Instrument Manager Instructions

Overview :

Instrument manager provides relevant bundled software installation instruction signal sources, which includes:

Software Installation

Driver Installation

Instrument Manager and Instrument Connection

Virtual Panel Control Program

Arbitrary waveform editor program

Software Installation

Hardware Requirements

- Hardware configuration which satisfies Windows system requirements

- 1024 x 768 or higher display resolution

System Requirements

- Supports Win2000, WinXP, Win Vista, Win7, and Win8

- System which needs to be pre-installed: .Net Framework 4 Client Profile.

Other Requirement

- Original USB cable should be used to connect with the device.

Software Installation :

- Run "Devices Manager Installer.exe" and install it step by step.
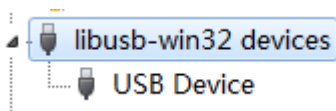
Driver Installation

USB Driver Installation :

Find the driver installation: ..\\DriverPack_Libusb. Run **Installer.bat** to start the driver installation guide. Please

follow the tip and click "next step" to install.

DriverPack_Libusb

名称

- OS32Bit
- OS64Bit
- UnInstaller.bat
- Installer.bat
- DriverApp.exe
- Readme.txt
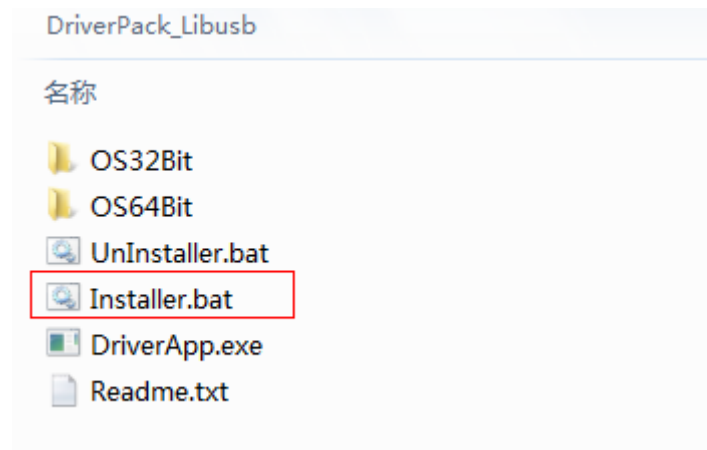
If any other prompt occurs through the process, click "ignore" and continue.

Successful Installation Checking Method：

1. Start device manager. The following prompt means installation is successful.

libusb-win32 devices
USB Device

2. Unrecognized device is no longer indicated after the device is connected to computer through USB,

means the device driver has been installed correctly.

3. Connection with control software also means the driver has been installed successfully.
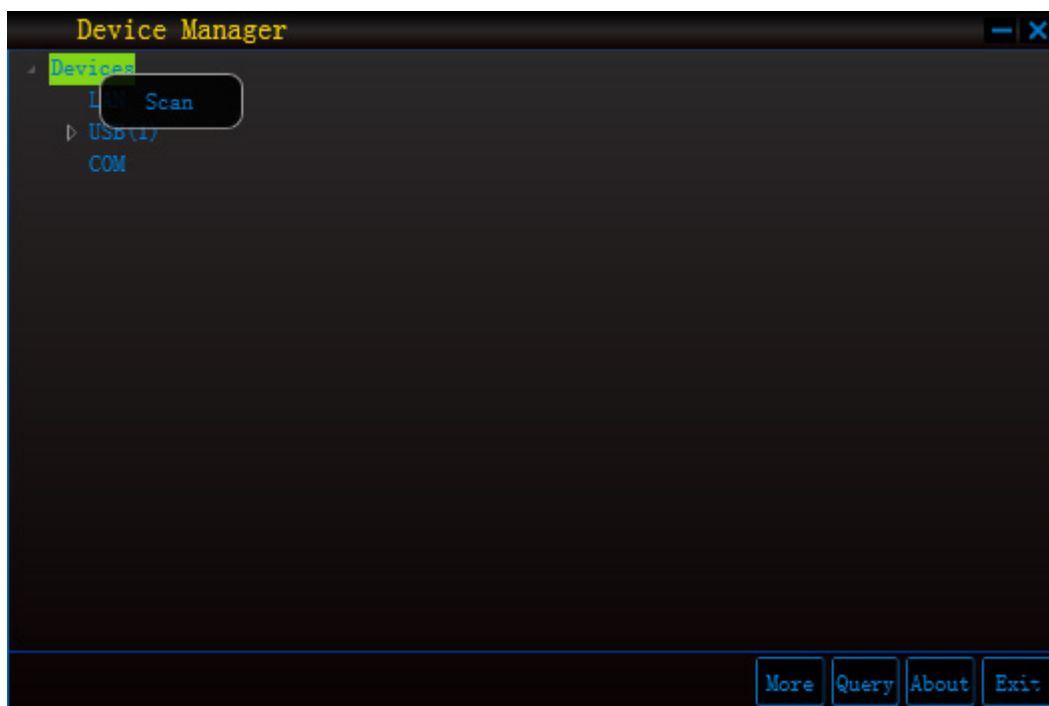
Instrument Manager Usage and Instrument Connection

1. Find Device：

Start instrument manger and select the communication type. Click the "Find" button or right click to select

the communication type name. Select "Scan" in the popup menu to find the all connected network
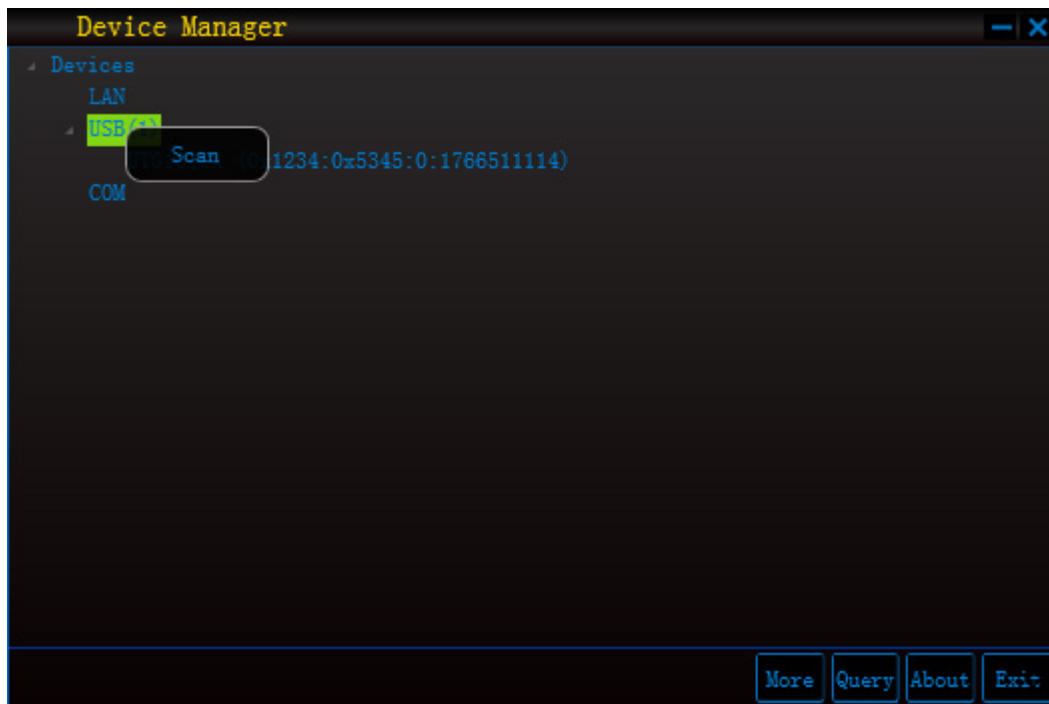
devices.

