



## Rigol Software Installation and Use

### STEP 0: Important Basic Computer setting:

Typical European notation:

12.000,00 Hz in words: twelve thousands, [COMMA] zero Hertz

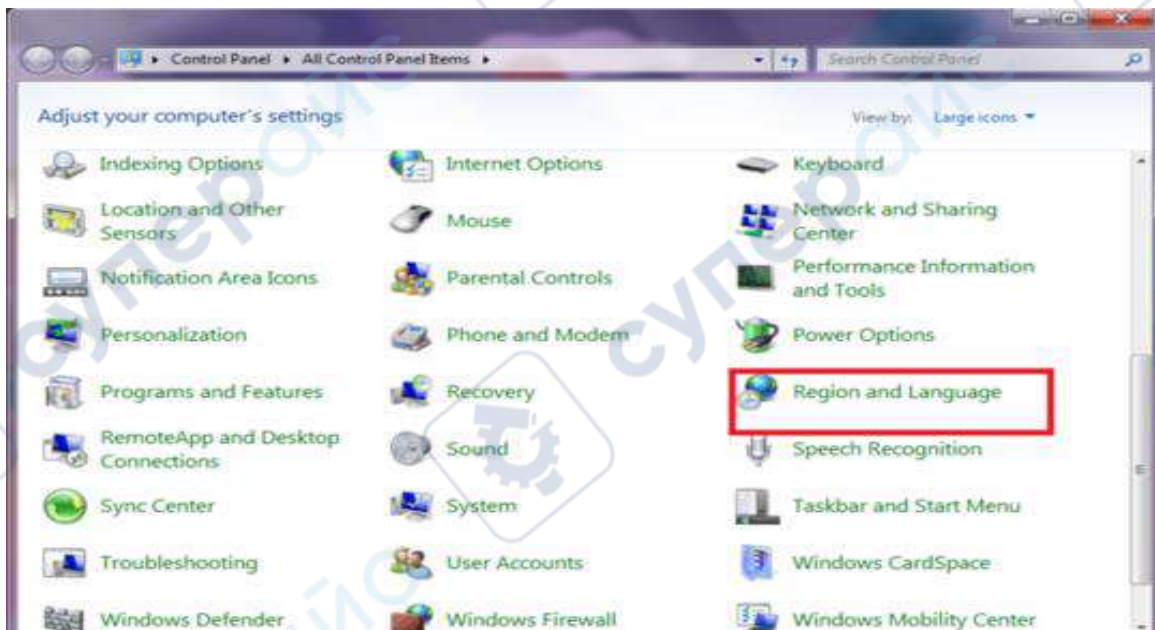
English/American notation uses the DOT to separate the decimal digits.

Same example with different notation:

12,000.00Hz in words: twelve thousands. [Dot] zero Hertz

Each Rigol Software requires DOT as decimal separator. [English/America Notation]

**So before starting with installation or usage of Rigol Software go to your Windows Control Panel and change the Region and Language settings to the right notation! Otherwise your software will not work properly.**



## STEP 1: Installation of Ultra Sigma

Ultra Sigma is the base for all other Rigol Software tools and also recommended if you would like to do your own programming. It installs all the necessary files to be able to recognize the instruments when connected to the computer. It also installs the National Instruments VISA library (NI VISA) which is necessary for communicating thru SCPI Commands with our instruments.

It is recommended to download the latest version of Ultra Sigma.

