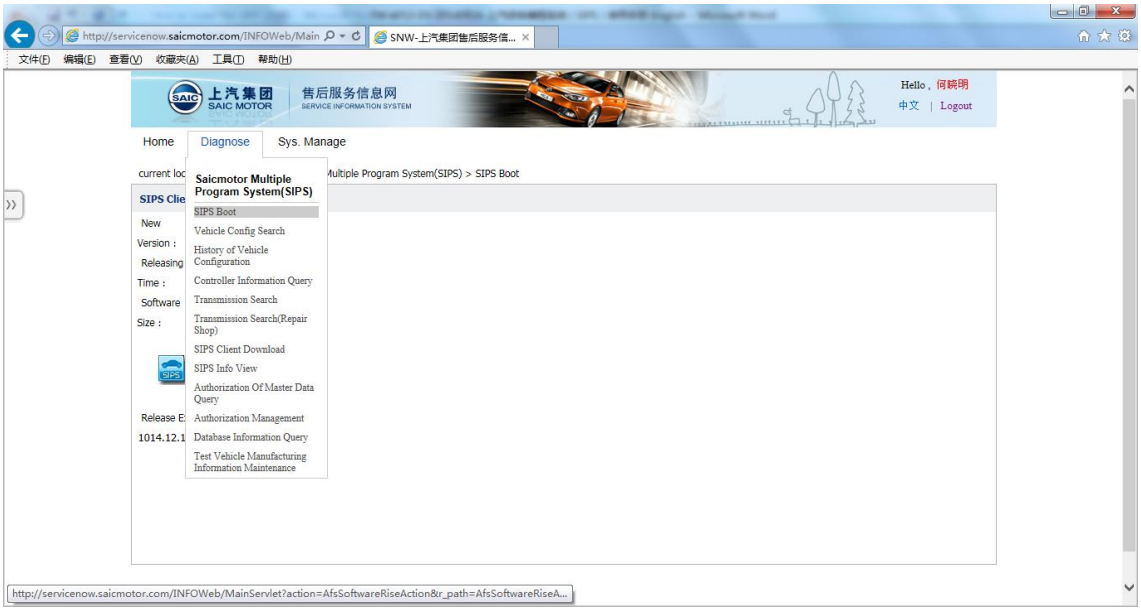
Step 3: Start to boot and open the SIPS client App.



Step 4: Open the SIPS client App and start to use it.

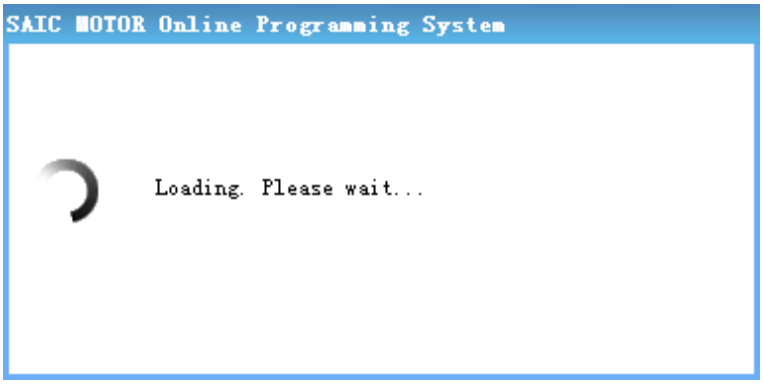
2 SIPS Boot (Upgrade of Client Version)

Step 1: Use the path “Diagnose → SAIC Integrated Program System (SIPS) →SIPS Boot” to enter into SIPS Boot function.

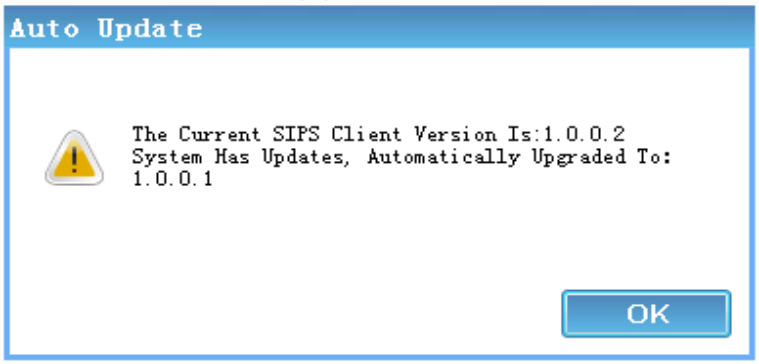


Step 2: Enter into the SIPS Boot interface, display relevant information of the version for SIPS client App, and then click ;

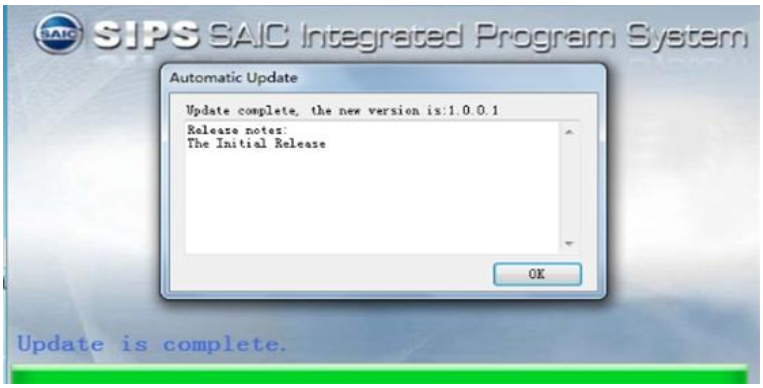
Step 3: Start to boot and open the SIPS client App.



Step 4: The system has updates, click “OK” to upgrade the software.



Step 5: When upgrade is completed, information of the new version will be displayed. Please carefully read the information, and then click “OK”.



Step 6: Open the SIPS client App and use it.

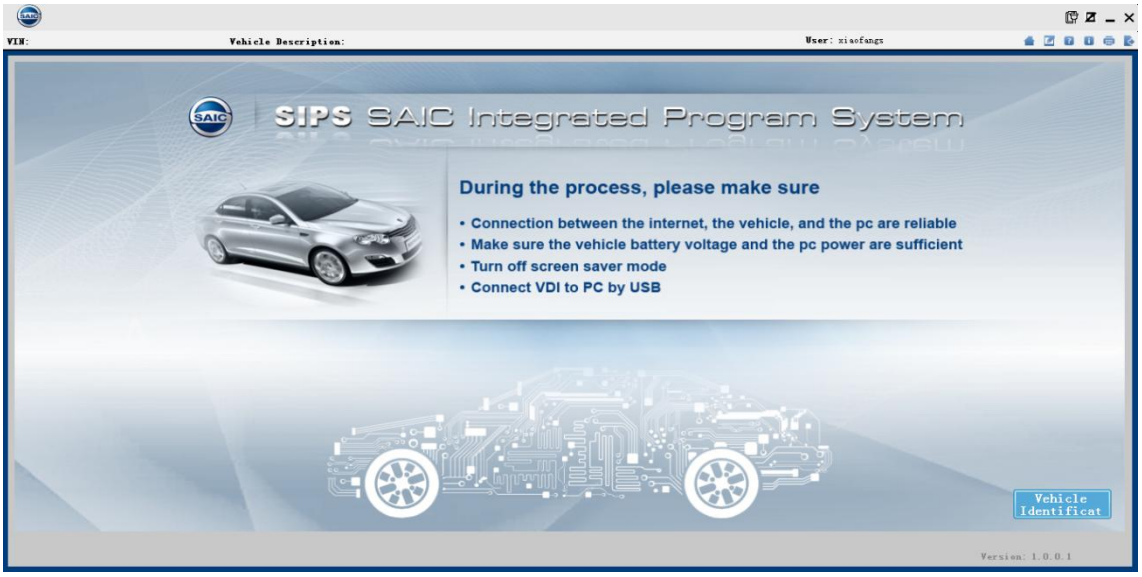
Chapter 3 Function of SIPS Client App

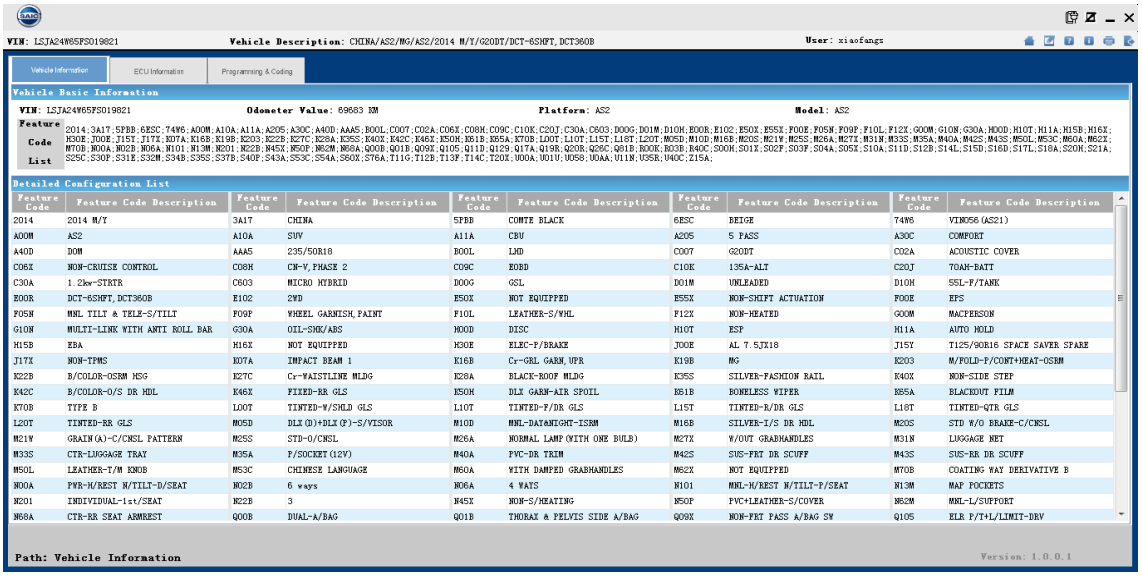
After booting and opening the SIPS client App, by default, the main interface of vehicle identification will be displayed. This interface includes notes for running SIPS client App and “Vehicle Identification” function. After finishing vehicle identification, it automatically enters into SIPS function interface. The interface contains three tabs: “Vehicle Information”, “ECU Information” and “Programming and Coding”.

Main functions of the SIPS client App are: vehicle identification, vehicle information, ECU information, programming and coding, and auxiliary function. This chapter will introduce in detail the interface and operation of each function.

Note

1. When using the SIPS client App, acquire information from the manufacturer’s database through networks. When running the SIPS client App, ensure that network connection is reliable.
2. It takes a long time to execute the function. Please use USB cable to connect diagnosis computer and VDI.





After booting and opening the SIPS client App, by default, the main interface of vehicle identification will be displayed. Click "Vehicle Identification" to communicate with the vehicle and finish vehicle identification. During vehicle identification, the SIPS acquires relevant data according to the identified VIN, and then automatically jumps to the "Vehicle Information" tab and updates relevant information of status bar.

During "Vehicle Identification", the SIPS reads vehicle VIN through vehicle key modules (different models may have different definitions for the key module; key modules generally include EMS, BCM and IPK). SIPS will judge the consistency of the aforementioned VINs and show the following three operations accordingly:

- Given they are consistent (excluding all new modules), the SIPS will use the read VIN to perform all subsequent operations;
- Given they are not consistent; it will require the user to manually input VIN twice through pop-up box and check the input. And the input VIN shall be read by the VIN key modules. SIPS will use the manually input VIN to perform all subsequent operations;
- When no key module reads normal VIN, it requires the user to manually input VIN twice through pop-up box and check the input.

Note

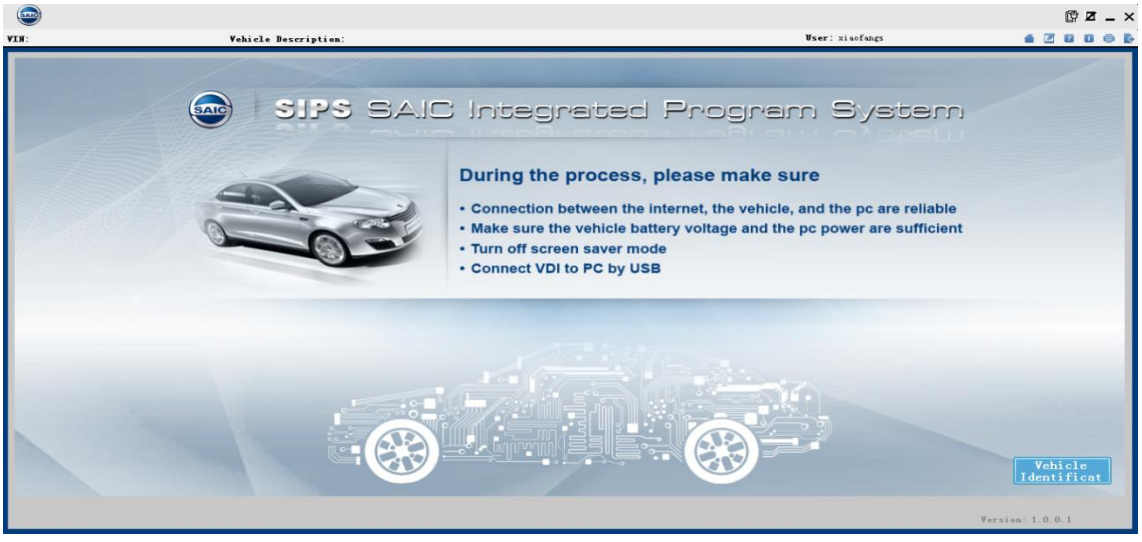
1. After finishing vehicle identification, SIPS will execute all subsequent operations (including writing VIN into the ECU) based on the identified VIN. After finishing the identification, please make sure the VIN is correct to avoid possible mal-operation or ECU damage.
2. The reasons for VIN identification failure should be corrected before vehicle delivery.
3. During vehicle maintenance, you can repeat the operation by clicking "Main Interface" to go back to the main interface of vehicle identification.

Procedures for "Automatic Identification":

Step 1: Use VDI firmware to connect the vehicle and the diagnosis computer with SIPS.

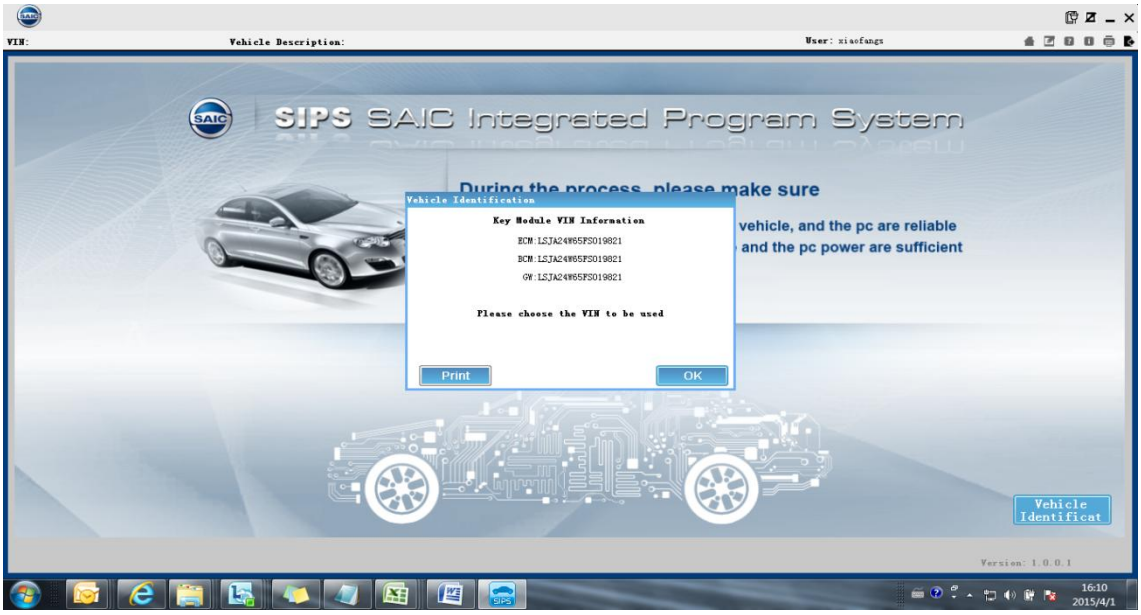
Step 2: Turn on the vehicle power (Position 2).

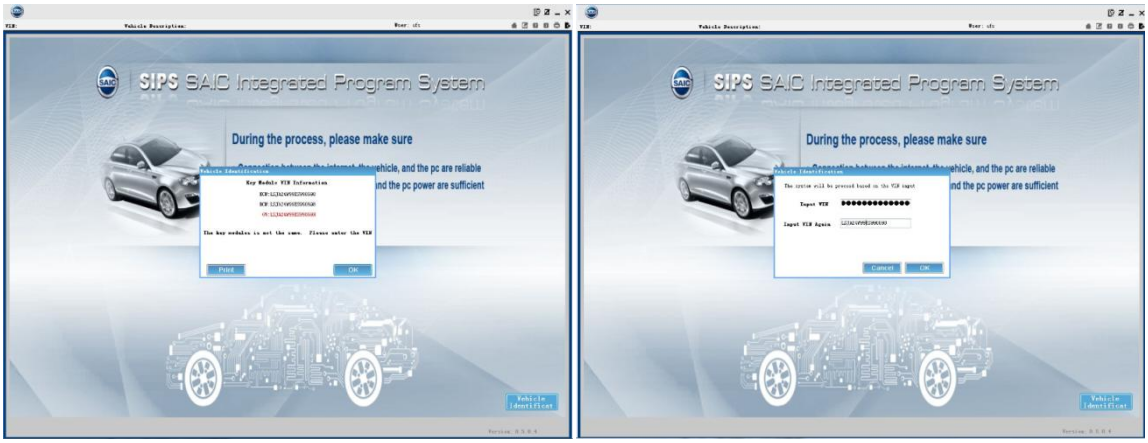
Step 3: After booting the SIPS client App, in the main interface of vehicle identification, click "Vehicle Identification".



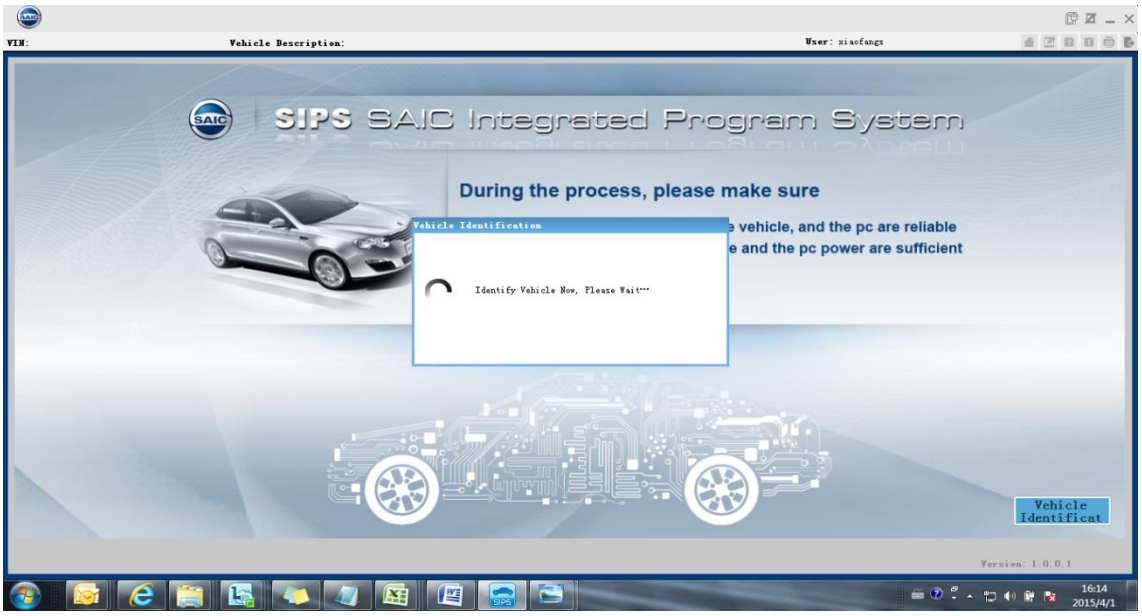
Step 4: Read VIN information of vehicle key modules and display reading results. VIN reading results are divided into the following conditions:

- Given they are consistent (excluding all new modules), it will use the read VIN to perform all subsequent operations;
- Given they are not consistent; it will require the user to manually input VIN twice through pop-up box and check the input. And the input VIN shall be read by the VIN key modules. It will use the manually input VIN to perform all subsequent operations;
- When no key module reads normal VIN, it requires the user to manually input VIN twice through pop-up box and check the input.



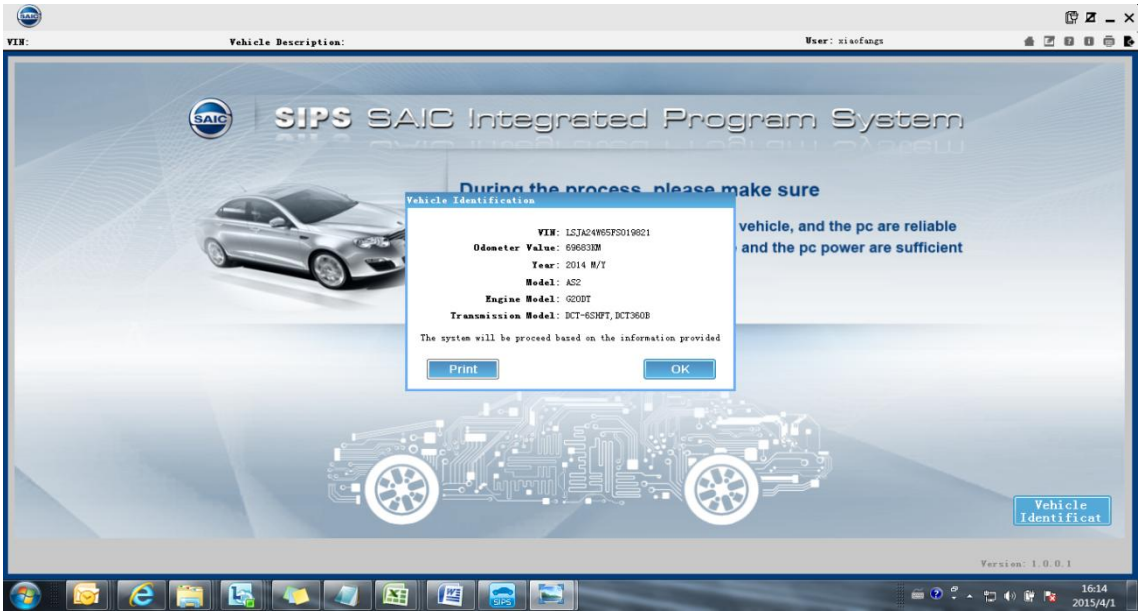


Step 5: The VIN finally confirmed according to judgment logic is considered as the VIN of the vehicle. Use the VIN to read relevant vehicle information and acquire relevant information in the database through the networks.



Step 6: Display vehicle identification results which will be used to carry out subsequent operations. Information displayed includes: VIN, mileage, model year, model, engine model and transmission model.

- VIN: the VIN identified by the vehicle;
- Mileage: the number of mileage for maintenance vehicle IPK;
- Model year: corresponding model year of the maintenance vehicle;
- Engine model: the engine model of maintenance vehicle;
- Transmission model: the transmission model of maintenance vehicle.

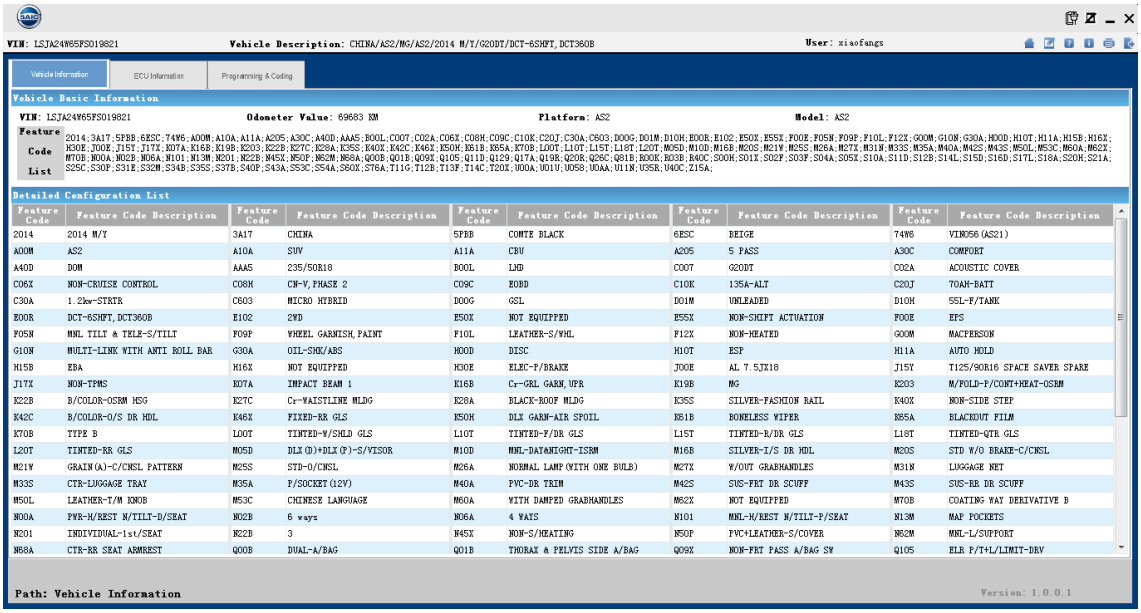


After finishing the vehicle identification, it automatically enters into the interface of the relevant SIPS function (“Vehicle Information” tab by default).

“Vehicle Information” functions: display vehicle configuration and relevant information, including: VIN, mileage, platform, model, feature code list and detailed configuration list.

Interface Display Information:

- VIN: the VIN identified by vehicle;
- Mileage: the number of mileage for vehicle IPK;
- Platform: identify the VIN corresponding platform information;
- Model: identify the VIN corresponding model information;
- Feature code list: identify the VIN corresponding configuration list;
- Detailed configuration list: identify the VIN configuration feature code and corresponding description information;
- Feature code: the configuration feature code of current maintenance vehicle;
- Feature code description: the description information of each configuration feature code for current maintenance vehicle;
- Path: the path information of current interface.



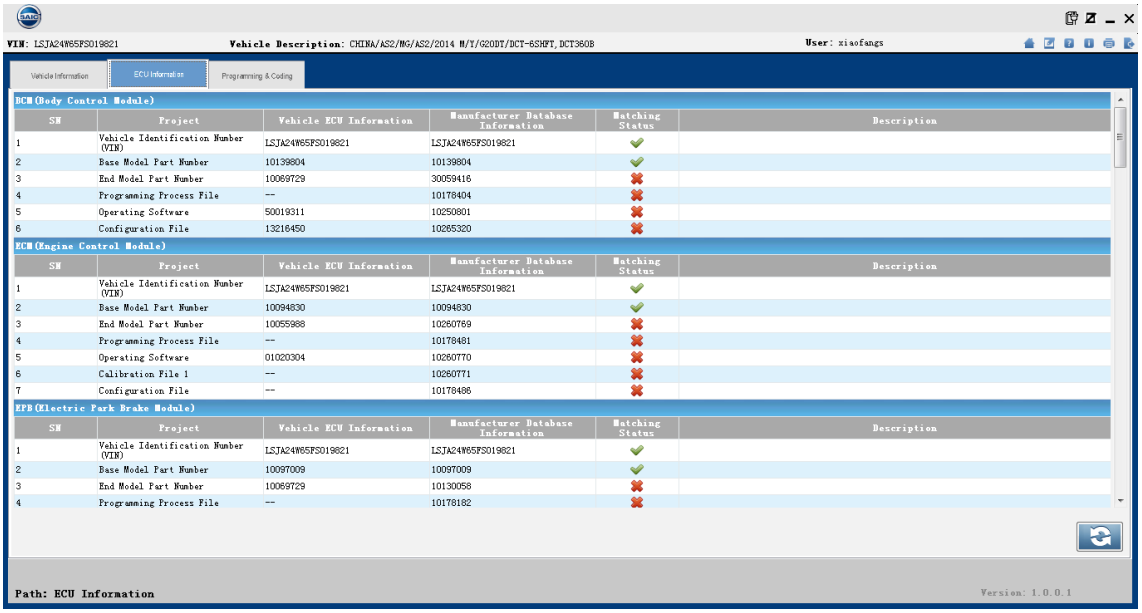
III. ECU information

Click “ECU Information” tab and enter into the “ECU Information” interface.

“ECU Information” functions: take the ECU as unit and display the latest data information from vehicle ECU and SAIC database.

Note

1. Data from the database is acquired by vehicle Identification, so the corresponding “Manufacturer Database Information” of each ECU VIN information list is displayed as the VIN identified by the vehicle.
2. The ECU list only displays the ECU supporting “Programming and Coding” function of current maintenance vehicle. Therefore, the ECU list displayed in this list doesn’t show all ECUs of the vehicle.



Information of ECU List:

- Project: the item of supporting information data of each ECU. And the item of the supporting information data may vary with the ECU.
- Vehicle ECU information: ECU data read from the vehicle.
- Manufacturer database information: ECU information data acquired from the database according to the VIN identified by the vehicle. The data information can be written into the ECU by the corresponding functions of “Programming and Coding”.
- Matching status: the comparison result of “Vehicle ECU Information” and “Manufacturer Database Information” for each data, including , , , .
- Description: the corresponding description of “Manufacturer Database Information” for all data.

Matching Status:

: corresponding "Vehicle ECU Information" and "Manufacturer Database Information" of the data is consistent. The data of ECU has been consistent with that of the database;

: corresponding "Vehicle ECU Information" and "Manufacturer Database Information" of the data is not consistent.

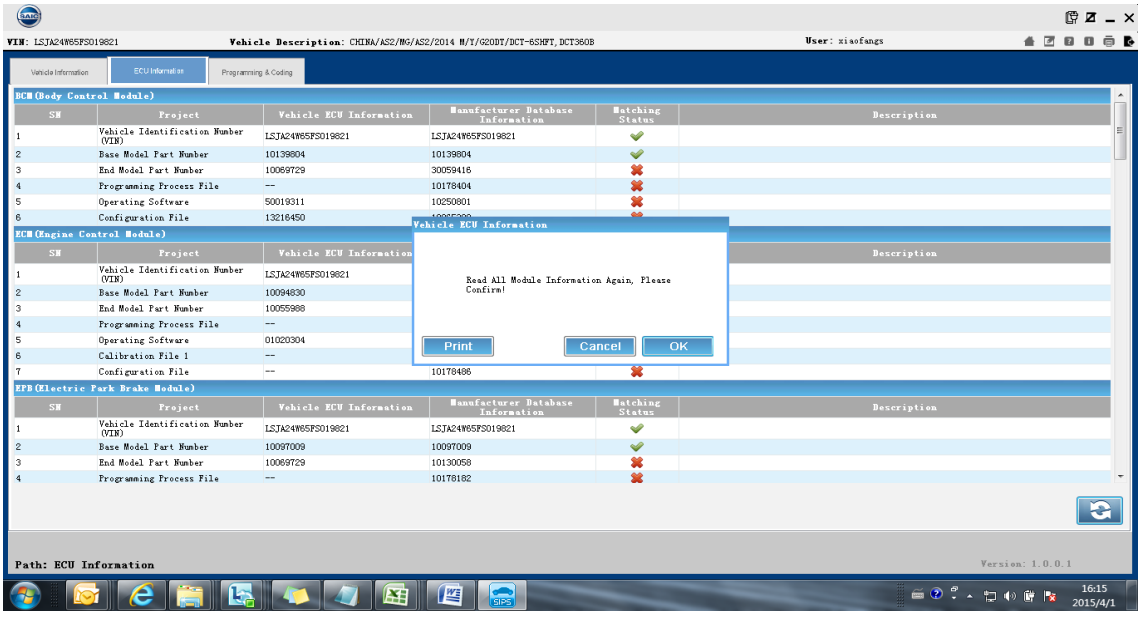
: in the corresponding "Vehicle ECU Information" and "Manufacturer Database Information" of data, at least one of them is blank for comparison;

: in the corresponding "Vehicle ECU Information" and "Manufacturer Database Information" of data, at least one of them has no data information for comparison.

Refresh Function of "Vehicle ECU Information"

: read again all ECU information of the vehicle, repeat the comparison with information of the database and update the display information of interface. The updates include: ECU list, data list of each ECU, vehicle information and database information of each data. And then update the display.

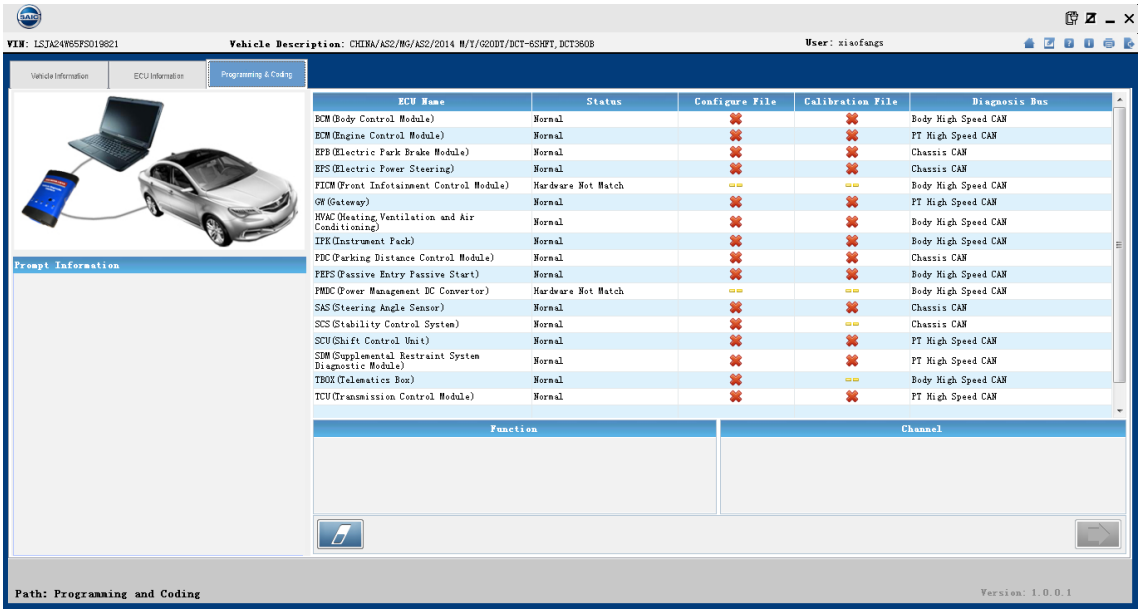
After clicking , the pop-up box prompts "Read All Module Information Again, Please Confirm!". Select "OK" to read vehicle information; select "Cancel" to finish reading operation and back to the original interface.



IV. Programming and Coding

Click “Programming and Coding” tab to enter into “Programming and Coding” interface. The interface includes ECU list, function, channel, prompt message, etc.

The “Programming and Coding” function: accomplish ECU Reprogram, Configuration, Replace, Add Key, Delete Key, Clear all DTCs, etc.



1 Programming and Coding Interface

The “Programming and Coding” interface includes prompt message, ECU list, function list, channel list, and clear all DTCs.

Note

Channel is related to selecting functions and function is related to selecting ECU. Therefore, the operating sequence must be ECU, function, and channel!

- Prompt message: display and record the process information during executing operation of “Programming and Coding” function. When redoing vehicle identification, the information will be cleared.
- ECU list: display all ECU supporting “Programming and Coding” function, the status of each ECU, matching results of calibration file and configure file, and diagnosis bus.
- Function list: supporting programming and coding function of currently selected ECU, generally including: “Reprogram”, “Configuration”, “Replace”, “Add Key”, and “Delete Key”.
- Channel list: supporting channel type of currently selected function, including normal.
- : clear all DTCs.

1) ECU list

ECU list contains: ECU name, status, configure file, calibration file and diagnosis bus.

Note

The ECU list only displays the ECU supporting "Programming and Coding" function of current maintenance vehicle. Therefore, the displayed ECU list of the list doesn't show all ECU of the vehicle!