Picture 1：DP-1

Picture 2：DP-2

2. Connect Device：

For different devices, the control software and relevant bundled software will also be different. Left click

to select the device, and then right click to select the software you would like to start in the popup menu.

Picture 3：DP-3
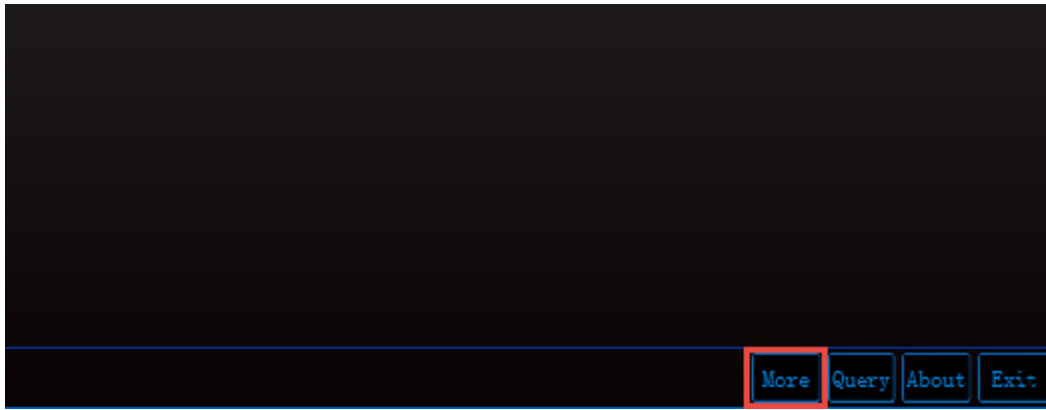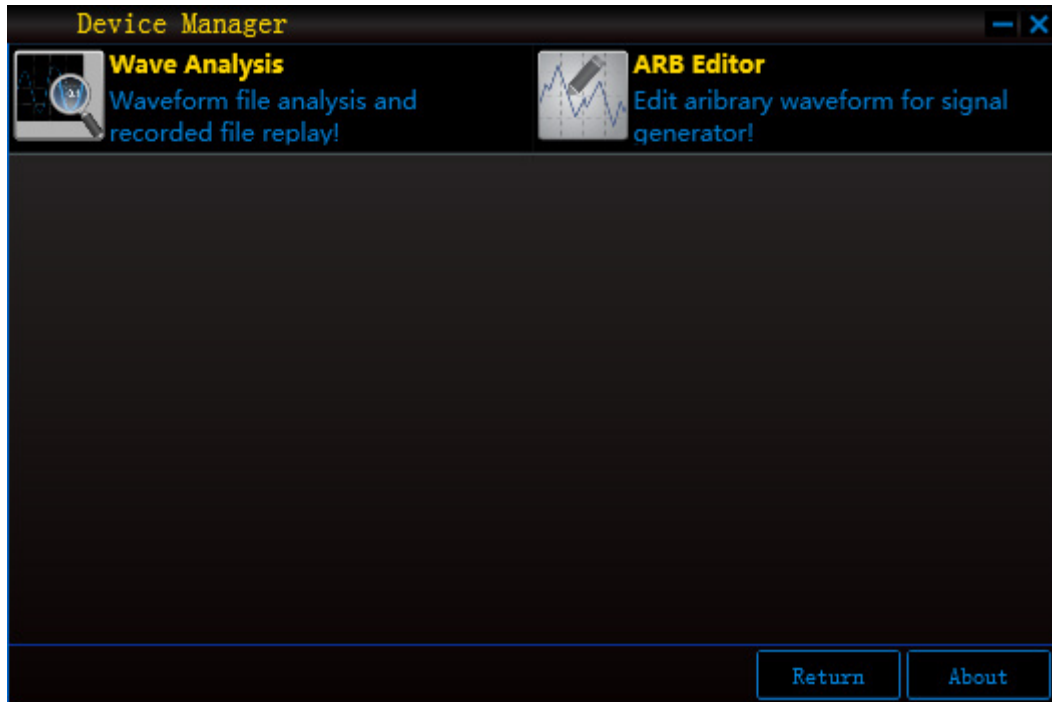

Picture 4：DP-4

3. Start Assistant Software：

If you need to directly start other assistant software, click the "More" button to enter "Software" list.

Click to start.