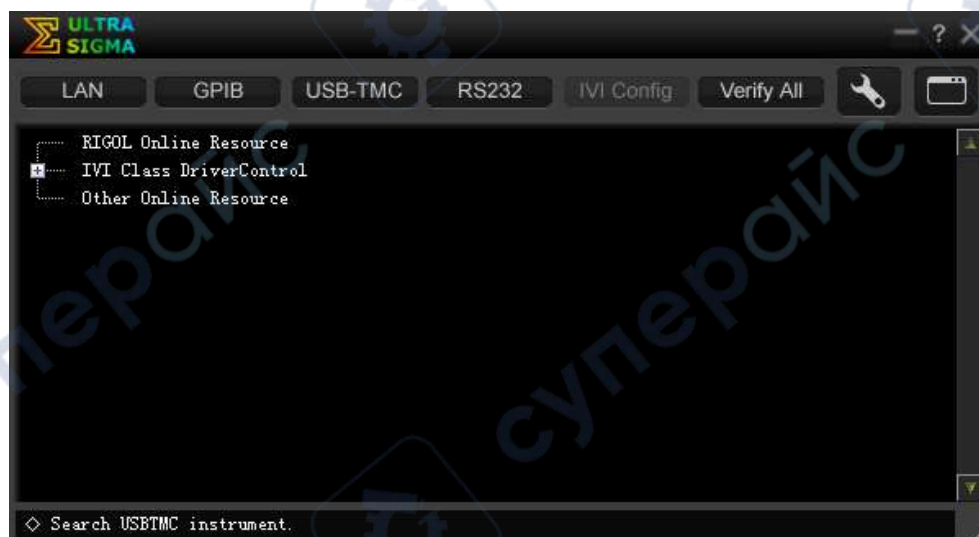
The Versions which is supplied on the Product CD might be not the latest one.

For your reference the current version is: 00.01.06.00 (09/April/2014)

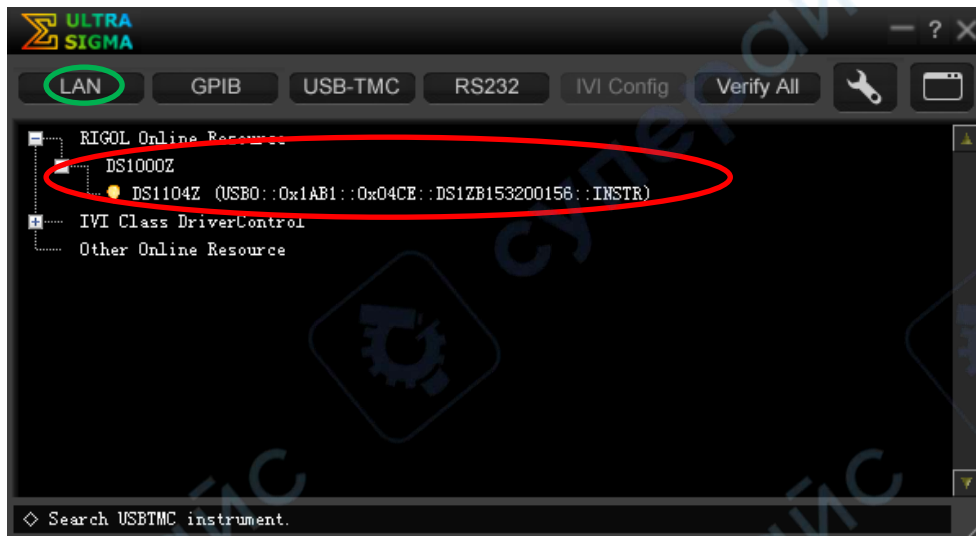
- After downloading the file, unpack the file and store it on your local hard disk.
- Make sure that **no** Chinese or unknown signs are within the directory or in the folder name. Otherwise the installation will stop with an error message. (“Unable to open archive file”)
- Start setup.exe which you can find in the unpacked folder.

**NOTE:** On Win 7 systems, the software must be installed using the Built-In Administrator user account. Please enable the Built-In Administrator account and use it for all software installation. User accounts with full administrative privileges will not work!