- ECU name: all ECU supporting "Programming and Coding" function of current maintenance vehicle.
- Status: status description of corresponding ECU, including VIN invalid, VIN not read, VIN not match, hardware not match, hardware not read, module not communicate, database connection failed, and normal.
- Configure file: compare "Vehicle ECU Information" with "Manufacturer Database Information" for ECU corresponding configure file, and the results are shown as , , , .
- Calibration file: compare "Vehicle ECU Information" with "Manufacturer Database Information" for ECU corresponding calibration file, and the results are shown as , , , .
- Diagnosis bus: diagnosis bus information of corresponding ECU.

① ECU Status:

Compare the VIN and hardware read from ECU with the VIN (viz. the VIN identified by vehicle) and hardware in the manufacturer database. Display comparison result in the "Status" list to show the status of ECU. The status includes: VIN invalid, VIN not read, VIN not match, hardware not match, hardware not read, module not communicate, database connection failed, and normal.

Note

1. The ECU status will determine whether to continue function operation;
2. The VIN and hardware in manufacturer database needs to be consistent with the VIN and hardware of ECU and then it is able to list function list in "Function" and do subsequent operations;
3. If VIN of the new ECU isn't written, ECU VIN/hardware cannot be read, which is considered as special condition for allowing continuing operations.

- Normal: normally acquire data information of ECU and database. And the VIN and hardware read from ECU is consistent with the VIN and hardware in the manufacturer database (including new ECU and unwritten VIN).
- VIN invalid: the VIN read from ECU is wrong, e.g. VIN isn't 17 digits.
- VIN not read: the VIN of ECU is not read.
- VIN not match: the VIN read from ECU is not consistent with the VIN in manufacturer database.
- Hardware not match: the hardware read from ECU is not consistent with the hardware in manufacturer database.
- Hardware not read: the hardware of ECU is not read.
- Module not communicate: ECU communication failed.
- Database connection failed: the SIPS client App failed to connect with manufacturer database.

② **Matching Status**

Compare "Vehicle ECU Information" with "Manufacturer Database Information" for ECU corresponding configure file, and the results are shown as , , , .

Note

If "Vehicle ECU Information" and "Manufacturer Database Information" don't have information of calibration file or configuration file, the corresponding matching status will be shown as , and the corresponding functions will not support "Reprogram" or "Configuration".

: corresponding "Vehicle ECU Information" and "Manufacturer Database Information" of all calibration files and configure files are consistent. The data of ECU is the latest and no need to do Reprogramming or configuration function. But it doesn't affect subsequent operations of ECU.

: corresponding version of data for the function in vehicle ECU is not consistent with that of SAIC database. Reprogram or configuration function needs to be done. Upgrade the ECU calibration or configuration to the latest version.

: in the corresponding version of data for the function in vehicle ECU and in SAIC database, at least one of them is blank for comparison.

: in the corresponding version of data for the function in vehicle ECU and in SAIC database, at least one of them has no data information for comparison.

2) Function List

When selecting a certain ECU, its supporting function list will be listed in "Function", generally including: "Reprogram", "Configure", "Replace", "Add Key", and "Delete Key", etc.

Note

The supporting maintenance programming functions of each ECU is different. It will list supporting functions according to actual condition!

- Reprogram: upgrade calibration software to the ECU supporting maintenance Reprogram.
- Configuration: do configuration writing and setting to the ECU supporting maintenance configuration
- Replace: to the replaced new ECU, do calibration software upgrade, configuration writing, and such necessary programming and coding relevant operations.
- Add Key: finish adding new key function.
- Delete Key: finish deleting new key function.

3) Channel List

Select "Channel" to display supporting channels of the function, including normal.

Note

The channel type currently supports normal channel.

- Normal: in the manufacturer database, through normal method find the required data and files.

2 Function of ECU Supporting Maintenance Programming

This section will take an ECU for example, respectively introducing the operation of “Reprogram”, “Configure”, “Replace”, “Add Key”, and “Delete Key” functions.

Note

Each function may contain several procedures. After finishing a procedure, the results will be displayed. When all procedures are done, execution results of functions will be displayed.

1) Reprogram

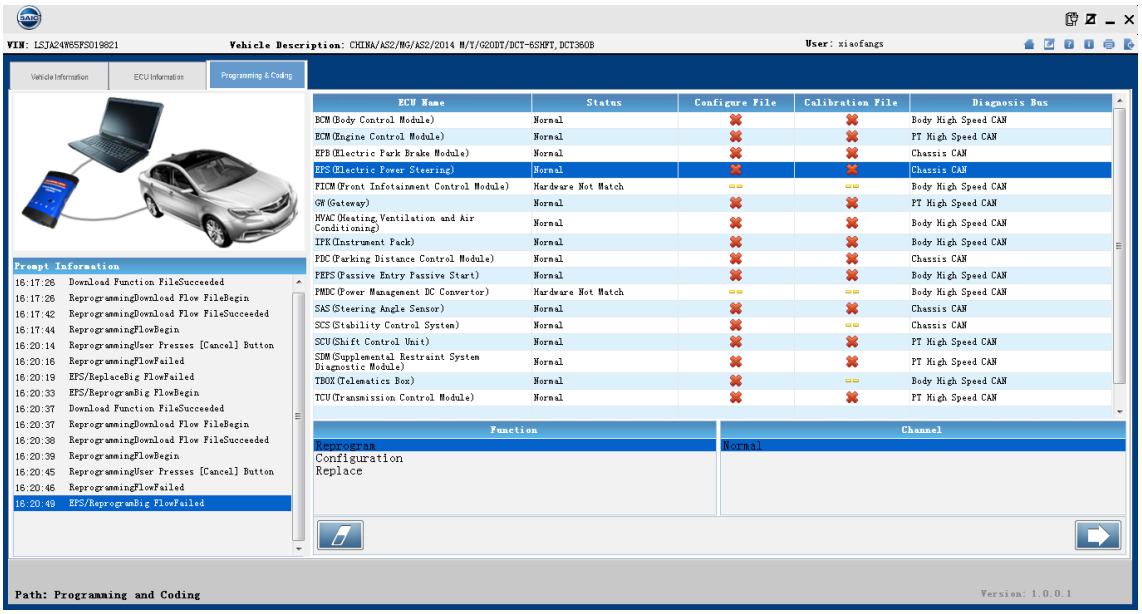
“Reprogram” function is used for software upgrade of original vehicle ECU or replaced new ECU. Let’s take EPS (Electric Power Steering) as an example to introduce the specific procedures.

Note

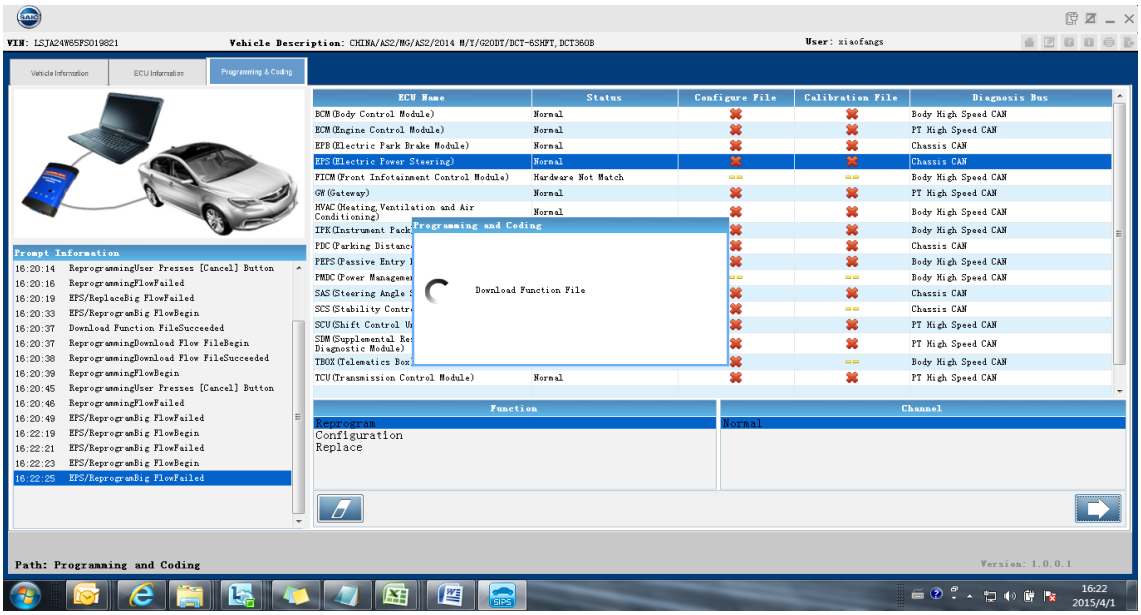
The Reprogram function cited only contains one procedure of Reprogram.

Procedure of Reprogram Function:

Step 1: In the “Programming and Coding” interface, select EPS (Electric Power Steering). “Function” lists EPS supporting function list. In the calibration file of EPS (Electric Power Steering), it shows ✖, indicating that this ECU calibration file needs to be upgraded. In the “Programming and Coding” interface, select EPS (Electric Power Steering). “Function” lists EPS supporting function list. Select “Reprogram” function. In the “Channel” it displays normal channel and default to select it, and then the next button illuminates.



Step 2: Click the next button to download relevant files.

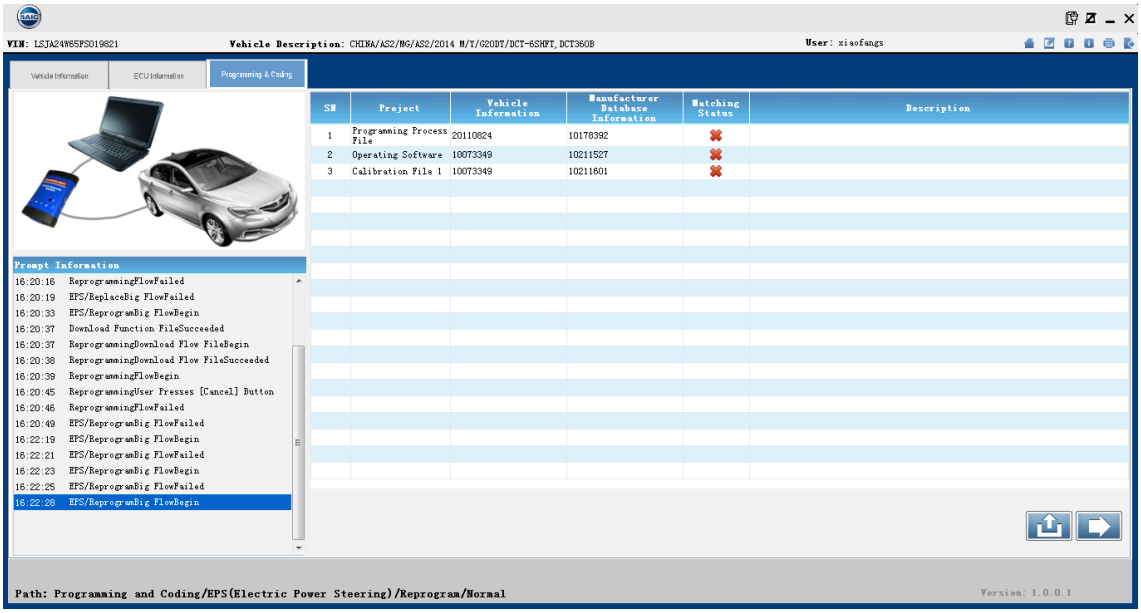


Step 3: Display the using data file information of EPS Reprogram function. “Vehicle ECU Information” indicates the information of current calibration version. “Manufacturer Database Information” indicates the information of currently available calibration version in the database (viz. calibration information to be written into the ECU). Through matching status, you may see the files needed for upgrading: “ECU Application Software”, “ECU Calibration Software”, and “Network Configuration File”.

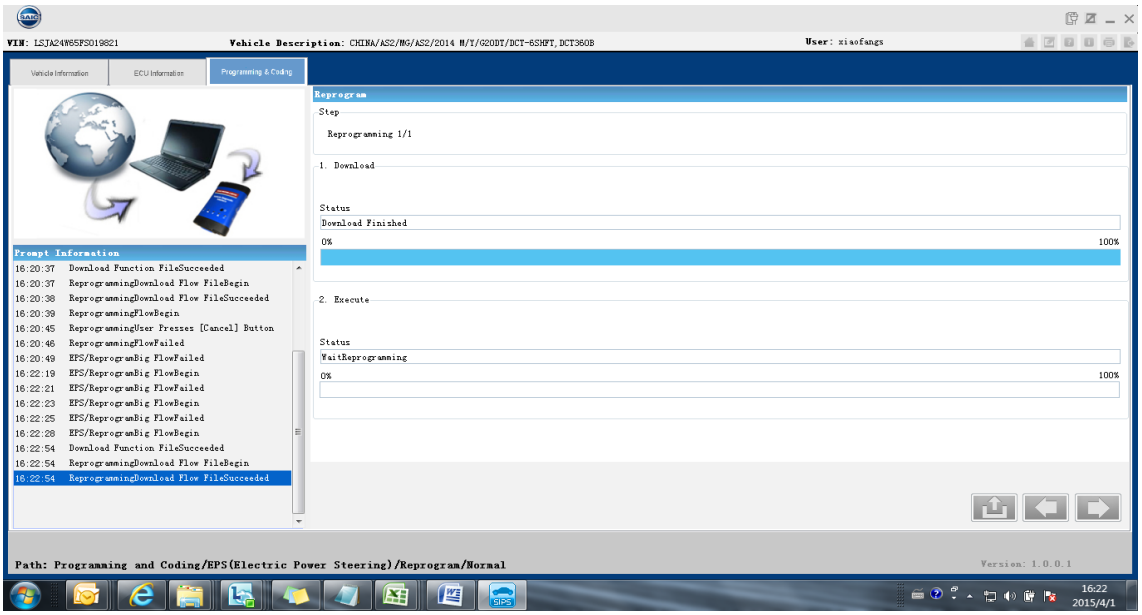
The icons in the interface:

: back to “Programming and Coding” main interface;

: next step.



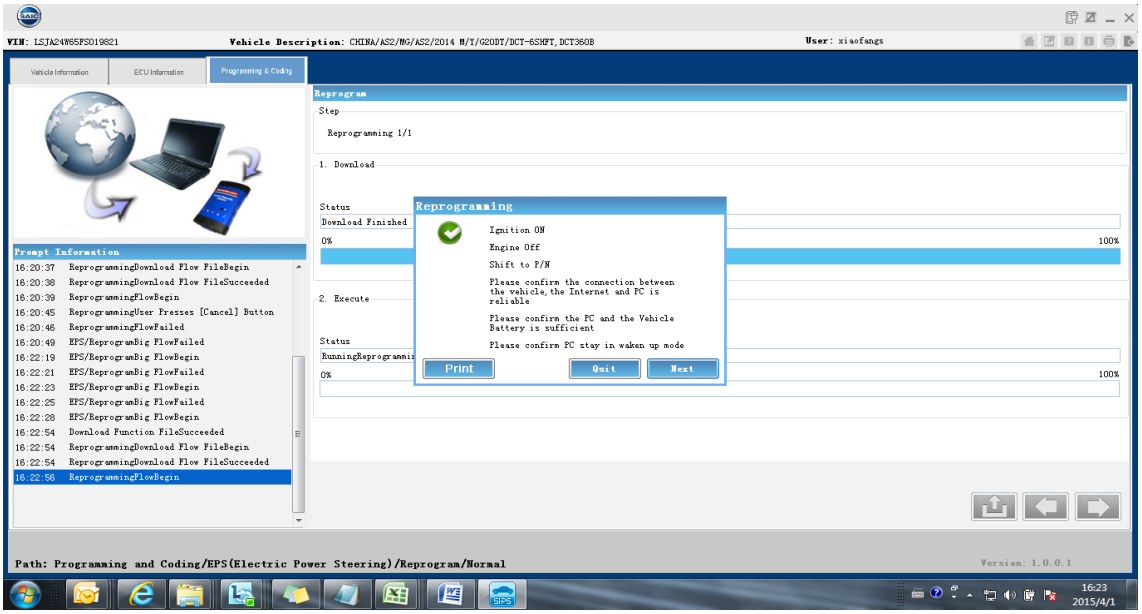
Step 4: Click Next to download relevant files;



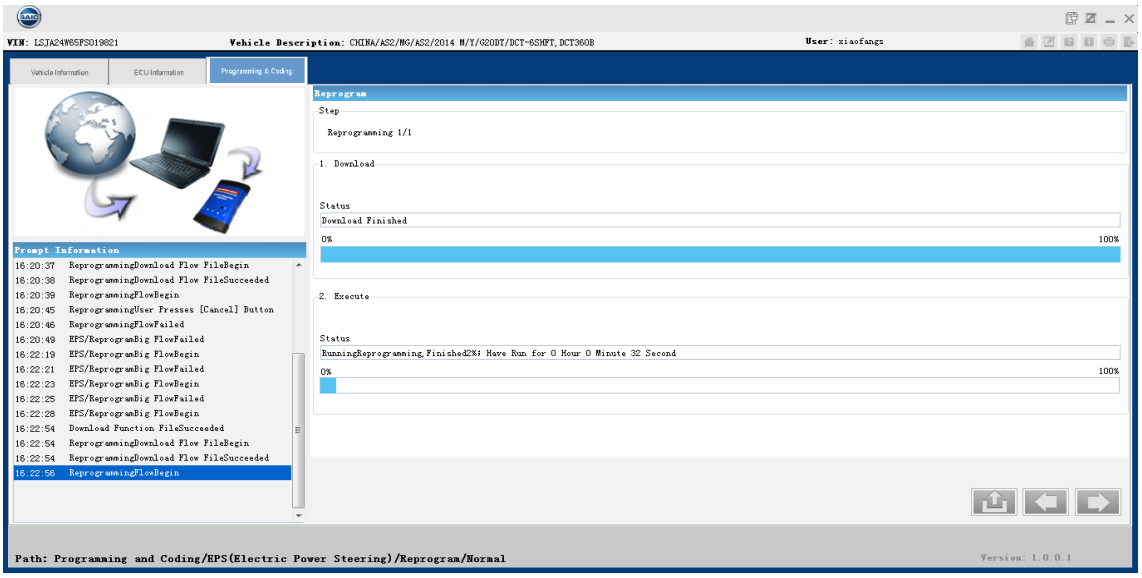
Step 5: Finish downloading. Start to execute Reprogram. The pop-up box prompts the notes of Reprogram. Please operate according to the prompt. After making sure of meeting prompt conditions, click “Next”.

Quit: quit Reprogram flow, finish;

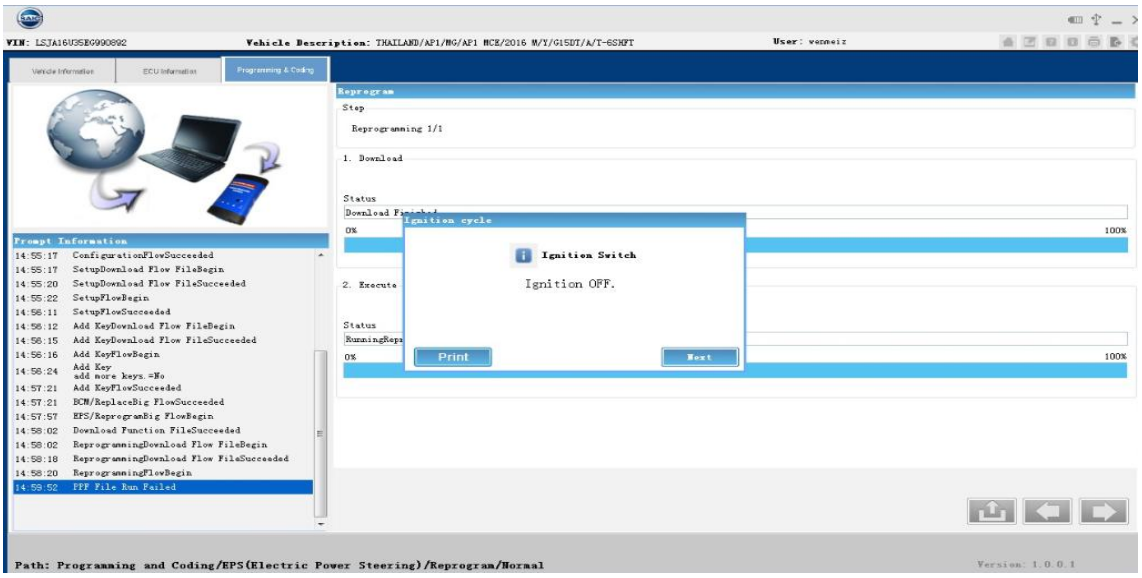
Next: continue Reprogram.

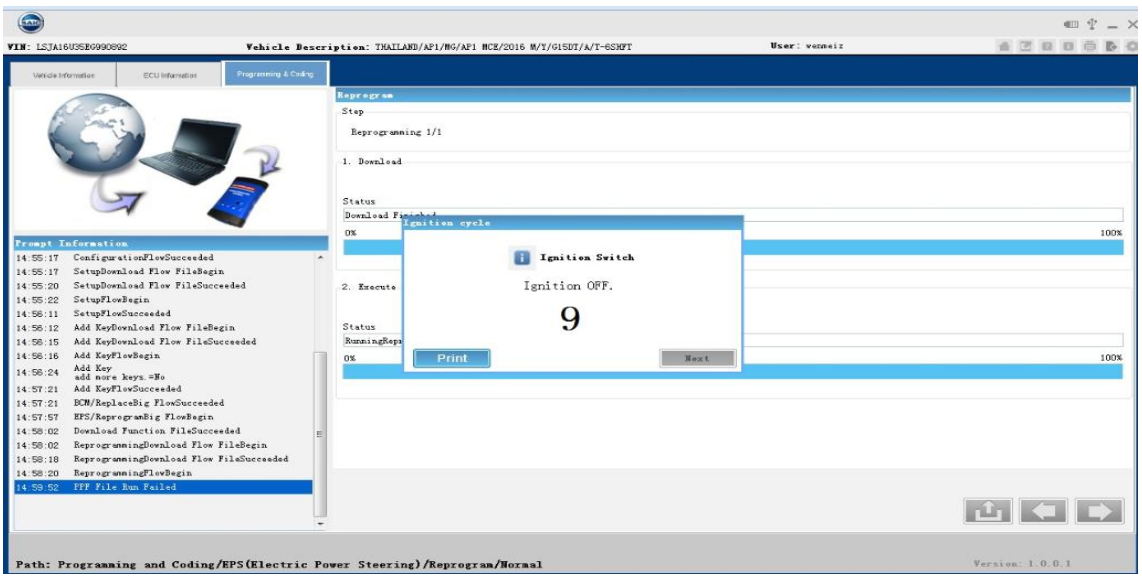


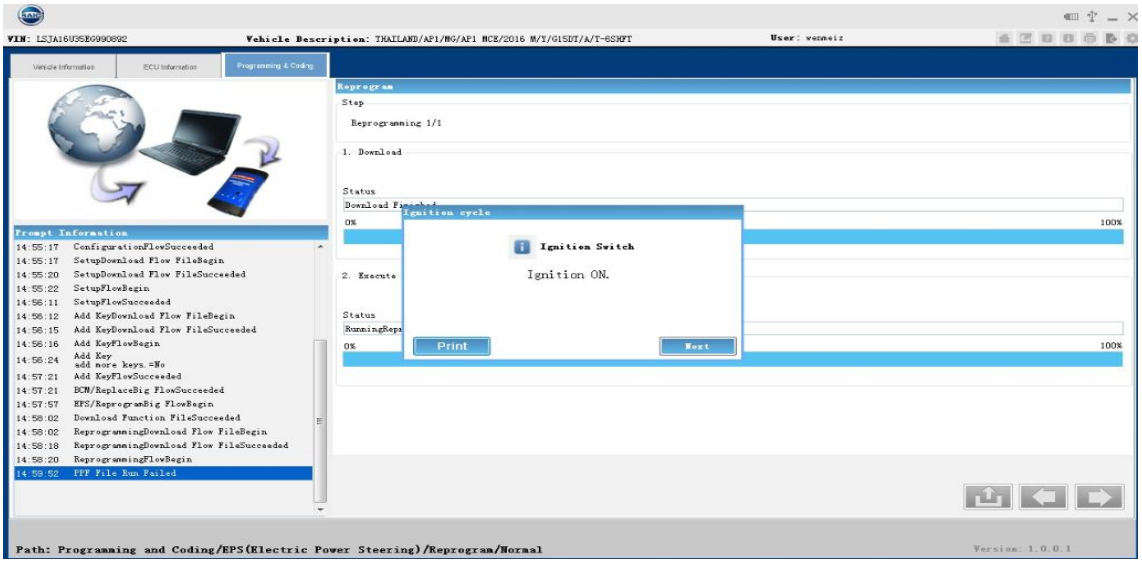
Step 6: Execute Reprogram and write new calibration software into EPS.



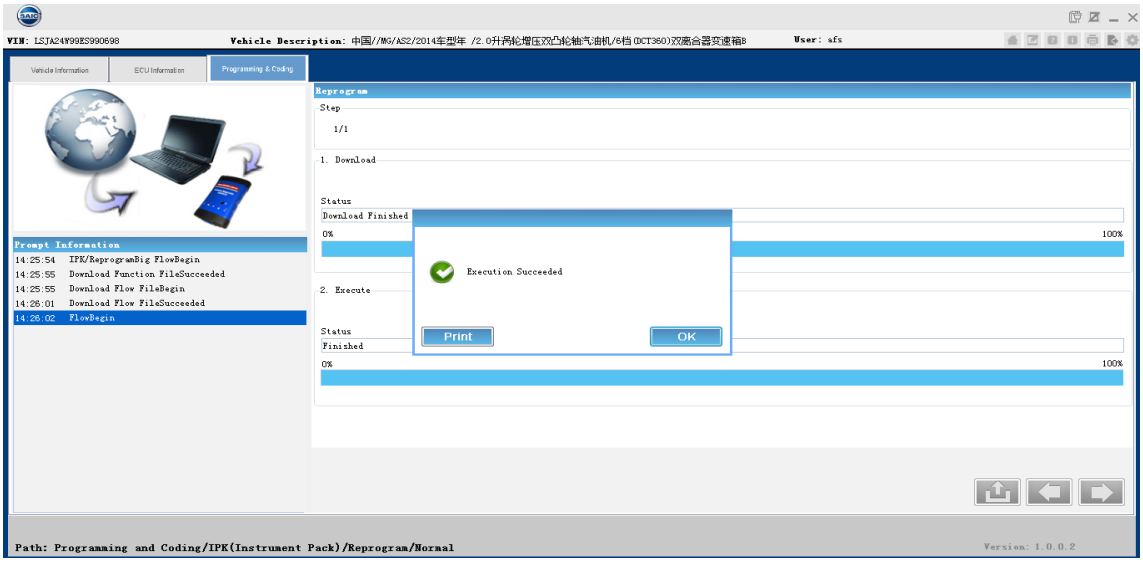
Step 7: Do ignition cycle and operate according to the prompt.



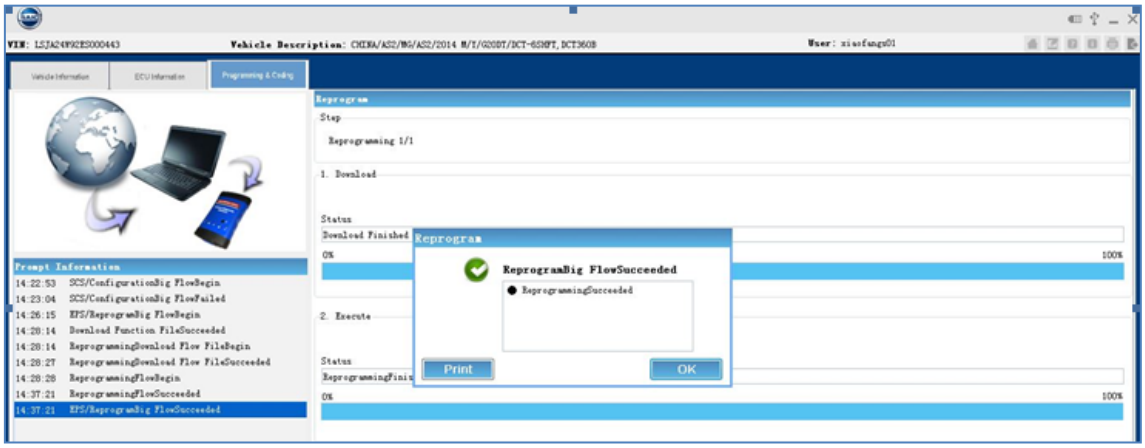




Step 8: Prompt Reprogram succeeded.



Step 9: Display Reprogram function execution results (succeeded) and list the execution result of each operating flow. Click “OK” to finish the function. SIPS goes back to “Programming and Coding” main interface and automatically refreshes EPS displaying information in the ECU list.



2) Configuration

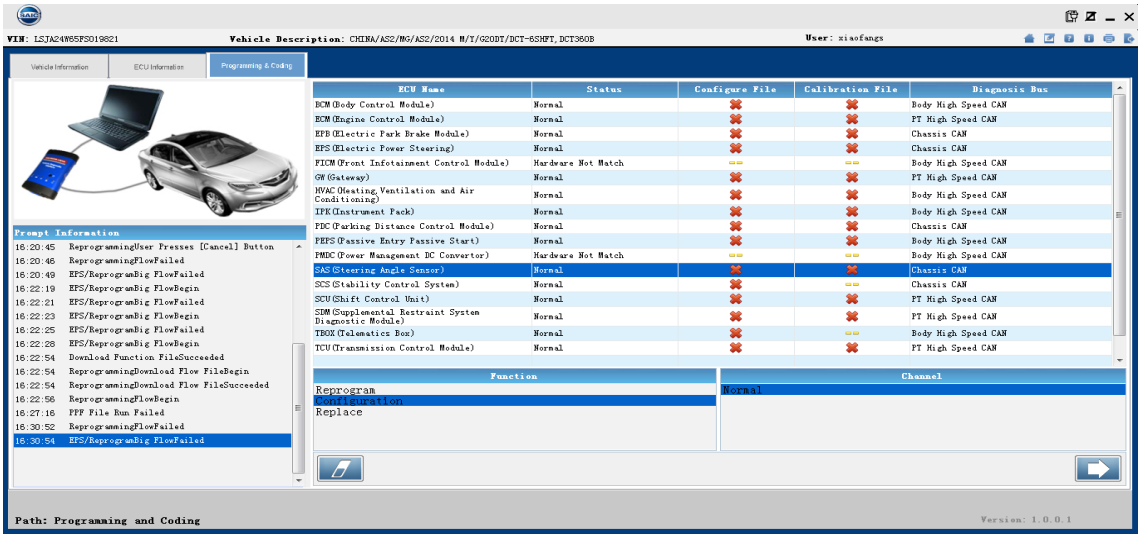
The “Configuration” function is used to do configuration writing and setting for the ECU supporting maintenance configuration. Let’s take SAS (Steering Angle Sensor) as an example to describe the specific procedure.

Note

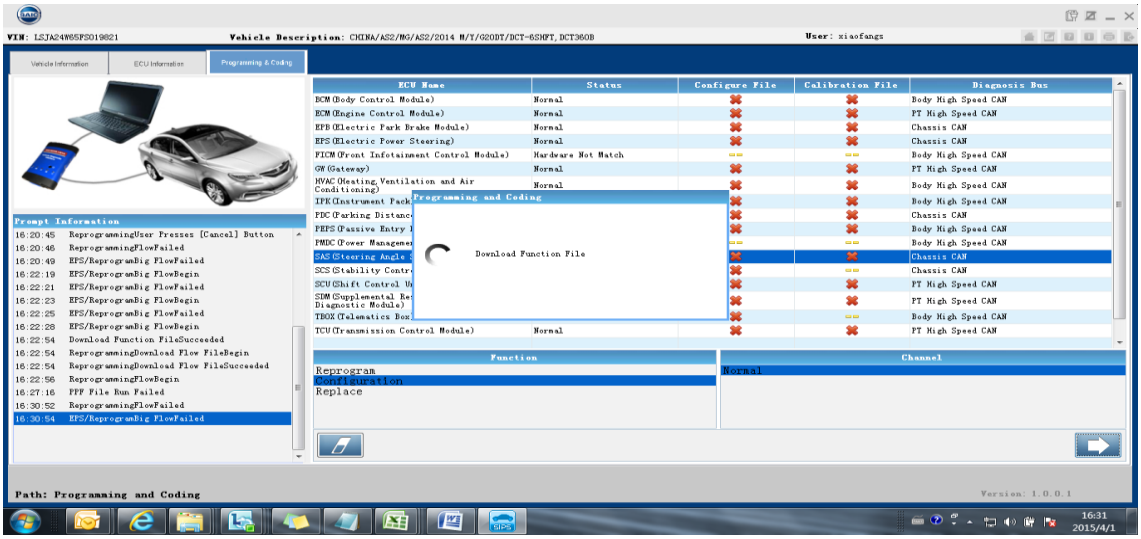
1. The configuration function cited only contains one procedure of configuration.
2. During configuration, the configuration file version and vehicle configuration feature code will affect the configuration written into the ECU. Therefore, if ECU/Configuration File shows ✔, it doesn’t represent that the ECU doesn’t need to do configuration operations. ✔ only represents that the versions of configuration file is consistent.

Procedure of Configuration Function:

Step 1: In the “Programming and Coding” interface, select SAS (Steering Angle Sensor). “Function” lists SAS supporting function list. ✖ Indicates that the configuration of this ECU needs to upgrade, and through configuration function, it may accomplish upgrade. Select “Configuration” function. The “Channel” displays normal channel and default option is selected, and then the next button illuminates.



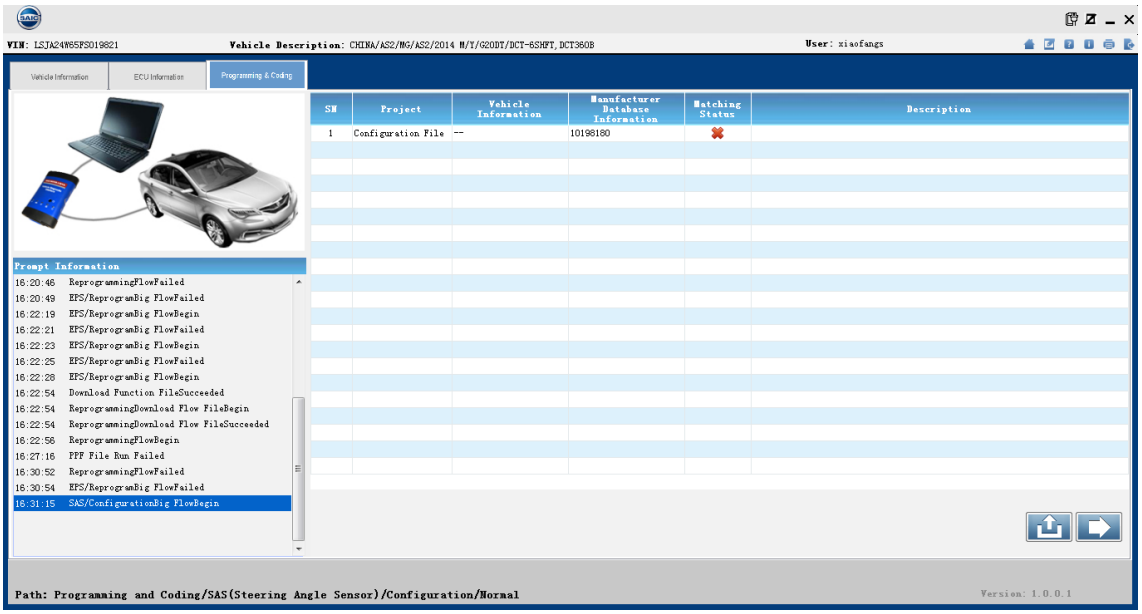
Step 2: Click Next button to download relevant files.



