When you open Antscope, you are greeted with a blank screen that looks like this:



First time use: You will need to make a couple of entries in the Configuration Menu

1: Select which RigExpert Analyzer was used; Click to select (i.e., AA-54):



2: Select the COM Port; Click on "COM port..." and then enter the COM port that your computer is using to communicate with the analyzer (i.e., COM8):

erial por	rt settings		>
Port	СОМ8	•	OK
Speed	38400		Cancel

- 3: Close the AntScope program.
- 4: Connect the Analyzer to a USB port.
- 5: Turn on analyzer.

6: Starts AntScope again, this time it will show the Analyzer:

Ľ	New me	easuren	nent - AntSco	pe		-	×
<u>F</u> ile	Edit	View	Configure	Measurement	<u>H</u> elp		
	2	l 🗄+	% 🖻 🕻	6 🔽 💥	🖸 123 ኛ FQ 👧 🗎 🦓		

Note that the Analyzer Icon under the word "View" is now lit up in green.

7: Single-Click the green analyzer icon. Assuming you have already measured the Spiderbeam Antenna as per our instructions, you will see the following screen:

ile <u>E</u> dit <u>V</u> iew (□ 🗃 🖬 🗗	Configure Measurement <u>H</u> % 🖻 🖻 🚭 🔛 🤻 ᢗ	elp 2 123 쭉 FQ 👧 📄	P	
	Read memory	×		
	0:20 1:17 2:15 3:12 4:10 5:0000 6:15 7:12 8:10 9:6 10:111 11:180 12:140	Choose Cancel		

(Ignore all files after "0000". They are from an earlier measurement.)

Here you see the 6 files (0 thru 5) that you previously saved when measuring your antenna with the AA-54 Analyzer.

8: You may click on any band-file to open it, but I suggest beginning with 20m. Since it is already chosen, simply click on [Choose].

9: If a graph of the SWR does not display, click the "View" Menu item at the top, and then click on "SWR":



10: An SWR graph across the chosen band (i.e., 20m) now displays:



NOTE: "This" graph is showing the 20m band of a Spiderbeam "Aerial-51 Model 807-HD" antenna, not a Spiderbeam Yagi. The graph seen on the Spiderbeam Yagi should look even better! 11: Next, we want to save this band data to the computer. Bands are saved one at a time and can only be saved while viewing them in AntScope.

12: Click on the floppy disk () in the menu on the top left. A new window opens showing Windows explorer:

Lave As			×
Save in:	Documents	- 🗧 🖆 📰 -	
Quick access	Name Custom Office Templates 2-Tube RX TomTom Trump Accomplishments	Date modified 06/10/2020 11:27 15/10/2020 06:34 16/10/2020 12:25 16/10/2020 12:25	Type File folder File folder File folder File folder
Libraries	FET-Regen3 FA Article DK3BI Regen My Kindle Content SDRplay RSP2 Spiderbeam SWR Curves	18/10/2020 15:32 02/11/2020 15:49 06/11/2020 10:18 24/11/2020 15:55 29/11/2020 19:54 06/12/2020 15:47	File folder File folder File folder File folder File folder File folder
Network	< File name:		> Save
	Save as type: Measurement results (*.anto	data) 💌	Cancel

13: Browse to the folder in which you wish to save the band data files. In my example it is C:/Documents/Spiderbeam SWR Curves/6-DEC-2020. Then Enter the filename (i.e., "20m") in the space for "File name":

لا <mark>س</mark> Save As						×
Save in:	6-DEC-2020			- + E] 💣 📰▼	
Quick access Desktop Libraries This PC	Name	^	Date mo	odified h your search.	Туре	
Network	_					
	<					<u> </u>
	File <u>n</u> ame:	20m			-	<u>S</u> ave
	Save as type:	Measurer	ment results (*.ant	data)	•	Cancel

14: Then click on [Save] in the lower right corner ------ **^**

15: Before continuing, let's check to be sure the 20m data file was uploaded to the computer. Open Windows Explorer and scroll to the folder where it was to be saved:

📜 📝 📜 🔻 6-DEC-2020						
File Home Share View						
\leftarrow \rightarrow \checkmark \uparrow 📜 \Rightarrow This PC \Rightarrow Do	cun	nents > Spiderbeam	SWR Curves > 6-DE	C-2020		
🗙 📔 Documents	^	Name	Date modified	Туре	Size	
📙 2-Tube RX		^ĭ 💷 20m	06/12/2020 17:30	ANTDATA File		6 KB
📜 Custom Office Templates						
🔉 📜 DK3BI Regen						
📜 FA Article						
📜 FET-Regen3						
📜 My Kindle Content						
📜 SDRplay RSP2	_					
🗸 📙 Spiderbeam SWR Curves						
📙 6-DEC-2020						
📜 TomTom						

As you see, the 20m data file is now in the computer. **RETURN TO AntScope.**

16: Click on the little green analyzer icon in the menu (top left) again, then select the next band (i.e., 17m):



Then open it by clicking on [Choose].