Picture 5：DP-5

Picture 6：DP-6

You can also start these additional software by Connect Device method of Chapter 2.
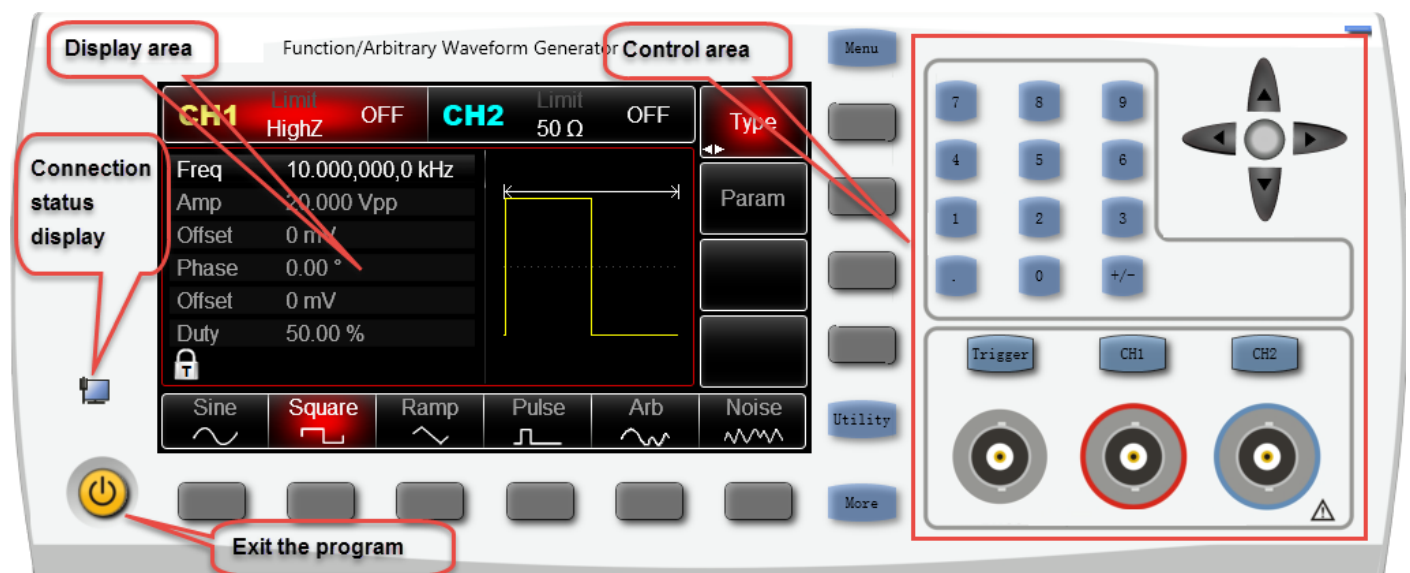
Virtual Panel Control Program

Overview：

Now only support signal source to control through virtual panel. Software interfaces of different signal

sources are a little different.

Start：

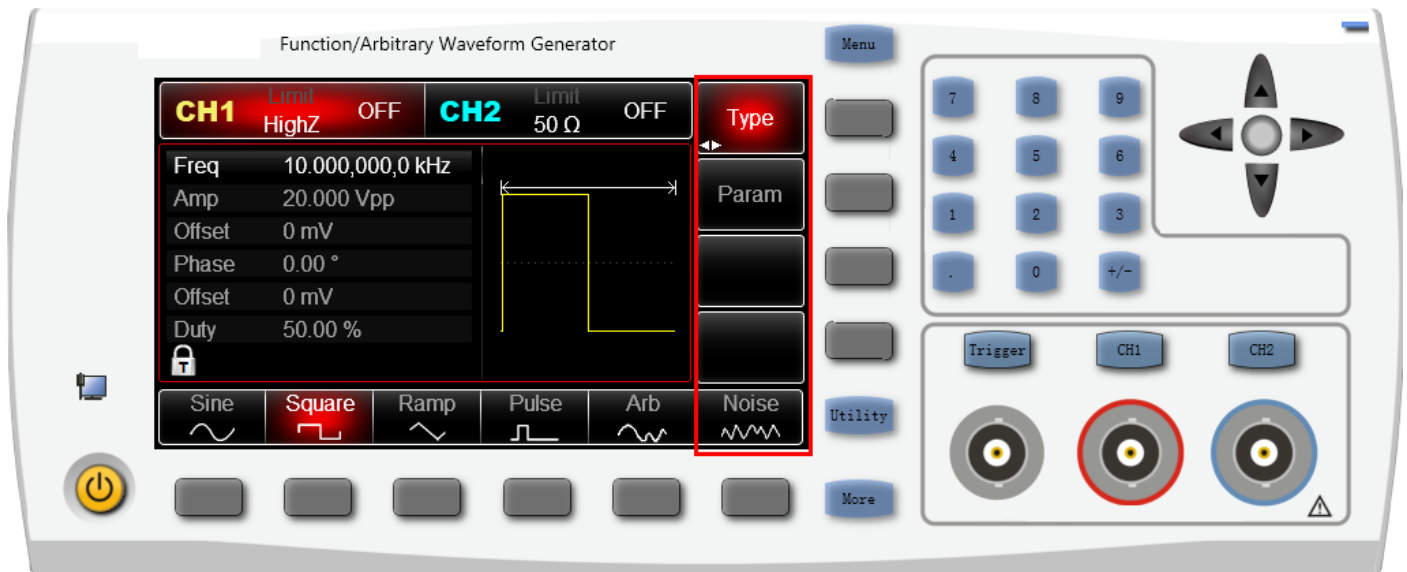Only support to start the software through instrument manager and check: connection device
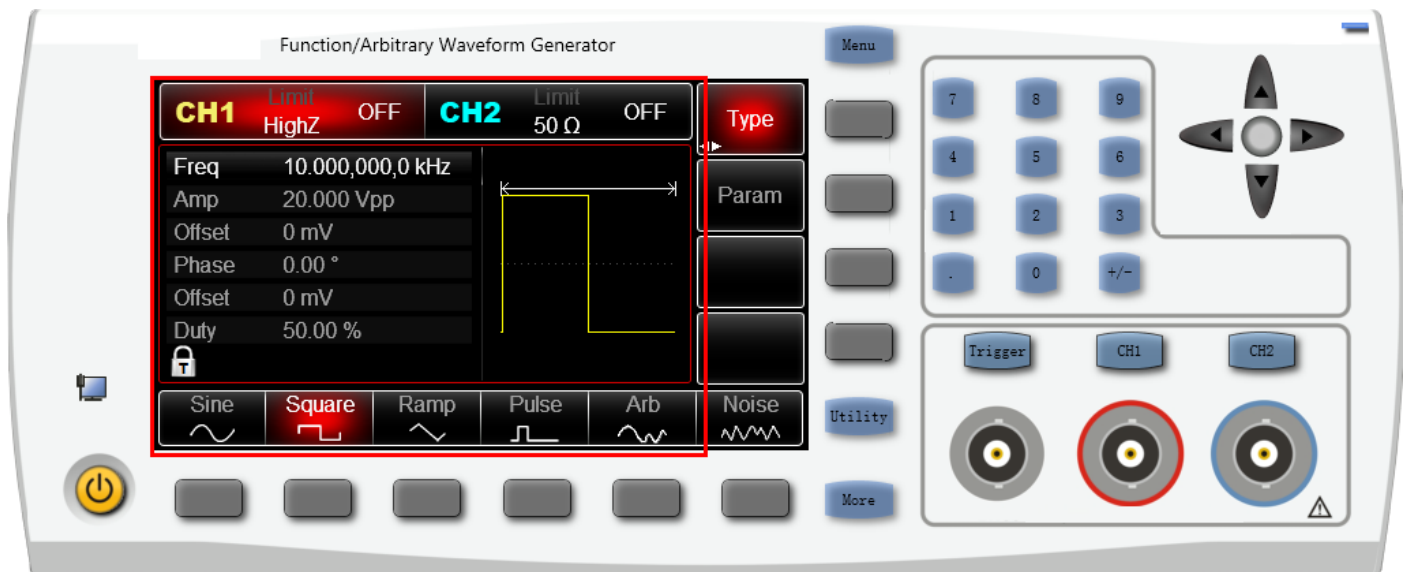
Preview：