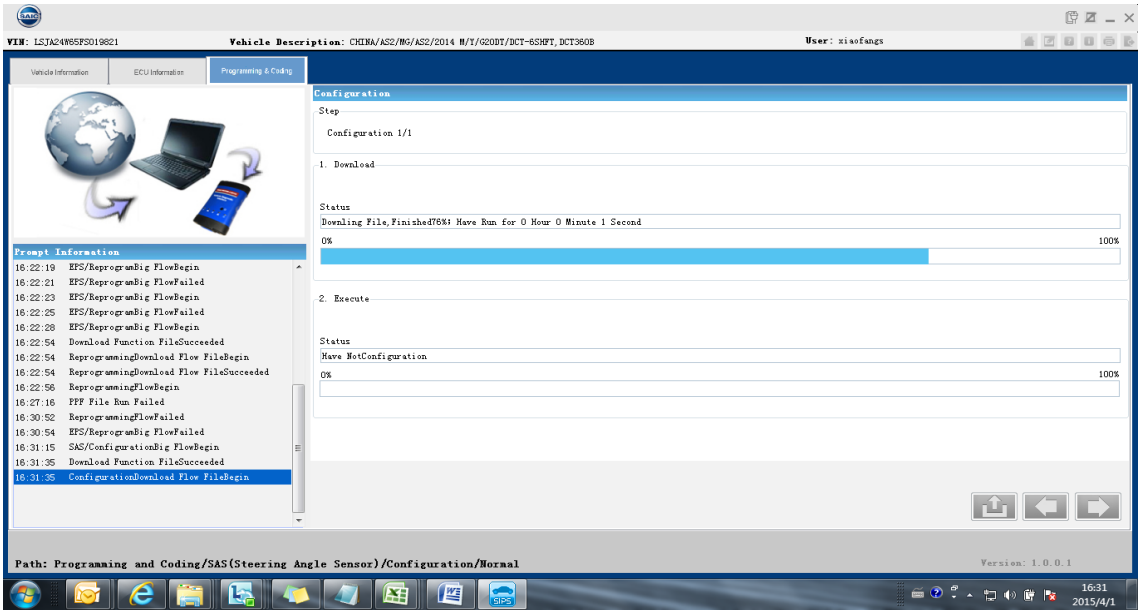
Step 3: Display the data file information of the SAS configuration function. “Vehicle ECU Information” indicates the version information of the current configuration file. “Manufacturer Database Information” indicates the configuration file version information of currently available and to be written into the ECU.

The icons in the interface:

: back to “Programming and Coding” main interface; : next step.



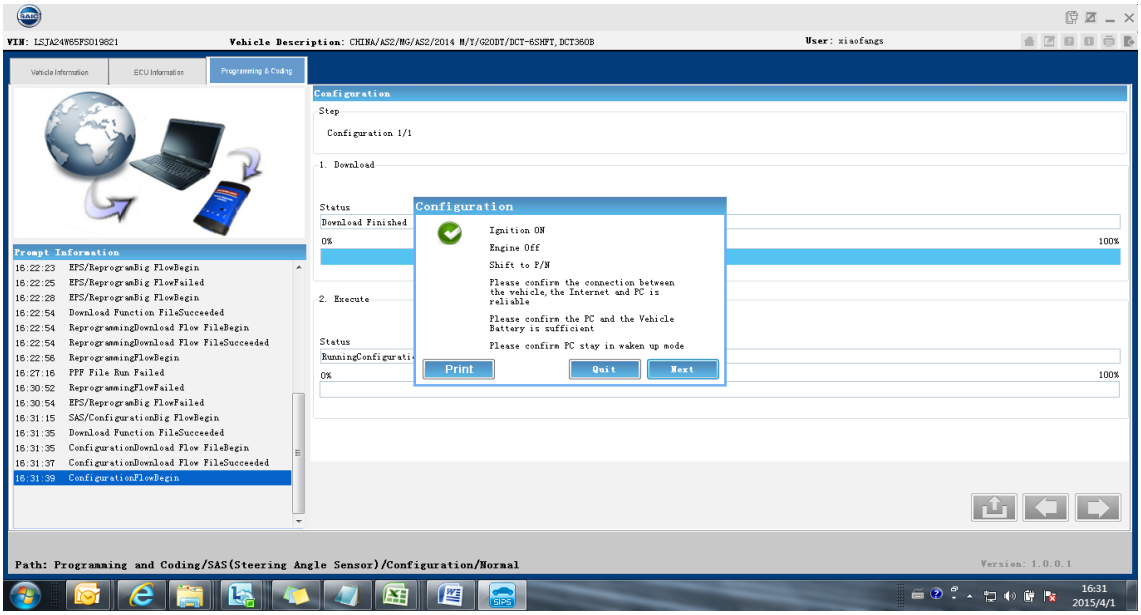
Step 4: Click Next to download relevant files;



Step 5: Finish downloading. Start to execute Configuration. The pop-up box prompts the notes of configuration operation. Please follow the prompt and making sure it meets prompt conditions, then click “Next”.

Quit: quit configuration flow, finish;

Next: continue Configuration.



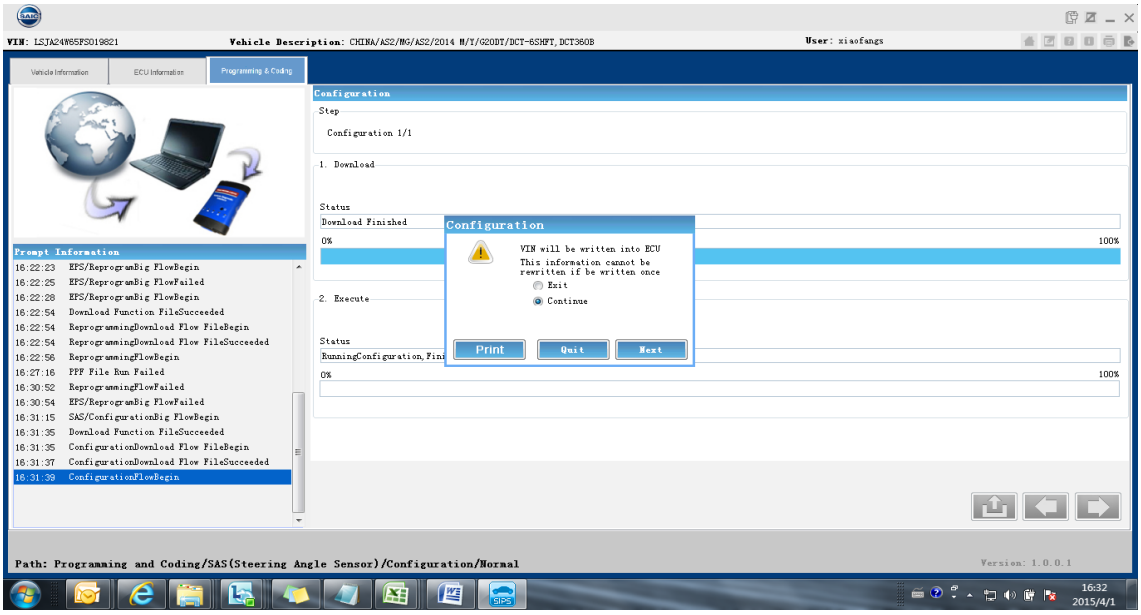
Step 6: Prompt the VIN identified by vehicle will be written into SAS. This information cannot be rewritten if be written once. Select “Continue” and click “Next” to continue.

Exit: after selecting, click Next, and it will exit configuration operating flow;

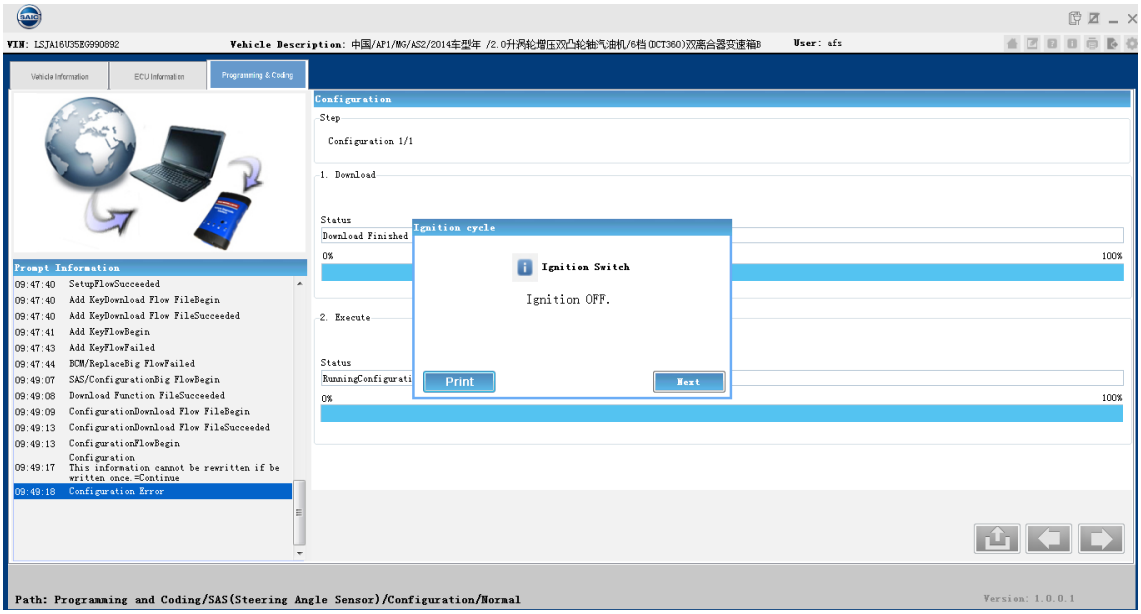
Continue: after selecting, click Next, and it will continue Configuration flow;

Quit: it will quit Configuration flow;

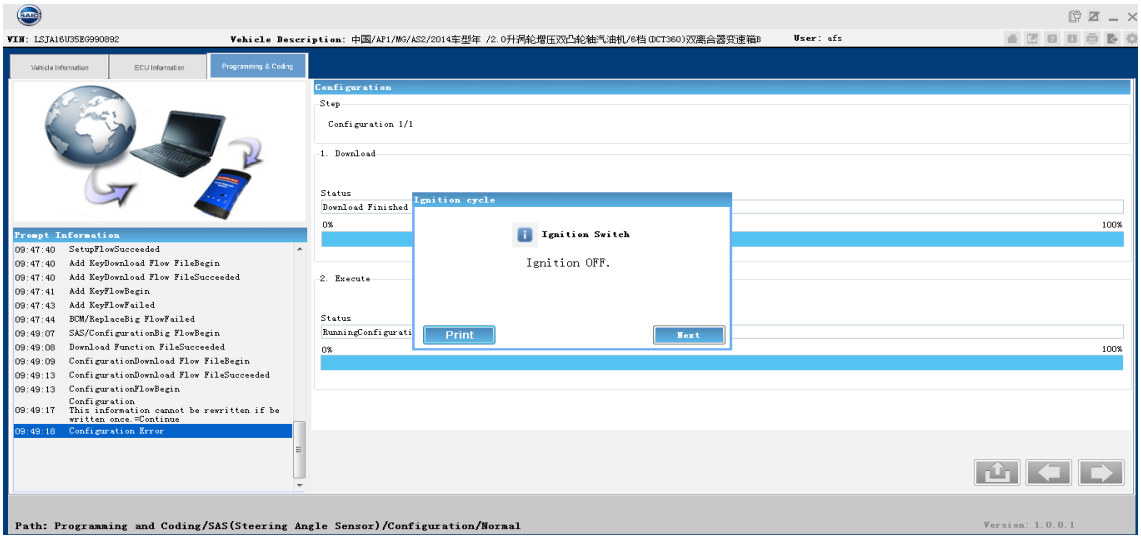
Next: execute operations according to the selection.

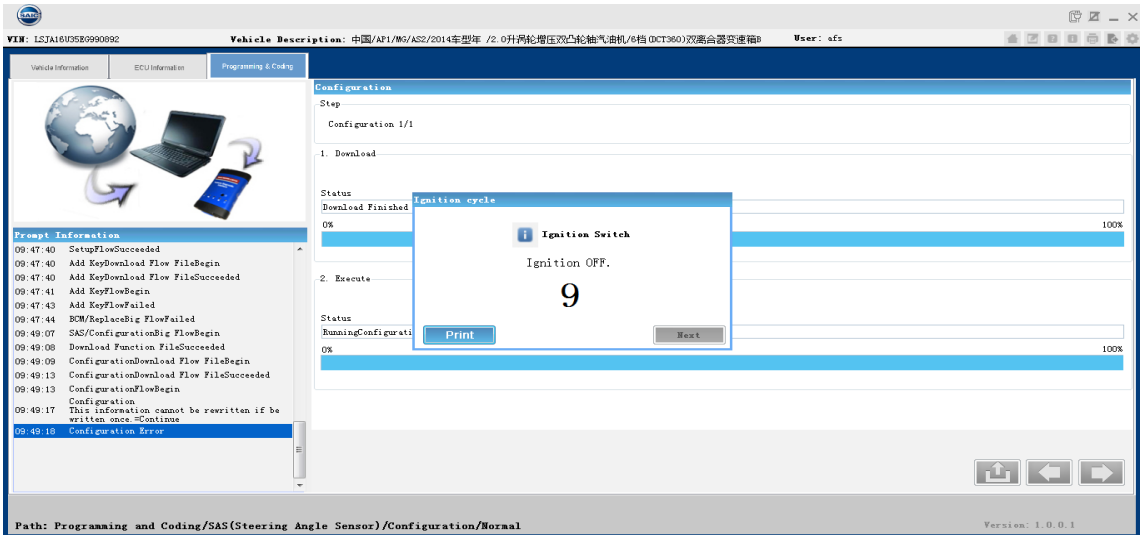


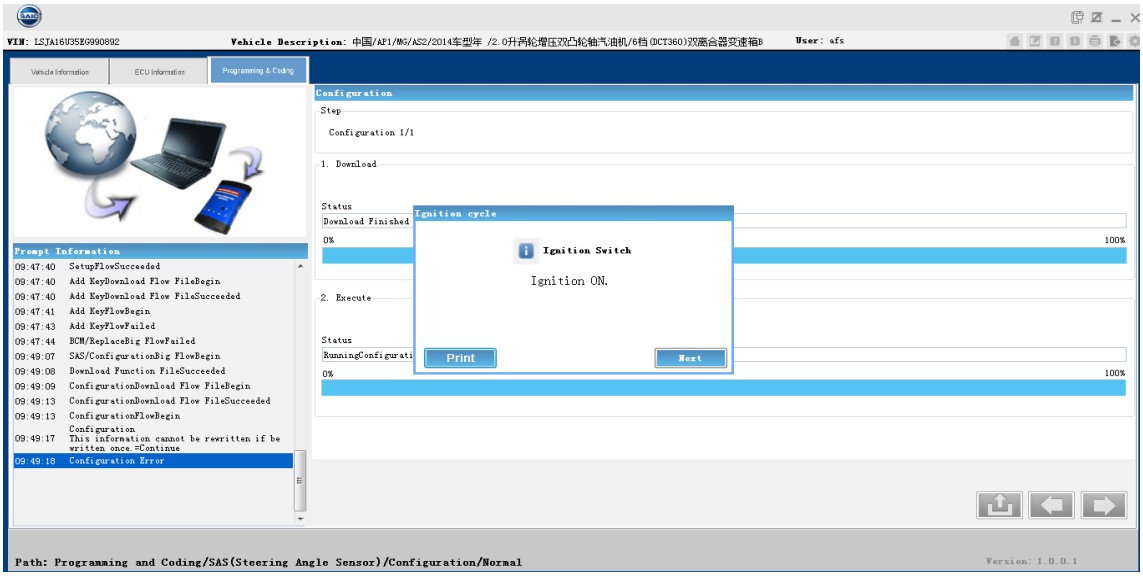
Step 7: Execute configuration flow.

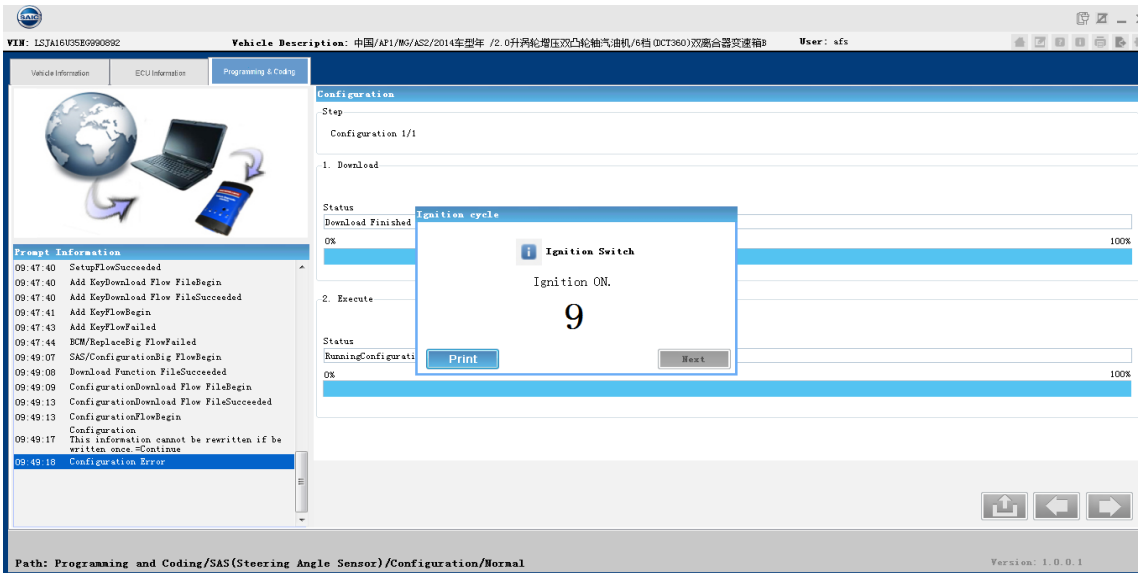


Step 8: Do ignition cycle. Please operate according to the prompt.

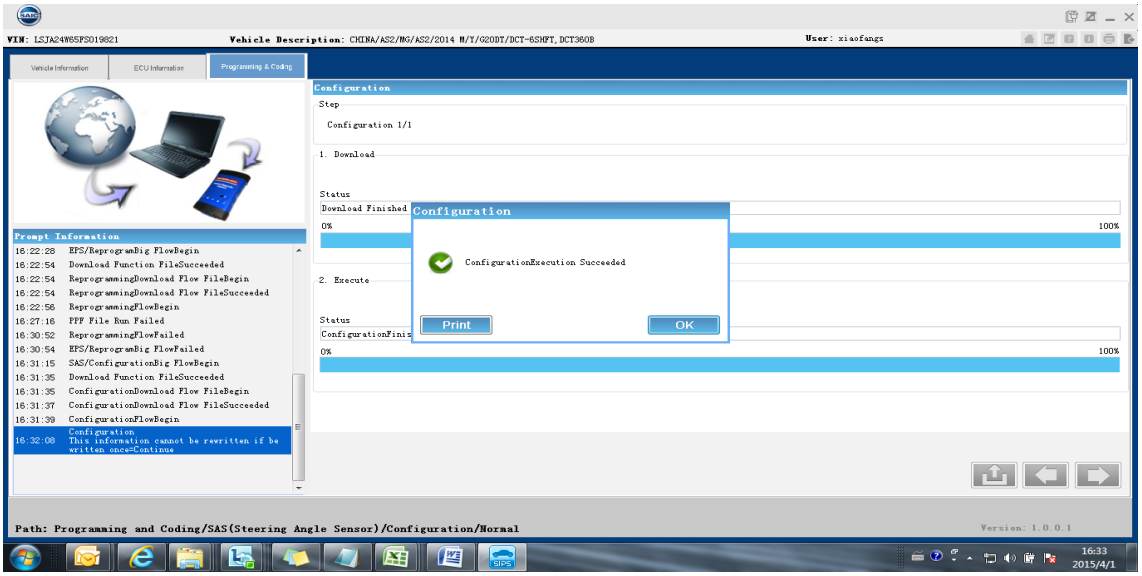




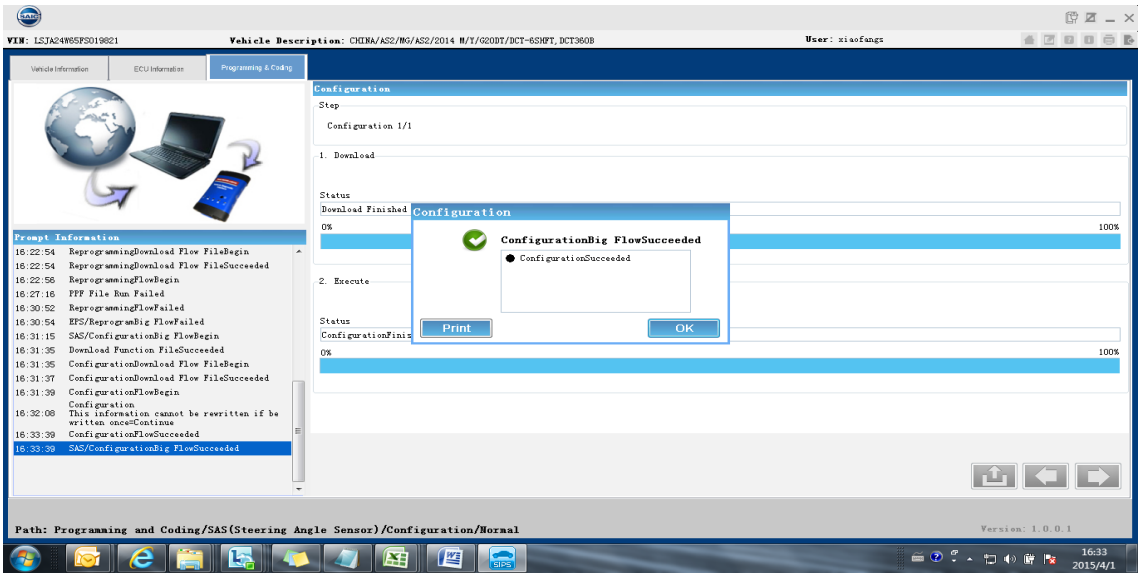




Step 9: Prompt configuration execution succeeded.



Step 10: Display Configuration function execution results (succeeded) and list the execution result of each operating process. Click “OK” to finish the function. It goes back to “Programming and Coding” main interface and updates SAS relevant information in the ECU list.



3) Replace

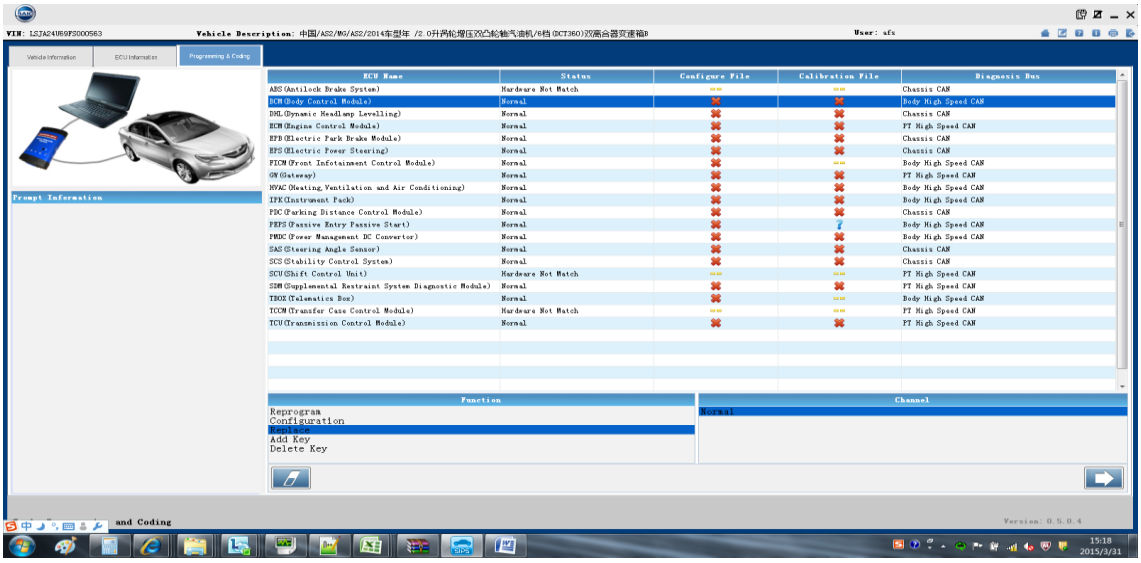
The “Replace” function is used to accomplish necessarily executing programming and coding operations after replacing ECU, e.g. software upgrade, written configuration, parameter settings, etc.

Note

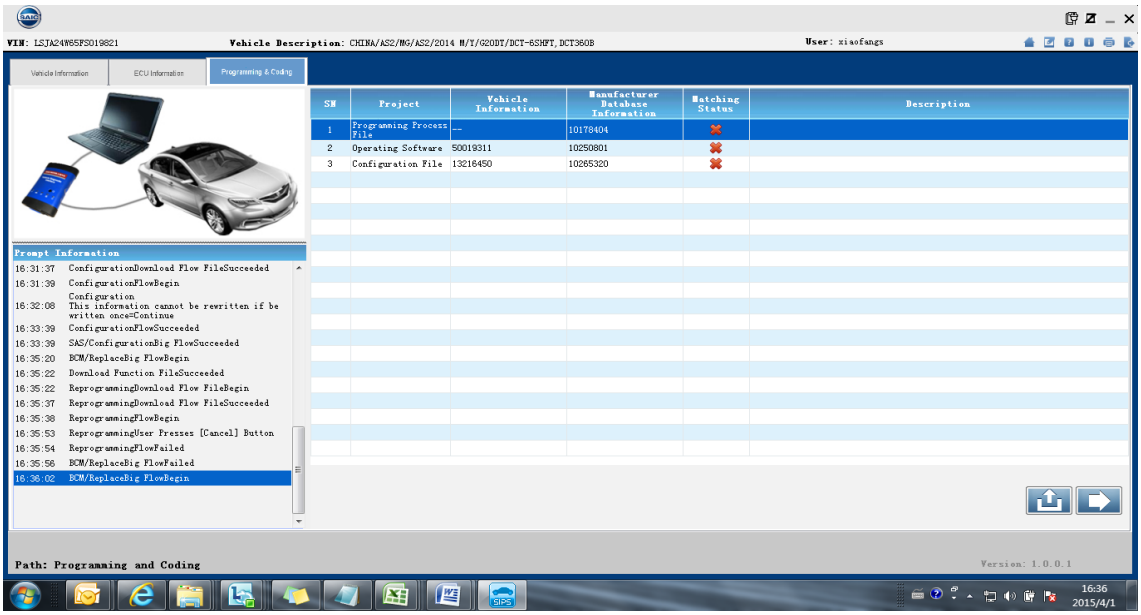
The BCM Replace functions cited contain four operating flows of Reprogram, Configuration, Settings and Add Key. The flows of Replace function in each model and ECU are different.

Procedure of Replace Function:

Step 1: In the “Programming and Coding” interface, select BCM (Body Control Module). “Function” lists BCM supporting function list. ✖ Indicates that the configuration and calibration of this ECU needs to upgrade, and through Replace function, it may accomplish upgrade. Select “Replace” function. The “Channel” displays normal channel and default option is selected, and then the Next button illuminates.



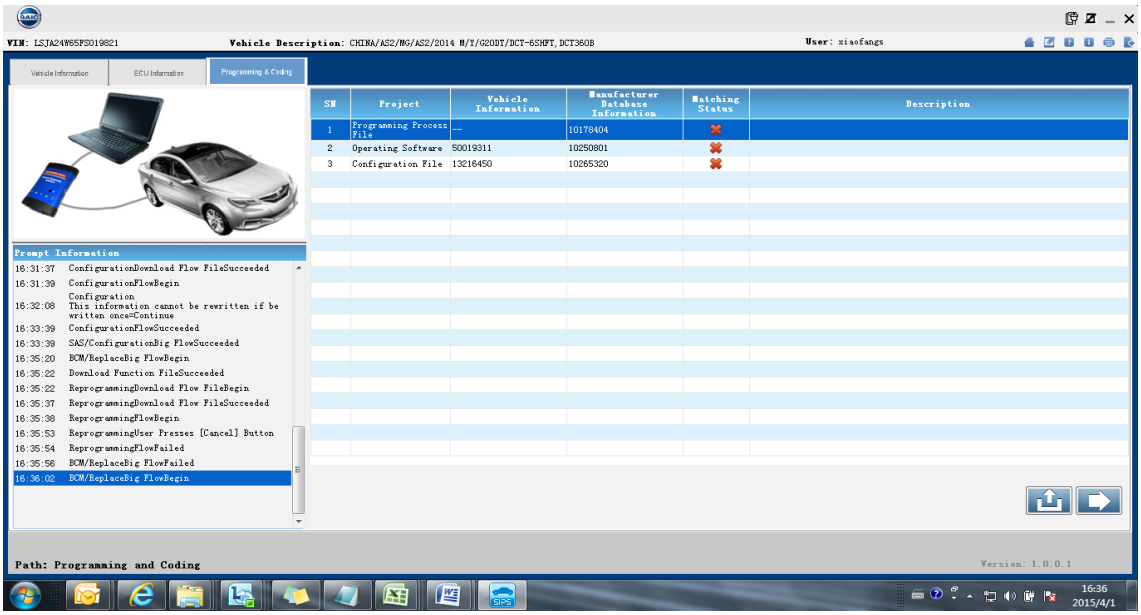
Step 2: Click Next button to download relevant files.



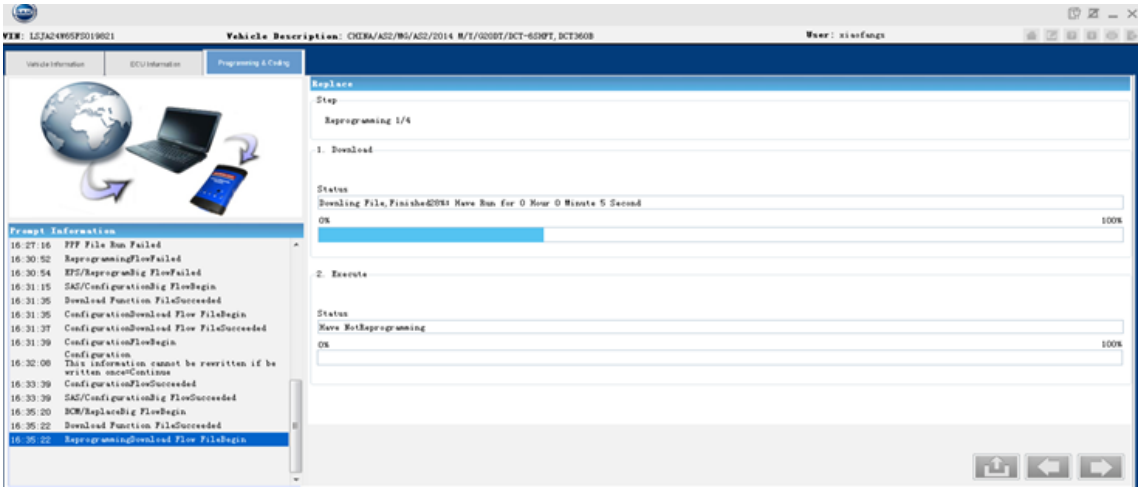
Step 3: Display the using data file information of BCM Replace function. “Vehicle ECU Information” indicates the information of current calibration version. “Manufacturer Database Information” indicates the information of currently available version information in the database (viz. version information to be written into the ECU). Through matching status, you may see the files needed for upgrading: “ECU Programming Process File” and “ECU Configuration File”.

The icons in the interface:

: back to “Programming and Coding” main interface; : next step.

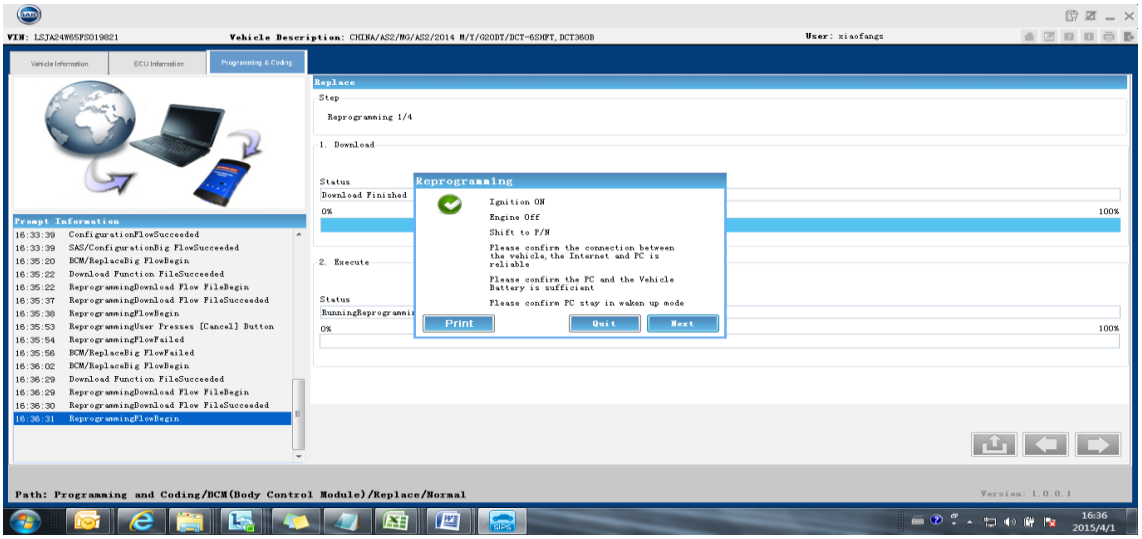


Step 4: Download relevant files.

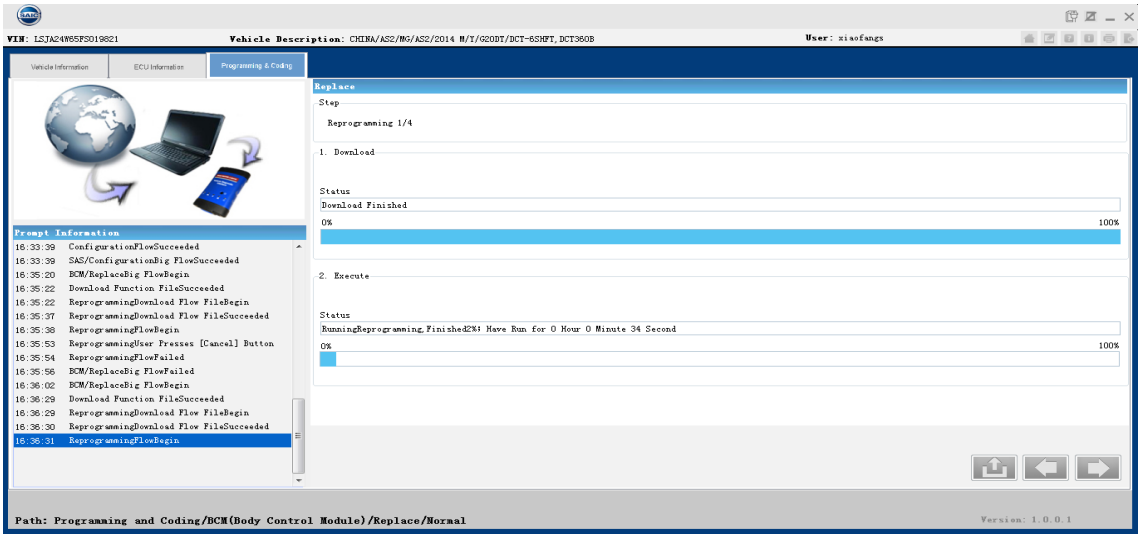


Step 5: Finish downloading. Start to execute Reprogramming. The pop-up box prompts the notes of Reprogramming. Please follow the prompt and make sure it meets prompt conditions, then click “Next”.

