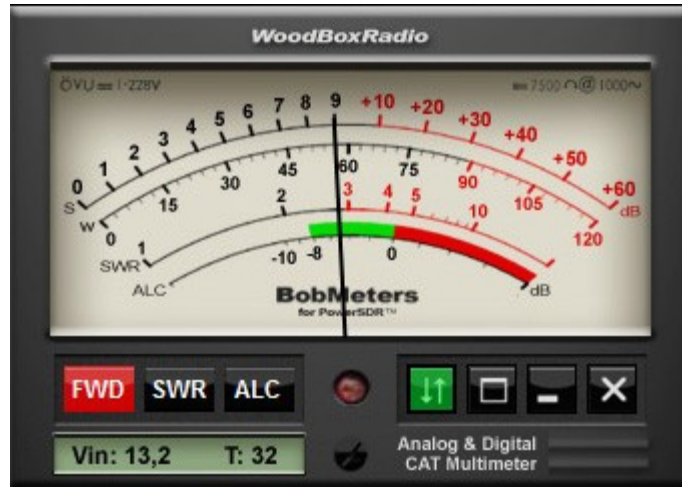


WoodBoxRadio

# BobMeters v1.0



BobMeters is a CAT multimeter software designed for **PowerSDR(TM) v2.0.16 and above** by **FlexRadio Systems**

Compatible with FLEX-5000A (TM), FLEX-5000C (TM) and FLEX-3000 (TM)

Compatible with FLEX-1500 (TM)  
with some limitations by radio hardware

BobMeters is not freeware  
After a full functionality trial period of 15 days  
a registration is required to continue use.

This manual for step by step installation and configuration  
of BobMeters v 1.0

BobMeters runs on all Windows(TM) 32 or 64 Bit operating systems

**BobMeters 1.0 Technical Manual**

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## Software installation

Place BobMeters\_setup.exe on a temp folder or on desktop

Double click on BobMeters\_setup.exe.