Control：

● Operate the button and model on the panel directly through mouse and keyboard shortcut key；

- Click the right menu in "screen display area" to realize quick operation as the following picture shows.
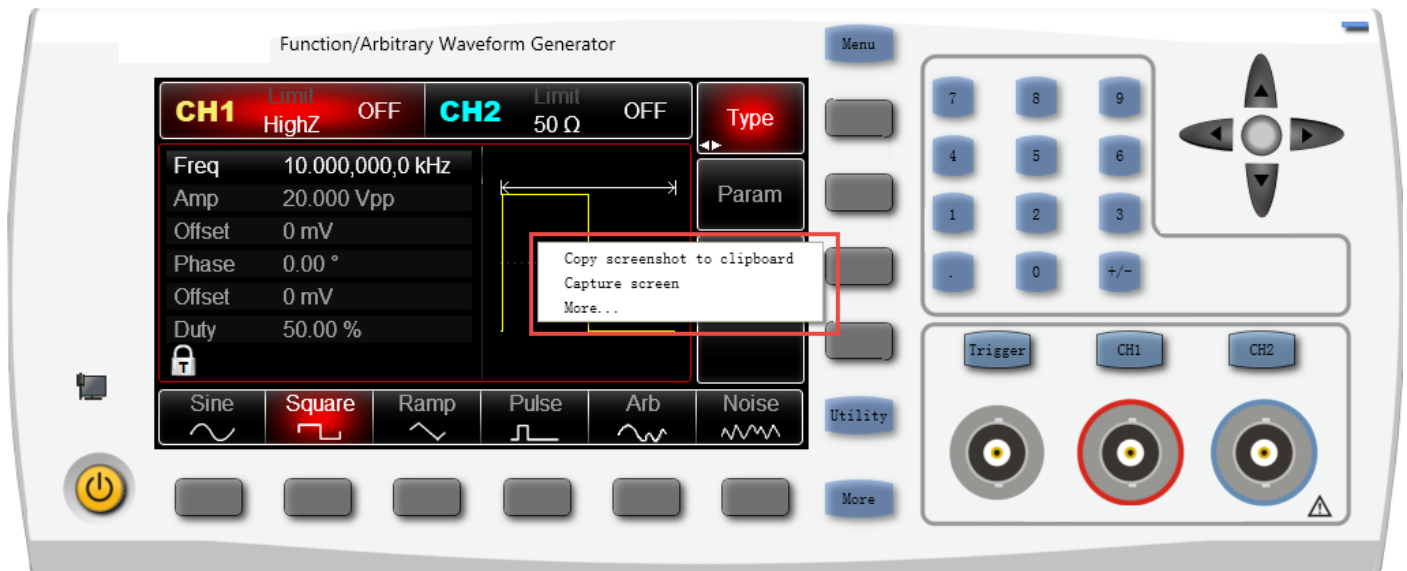

- Click the area as the following picture shows to simulate the function of Enter button.
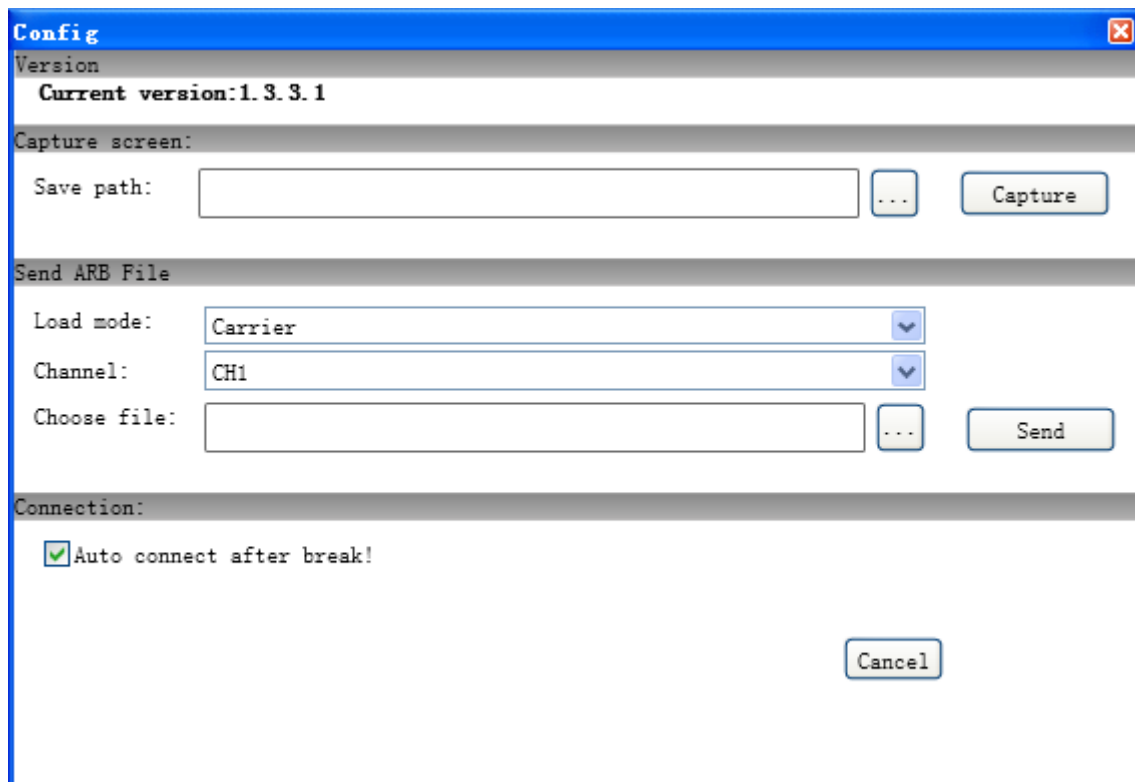

Additional Function :

Right click in any place of panel. In the popup menu select "screen shot" to quickly capture screen and save screen shot to disk. You can also select "more" to use more functions.