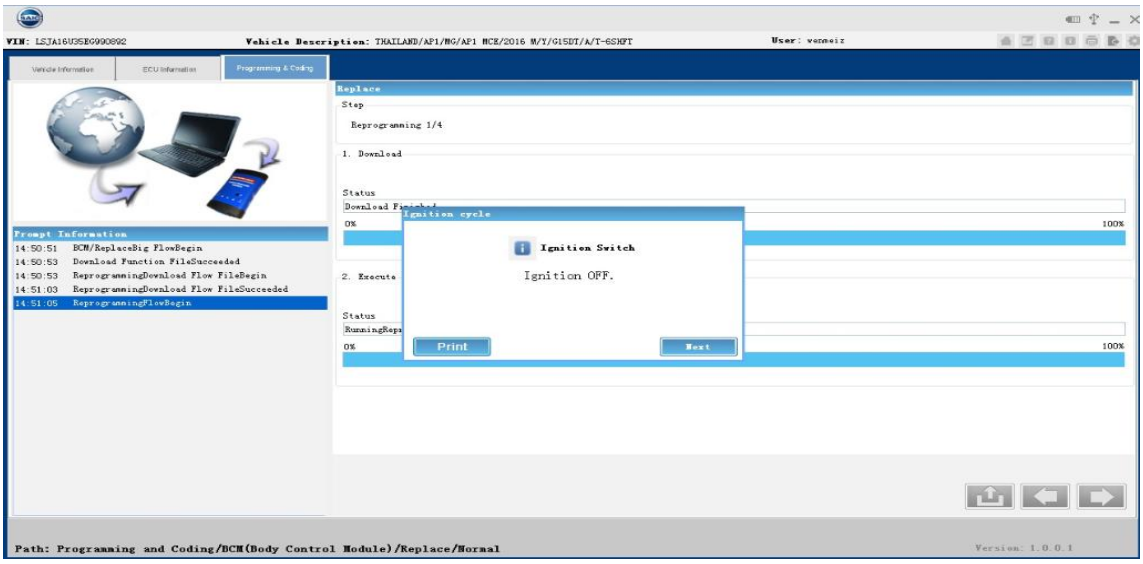
The “Reprogramming 1/4” of the procedures: indicate BCM Replace function has four procedures. Currently execute the first operating flow-Reprogramming.

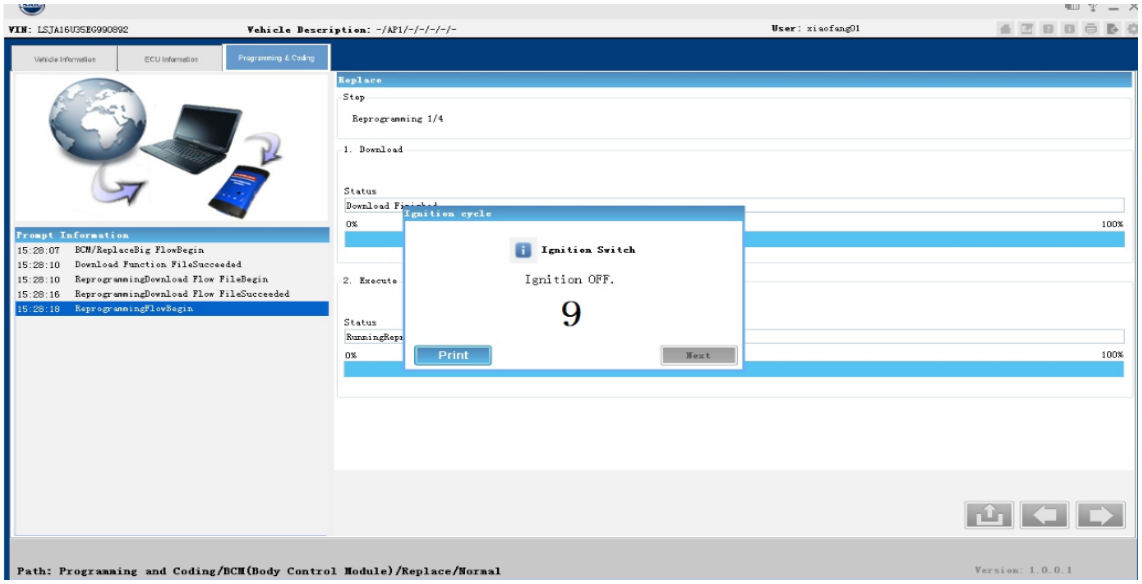


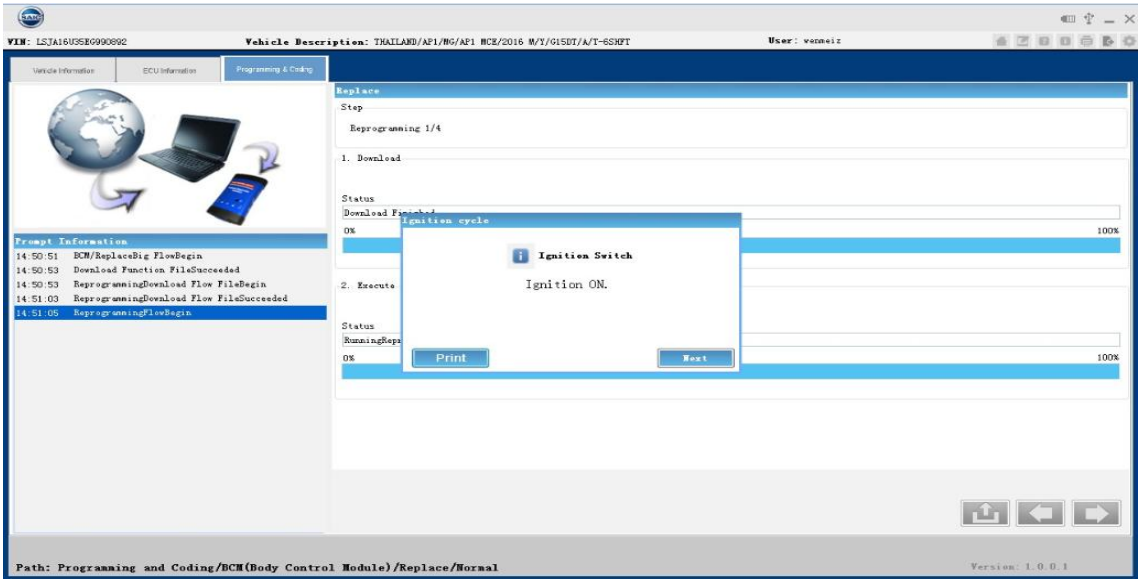
Step 6: Execute Reprogramming. Write the calibration file of the new version into BCM.

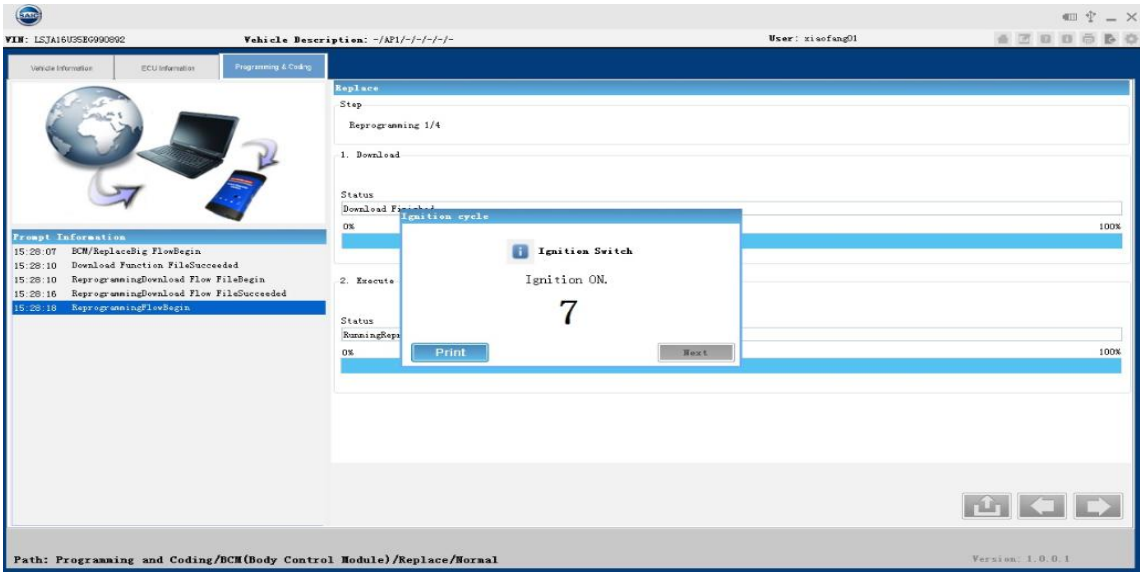


Step 7: Do ignition cycle. Please operate according to the prompt.

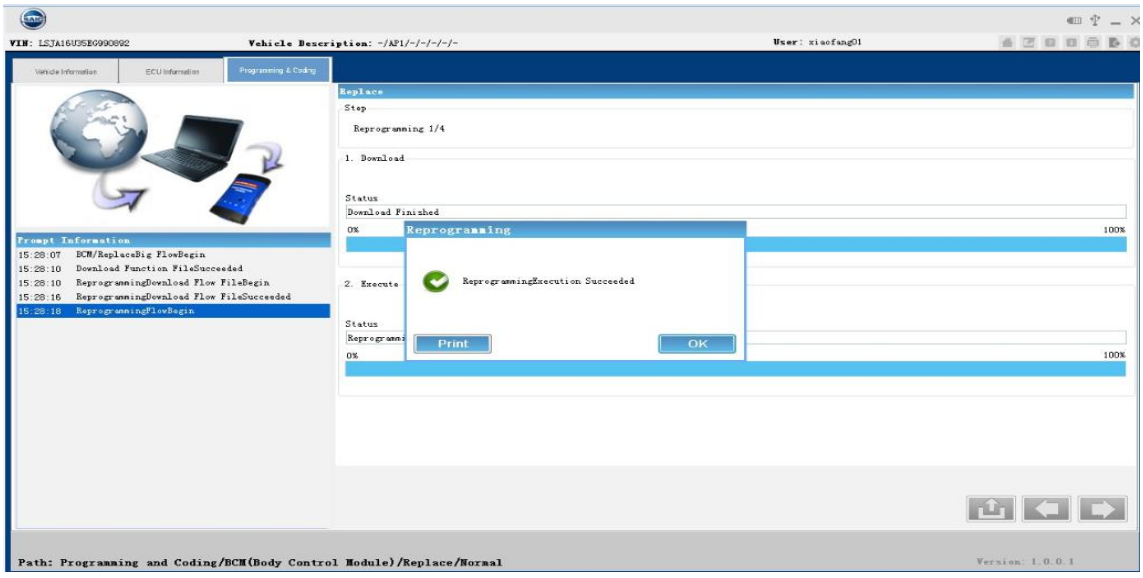




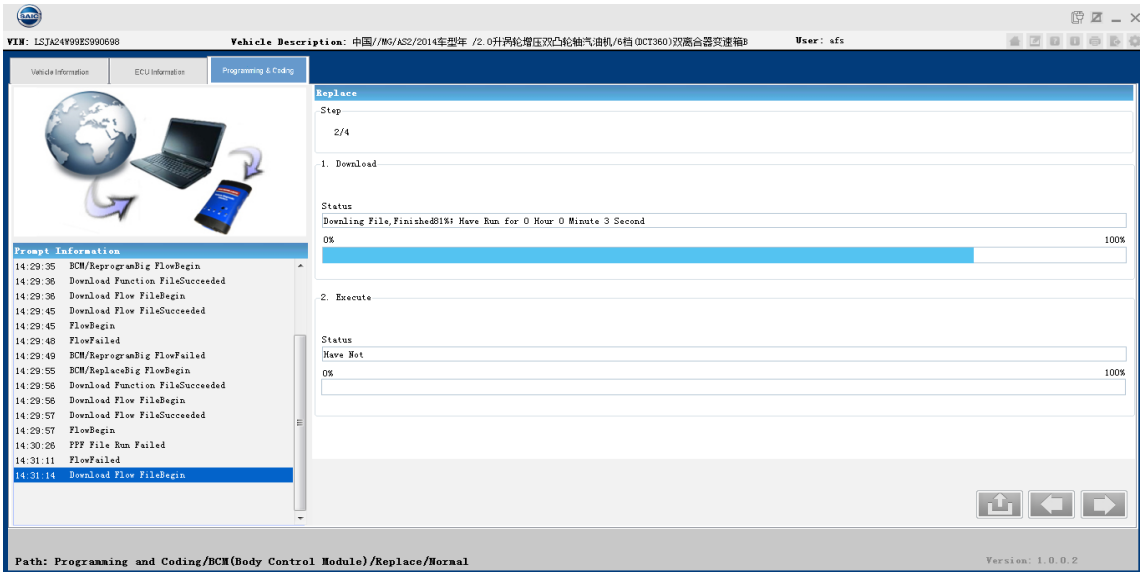




Step 8: Prompt Reprogramming execution results (succeeded). Click “OK” to continue.



Step 9: Download relevant files;

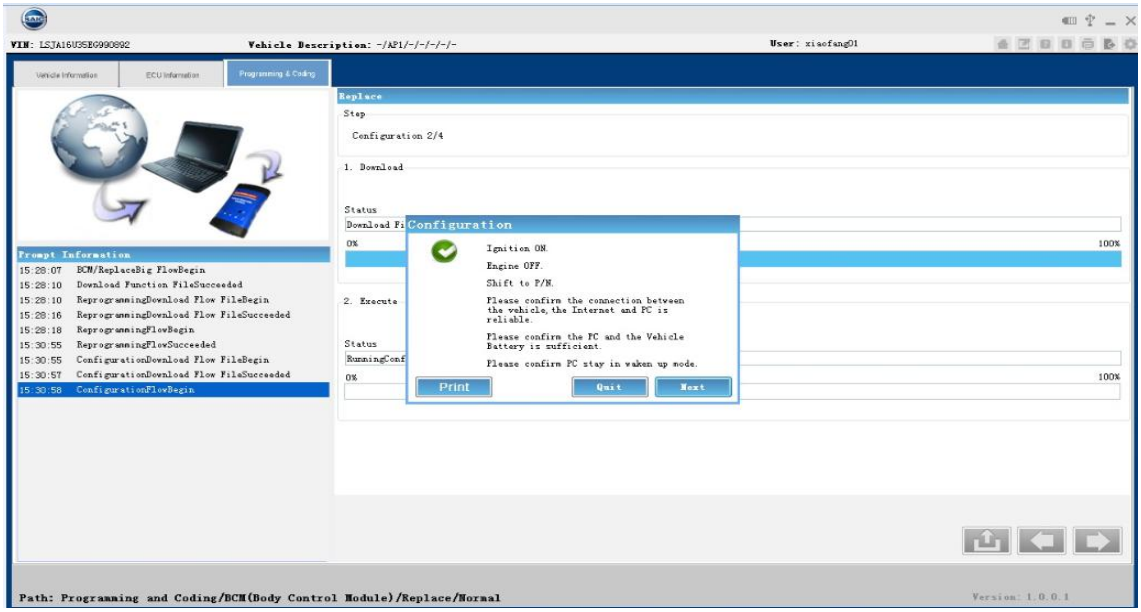


Step 10: Finish downloading. Start to execute Configuration. The pop-up box prompts the notes of Configuration. Please operate according to the prompt and make sure it meets prompt conditions, then click “Next”.

The “Configuration 2/4” of the procedures: indicate BCM Replace function has four procedures. Currently execute the second procedure- Configuration.

Quit: quit Configuration flow, finish;

Next: continue Configuration.



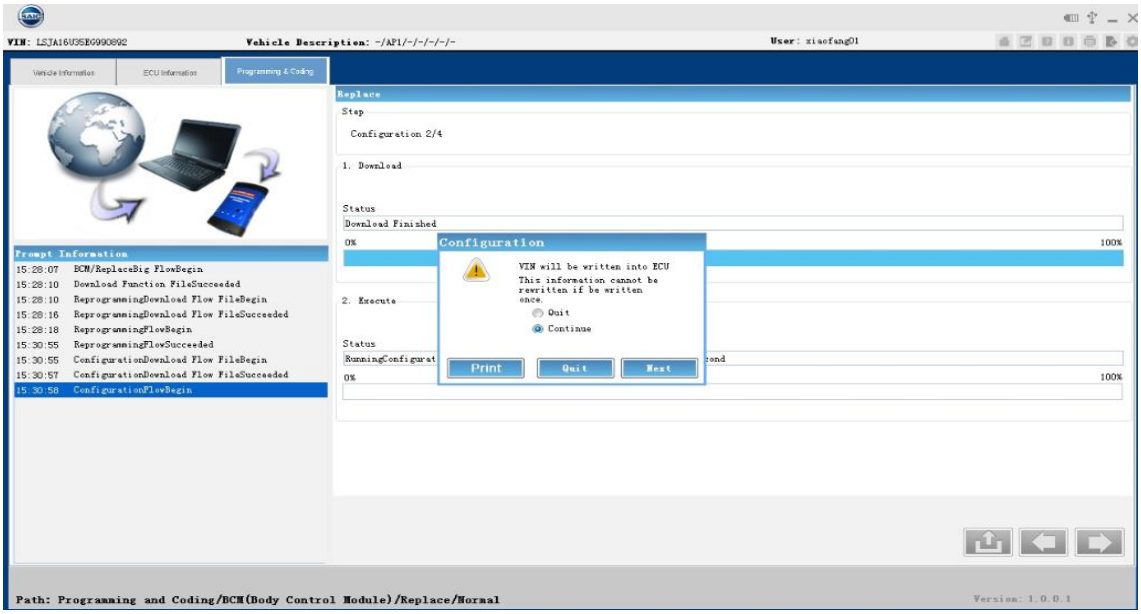
Step 11: Prompt the VIN identified by vehicle will be written into BCM. This information cannot be rewritten if be written once. Select “Continue” and click “Next” to continue.

Quit: after selecting, click “Next”, and it will quit Configuration flow;

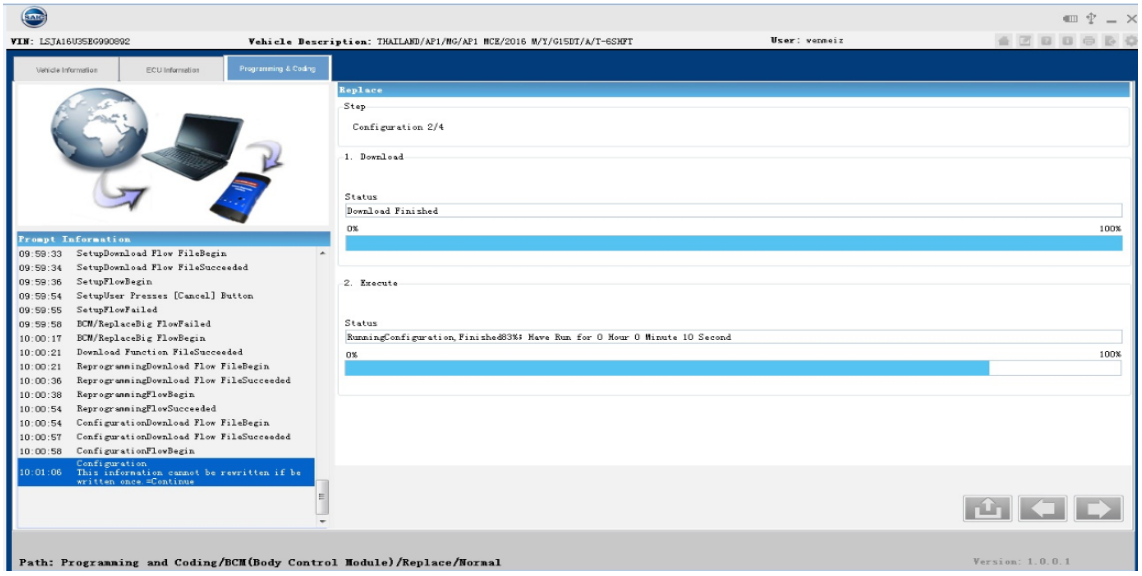
Continue: after selecting, click Next, and it will continue Configuration flow;

Quit: it will quit Configuration flow;

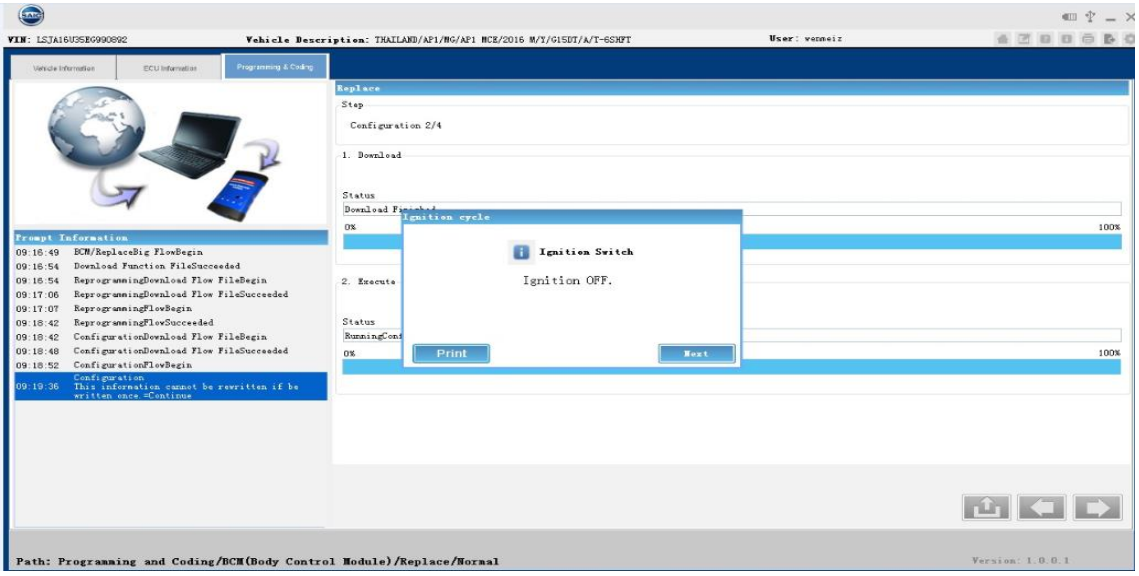
Next: execute operations according to the selection.

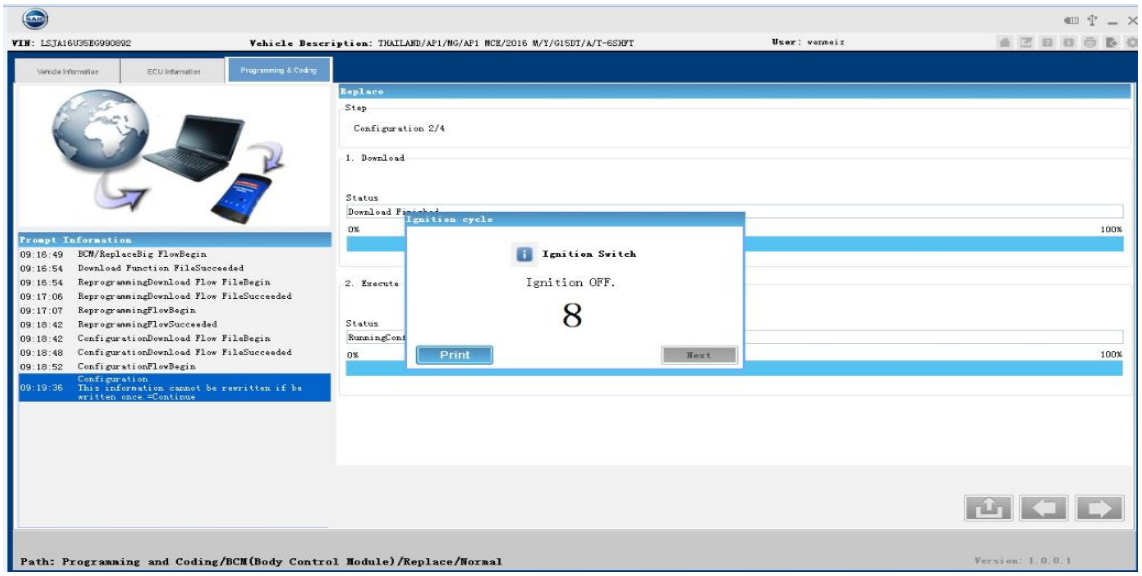


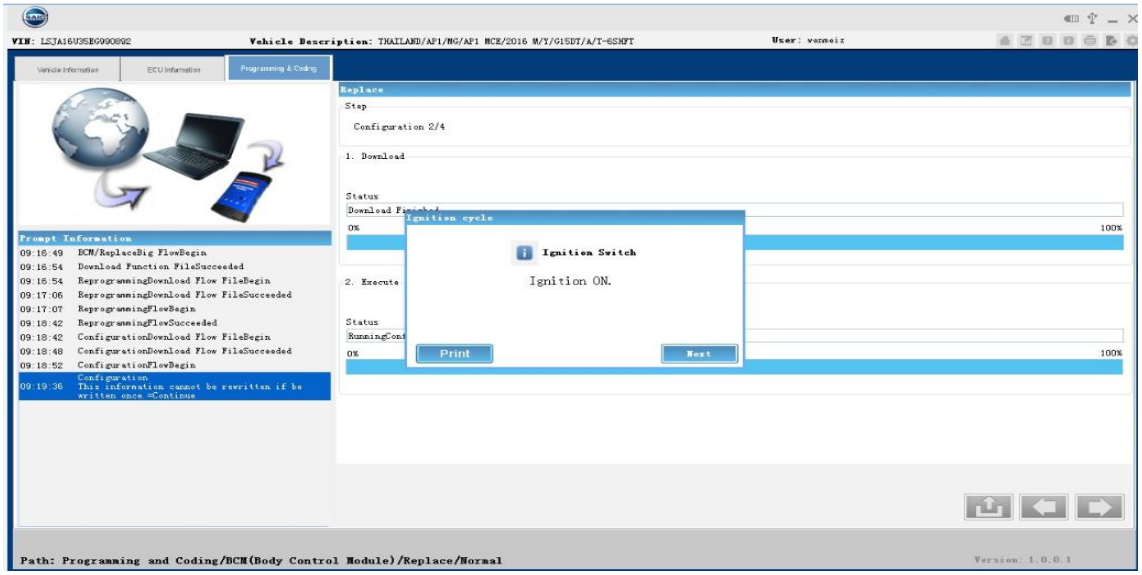
Step 12: Execute Configuration. Write configuration information into BCM.

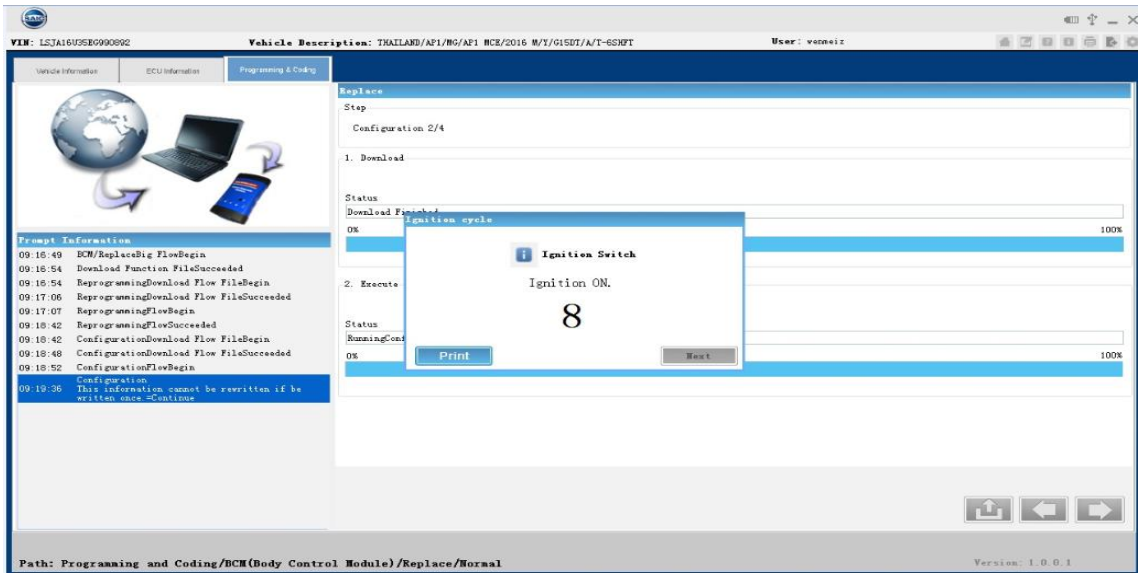


Step 13: Do ignition cycle. Please operate according to the prompt.

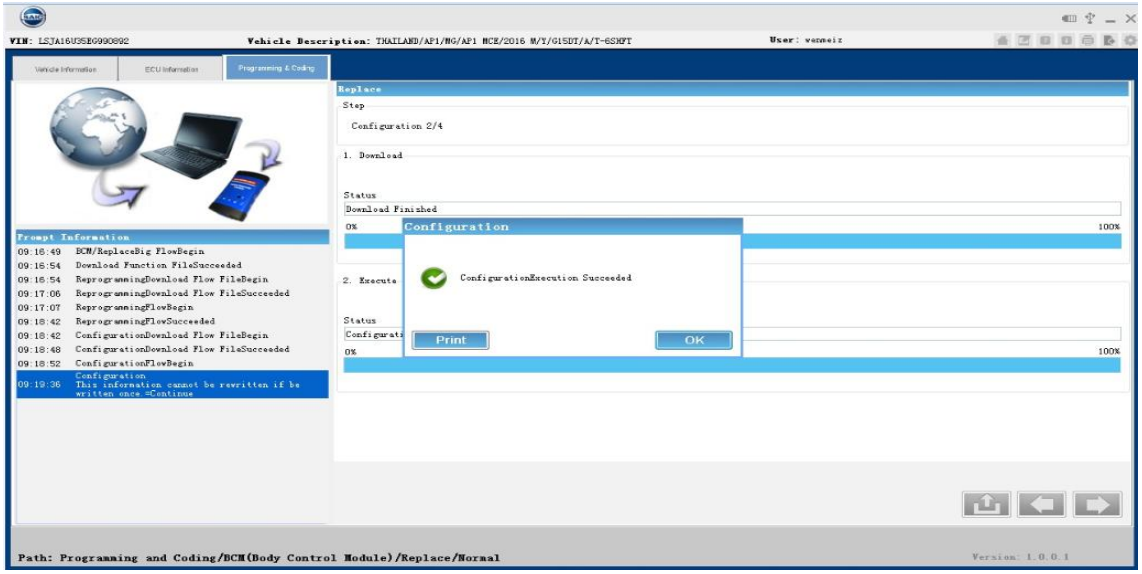




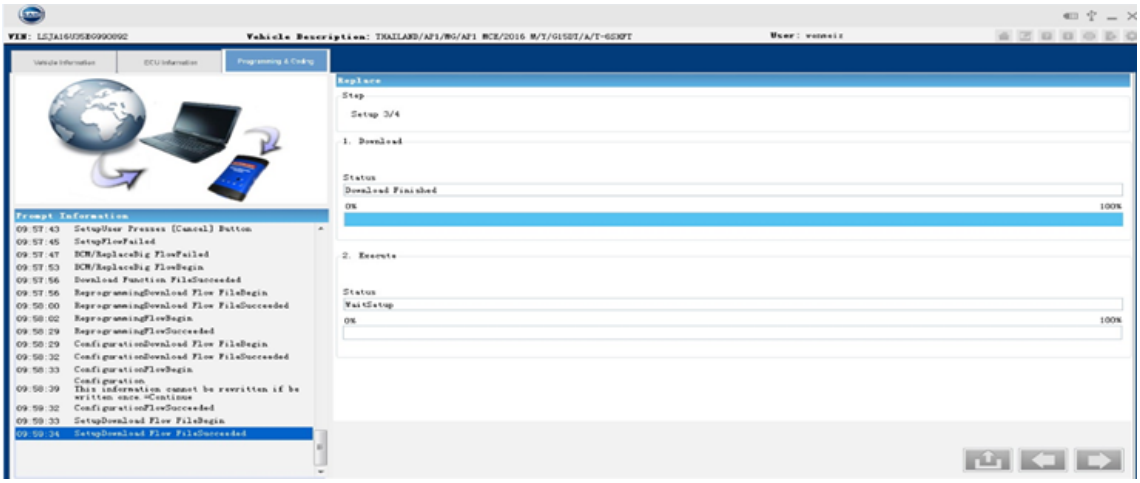




Step 14: Display Configuration execution results (succeeded). Click “OK” to continue.

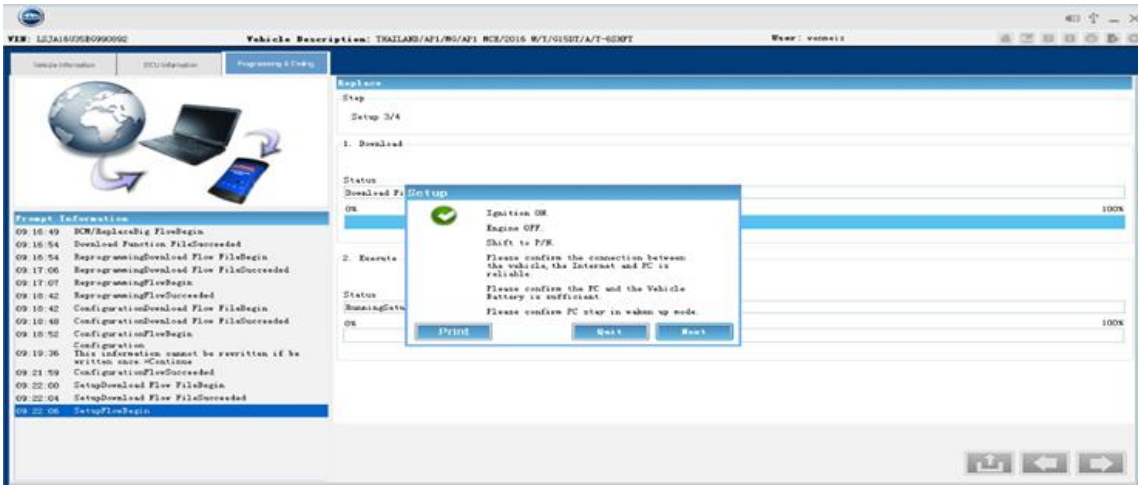


Step 15: Download relevant files;

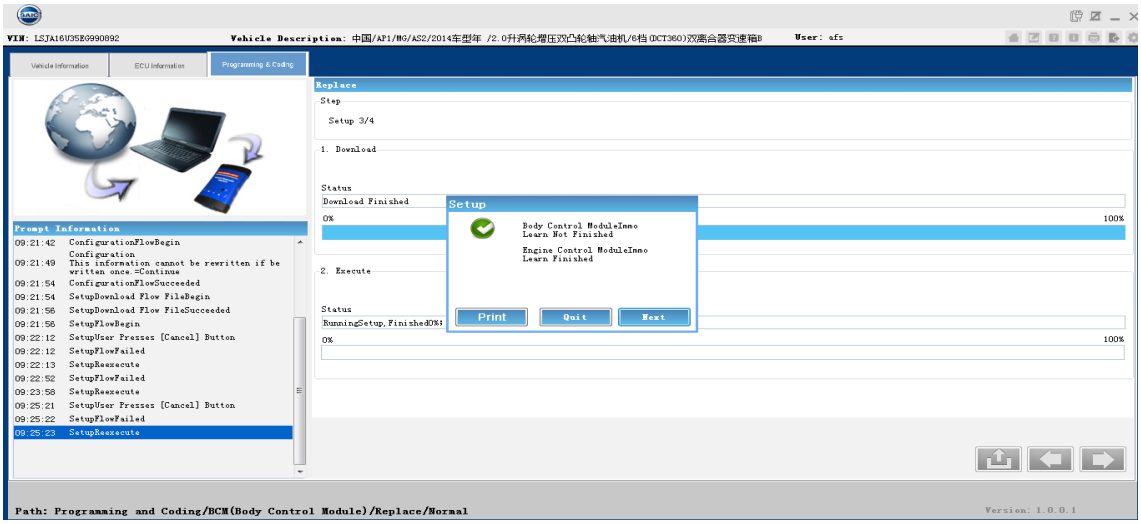


Step 16: Finish downloading. Start to execute Setup. The pop-up box prompts the notes of Setup. Please operate according to the prompt and make sure it meets prompt conditions, then click “Next”.

The “Setup 3/4” of the procedures: indicate BCM Replace function has four procedures. Now execute the third procedure- Setup.