17: Now an SWR scan of the 17m band opens:



18: Save this band's data to the computer: Click on the floppy disk (as in instruction #12 above). This time the Windows Explorer will open up directly into the folder where you are saving your data:

ቺ <mark>ם</mark> Save As					×
Save in	: 6-DEC-2020	D	- +	🗈 💣 🎟 -	
Quick access Desktop Libraries This PC	Name T	^	Date modified 06/12/2020 17:30	Type ANTDAT	4 File
	<				>
	File <u>n</u> ame:	20m		•	Save
	Save as type:	Measuremen	t results (*.antdata)	•	Cancel

NOTE: It is initially showing the filename of the previous stored file - in this case "20m". **YOU MUST CHANGE THE FILENAME BEFORE SAVING.**

19: Change the "File name" to "17m":

۲ Save As					×
Save in	n: 6-DEC-202	0	▼ ← [1 📩 📰	
Quick access Desktop Libraries This PC	Name Y <mark>a</mark> 20m	^	Date modified 06/12/2020 17:30	Type ANTDAT	ſA File
Network	< File name:	17m		-	Save
	Save as type:	Measuremer	nt results (*.antdata)	-	Cancel

20: Let's check our folder again and make sure that the file has saved:



21: Return to AntScope, Click on the little green Analyzer Icon, and select the next band (i.e., 15m), then click on [Choose]. Now the 15m band opens:



Save as before. (Don't forget the change the "File name" BEFORE saving).

- 22: Repeat this sequence for the remaining bands (i.e., 12m and 10m).
- 23: Finally, let's check and make sure all 5 bands were saved:

📕 🛃 🍹 6-DEC-2020					_		×
File Home Share View							~ ?
← → × ↑ 📜 · Spiderbeam	SWR	Curves > 6-DEC	-2020 🗸	Ū	, [⊘] Sear	ch 6-DE	C-2020
The Documents	^	Name	Date modified	Тур	be	Size	
📜 2-Tube RX		^ĭ 🎟 10m	06/12/2020 17:57	AN	TDATA File		6 KB
Custom Office Templates		^ŭ 🎞 12m	06/12/2020 17:56	AN	TDATA File		6 KB
📙 DK3BI Regen		^ŭ 🎞 15m	06/12/2020 17:56	AN	TDATA File		6 KB
📜 FA Article		^ŭ 🎞 17m	06/12/2020 17:50	AN	TDATA File		6 KB
📜 FET-Regen3		¹⁽ 111 20m	06/12/2020 17:30	AN	TDATA File		6 KB
📜 My Kindle Content							
📜 SDRplay RSP2							
📜 Spiderbeam SWR Curves							
6-DEC-2020							
📜 TomTom	~	<					>
5 items							
Voila!							

NOW TURN OFF THE ANALYZER (to save batteries).

WORKING WITH AntScope:

Make sure that the analyzer is unplugged from the computer, then restart Antscope. You will first get a message screen:



The AntScope Start Screen opens, but does not show the green Analyzer Icon:



Let's look at one of our previously saved files:

1. Click on the Open Folder Icon (\square) in the top left menu.

Normally the Windows Explorer will open to the folder in which you last saved or viewed files in AntScope:

Look in	: 6-DEC-2020	-	🗈 💣 🎟 🛪
4	Name	Date modified	Туре
	10m	06/12/2020 17:57	ANTDATA File
AUICK access	Ψ <mark></mark> 12m	06/12/2020 17:56	ANTDATA File
	Ψ <mark></mark> 15m	06/12/2020 17:56	ANTDATA File
Deskton	Ψ <mark></mark> 17m	06/12/2020 17:50	ANTDATA File
-	Ψ <mark>∎</mark> 20m	06/12/2020 17:30	ANTDATA File
Libraries			
This DC			
Network	<		
	File name:		▼ <u>O</u> pen
	Files of types		Canaal

If Explorer opens to some other location, browse to the folder in which you previously saved your files. (i.e., C/Documents/Spiderbeam SWR Curves/6-DEC-2020)

2. Select the data file for the band you wish to view (i.e., "20m") by clicking on the file; then click **[Open]**.

3. The SWR curve across the 20m band opens; if it opens to some other screen, click on "View" (top left) and select "SWR". See curve on next page . . .



Note that this is the same as we have previously viewed when saving files.

COMMENT: The AA-54 saves 100 data check points with each scan. By a scan width of 1 MHz, that is one check point every 10 kHz.

4. Now let's look at the impedance of the antenna at its point of minimum SWR. To do this, slide the cursor horizontally across the graph by moving the mouse left or right, until you come to the point of minimum SWR; a tiny pop-up window opens:



Continued on the next page . . .

Each time you stop moving the mouse, it opens a pop-up window, showing the impedance and other parameters at that frequency. In this example, SWR minimum occurs at 14.160 MHz, and the impedance is: Z = 59.5 + j 36.6 Ohm.

If you wish to save this information, you can make a screen shot, then in Microsoft PAINT (or similar) CROP the little yellow box:

```
Fq = 14.160 MHz
SWR = 1.97
Return loss = 9.69 dB
Z = 59.5 + j36.6 Ohm
|Z| = 69.9 Ohm
Phase = 31.6 °
L = 411 nH
Zpar = 82.1 + j133.5 Ohm
Lpar = 1500 nH
```

5. To view another band, click the little "Open Folder" icon in the menu (top left), click on another band, and then click [Choose]. (i.e., "15m"):



Once again, I remind you that the SWR curves shown in this document are not taken from a Spiderbeam Yagi, but rather from Spiderbeam's "Aerial-51 Model 807-HD" OCFD antenna. The curves shown here differ from that of a Spiderbeam Yagi, but the procedure is the same.

[END]