Configuration Interface：

Function Introduction：

- **Capture Screen Image**：

    It is the image save path after capturing screen. The "screen shot" document of the right-click

    menu is saved in this catalogue.

- **Send Arbitrary Wave Document**：

    Select the loading mode of arbitrary wave. There are two modes: carrier wave and modulated wave

Select the Channel to be Loaded ;

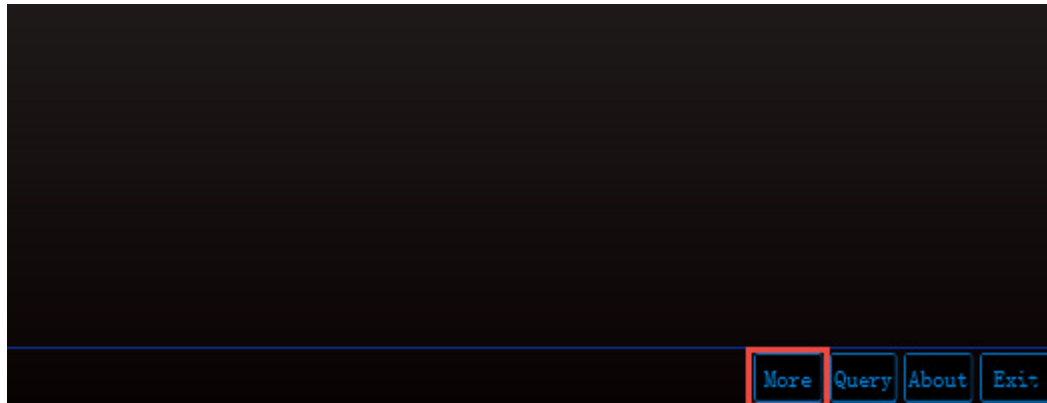Select the document to be loaded and click "send" button to send wave document to the device.

- **Connected to Device**

If you select the reconnection function after accidental disconnection, the connection will be rebuilt.
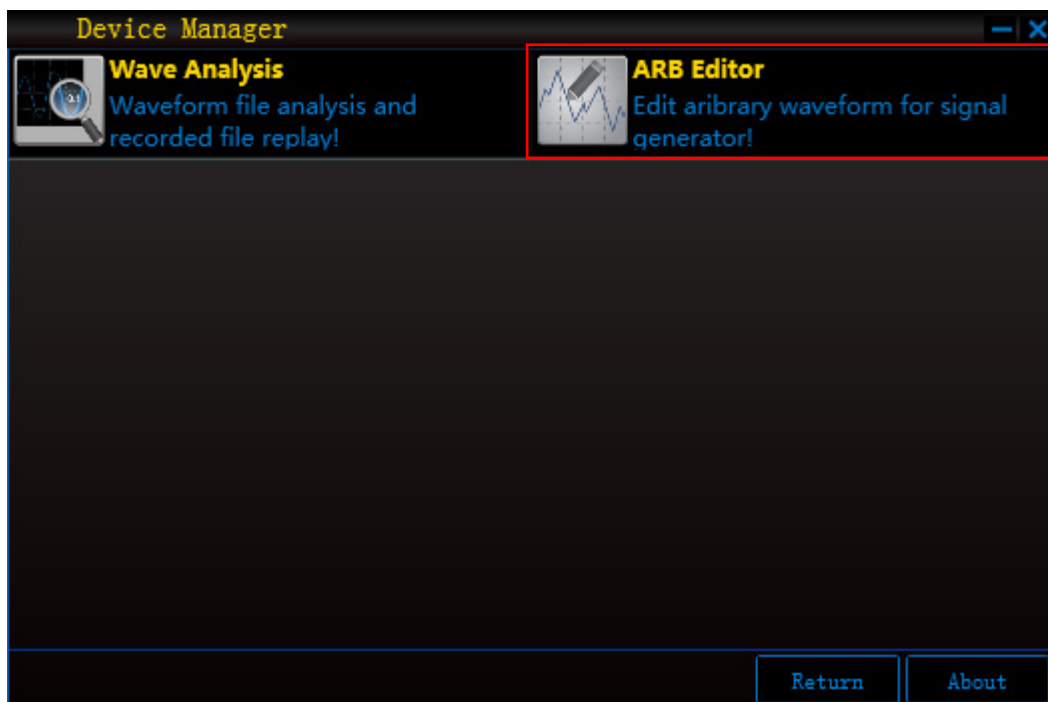
Editing Software for ARB

Software Startup

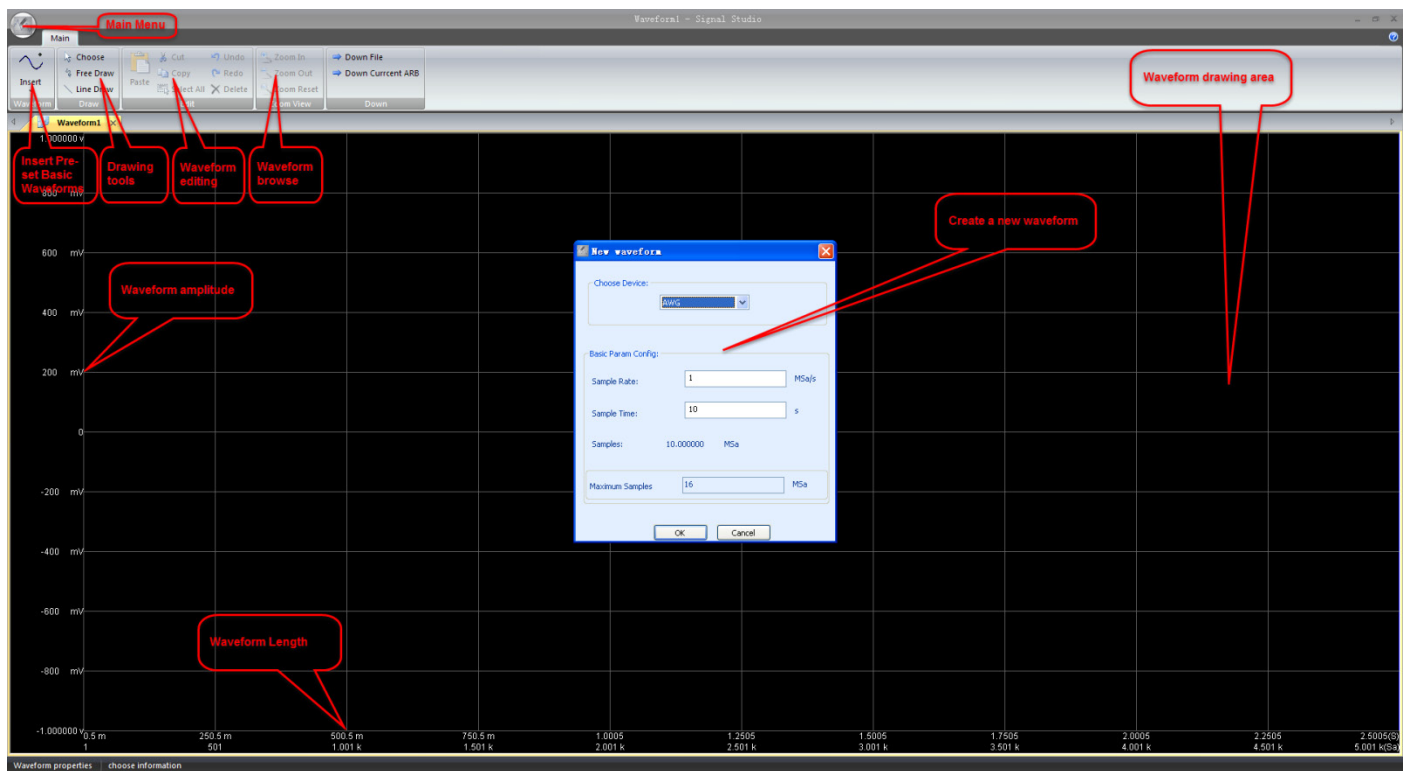Start the software through the instrument housekeeper, such as DP-7, DP-8