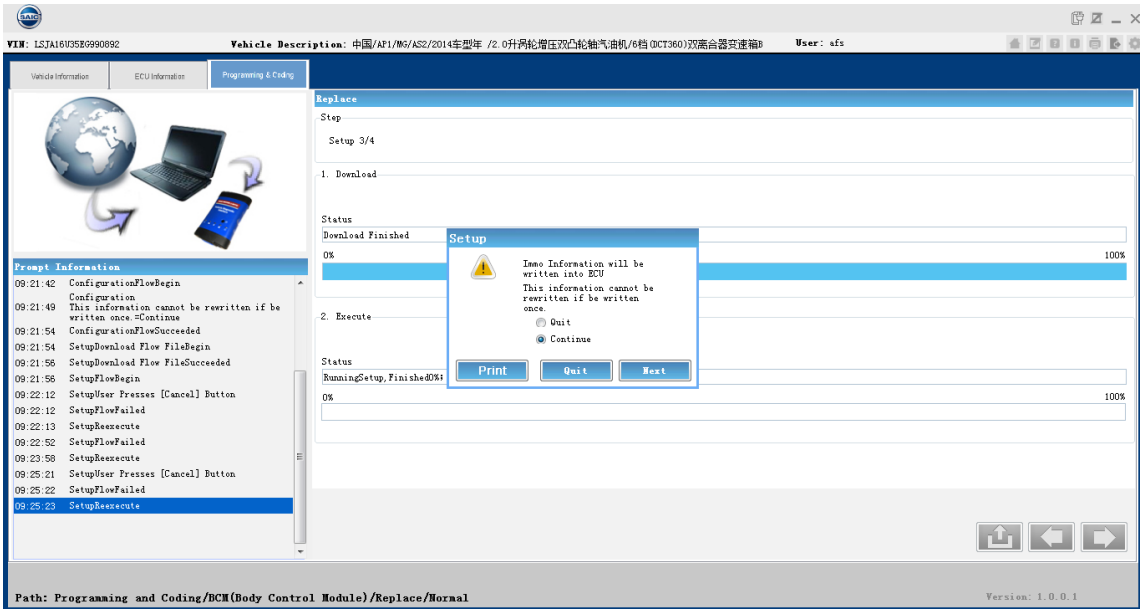


Step 17: Prompt Immo learning status of ECU for BCM Setup. You may choose to continue or quit according to actual condition.

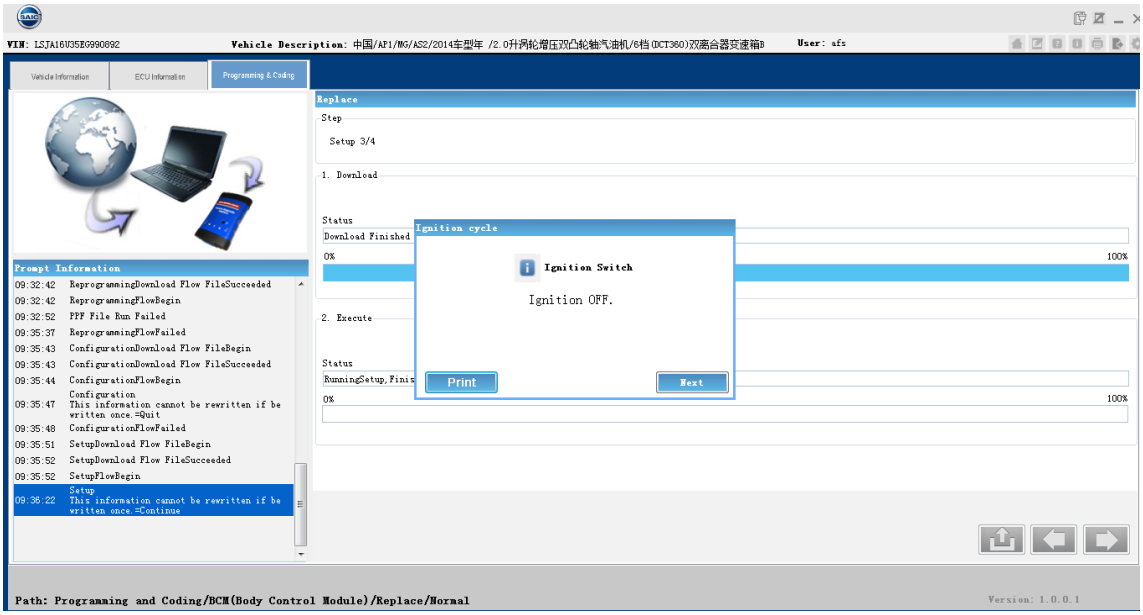


Step 18: Prompt the Immo Information will be written into ECU. This information cannot be rewritten if be written once. Select “Continue” and click “Next” to continue.
Quit: after selecting, click Next, and it will exit Setup flow;
Continue: after selecting, click Next, and it will continue Setup flow;
Quit: it will quit Setup flow;
Next: execute operations according to the selection.

Note
The PIN for writing Immo Information will be directly acquired in the SAIC database through network.

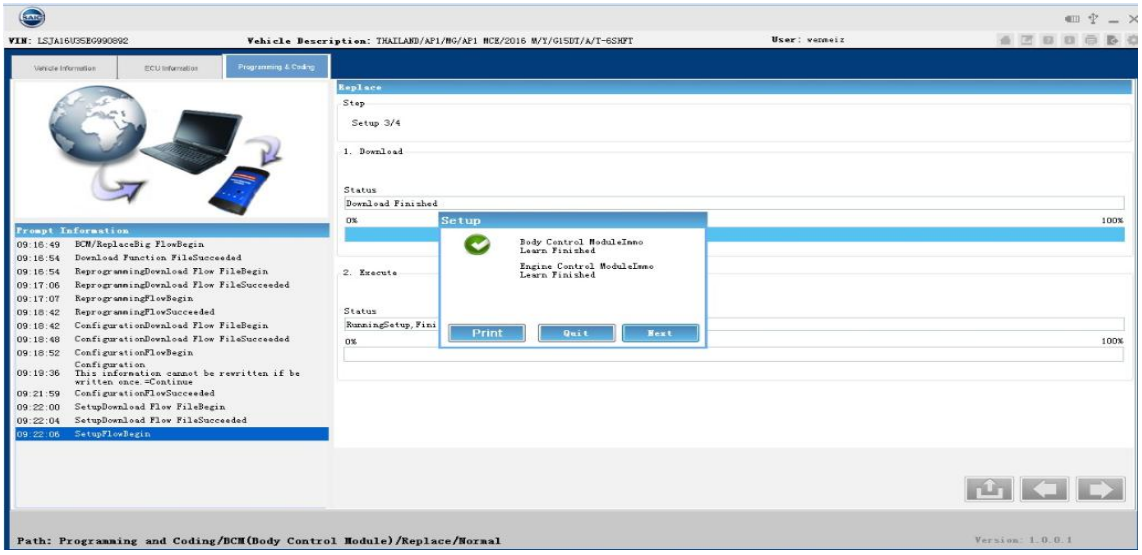


Step 19: Execute Setup. Write Immo Information into ECU.

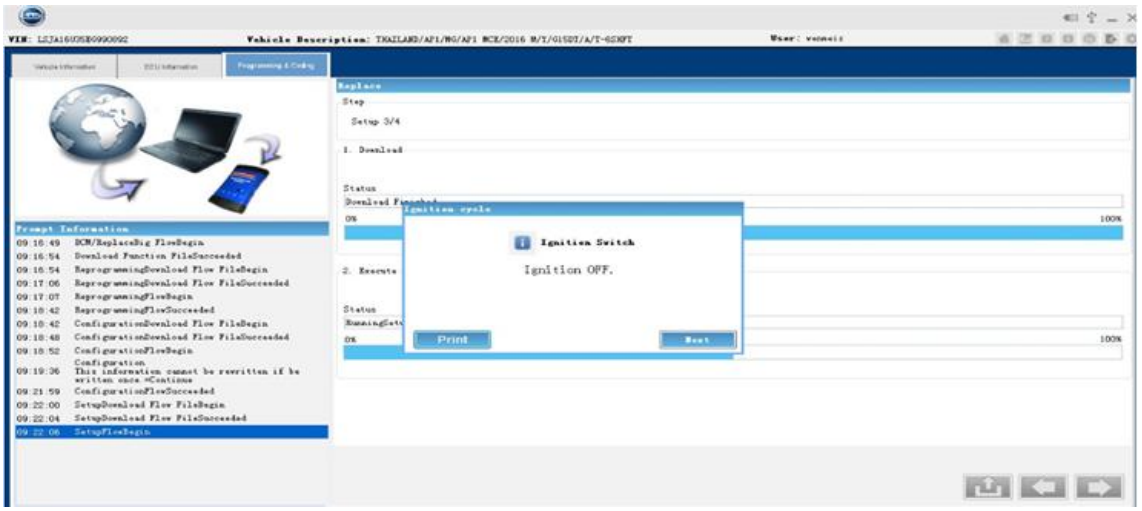


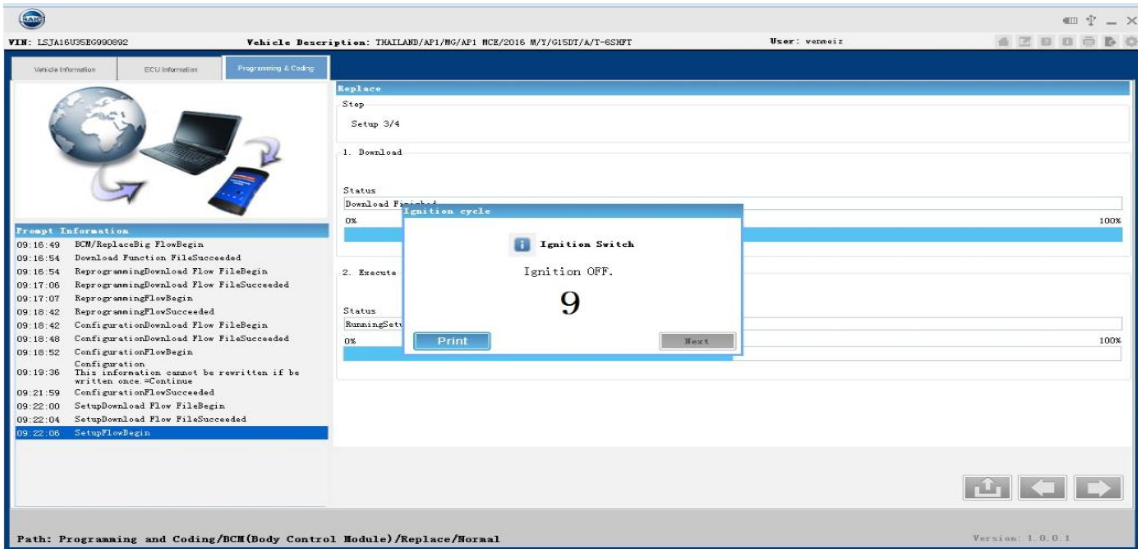
Step 20: Prompt learn results of BCM Immo.

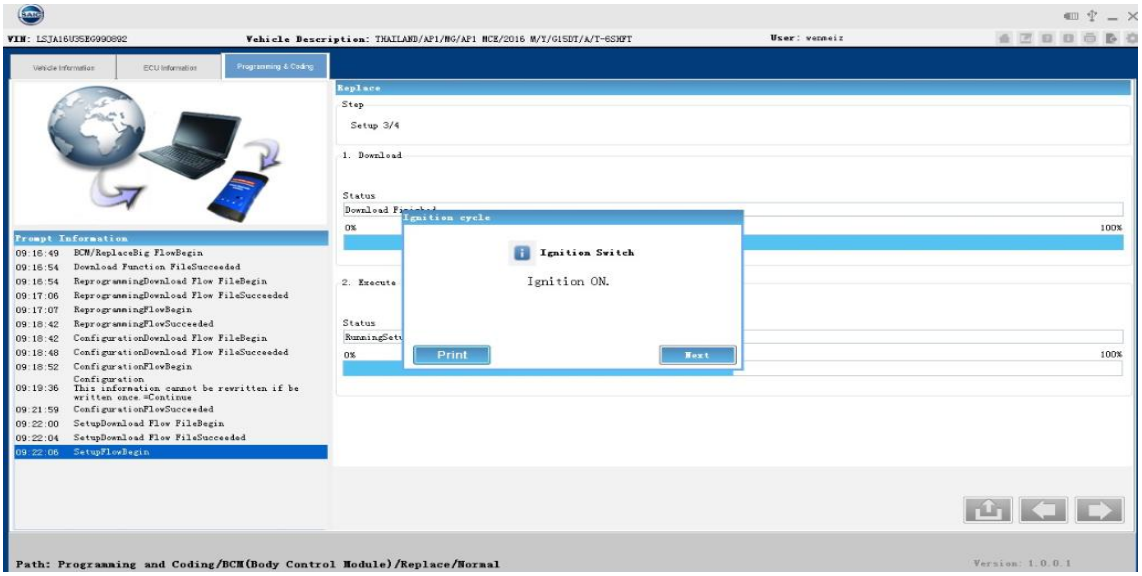
Quit: it will quit Setup flow; Next: continue to execute Setup flow.

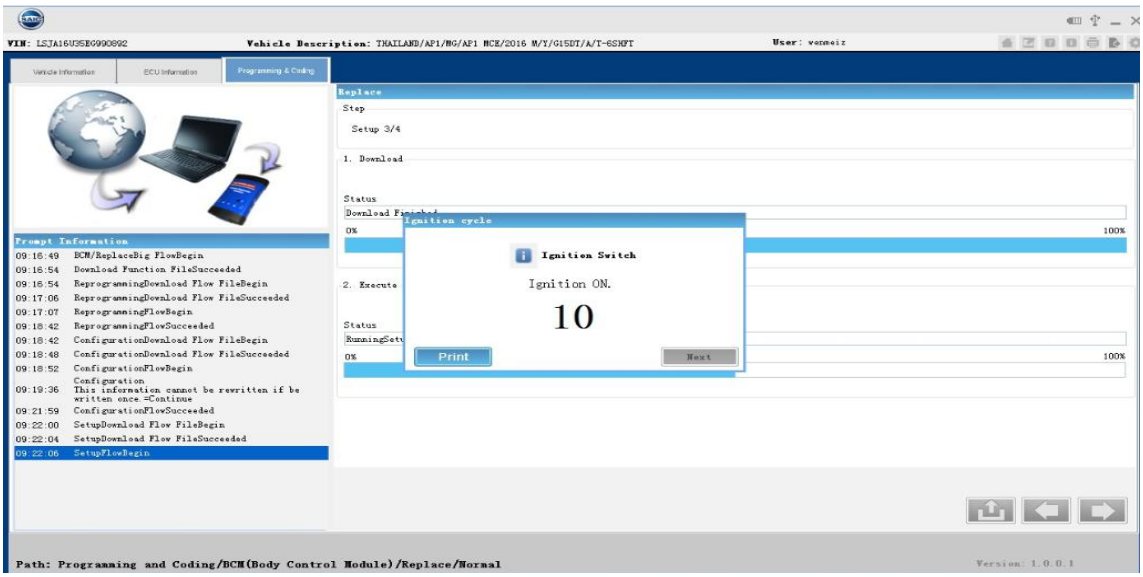


Step 21: Do ignition cycle. Please operate according to the prompt.

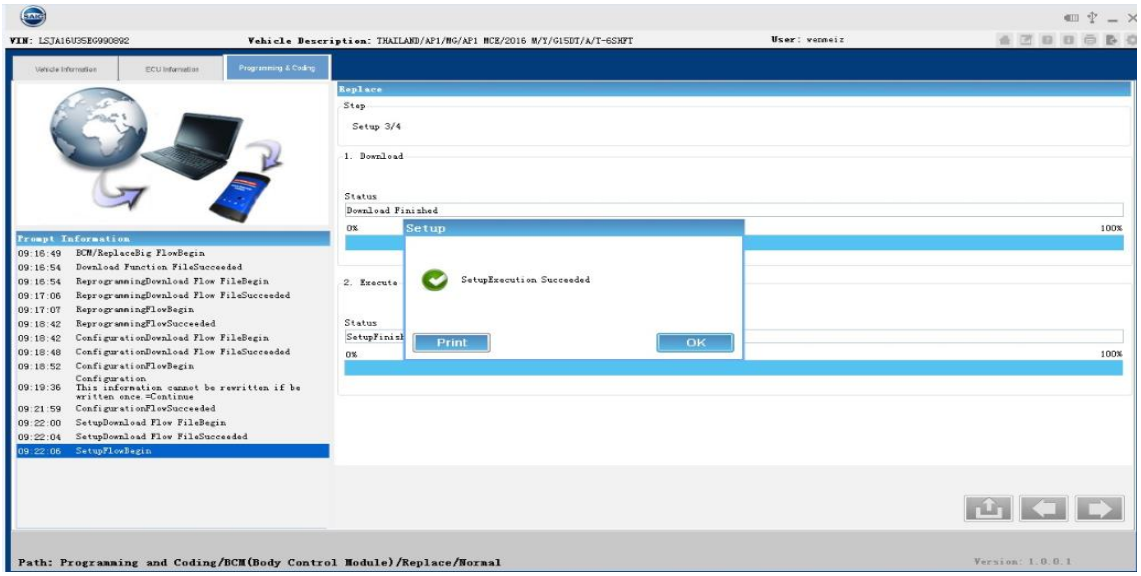




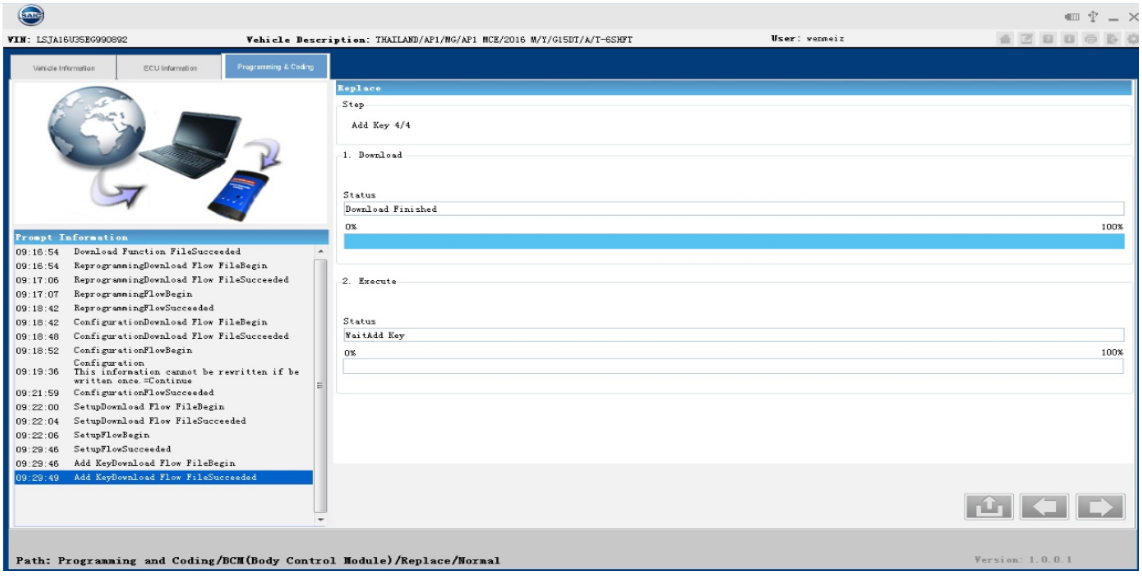




Step 22: Prompt Setup execution results (succeeded). Click “OK” to continue.



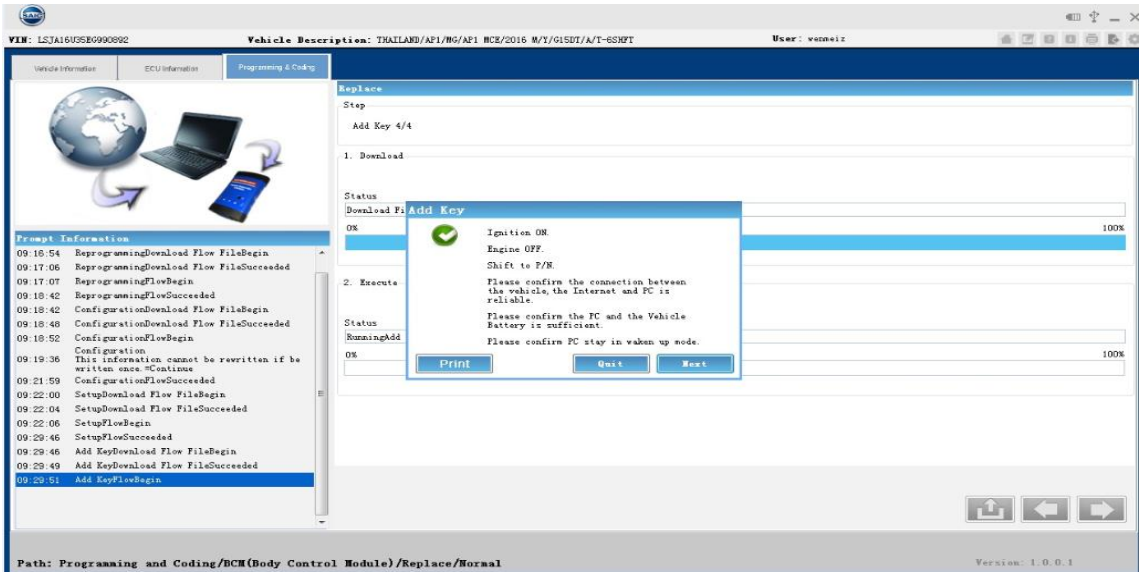
Step 23: Download relevant files;



Step 24: Finish downloading. Start to execute Add Key. The pop-up box prompts the notes of Add Key. Please operate according to the prompt and make sure it meets prompt conditions, click “Next”.

The “Add Key 4/4” of the procedures: indicate BCM Replace function has four procedures. Currently execute the fourth procedure - Add Key.

Quit: quit Add Key flow, finish; Next: continue Add Key.



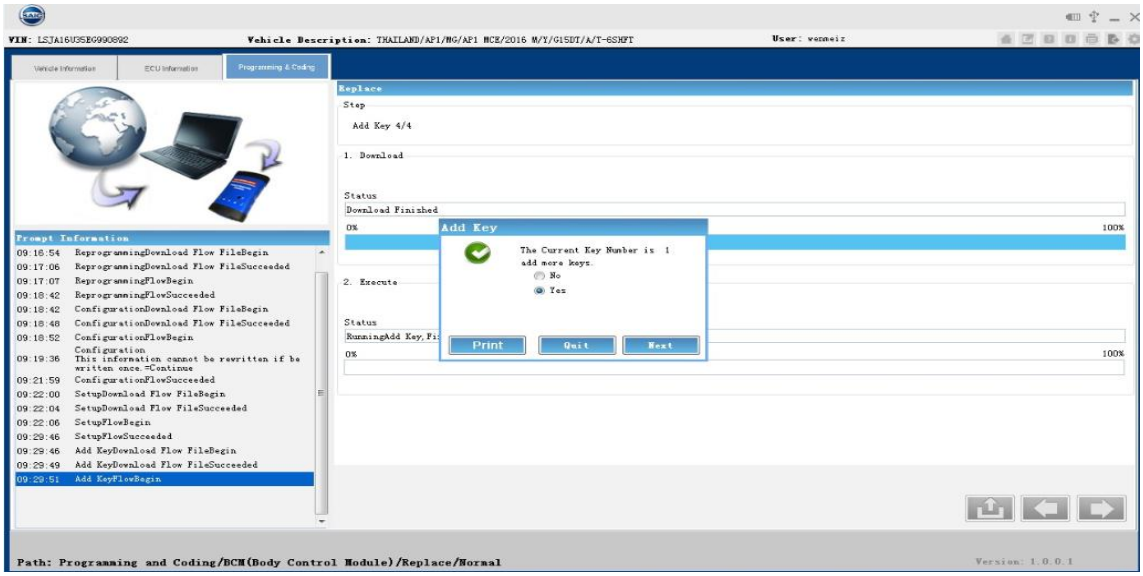
Step 25: Prompt currently effective key numbers. For whether any key needs to be added, select “Yes” and click “Next”.

No: No new key needs to be added;

Yes: More new keys need to be added;

Quit: it will quit Add Key flow;

Next: continue to execute Add Key flow.



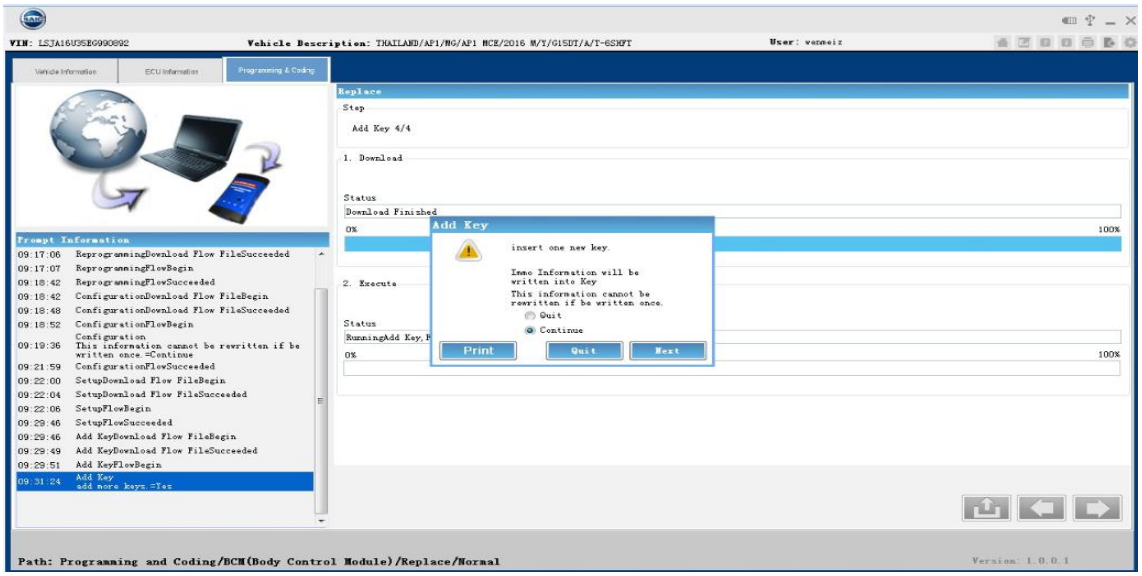
Step 26: Prompt to insert one new key. Immo information will be written into Key. This information cannot be rewritten if be written once. Select “Continue” and click “Next” to continue.

Quit: after selecting, click “Next”, and it will exit Add Key flow;

Continue: after selecting, click Next, and it will continue Add Key flow;

Quit: it will quit Add Key flow;

Next: execute operations according to the selection.



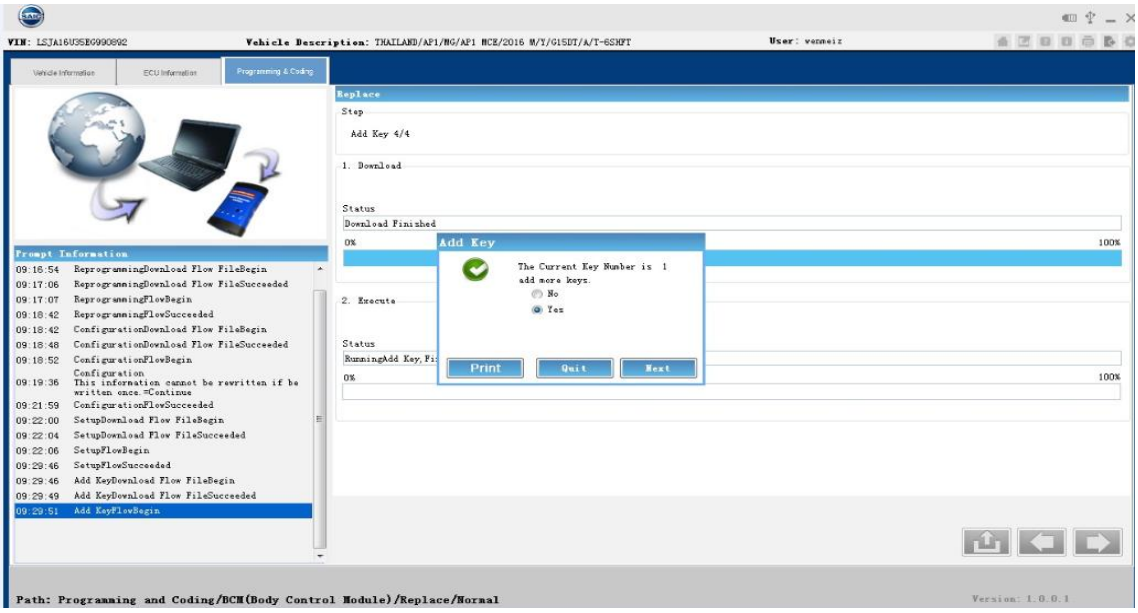
Step 27: Prompt currently effective key numbers. For whether any key needs to be added, if more keys need to be added, select “Yes”; if no key needs to be added, select “No” and then click “Next”.

No: No key needs to be added;

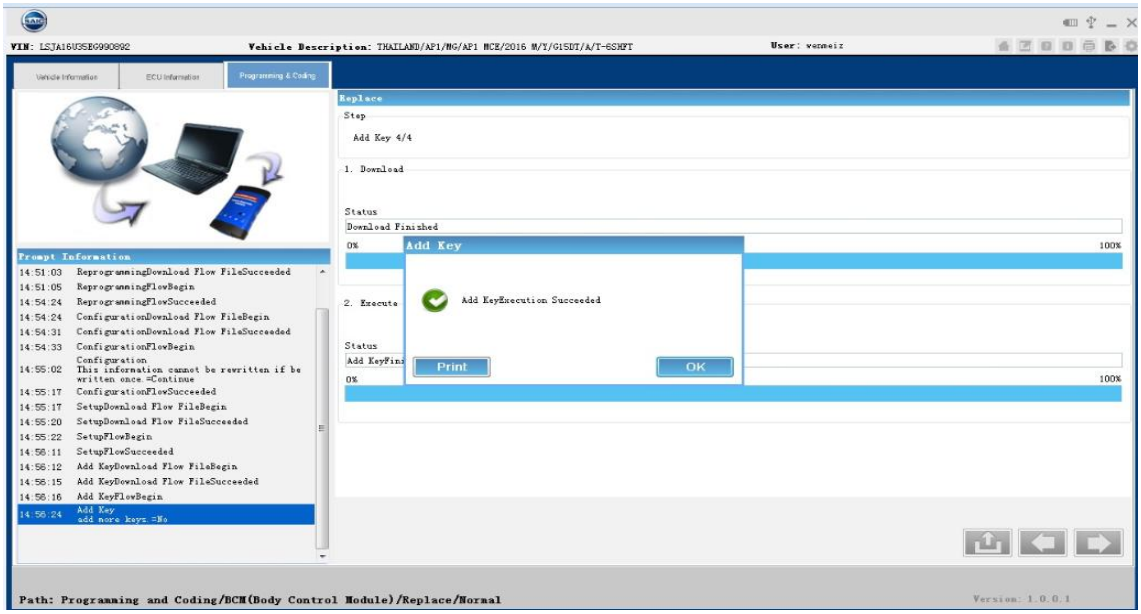
Yes: More keys need to be added;

Quit: it will quit Add Key flow;

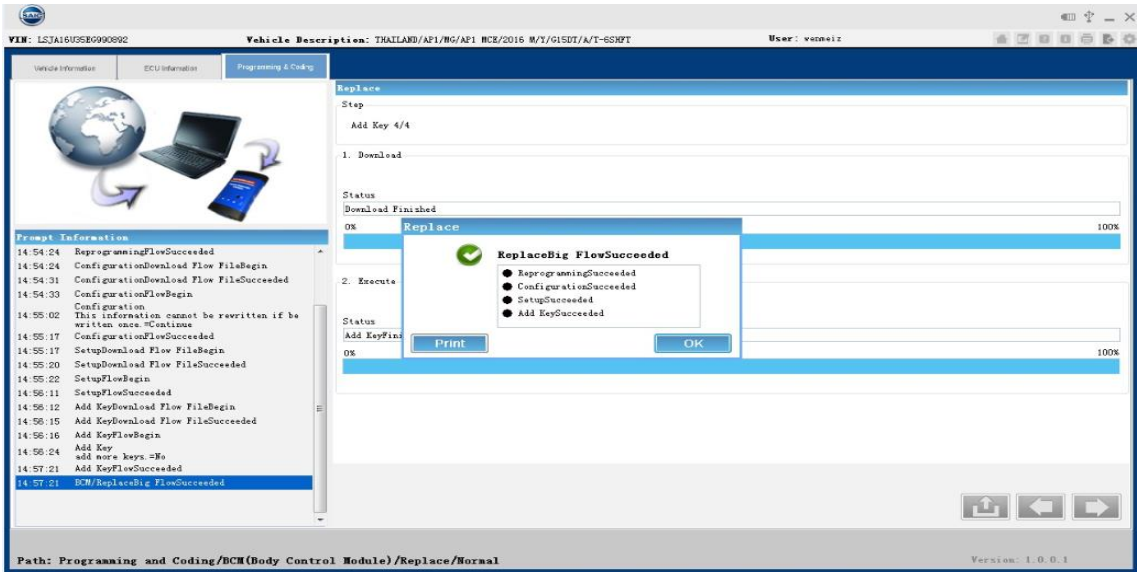
Next: continue to execute Add Key flow.



Step 28: Prompt Add Key execution results. Click “OK” to continue.



Step 29: Display Replace function execution results (succeeded) and list the execution result of each procedure. Click “OK” to finish the function. It goes back to “Programming and Coding” main interface and updates BCM relevant information in the ECU list.



4) Add Key

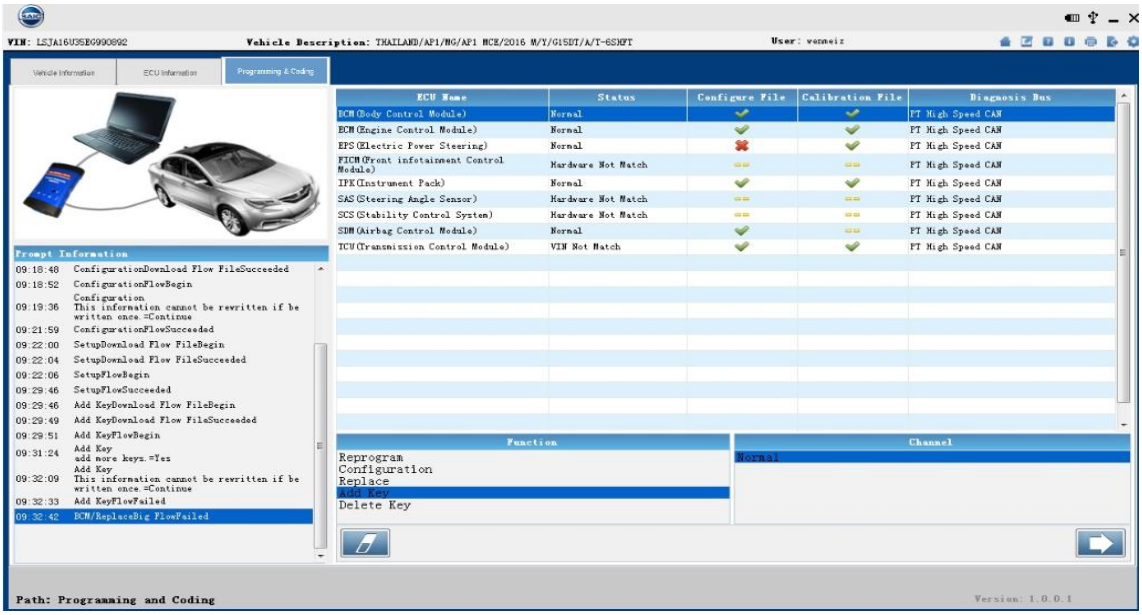
The “Add Key” function is to add keys to the vehicle or reactivate the previous forbidden keys.