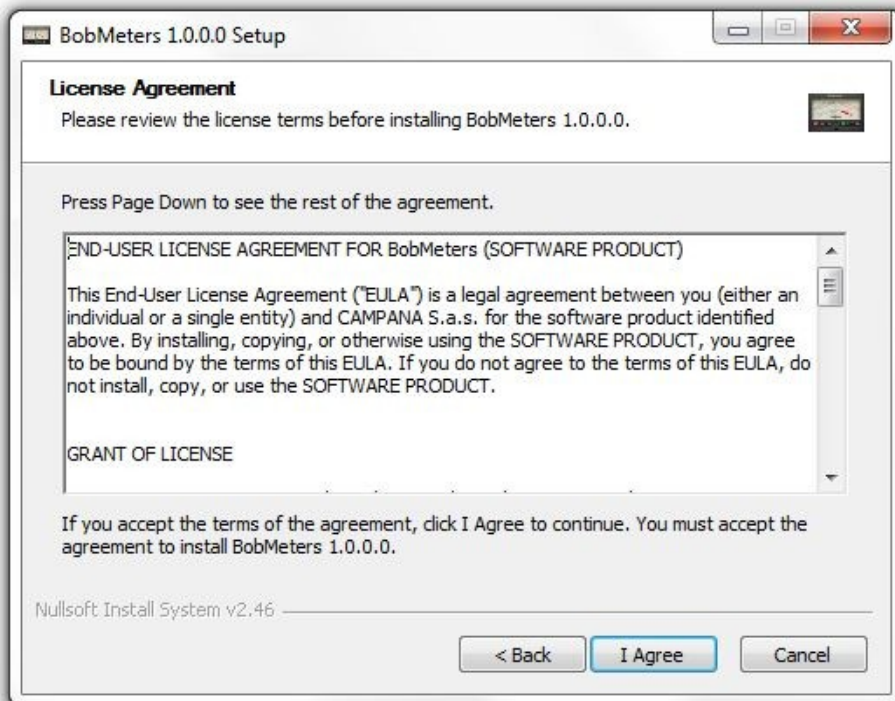
The Seup Wizard pop up



Click Next

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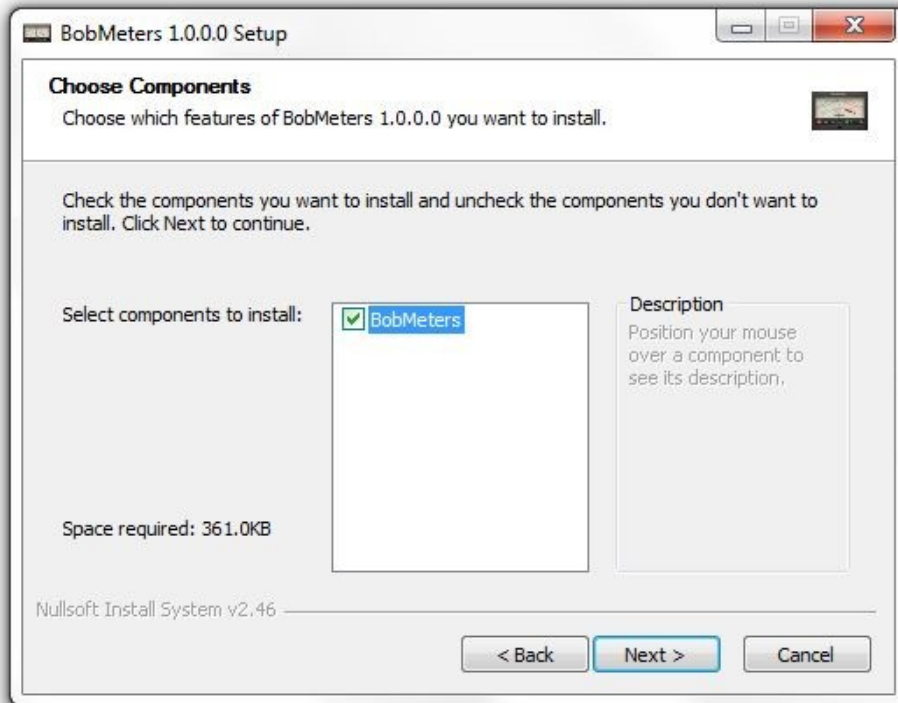
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Read the License Agreement  
press "I Agree" to continue or "Cancel" to abort installation

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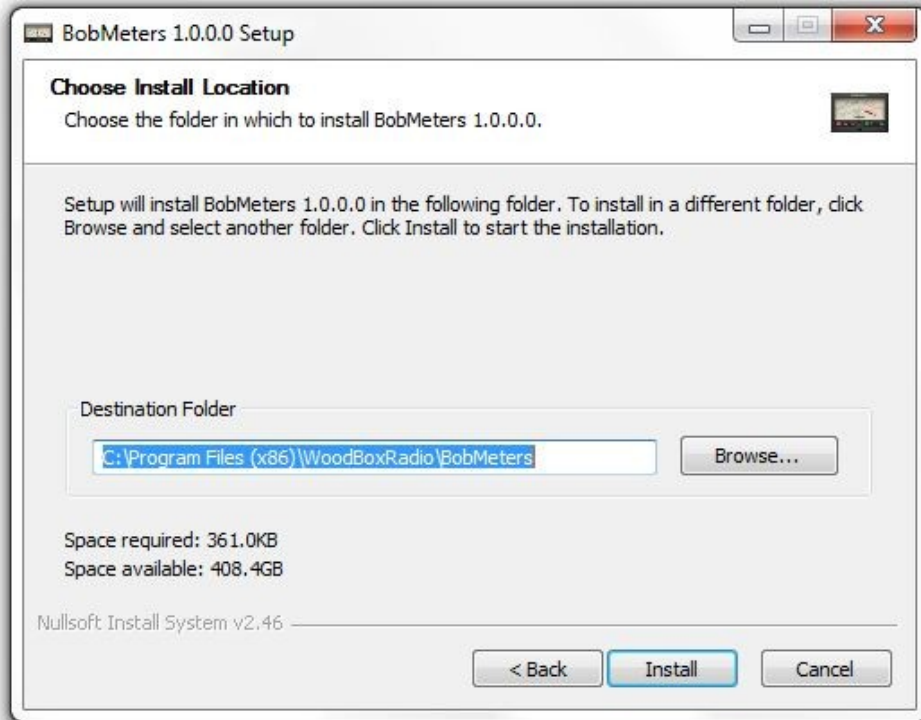
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Click “Next” to continue or “Cancel” to abort installation

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The installer creates automatically the folder “WoodBoxRadio”  
If you want install in other folder, press “Browse...”