DP-7

Arbitrary Waveform Editor Operation Guide

Introduction on Software Panel,such as DP-10

DP-10

Operation Instructions

1、 Create a waveform window

New waveform window pops up with the software startup. Sampling rate is to set up the waveform playing rate (points per second); Sampling time is to set up the waveform lasting time (which is the cycle period); total sampling points is the product of sampling rate and sampling time and its value should be equal or greater than 10Sa but less than 1Msa (Since the maximum data processing ability of this device is 1MSa.).

Notes:

1. Under playing mode, DDS processes the waveform points it picks up in the forms of 2^n. In case the valid points of a waveform drawn by any user turns out to be another figure other than 2^n, it will increase corresponding points by means of linear interpolation so that the points will become in the form of 2^n, then output the waveform frequency after it's been auto calculated under the sampling rate of 250Msa/s. For example, if the user has drawn three waveforms that are consisted by 18, 1024 and 2050 points respectively, DDS will insert another 14 points into the waveform with 18 points, and 2046 points into the waveform with 2050 to make them 32 (2^5) and 4096（2^{12}）respectively, but doing nothing to the waveform with 1024 points. Under non-playing mode, by using the software, DDS will output the waveform in fixed length (4096 points) and under the frequency listed by auto value insertion and point extraction.

2. DDS only reads about the total valid points of the waveform drawn by the user, including the amplitude of each point. Waveform shall then be output at a fixed rate of 250Msa/s according to the data picked up. Setting the sampling rate can be meaningful only if the device has such function. Currently, DDS does not allow any change of sampling rate for its arbitrary wave function. Therefore no matter how much the sampling rate is set at, it brings no effect to DDS. However, if the user's device allows the change of sampling rate for its arbitrary wave function, the sampling rate must be set at a value equal or less than the maximum sampling rate.

Main Menu and Shortcuts.

Press the icon for the main menu to get 7 dropdown menus, as shown in DP-11:
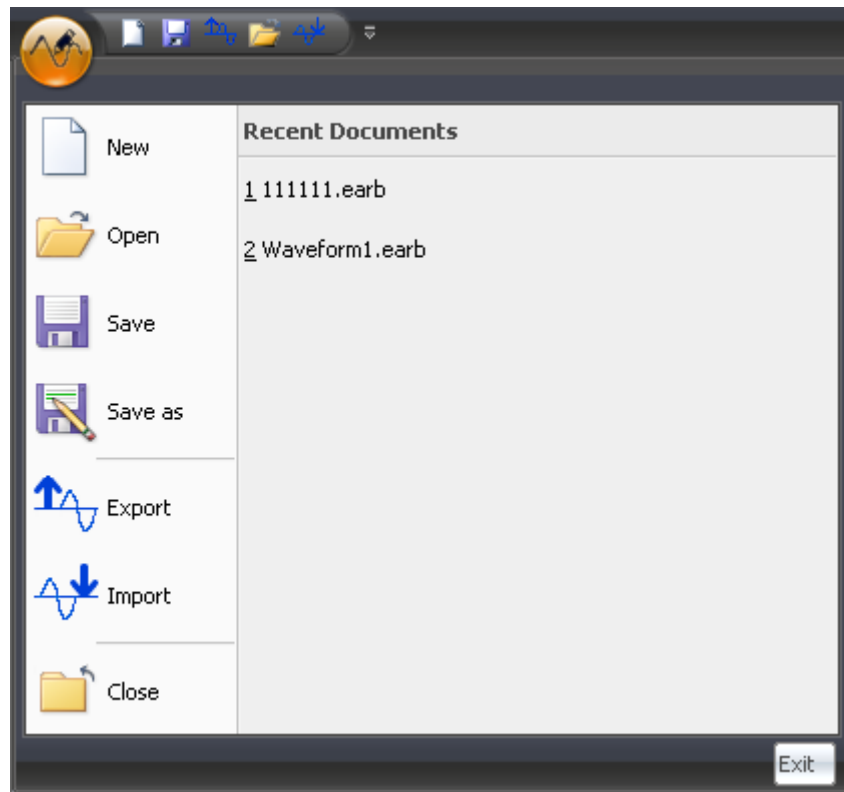
DP-11

The user can create or open a saved engineering file (the format is *.earb), or alternatively export into U disk the waveform saved in the format of *.CSV (less than or equal to 400K points) or *.BSV (less than or equal to 1M points). DDS reads the waveform files saved in U Disk through USB port located at its front panel. The user can also define a shortcut key for rapid access.