Note

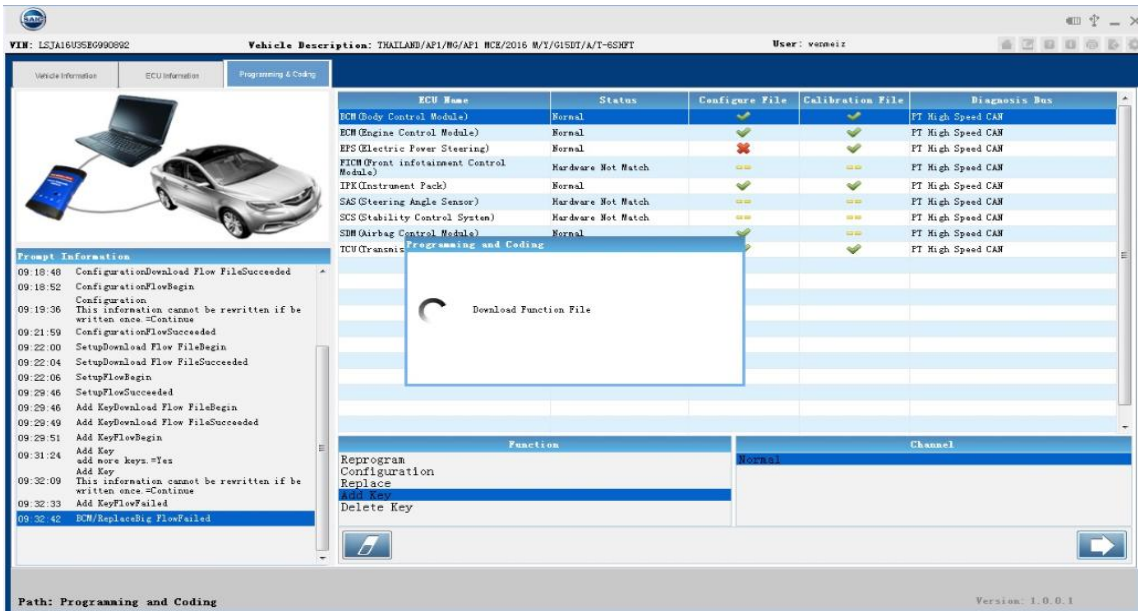
The Add Key function only contains one procedure.

Procedure of Add Key Function:

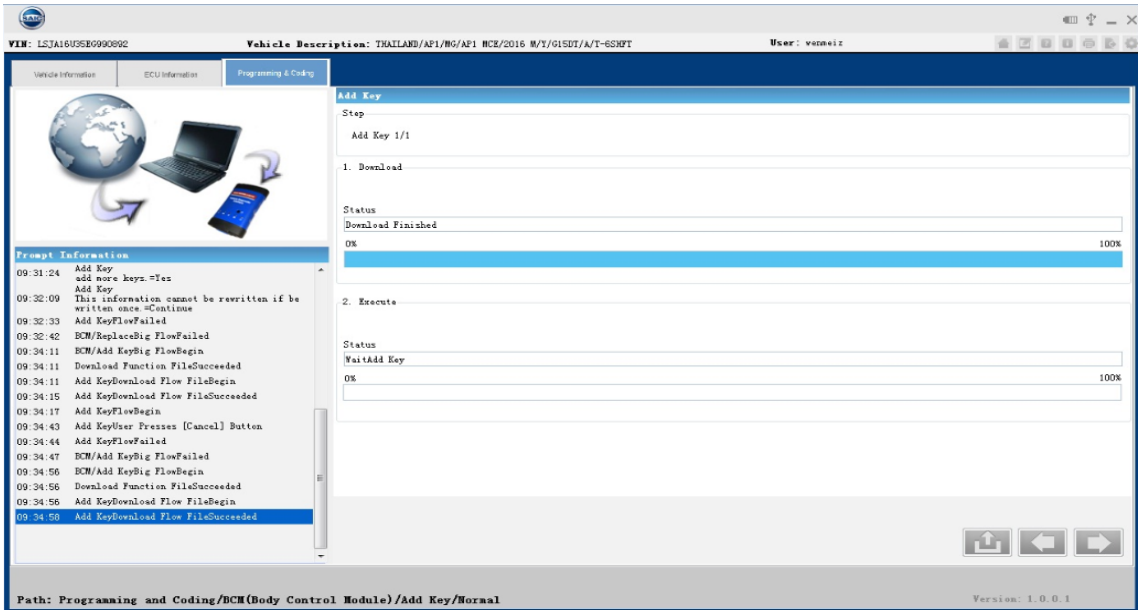
Step 1: In the “Programming and Coding” interface, select BCM (Body Control Module). “Function” lists BCM supporting function list. Select “Add Key” function. The “Channel” displays normal channel and select the default option, and then the Next button illuminates.



Step 2: Click Next button to download relevant files.



Step 3: Download relevant files for Add Key option;

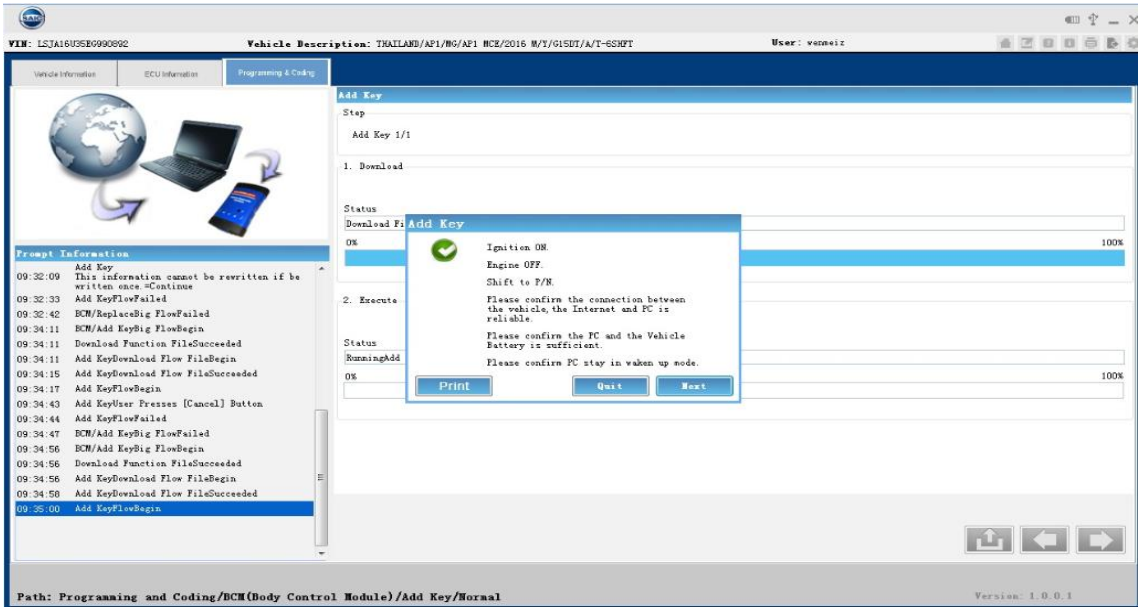


Step 4: Finish downloading. Start to execute Add Key. The pop-up box prompts the notes of Add Key. Please operate according to the prompt and make sure it meets prompt conditions, click “Next”.

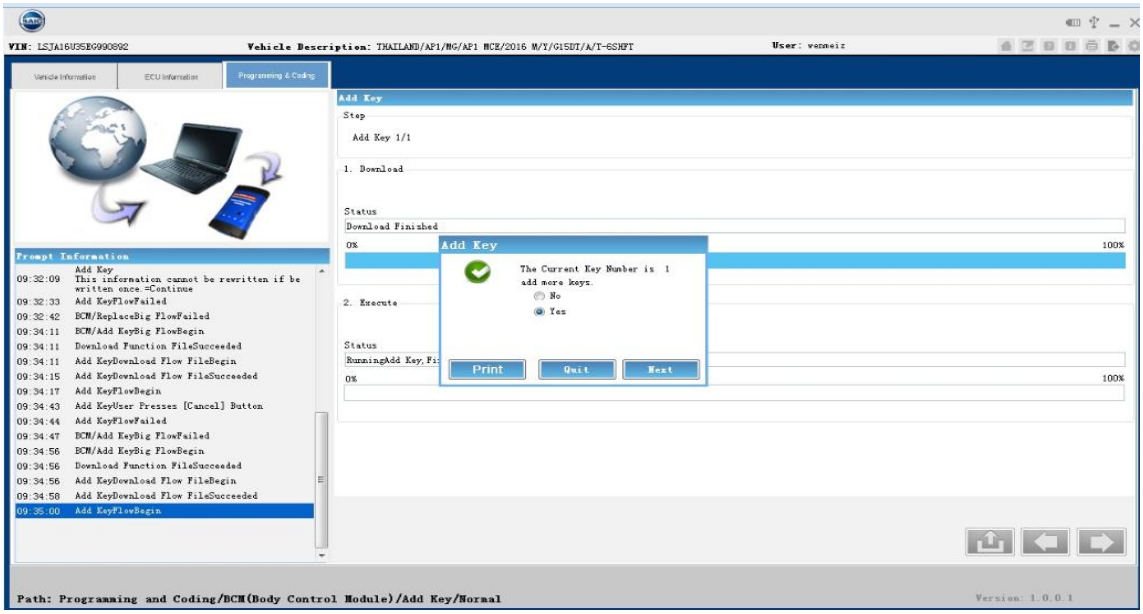
The “Add Key 1/1” of the procedures: indicate Add Key function has one procedure. Currently execute the first procedure- Add Key.

Quit: quit Add Key flow, finish;

Next: continue Add Key.



Step 5: Prompt currently effective key numbers. For whether any key needs to be added, if more keys need to be added, select “Yes”; if no key needs to be added, select “No” and then click “Next”.



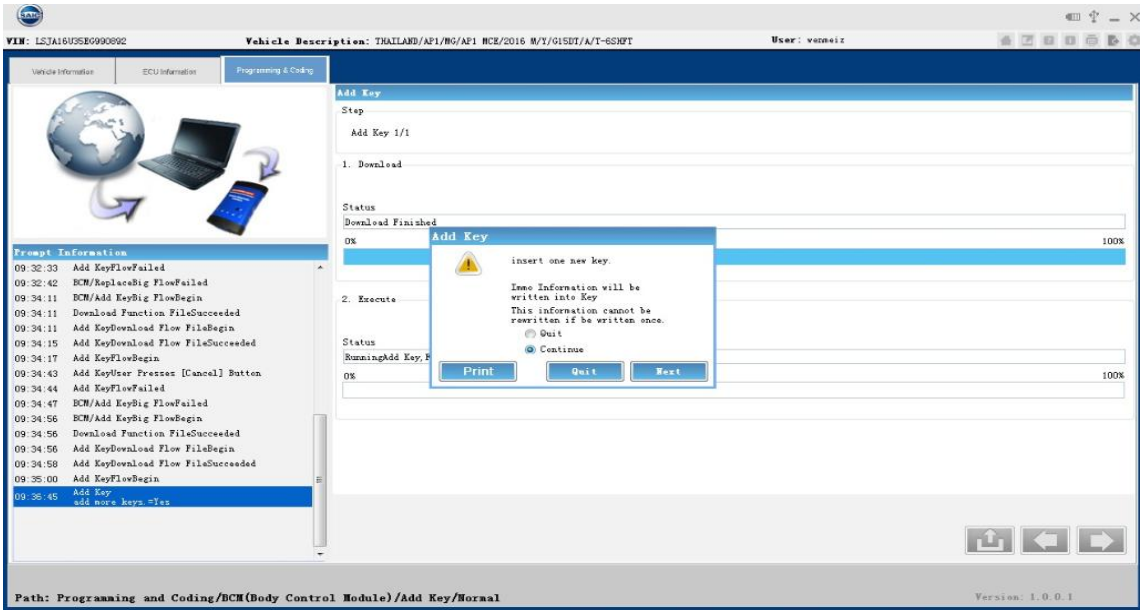
Step 6: Prompt to insert one new key. Immo information will be written into Key. This information cannot be rewritten if be written once. Select “Continue” and click “Next” to continue.

Quit: after selecting, click “Next”, and it will exit Add Key flow;

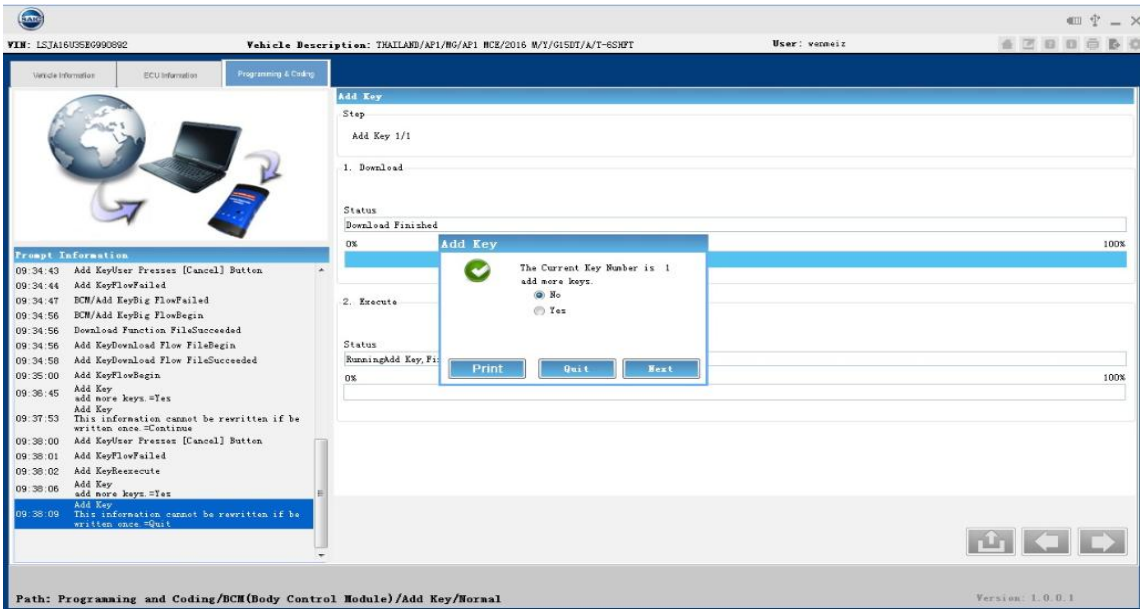
Continue: after selecting, click Next, and it will continue Add Key flow;

Quit: it will quit Add Key flow;

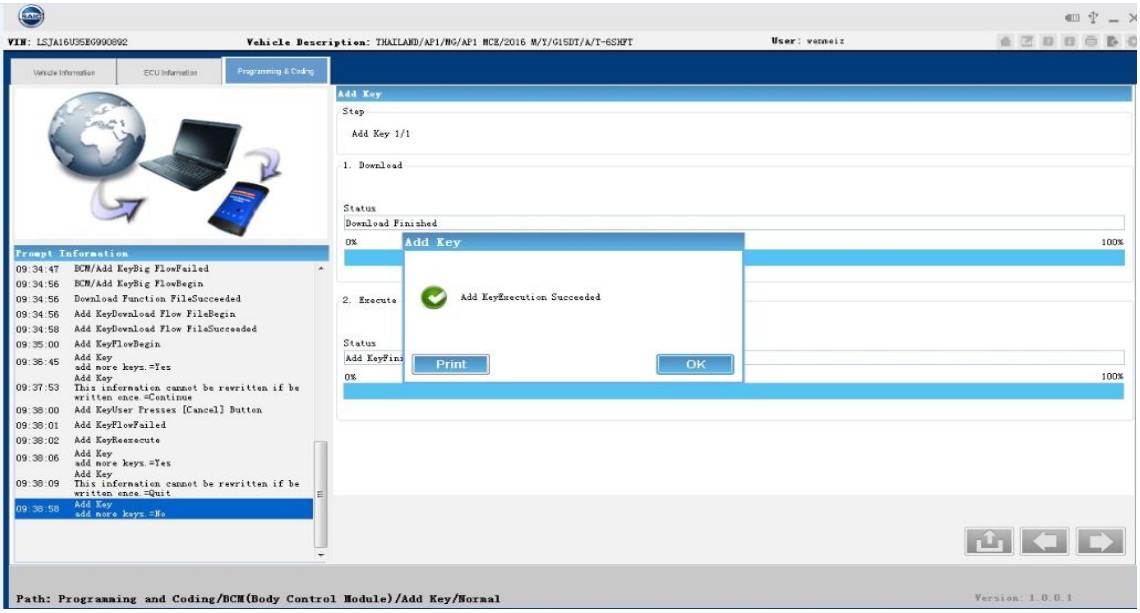
Next: execute operations according to the selection.



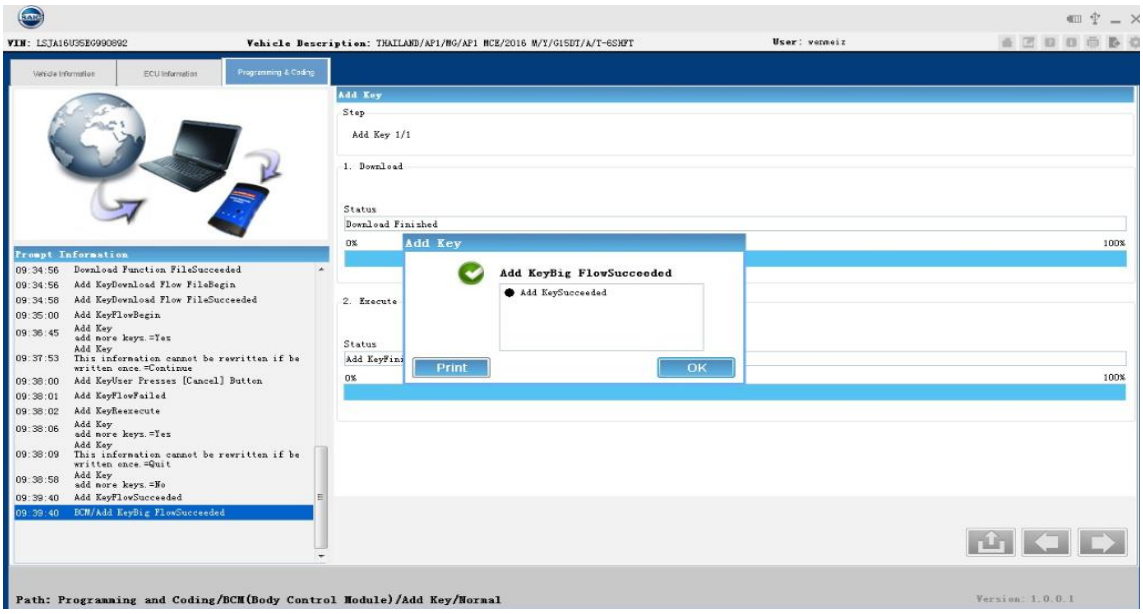
Step 7: Prompt currently effective key numbers. For whether any key needs to be added, if more keys need to be added, select “Yes”; if no key needs to be added, select “No” and then click “Next”.



Step 8: Prompt Add Key execution results (succeeded). Click “OK” to continue.



Step 9: Display Add Key function execution results (succeeded) and list the execution result of each operating flow. Click “OK” to finish function flow and go back to “Programming and Coding” main interface.



5) Delete Key

The “Delete Key” function is used to forbid the vehicle effective key.

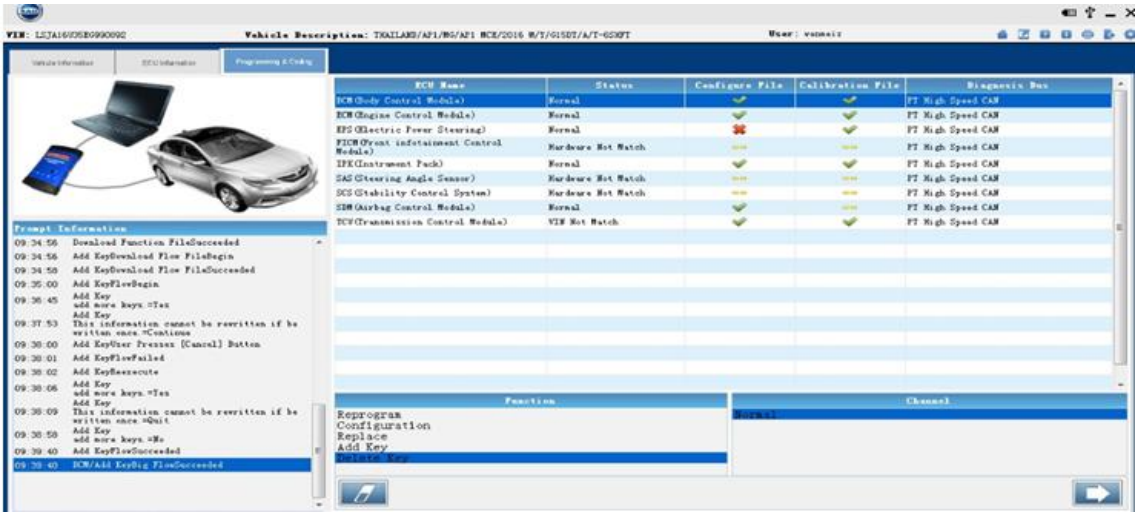
Note

Delete Key function is accomplished by deleting all vehicle keys at first and then adding necessary keys. Therefore, this function contains operations of Delete Key and Add Key.

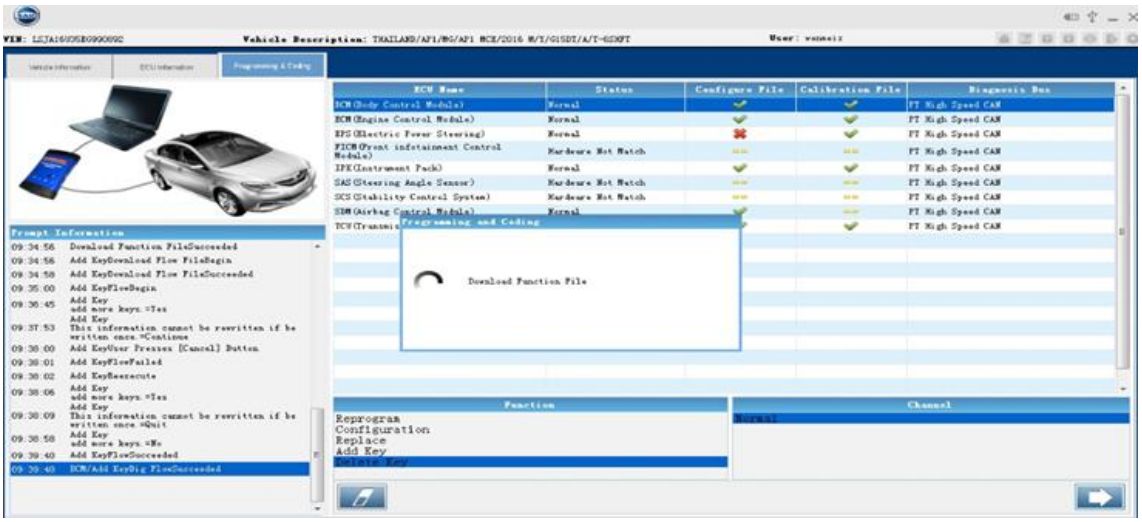
Procedure of Delete Key Function:

Step 1: In the “Programming and Coding” interface, select BCM (Body Control Module). “Function” lists

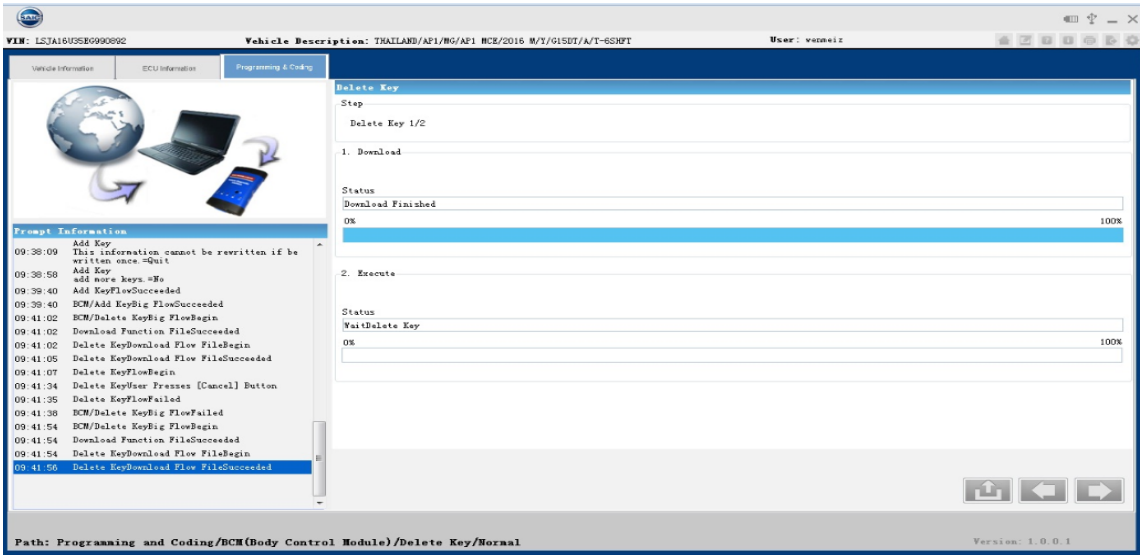
BCM supporting function list. Select “Delete Key” function. “Channel” displays normal channel and default option is selected here, and then the Next button illuminates.



Step 2: Click Next button to download relevant files.

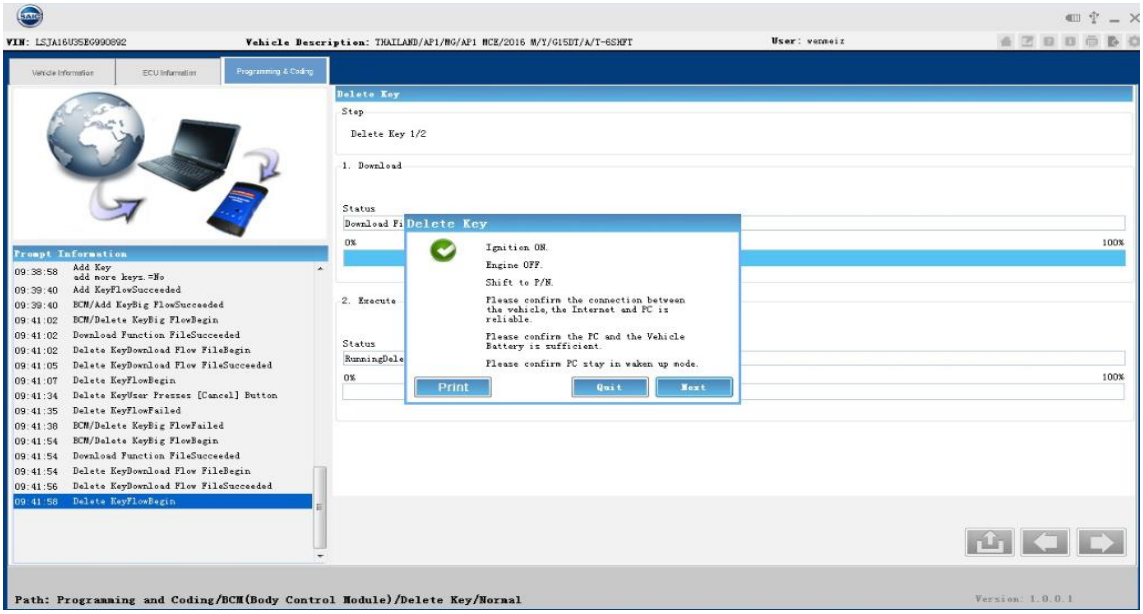


Step 3: Download relevant files of Delete Key option;



Step 4: Finish downloading. Start to execute Delete Key. The pop-up box prompts the notes of Delete Key. Please operate according to the prompt and make sure it meets prompt conditions, click “Next”.

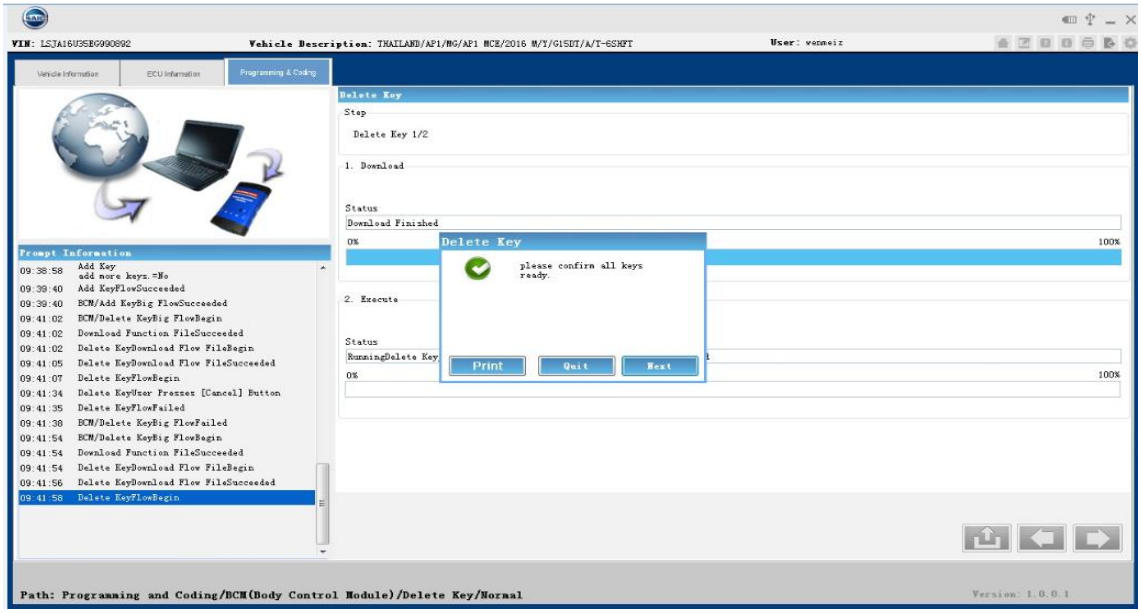
The “Delete Key 1/2” of the procedures: indicate Delete Key function has two procedures. Currently execute the first procedure- Delete Key.



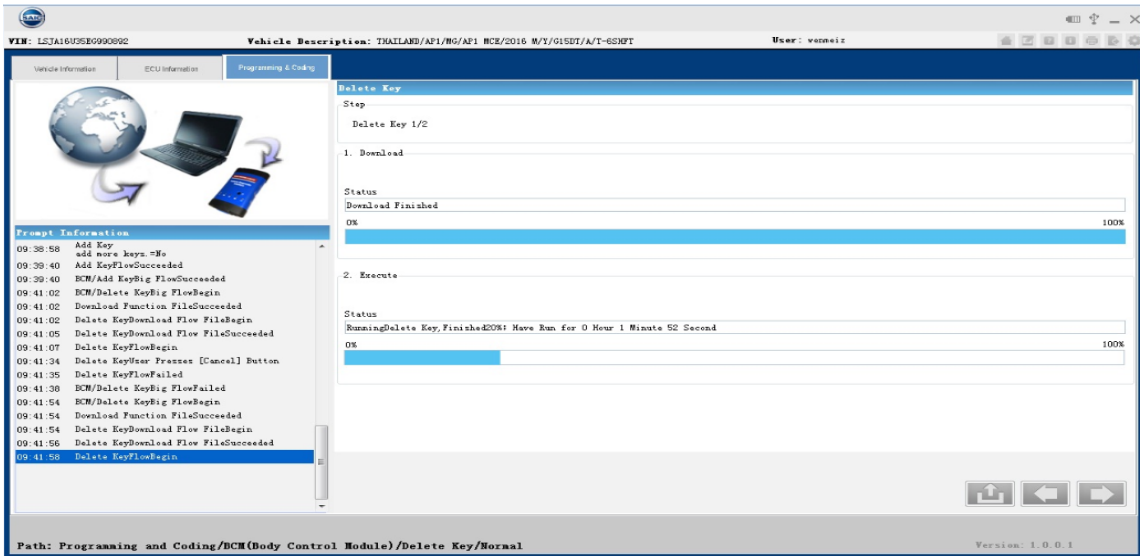
Step 5: Please prepare the keys to be saved and then click “Next”.

Quit: it will quit Delete Key flow;

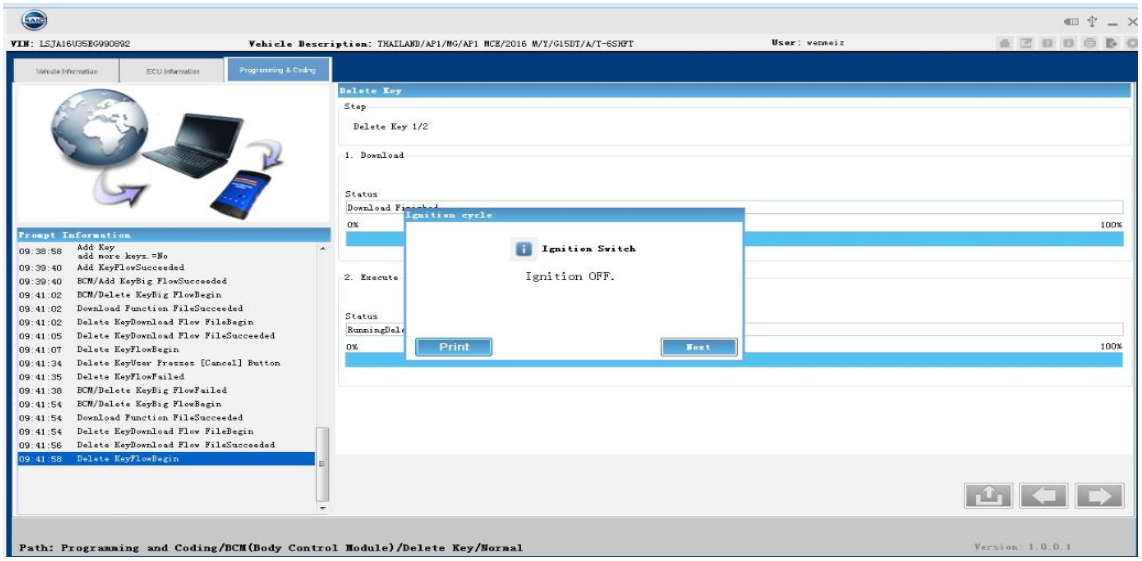
Next: continue to execute Delete Key.