Press “Install” to continue or “cancel” to abort installation

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## WoodBoxRadio



The installation is complete  
Press "Finish" to close Wizard and run BobMeters

## BobMeters 1.0 Technical Manual

## **WoodBoxRadio**

**BobMeters** uses a Virtual COM to connect **PowerSDR(TM) v2.0.16**  
You can use any VCOM software available

### **How it works ?**

**BobMeters**, connected to **PowerSDR(TM) v2.0.16** via CAT, reads the values of: S-meter, FWD Power Out, SWR, ALC, Power supply, Temperature of the rig. (FLEX-5000 & 3000 only).  
With the model FLEX-1500 only S-meter and ALC are available.

### **What do you need ?**

A Vcom driver software as N8VB, VSPE or com0com  
**PowerSDR(TM) v2.0.16** running and configured on a valid VCom

### **Can works with other software at the same time?**

Yes, it can works with any software as LOG which needs a CAT connection, using **VSPE** in splitter configuration or using **DDUTIL**.  
For more info about DDUTIL please visit this site:  
[http://k5fr.com/ddutilwiki/index.php?title=Main\\_Page](http://k5fr.com/ddutilwiki/index.php?title=Main_Page)

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## BobMeters main window



Figure 1

The main window has two selectable background: Modern and Classic

### 1 – four analog scales:

**S-meter** scale up 60dB over S9, active when in RX. The S-meter has a second RED needle indicator measuring peak signal, with memory. This function is configurable in Setup.

**Power Output** scale in W up to 120W

**SWR** scale for direct reading of SWR

**ALC** scale for direct reading of TX Automatic Level Control

### 2 – three selectable buttons:

**FWD**: to select the Power Output reading

**SWR**: to select the SWR reading

**ALC**: for select the ALC reading



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## 3 – LCD display:

The display provides the visualization of different information, normally it displays the **power supply voltage and operating temperature**. It can displays some messages, as:

**CAT error:** when it fails to communicate with PowerSDR

**Trial Version:** (alternating with main indication) when you are using the software in evaluation mode.

**Trial expired:** when the evaluation period is over.  
When the evaluation period is over a registration is required in order to continue use the software

## 4 – Four command buttons (from left to right):

Start / Stop communication with PowerSDR  
Enter to software Setup (active in Stop mode only)  
Minimize to background  
Close application

**ON AIR LED:** it lights up when you are transmitting

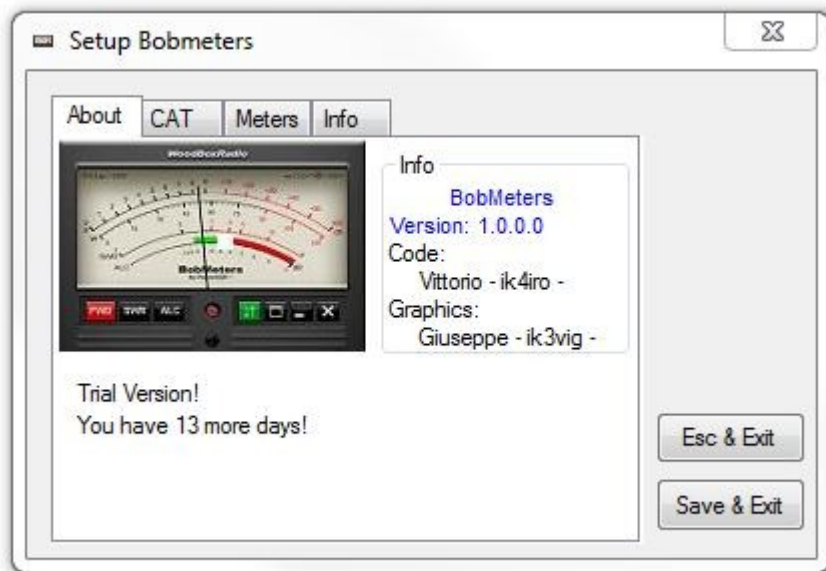
**Note:** BobMeters window is always on top of your desktop

# WoodBoxRadio

BobMeters configuration and use  
Please refer to Figure 1 for commands

**We assume that your system is already configured with active PowerSDR 2.0.16 (and above) on your FLEX-5000 or FLEX-3000 and even virtual serial ports.**