Insert Pre-set Waveform and Drawing Tools

When press 〰 button or insert —> waveform (6 types in total), new waveforms selection window will popup. (Shown in DP-12)
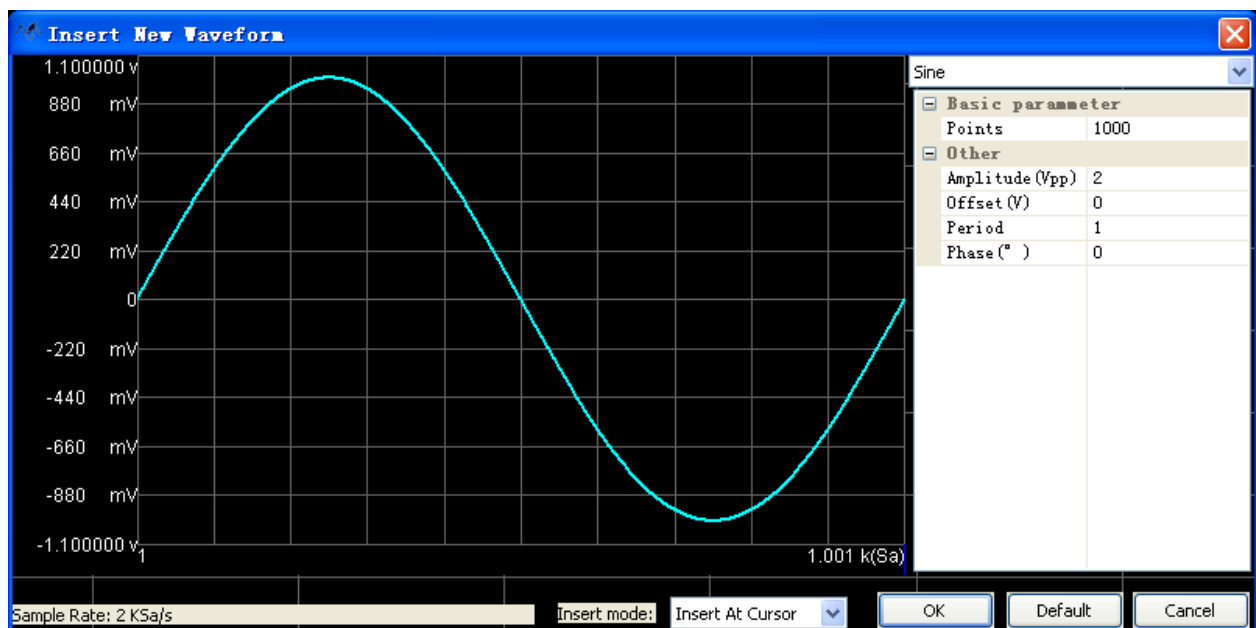
DP-12

Except for selecting pre-set basic waveforms through insert button, the user may as well select waveform from above right column. Besides that, it also allows the user to set up basic parameters of the waveform in that column. Free drawing or line type drawing can be selected from drawing tools area, then by right clicking or by clicking Choose to end the drawing

process if using the line type drawing. As shown in DP-13, 3 pre-set waveforms are inserted first, then use free drawing tools to draw waveform. In case the waveform points of current project is not enough to contain the points of a newly inserted waveform. The waveform points of current project will automatically increase till it is able to contain it (Notes: Maximum processing point of this device is 1M points)
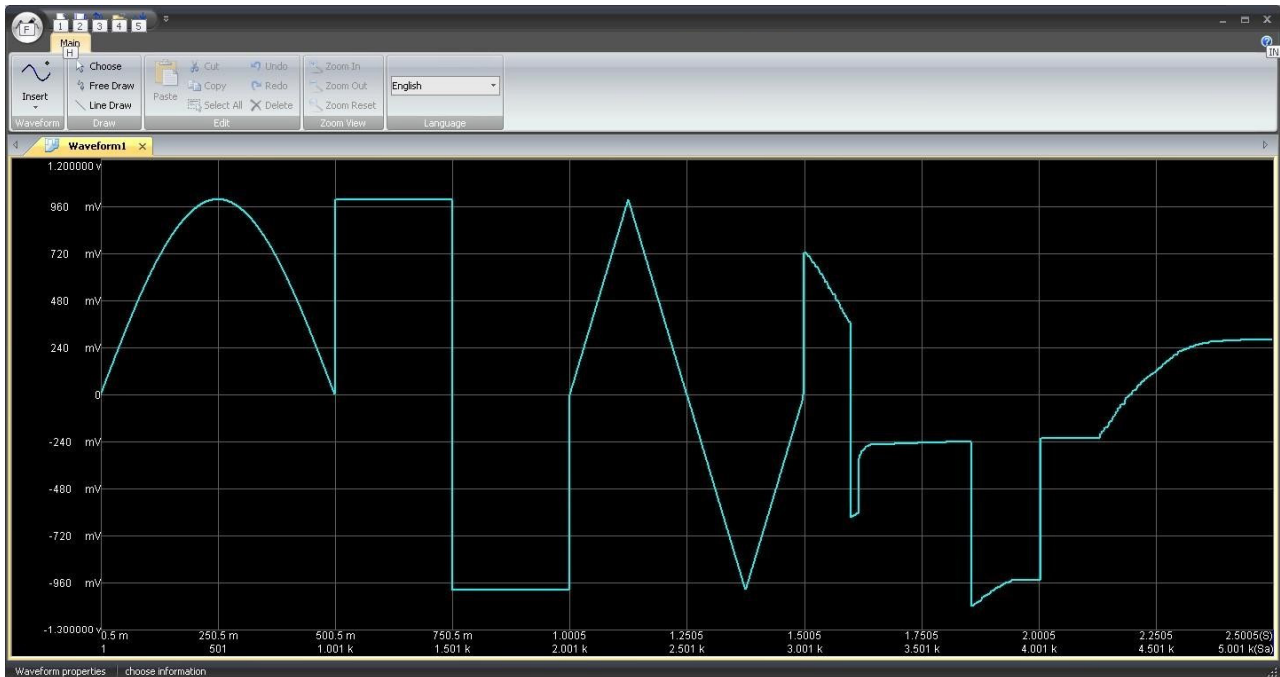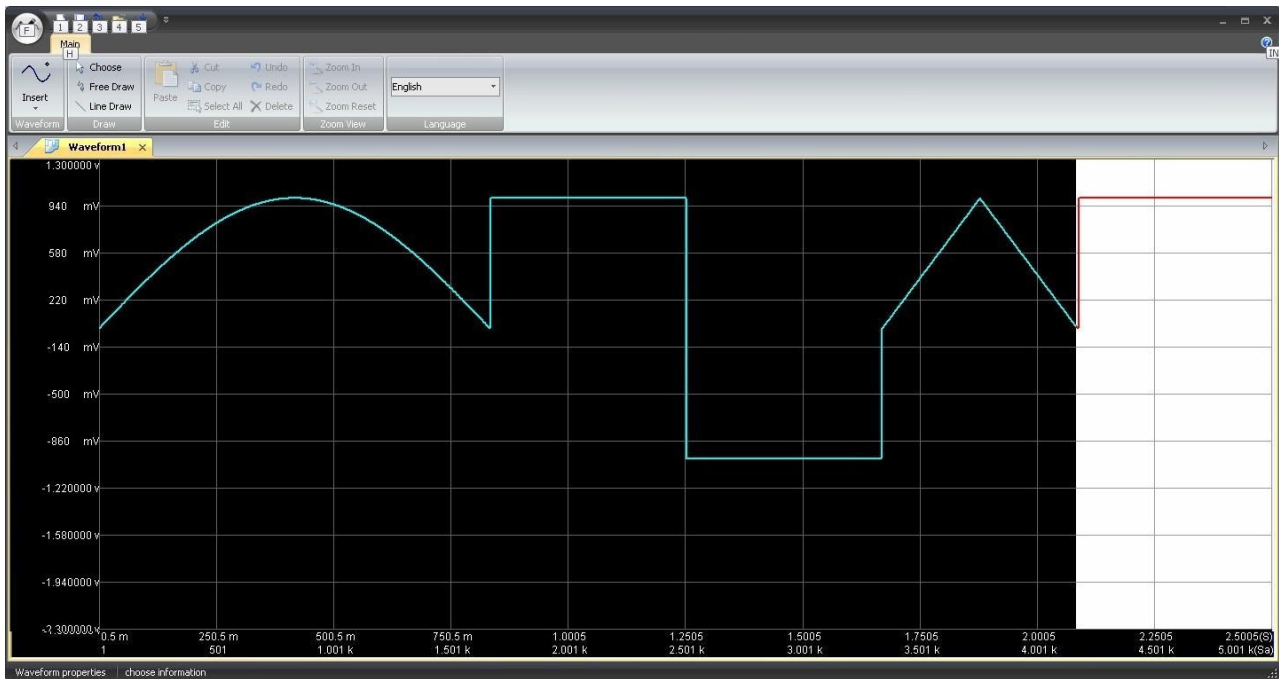