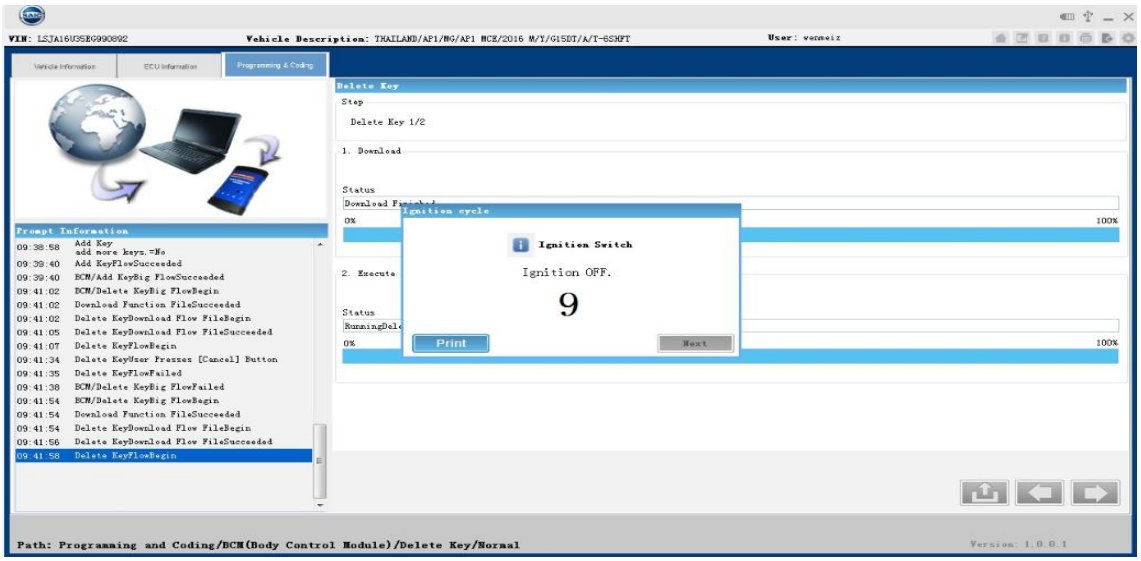


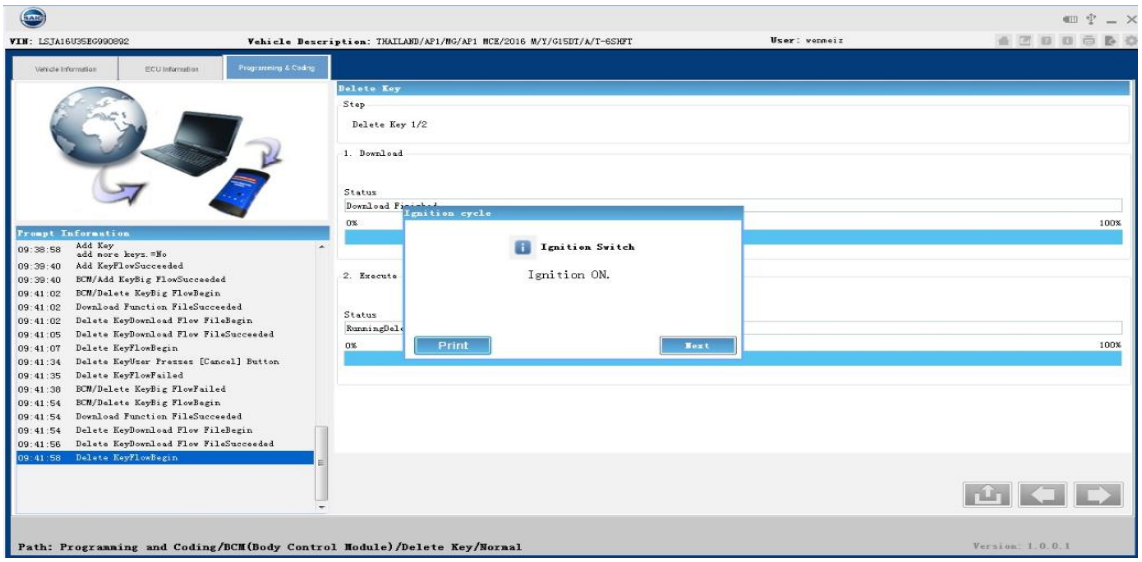
Step 6: Execute Delete Key. Delete all vehicle keys (the currently using key will not be deleted);

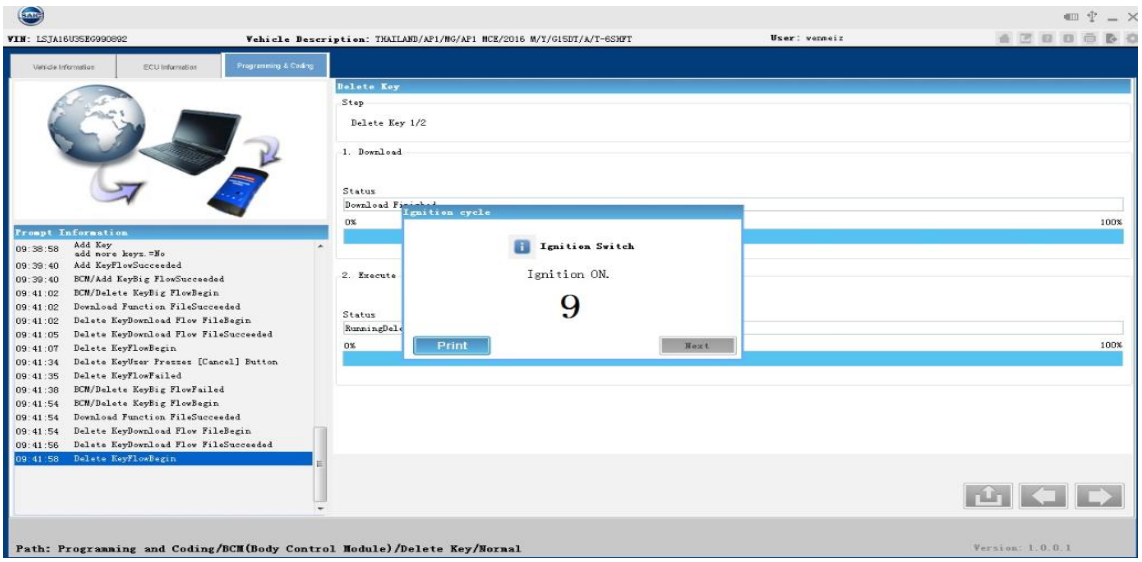


Step 7: Do ignition cycle. Please operate according to the prompt.

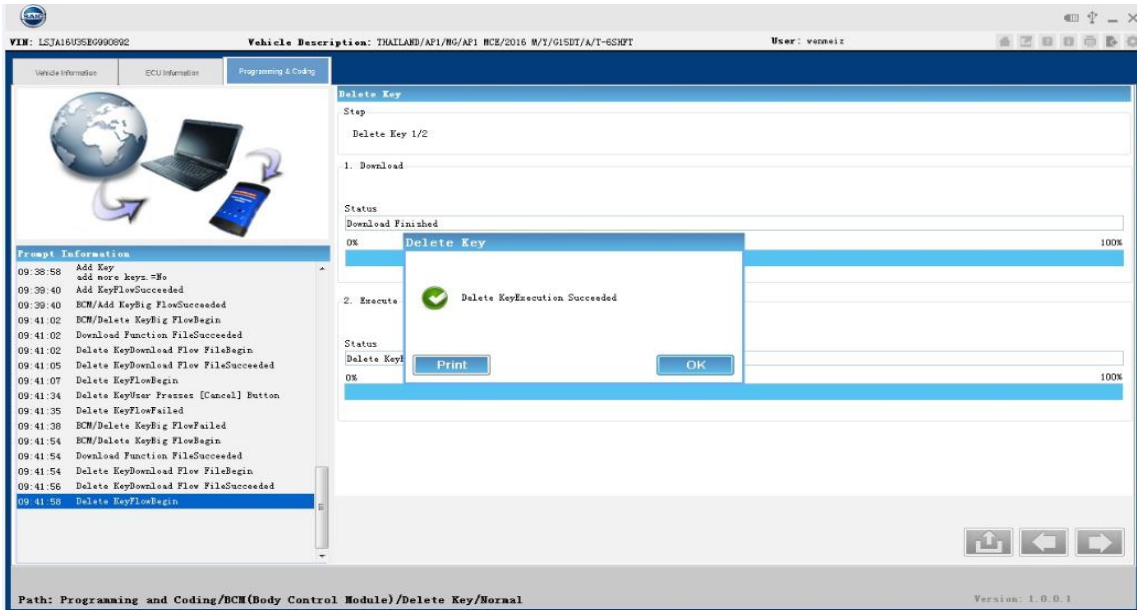




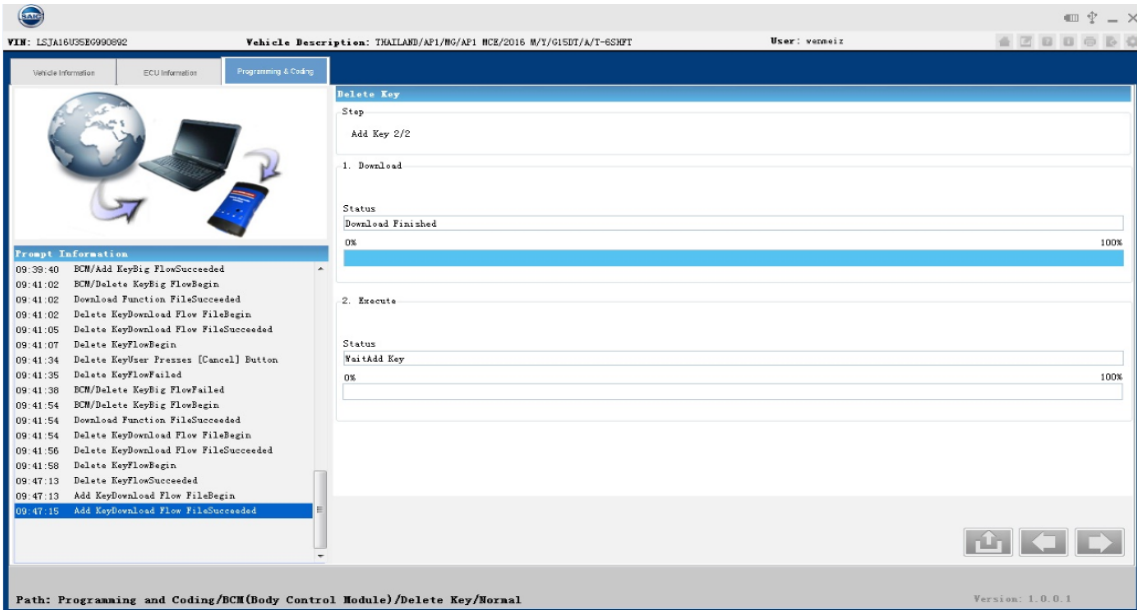




Step 8: Prompt that Delete Key execution succeeded. Click “OK”.



Step 9: Download relevant files of Add Key option.

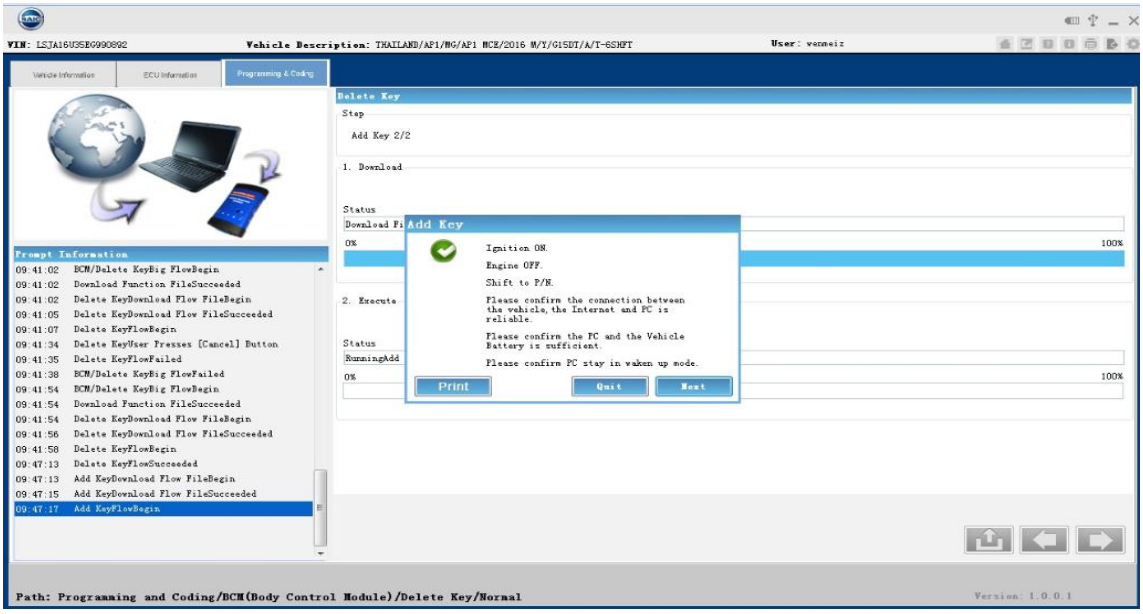


Step 10: Finish downloading. Start to execute Add Key. The pop-up box prompts the notes of Add Key. Please operate according to the prompt and make sure it meets prompt conditions, click “Next”.

The “Add Key 2/2” of the procedures: indicate Delete Key function has two procedures. Currently execute the second procedure- Add Key.

Quit: quit Add Key flow, finish;

Next: continue Add Key.



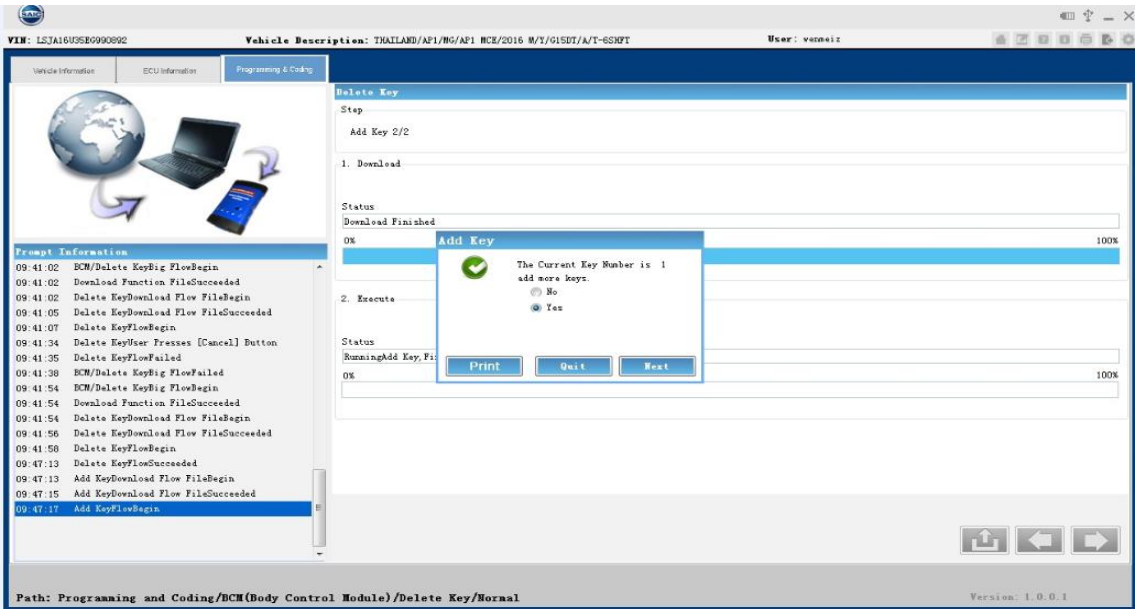
Step 11: Prompt currently effective key numbers. For whether any key needs to be added, if more keys need to be added, select “Yes”; if no new key needs to be added, select “No” and then click “Next”.

No: No new key needs to be added;

Yes: More new keys need to be added;

Quit: it will quit Add Key flow;

Next: continue to execute Add Key flow.



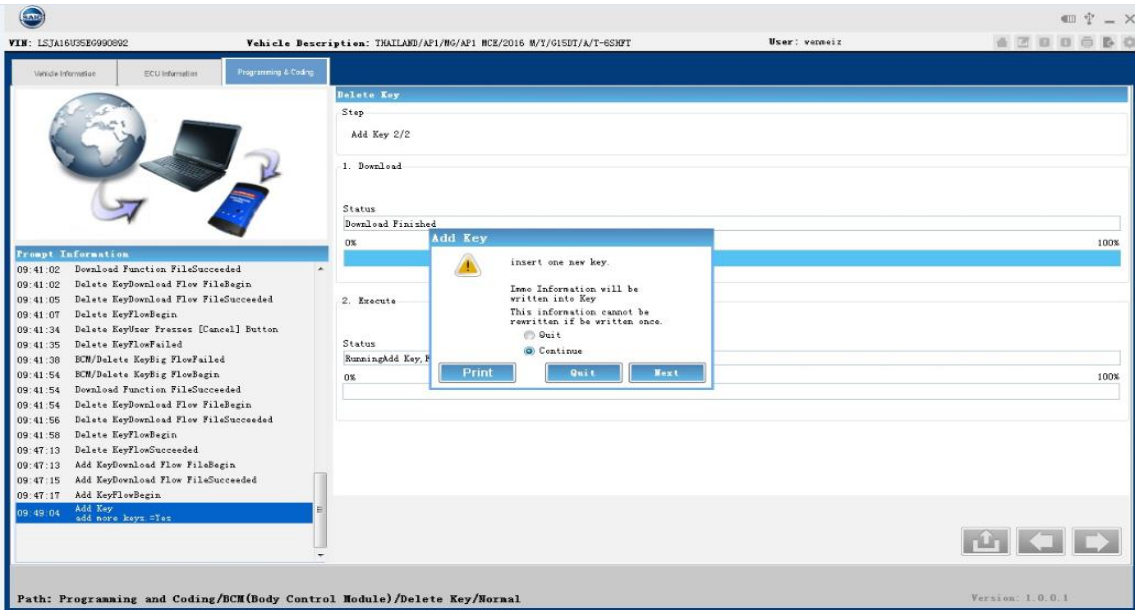
Step 12: Prompt to insert one new key. Immo information will be written into Key. This information cannot be rewritten if be written once. After inserting one new key, select “Continue” and click “Next” to continue.

Quit: after selecting, click “Next”, and it will exit Add Key flow;

Continue: after selecting, click Next, and it will continue Add Key flow;

Quit: it will quit Add Key flow;

Next: execute operations according to the selection.



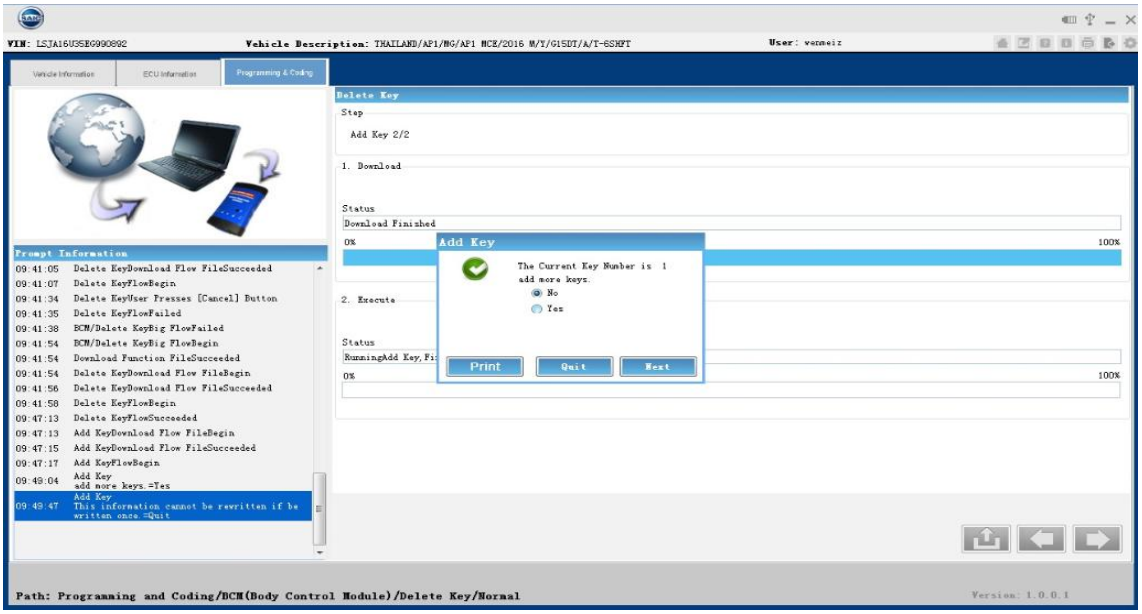
Step 13: Prompt currently effective key numbers. For whether any key needs to be added, if more keys need to be added, select “Yes”; if no new key needs to be added, select “No” and then click “Next”.

No: No new key needs to be added;

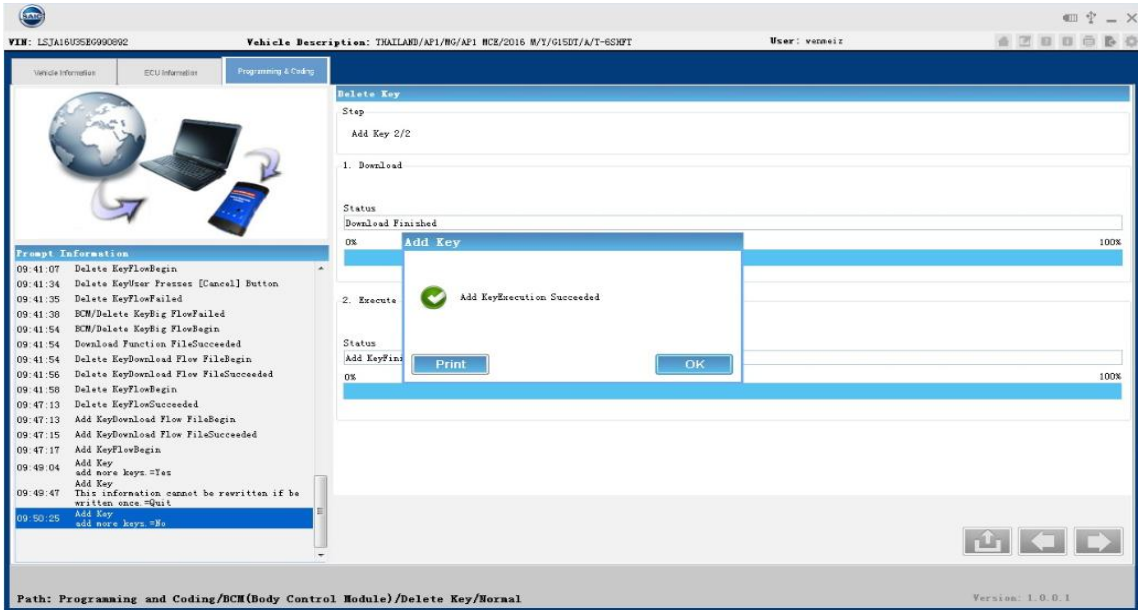
Yes: More new keys need to be added;

Quit: it will quit Add Key flow;

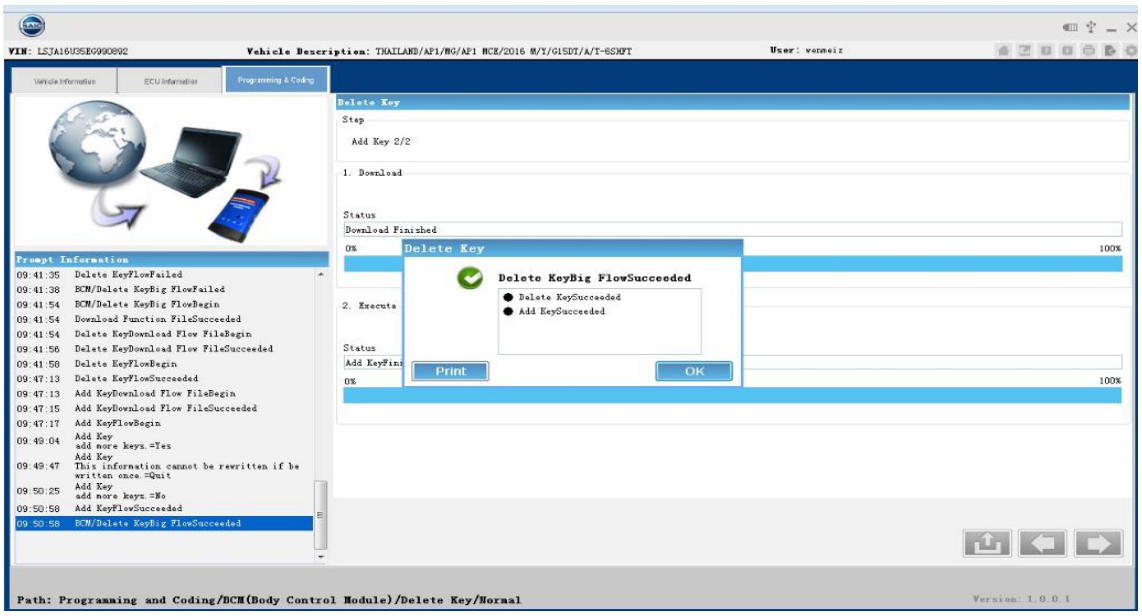
Next: continue to execute Add Key flow.



Step 14: Prompt Add Key execution results (succeeded). Click “OK” to continue.



Step 15: Display Delete Key function execution results (succeeded) and list the execution result of each operating flow. Click “OK” to finish the function and then go back to “Programming and Coding” main interface.

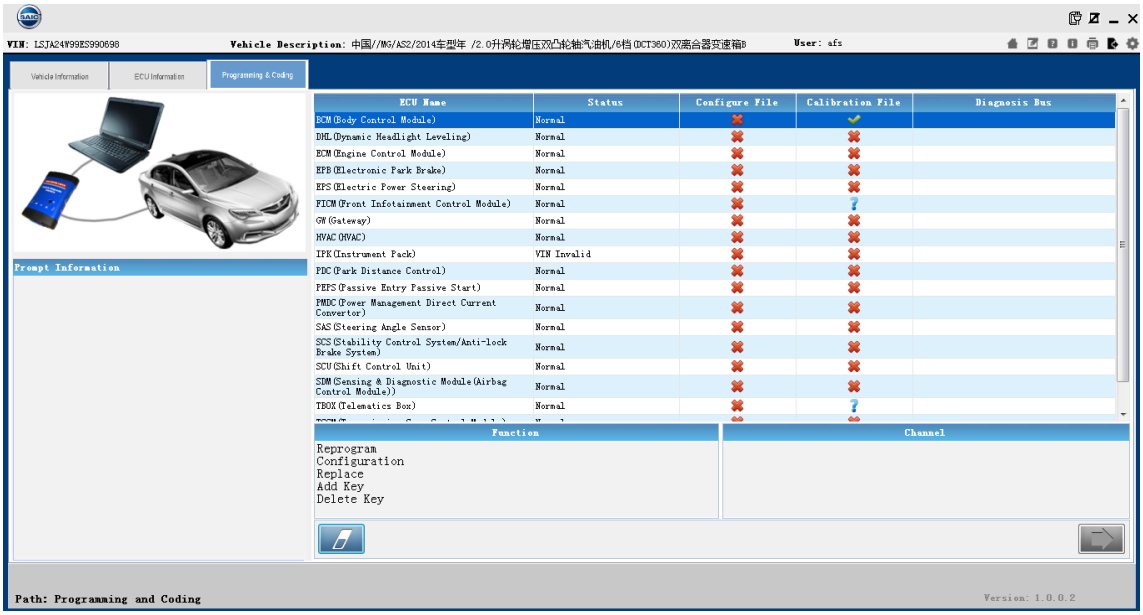


3 Clear All DTCs

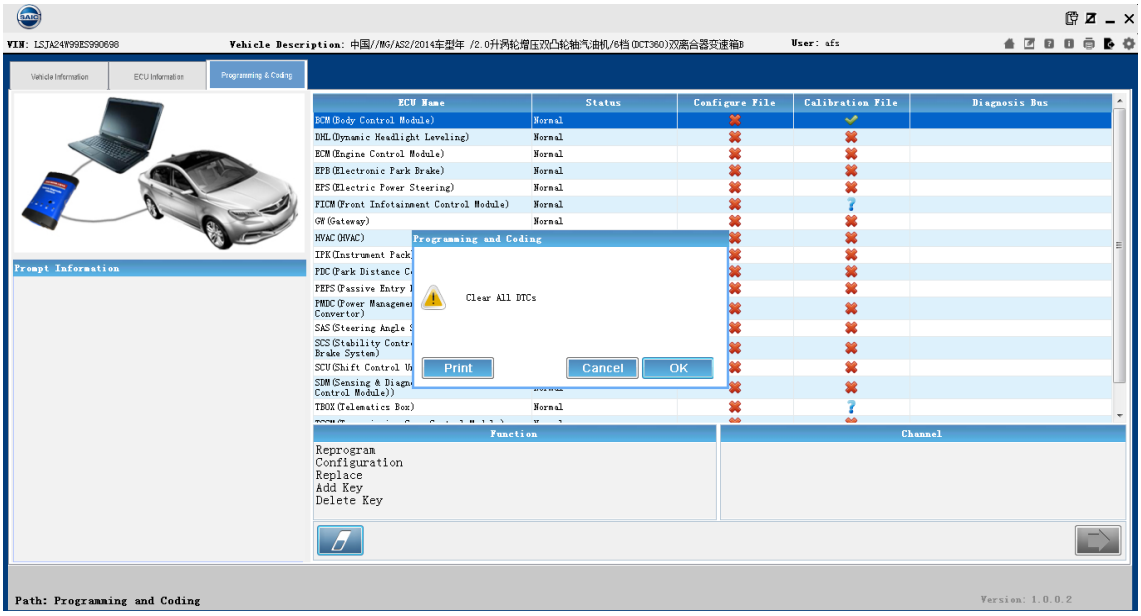
To clear possible false DTCs during programming and coding, the in the “Programming and Coding” interface can be used to clear all DTCs function.

Procedure of Clear all DTCs:

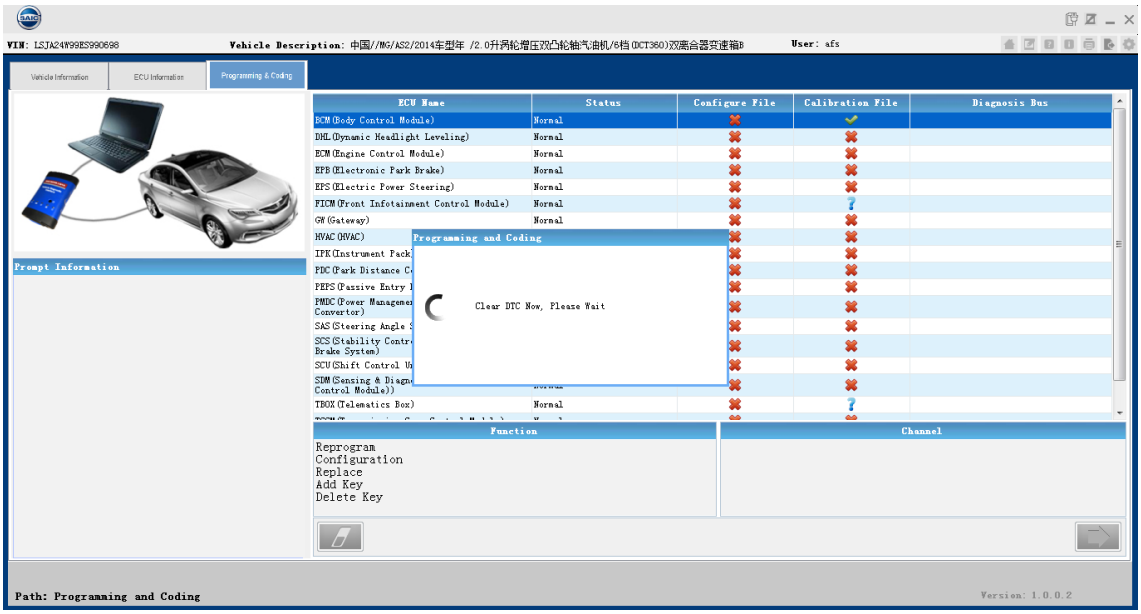
Step 1: Click button in the “Programming and Coding” interface.



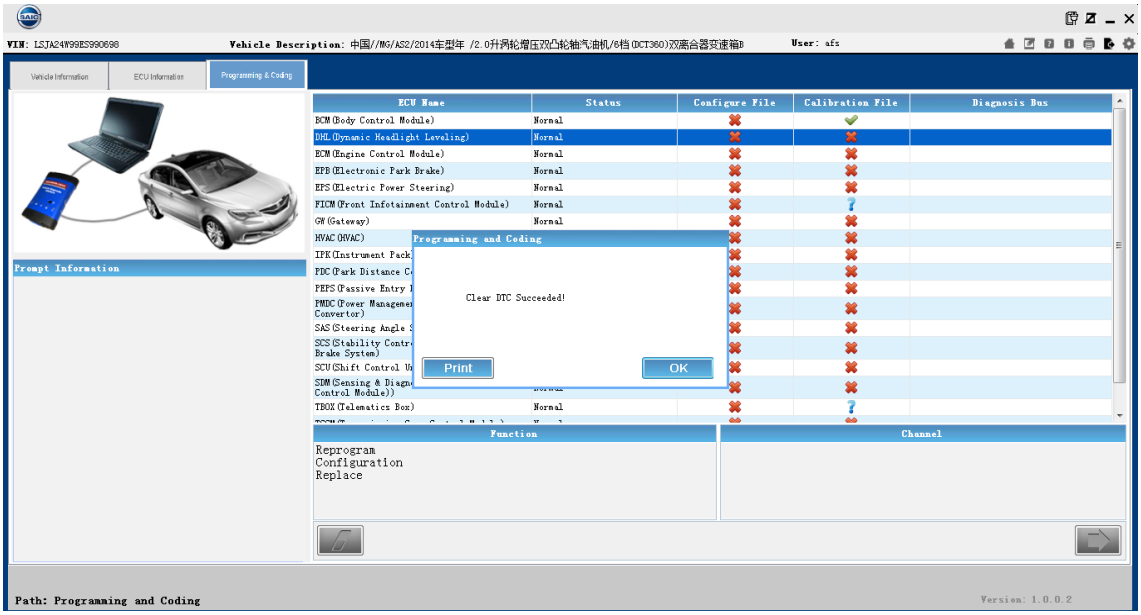
Step 2: The pop-up box prompts to clear all DTCs. Click “OK” to continue the operation and “Cancel” to quit clear all DTCs and back to “Programming and Coding” interface.



Step 3: Clear DTC now, please wait.



Step 4: Clear DTC succeeded. Click “OK” to go back to the “Programming and Coding” main interface.



V. Auxiliary Function

The auxiliary functions of the SIPS client App include: Back to the Main Interface, Print, Log File Export, and Language Setting. This section will introduce the procedure of auxiliary functions.

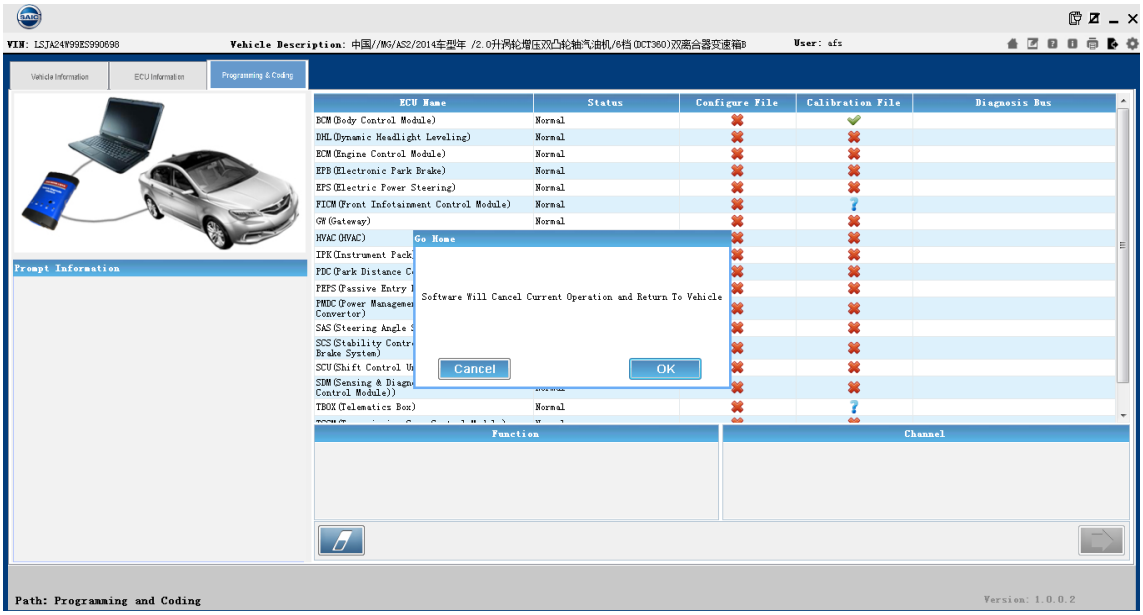
1 Back to the Main Interface

The button on the upper right corner of the SIPS client App is “Back to the Main Interface” function; when using the SIPS client App, go back to the interface of vehicle Identification to repeat vehicle Identification.

Note

1. During the communicating process of client-side and vehicle or server, button is grey and this function is unavailable.
2. After executing Back to the Main Interface function, the information of last vehicle Identification will be cleared.

After clicking on , the pop-up box prompts to back to the interface of vehicle Identification. Click “OK” to back to the interface of vehicle Identification and “Cancel” to return to the original interface.