After the successful installation, you will find an ICON on your desktop. Double click and Ultra Sigma starts. Under Win7 you have to confirm/allow the execution of Ultra Sigma. Now it appears like this:



Now please connect your Rigol Instrument thru USB to your computer. Windows will find a new USB Device and start “installing” the driver. After finishing this instrument will appear in your Ultra Sigma Window as follows:



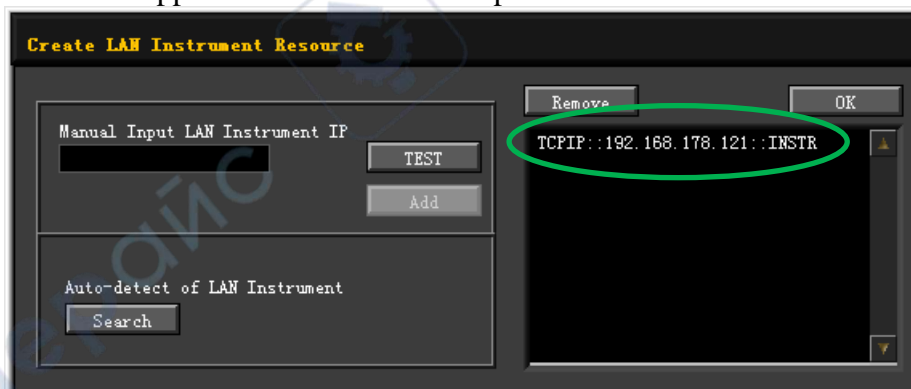
If you use LXI connection you have to add an additional step because the instrument is not automatically recognized from the system.

### Instrument connection thru LAN

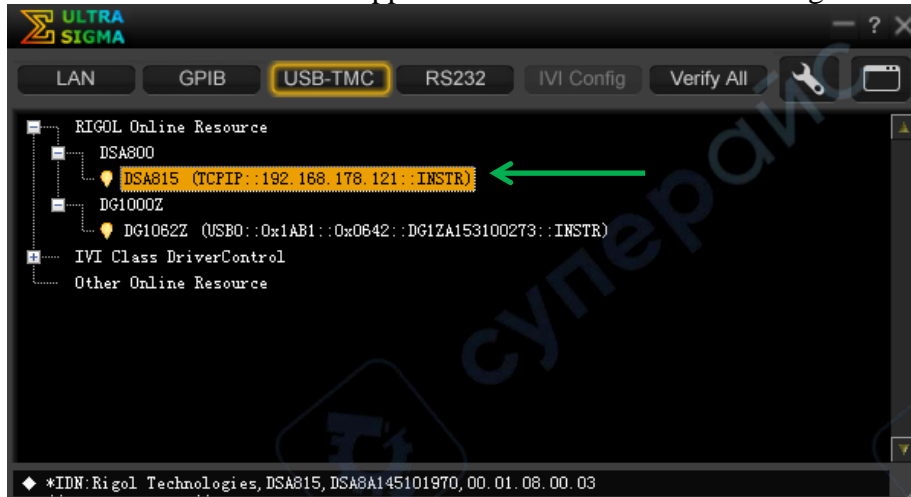
First click on the LAN button in the Header line of Ultra Sigma. Marked green in the screen shot above. The following form comes up.



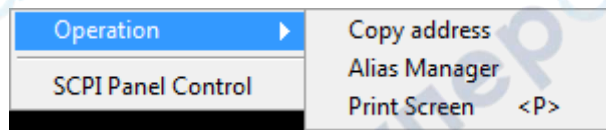
Now click on the Search Button and the software starts searching Rigol Instruments. If the instrument is found it appears in the window and press ok.



The addition Instrument will now also appear in the main form of Ultra Sigma.