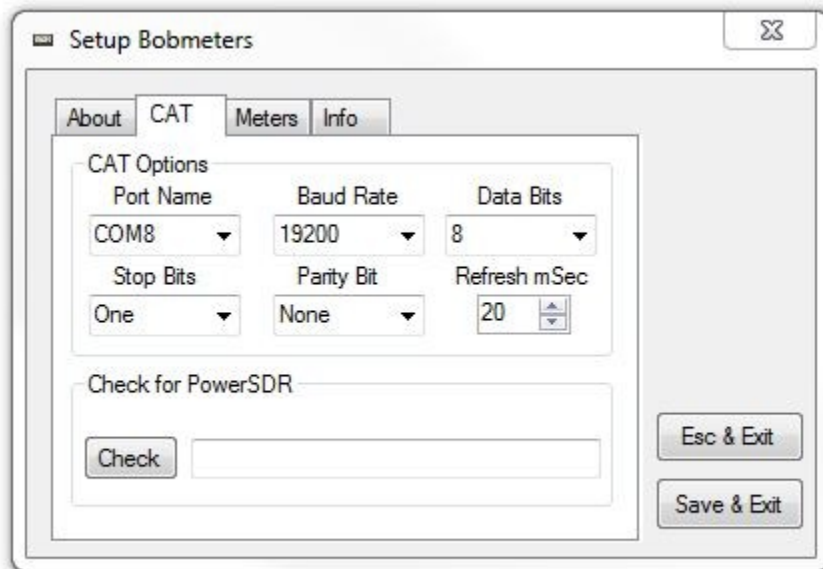
**Press Setup to enter in configuration window**



This is the Setup window, it has some information and four configuration tab: **About** (this window), **CAT**, **Meters**, **Info**

## WoodBoxRadio

Select **CAT** tab to configure the communication parameters



Enter the values of Vcom port that match the Vcom port of PowerSDR and press "**Check**" to test the connection.

If test fails, check parameters and make sure **PowerSDR is ON**

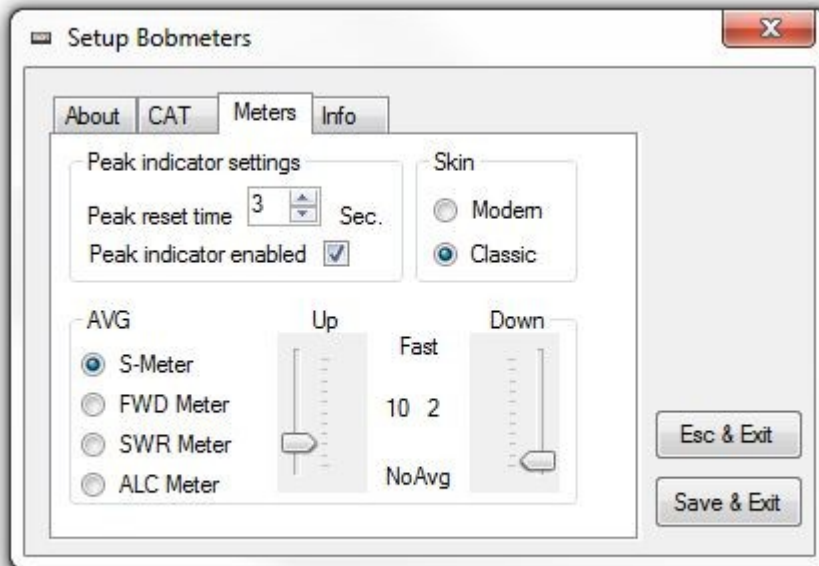
*The "Refresh Time" is the polling time (20 millisecond for default) to PowerSDR; test different values if you find problems when you are sharing CAT connection with other application on the same Vcom.*

*We recommed that you set the same refresh time in all application that sharing the CAT of PowerSDR.*

*If some application fail to communicate with PowerSDR, try a different start order and start BobMeters to last.*

## WoodBoxRadio

Select **Meters** tab to configure the instruments



On this tab you can set some aesthetic aspects of analog scales:

### **Peak indicator (RED needle):**

Peak reset time in seconds (how long the red needle stay on max S-meter value) and peak indicator ON/OFF