2 Print

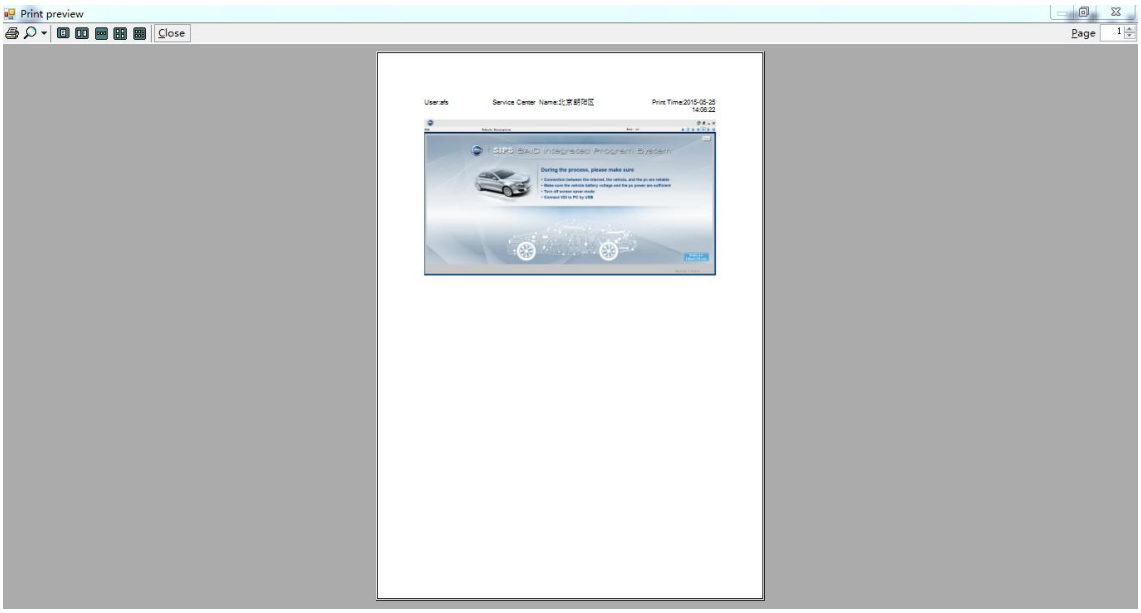
The button on the upper right corner of the SIPS client App and the 打印 button in the pop-up box can accomplish Print function; print the interface into PDF format.

Note

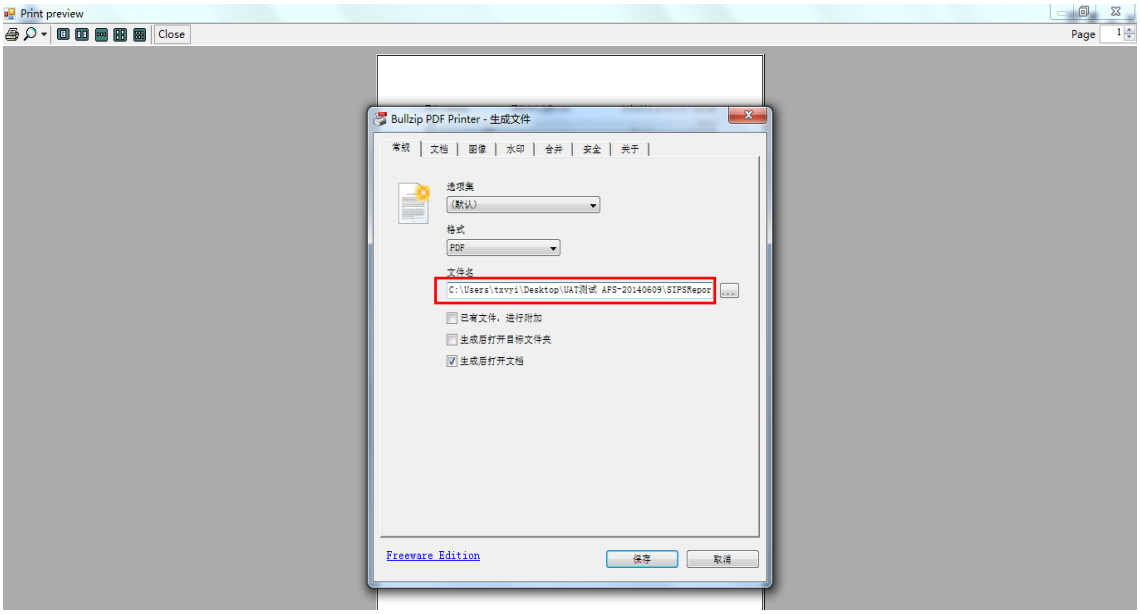
PDF Printer client shall be installed in the diagnosis computer!

Procedure of Print Function:

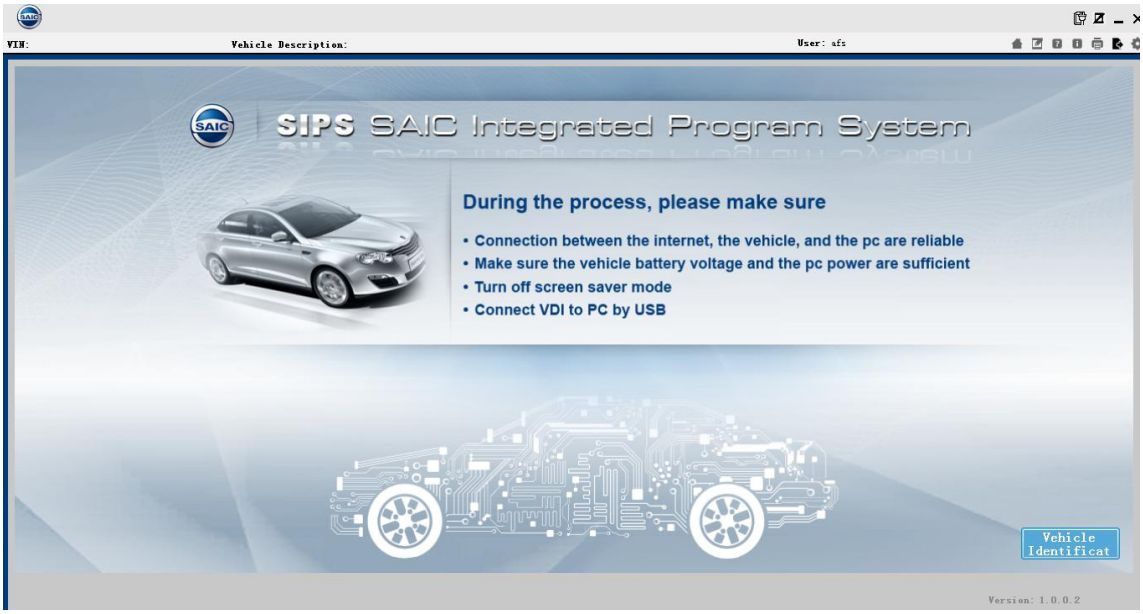
Step 1: Click or 打印 button to pop up Print interface.



Step 2: Click Print button on the upper left corner. Select save path and define file name. Click "Save" to generate PDF documents.



Step 3: Click to close the print window and go back to the interface of the SIPS client App.

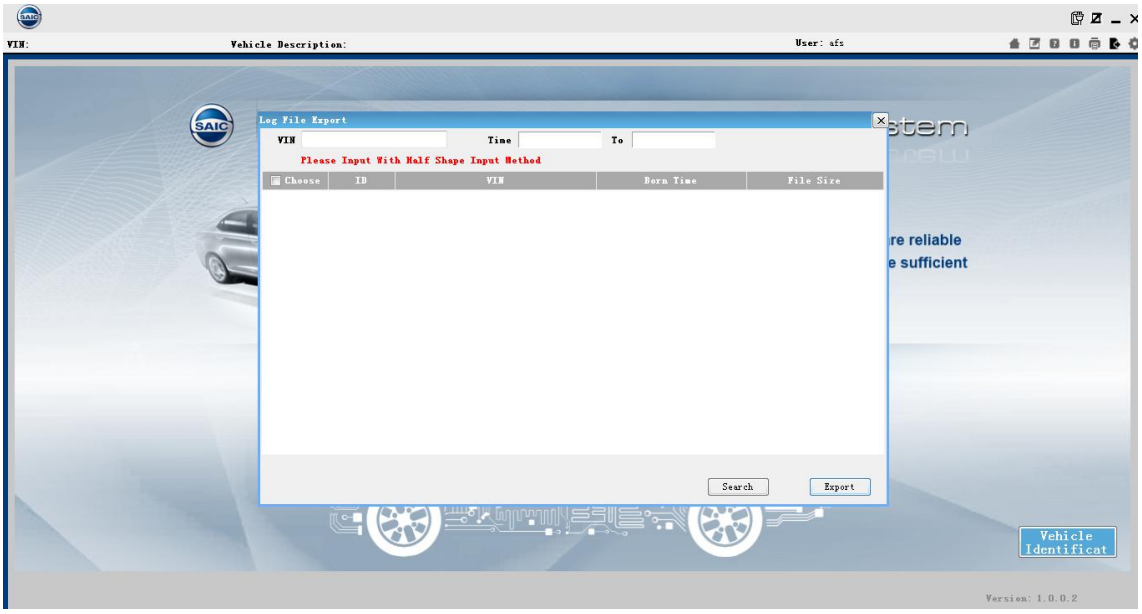


3 Log File Export

The on the upper right corner of the SIPS client App is “Log File Export” function; export the log file of SIPS client App

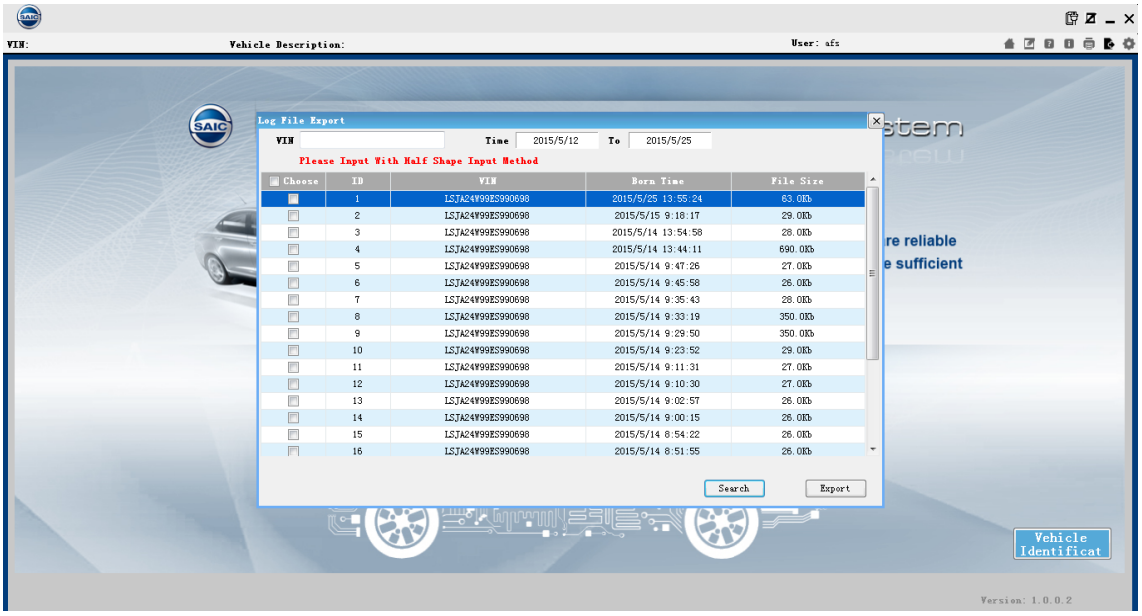
Procedure of Log File Export:

Step 1: Click button, the pop-up box opens the Log File Export interface;

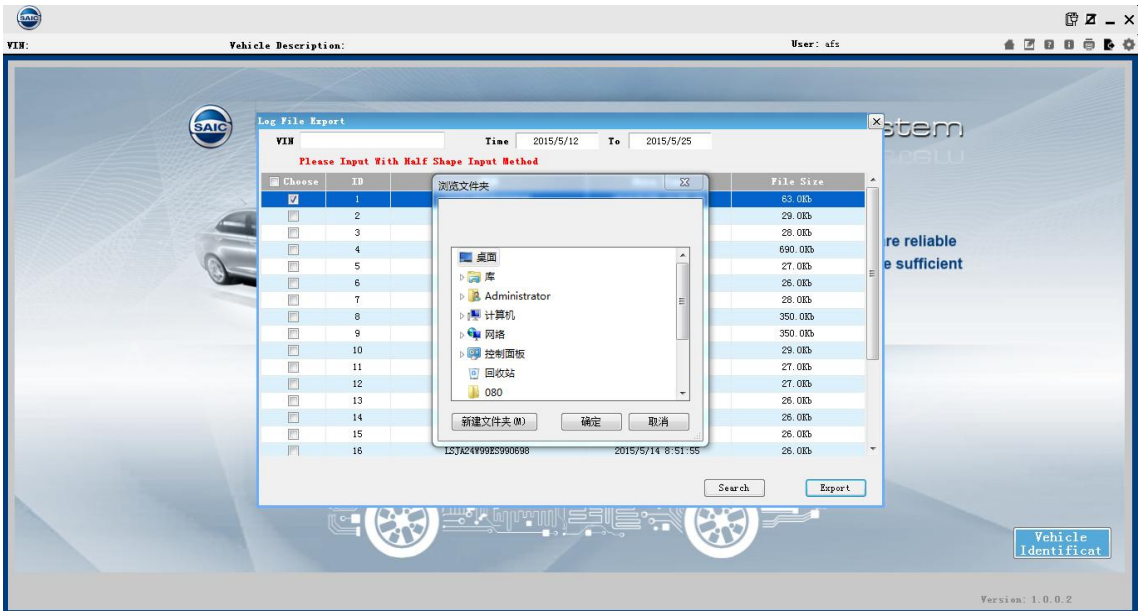


Step 2: Input at least one VIN query condition or time. Click “Search” and list the log files conforming to the conditions.

The display information of log file includes VIN, time and file size.



Step 3: The log file is named according to VIN (the VIN Identified by vehicle) and time. Please confirm the file required to export according to VIN and stored time. Click “Export” button. Select export path. Click “OK” and save the file.



Step 4: Click in the “Log File Export” interface. Close Log File Export function and go back to SIPS interface.

4 Language Setting

Use the button on the upper right corner of the SIPS client App to set the display language of the SIPS client App.

Procedure of Language Settings:

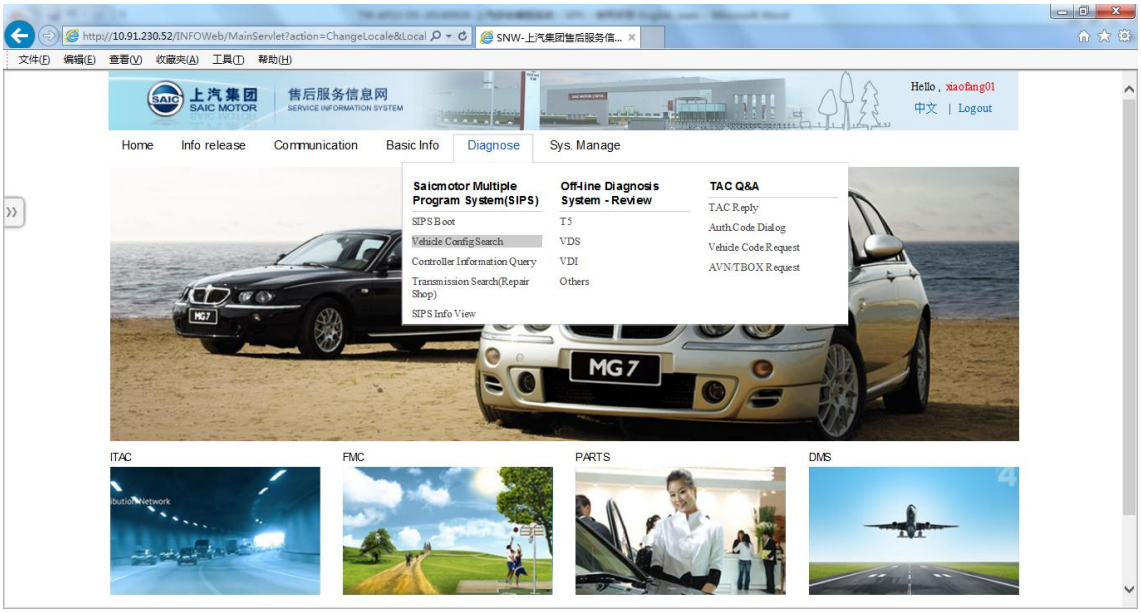
Step 1: Click button, the pop-up box opens Language Settings interface;

Step 2: Select the required language. Click “OK”, the system automatically returns to the SIPS client App.

Chapter 4 ServiceNow Web Function

Login the ServiceNow website and then under the “diagnose” option open relevant functions of SIPS system: SIPS Boot, Vehicle Config Search, Controller Information Query, and SIPS Info View, see Figure 4-1.

The SIPS Boot function has been discussed in *SIPS Boot Function, Chapter 2*. This section will focus on Vehicle Config Search, Controller Information Query, and SIPS Info View.



I. Vehicle Config Search

The Vehicle Config Search acquires the config list through VIN.

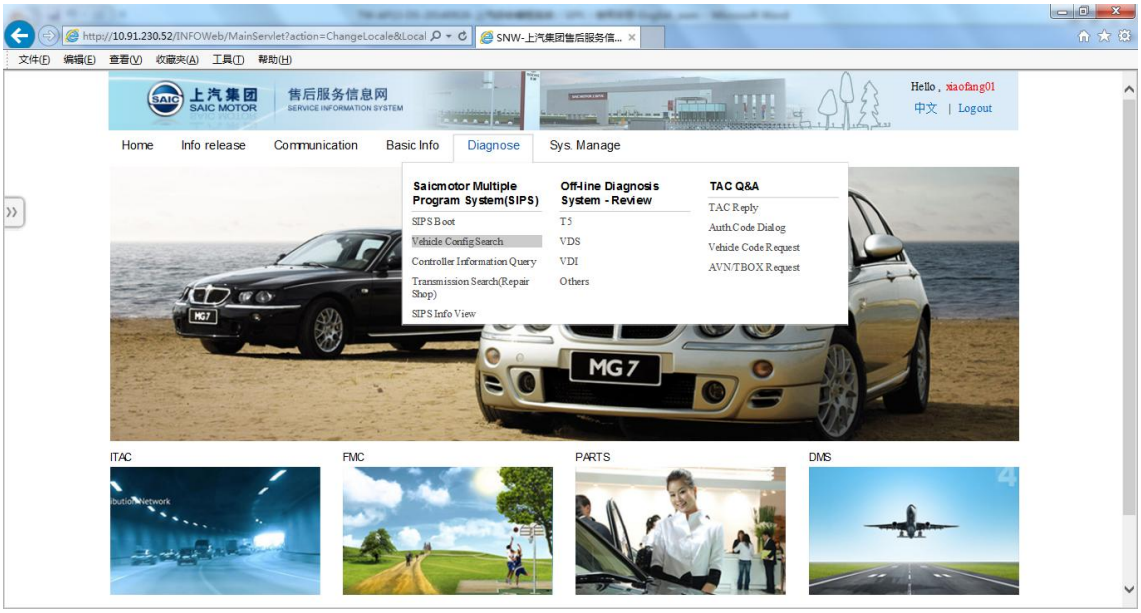
This function is an auxiliary function in "Vehicle Information" tab of SIPS client App. It may query the vehicle config.

Note

1. The Vehicle Config Search searches information of manufacturer database through networks without connecting with the vehicle;
2. The Vehicle Config Search is activated by ServiceNow web, so ensure the network is connected during use.

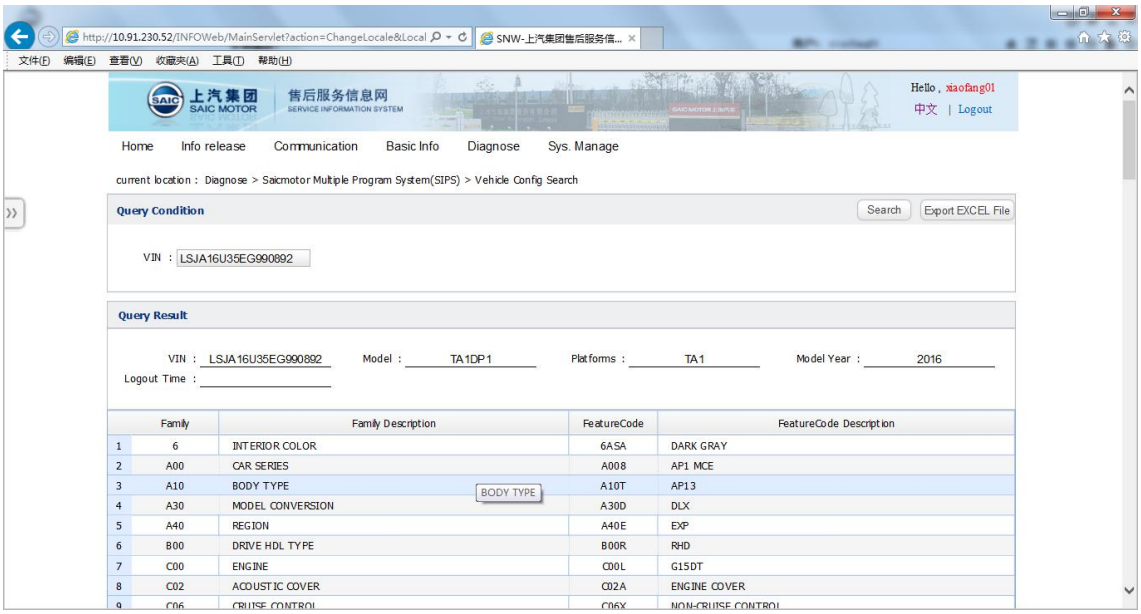
Procedure of Vehicle Config Search:

Step 1：Use the path "Diagnose→SAIC Integrated Program System (SIPS) →Vehicle Config Search" to open Vehicle Config Search;



Step 2: Input the VIN to be queried and click "Search";

Step 3: Display vehicle config information corresponding to the VIN. The content includes: VIN, Model, Platform, Model Year, Logout Time, Family Description and Feature Code Description:
Family Description: feature family code of the feature code and its detailed description;
Feature Code Description: the corresponding feature code and its detailed description of the vehicle config.



II. Controller Information Query

The Controller Information Query function: Use Vehicle Identification Number (VIN) to acquire version information of the software supporting maintenance programming function controller for the vehicle.

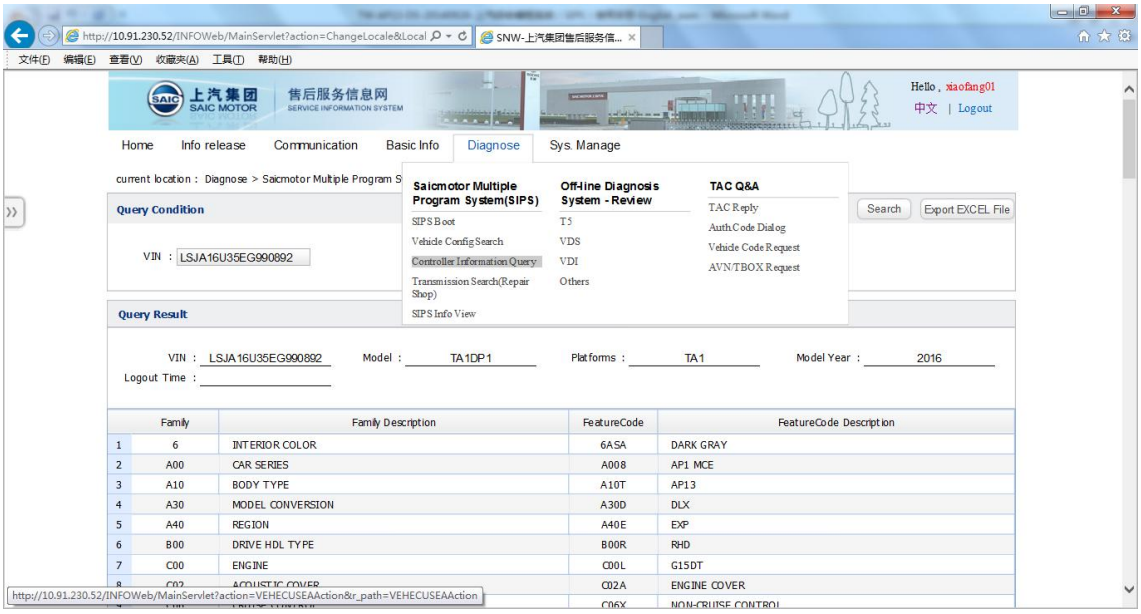
This function is an auxiliary function in “Controller Information” tab of the SIPS client App. It may query the version information of software released in the database without connecting with the vehicle.

Note

1. The Controller Information Query function search information of manufacturer database through networks without connecting with the vehicle;
2. The Controller Information Query is activated by ServiceNow web, so ensure the network is connected during use.

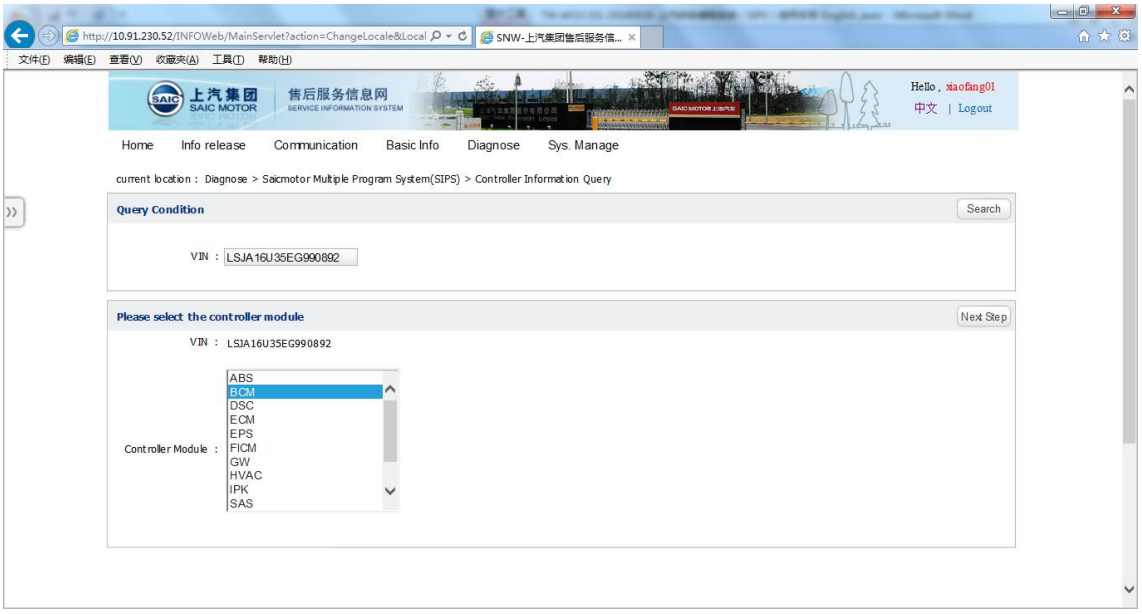
Procedure of Controller Information Query:

Step 1：Use the path “Diagnose → SAIC Integrated Program System (SIPS) →Controller Information Query” to open Controller Information Query;

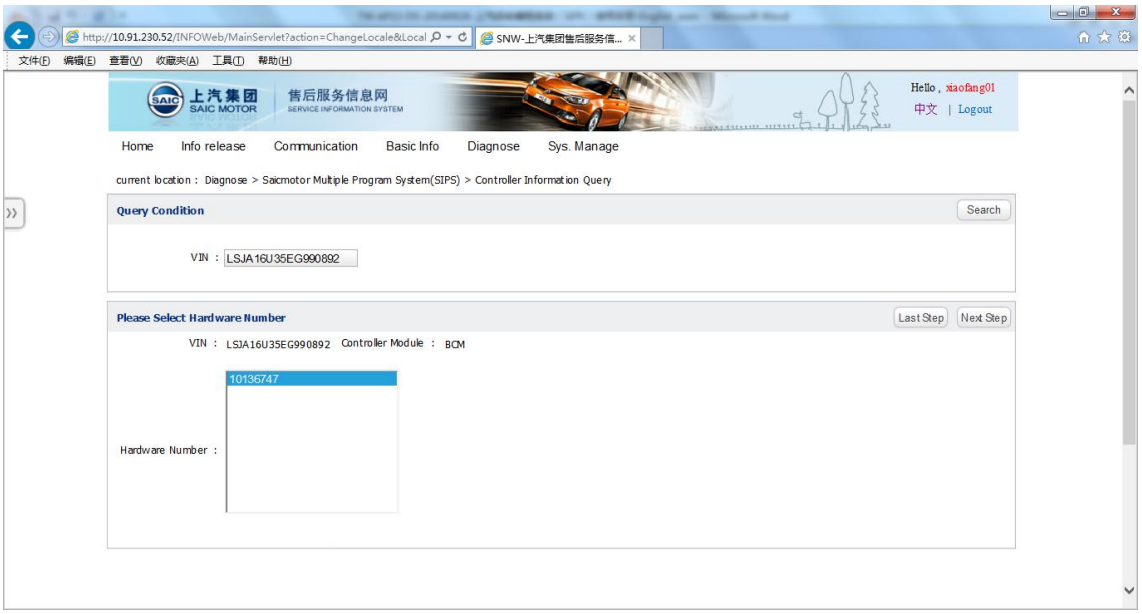


Step 2: Input the VIN to be queried and click “Search”;

Step 3: “Controller Name” lists controller list supporting SIPS client App function of the vehicle. Select the controller to be queried and click “Next Step”;



Step 4: “Hardware Number” lists the supporting hardware list of selected controller. Please select the hardware number of controller installed on the vehicle. Click “Next Step”. To re-select controller, please click “Last Step”;



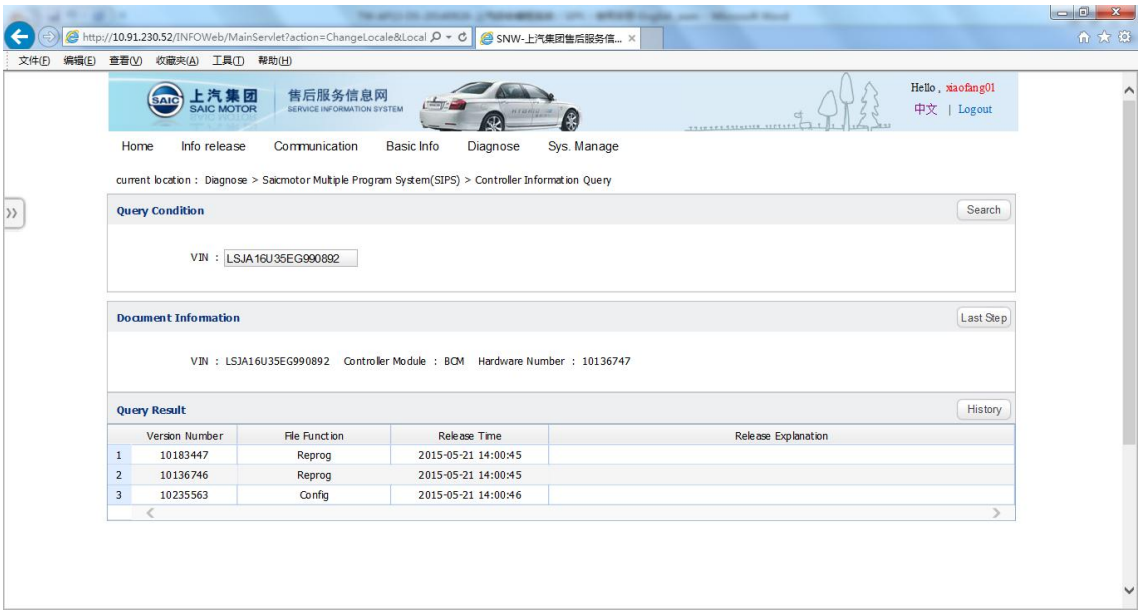
Step 5: Display corresponding latest calibration software information of selected controller and hardware. Each version of software may consist of several files. The interface lists version number, file function, release time and release explanation of all files contained in the latest version of software. Click “History” and you may view the information of version released previously.

Version Number: indicate the version number of the file;

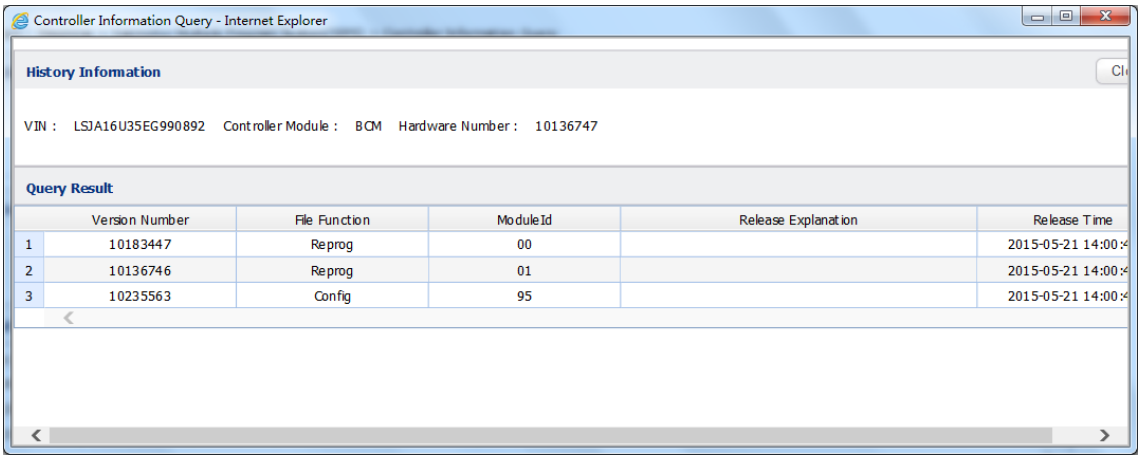
File Function: indicate the corresponding function description of the file;

Release Time: indicate the release time of file. Each file is released separately, so the release time may be different;

Release Explanation: indicate the release condition of the file.



Step 6: Click “History”, the pop-up box display software information released previously. The files with same “Module ID” indicate the software of same category. Distinguish different versions by “Version Number”. Distinguish replacement relations by “Release Time”. The one of the latest time is the new version.

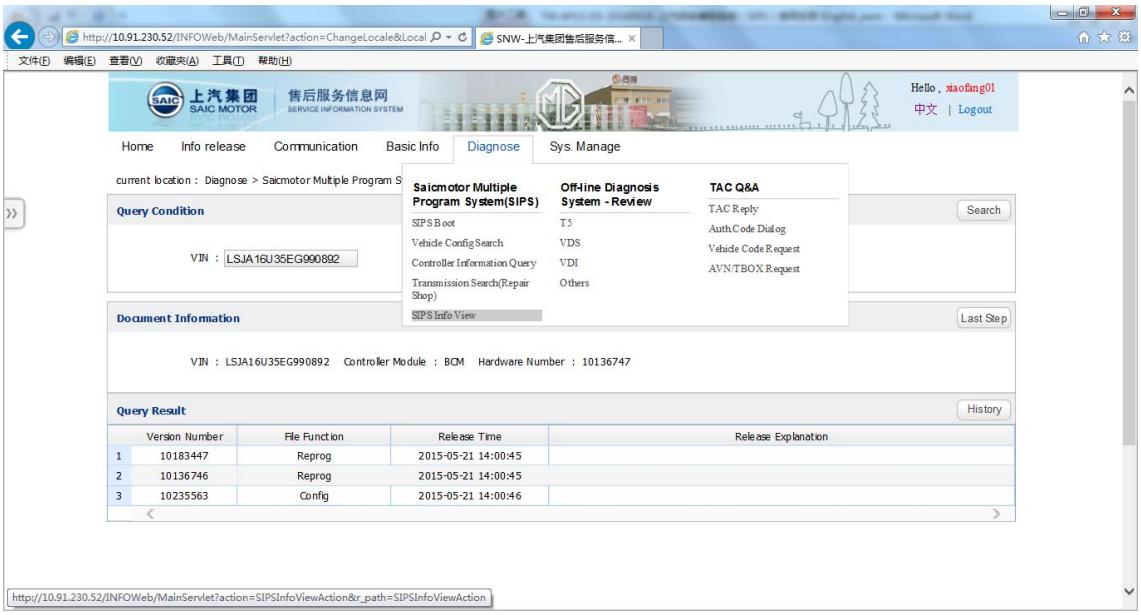


III. SIPS Info View

SIPS Info View: view relevant user manuals and bulletins of SIPS system.

Procedure of SIPS Info View Function:

Step 1: Use the path “Diagnose → SAIC Integrated Program System (SIPS) →SIPS Info View” to open SIPS Info View;



Step 2: This interface displays relevant user manuals and bulletins of SIPS system. Input corresponding query conditions (query conditions could be blank). Click “Search”. After clicking on corresponding file, “Browse” may view and download files.