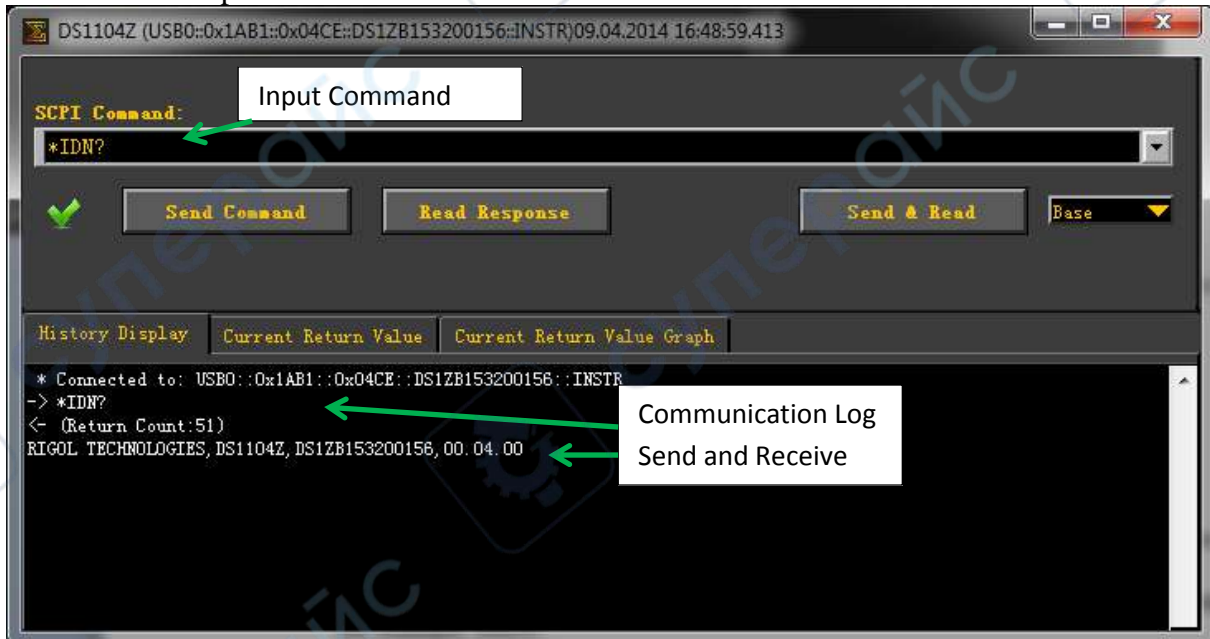


Right Mouse Click on the line (in this example: DS1104Z (USB0::0x04CE...) brings up a small menu. This can be extended with Mouse-over Operation. See below



In the following the two main functions:

- **Print Screen** -> very useful to bring screen prints to your PC, especially for scopes and spectrum analyzers
- **SCPI Panel Control** -> send and receive commands or data -> useful for debugging see example below:





## STEP 2: Installation of Rigol Software

Rigol offers different control / measurement Software tools. Please find below short overview what is available:

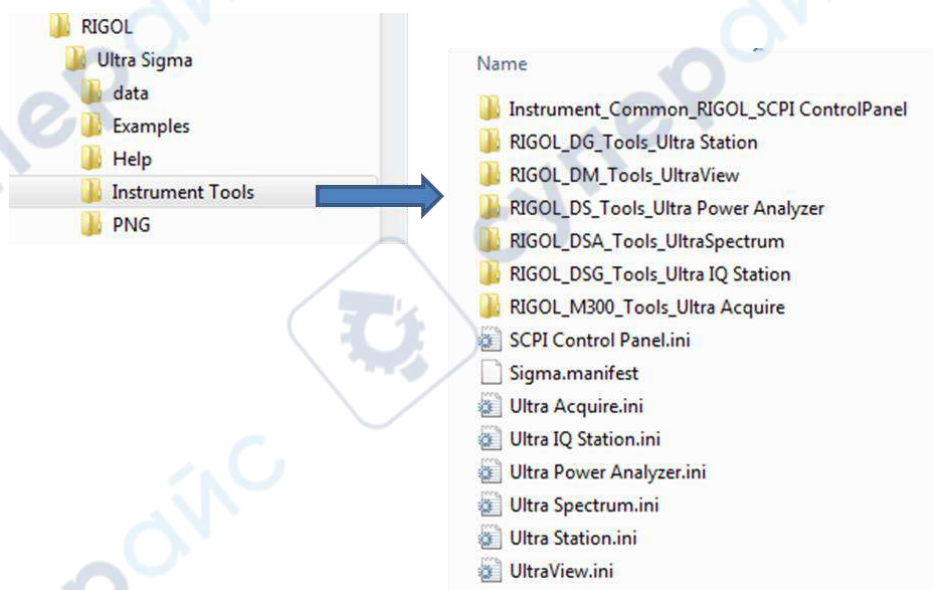
Software Name	Used with ...	Available versions	Price (List, net)
Ultra Station	DG1kZ, DG4, DG5	Basic version	Free of charge
		Advance version	76.-€
Ultra Wave	DG1022, DG1022A	Basic version	Free of charge
Ultra Spectrum	DSA815, DSA1000	Basic version	188.-€
Ultra Power	DP1000	Basic version	Free of charge
Ultra IQ Station	DSG3000-I/Q	Basic version	Free of charge
Ultra Acquire	M300	Basic version	Free of charge
		Advanced version	664.-€
Ultra Scope(Eseries)	DS1000E	Basic version	Free of charge
Ultra Scope(Dseries)	DS1000D	Basic version	Free of charge
Ultra Scope(Bseries)	DS1000B	Basic version	Free of charge

Each Software Tool which has to be purchased can be installed without license key and offers a 15 day evaluation period which all features available.

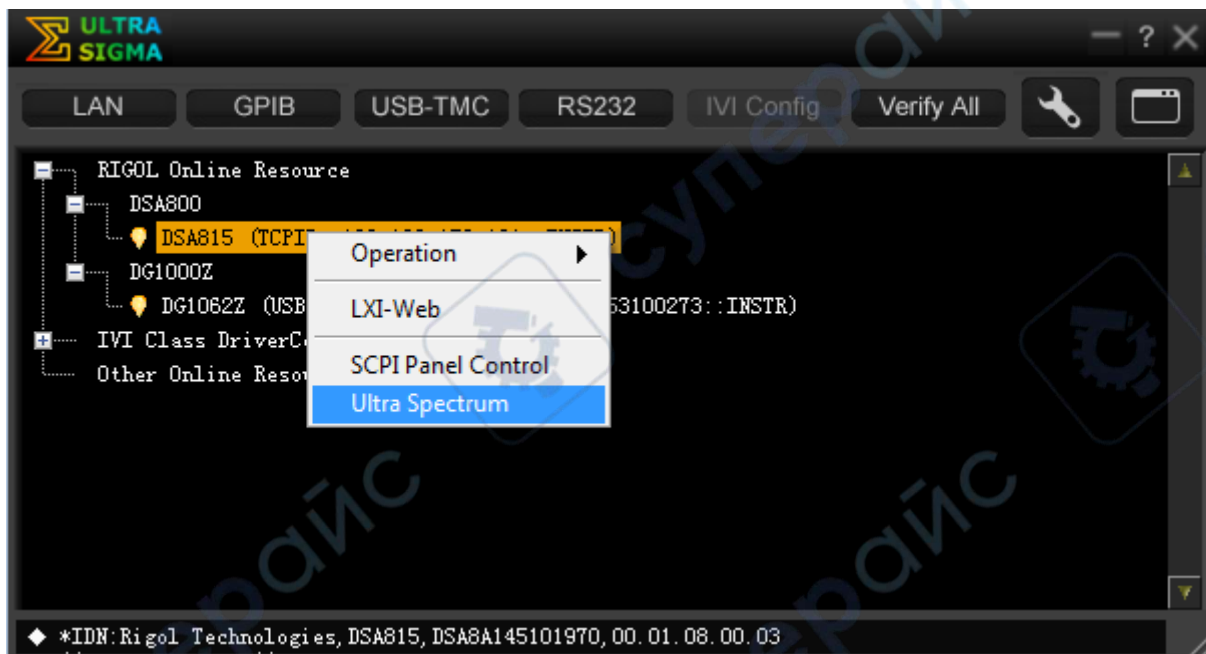
After you have successful finished STEP 0 and STEP 1 you can install the Rigol Software tools. Same procedure as above for Ultra Sigma installation:

- After downloading the file, unpack the file and store it on your local hard disk.
- Make sure that **no** Chinese or unknown signs are within the directory or in the folder name. Otherwise the installation will stop with an error message. (“Unable to open archive file”)
- Start xxx setup.exe which you can find in the unpacked folder.

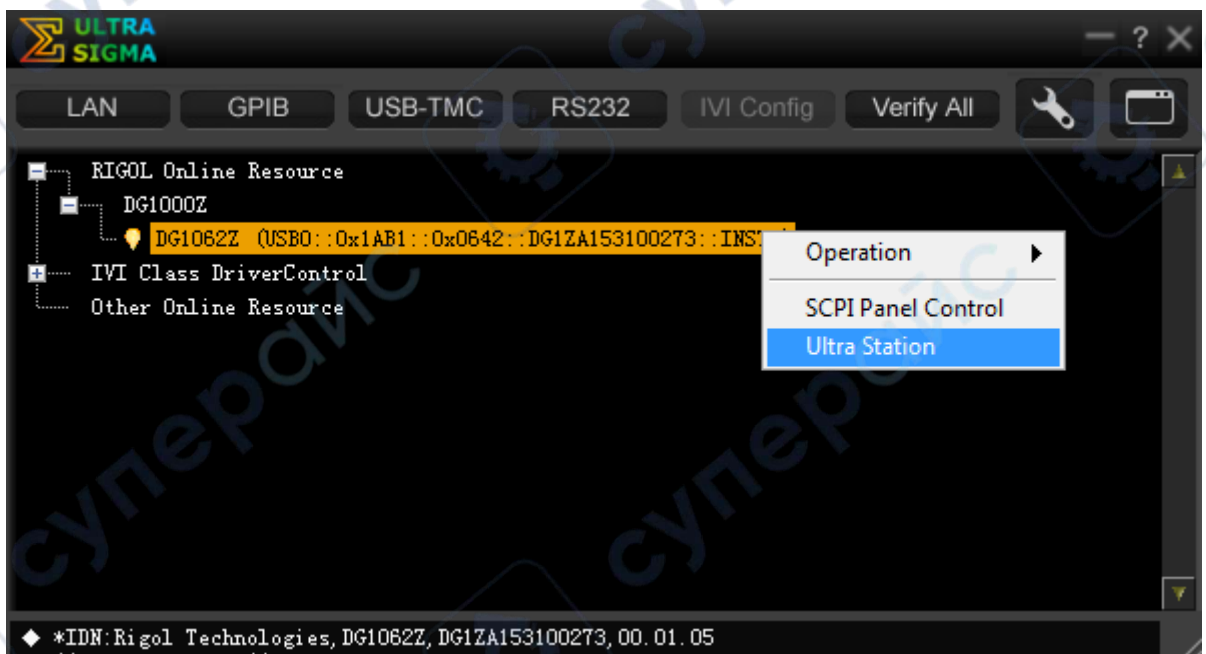
If you have installed Ultra Sigma with the default directory the corresponding Software Tools will be installed in the following directory structure.



If the Software tools are located as above, the corresponding software will automatically be available in Ultra Sigma as shown in the examples below. Exception are Ultra Scope (E/D/B) and Ultra Wave and Ultra Power.



DSA815 shows Ultra Spectrum



DG1061Z shows Ultra Station

This is the recommended way to start the Rigol Software Tools. Advantage is that the instrument is already recognized from the software and you will also not run into Windows administrator right issues.