DP-13

Waveform Editing and Browse

The user can perform various operations to current waveform at waveform editing and browse area, such as: duplicate, cut and delete a selected portion of a waveform or have a local preview of the waveform drawn by rolling mouse wheel or by clicking "zoom in" or "zoom out" button.
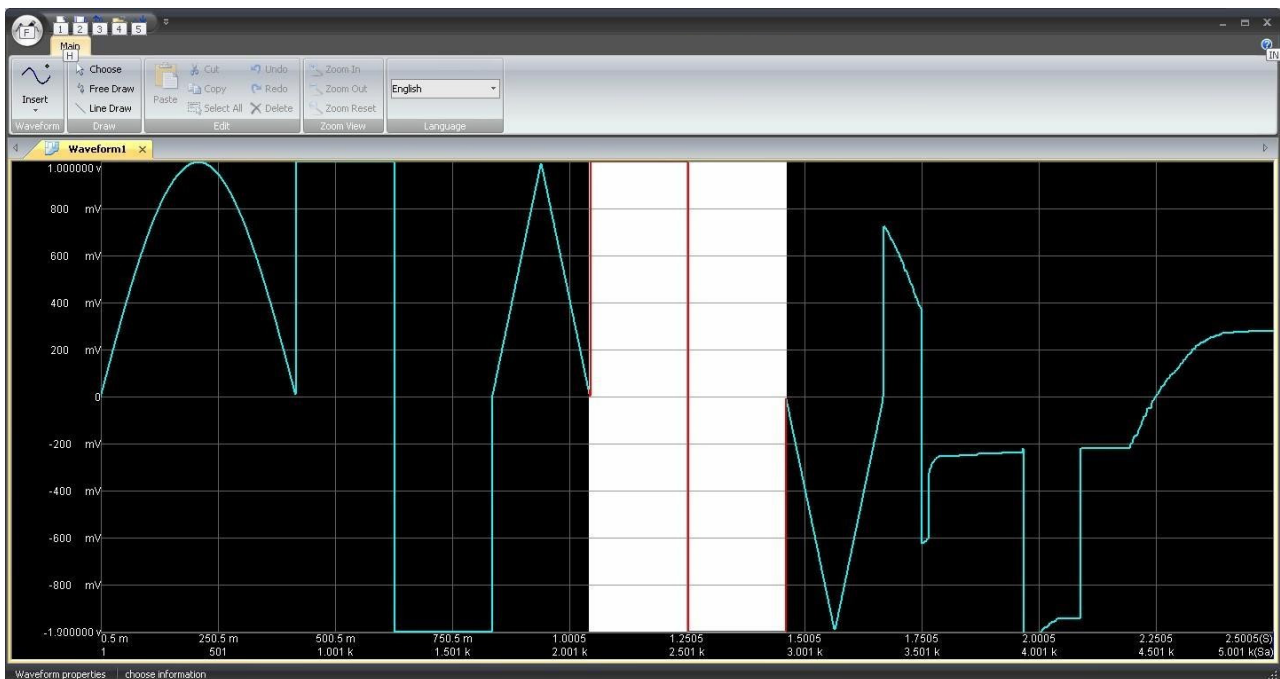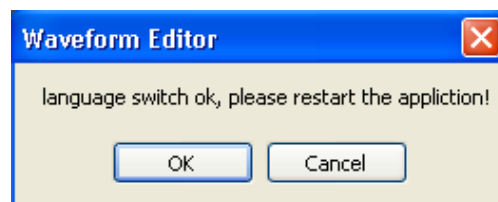
DP-14

Language Selection & Waveform-related Proprieties

Click small triangle within language menu to popup list of languages available. When select a language, a prompt window (shown in DP-15) will pop up.

DP-15

Click to confirm it. It requires a restart to make it effective.

The amplitude of the waveform drawn is shown in the left of the waveform drawing area (High resistance: $\pm 10V$ 50 Ω：$\pm 5V$)， automatically sets the peak-peak value generated by editing software of arbitrary waveform as the amplitude when it reads a waveform file in the U disk, which may be changed freely later on.

The lower part of the waveform drawing area displays the sampling points and sampling time of the waveform depicted, which helps the user edit corresponding amplitude value for a randomly selected sampling point or sampling time.

Troubleshooting

1. Prompt "error when loading arbitrary waveform!"

Please check whether an effective waveform data containing more than 400K points has been exported into a *. CSV format file. Because this device is only compatible with *.CSV file with equal or less than 400K points, or *.BSV file with equal or less than 1M points.

2. U disk can not be identified or failure to initialize

Check whether U disk is working properly or not. Ensure using U disk of FAT16 or FAT32 format.

3. U disk can be identified but failed to find waveform data

Through computer to check whether there is any waveform file saved in U disk. (File format is *.CSV or *.BSV).

Copyright Statement

Thank You!