**Skin:** choose Modern (black) or Classic (white) instrument skin.

**AVG:** adjusts the needle responsiveness of each scale.

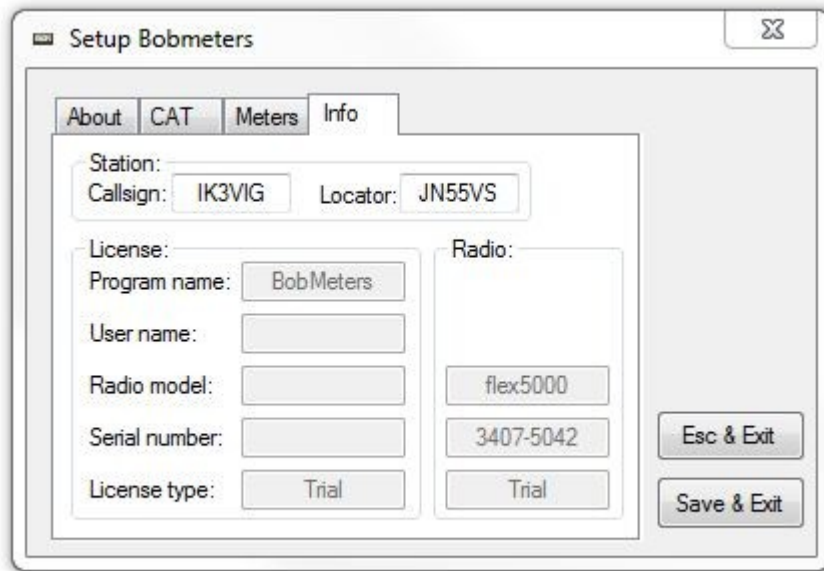
UP & DOWN sliders set the ramp up and ramp down speed of the needle for each scale: S-meter / FWD / SWR / ALC.

These two parameters are responsible for the "reality" of movement of the needle. For example the S-meter need a fast UP and slow DOWN to simulate a "real" moving coil instrument. The values "0" removes any motion control.

Default values have been adjusted by us for maximum realism.

## WoodBoxRadio

Select **Info** tab for your data and registration details



The screenshot shows a window titled "Setup Bobmeters" with a close button in the top right corner. Inside the window, there are four tabs: "About", "CAT", "Meters", and "Info". The "Info" tab is currently selected. The "Info" tab contains two main sections: "Station" and "Radio".

**Station section:**

- Station: (empty text box)
- Callsign: IK3VIG
- Locator: JN55VS

**License section:**

- License: (empty text box)
- Program name: BobMeters
- User name: (empty text box)
- Radio model: (empty text box)
- Serial number: (empty text box)
- License type: Trial

**Radio section:**

- Radio: (empty text box)
- flex5000
- 3407-5042
- Trial

At the bottom right of the "Info" tab, there are two buttons: "Esc & Exit" and "Save & Exit".

This tab contains some information about your station (if you want fill in) and the info about the radio model and its serial number.

The data in the column "radio" are automatically read when you do the "check connection" in the CAT tab. These data are required for registration process if you buy a license after the evaluation period.

### Read carefully:

The license is valid for a single copy of BobMeters working on a specific radio model/serial number. If you have two or more FlexRadio model working on your PC, and you want use BobMeters with all of them, you need a license for any radio model/serial number you have.

The license file you receive must be placed in BobMeters folder.

Multiple licensing is available at particular price, ask us for details.

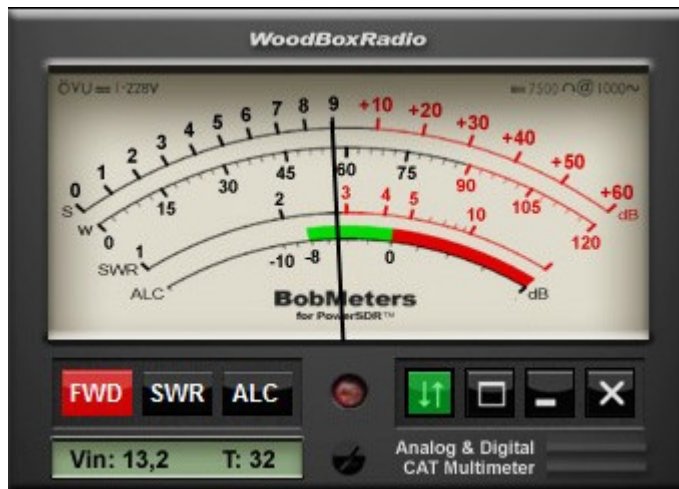
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## Run BobMeters

When the Setup is finished press “Save & Exit”.

On BobMeters window press “Start” (the button with up/down arrows) to begin connection with your PowerSDR / FlexRadio in use.

Place BobMeters in a comfortable position on you desktop; its window is “always on top” by default.



BobMeters code by IK4IRO / Graphics & concept by IK3VIG

BobMeters v1.0 – released 09/11/2010

## **WoodBoxRadio**

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## **BobMeters 1.0 Technical Manual**