

NSM Tools Management System User Manual



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Version history

Date	Version	Version description
2017-09-15	1.0.1	System Release
2017-10-18	1.0.2	Adding Function &optimized interface
2017-03-05	1.0.3	Adding Function

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1 NSM Tools Starting UP

1.1 Login

Select the program language and fill in your account and password(Please ask the salesman if not provided)

There are two default account:

1. Account: **admin** ; initial password : 123456

2. Account: **test** ; initial password : 123456

The admin account has a free use deadline for 7 days(support ARS408 connection). Please send machine code to Nanoradar salesman to acquire authorization Code after the deadline. The admin account has no use deadline(do not support ARS408 connection)



Fig1-1 Login Interface

1.2 Radar Connection (TCP)

Step 1: Select radar model. Please select **【NSR-Series】**, if you buy SP100 (**NSR100**), SP100W (**NSR100W**) , SP300W (**NSR300W**) ;

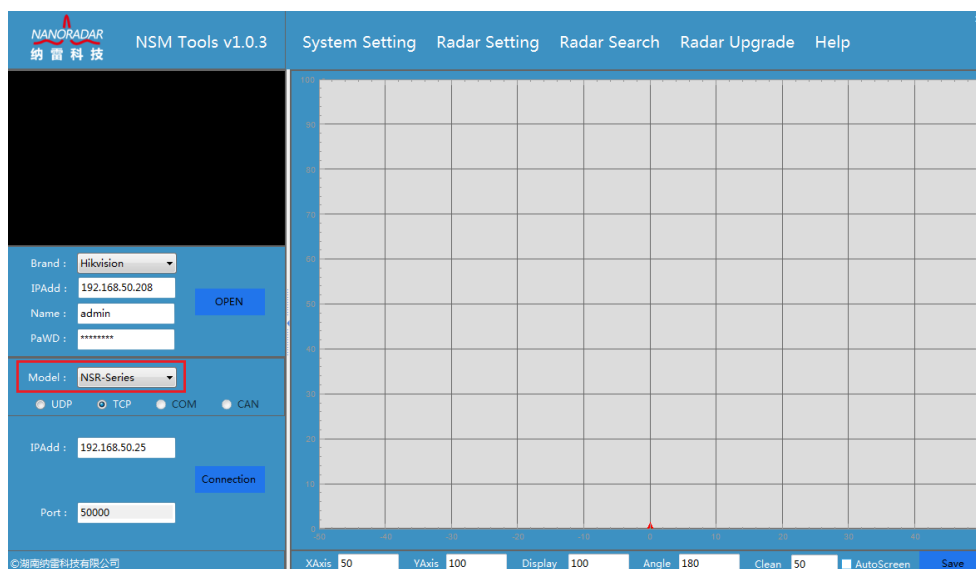


Fig1-2 TCP/UDP Connection

Step 2: The program will automatically display available connection mode according to the radar model selected. As shown in fig.3 : [NSR-Series] can use UDP and TCP connection mode, Please set UDP for **SP100 (NSR100)** , while set TCP or UDP for **SP100W (NSR100W)**, **SP300W (NSR300W)** can use TCP or UDP mode;

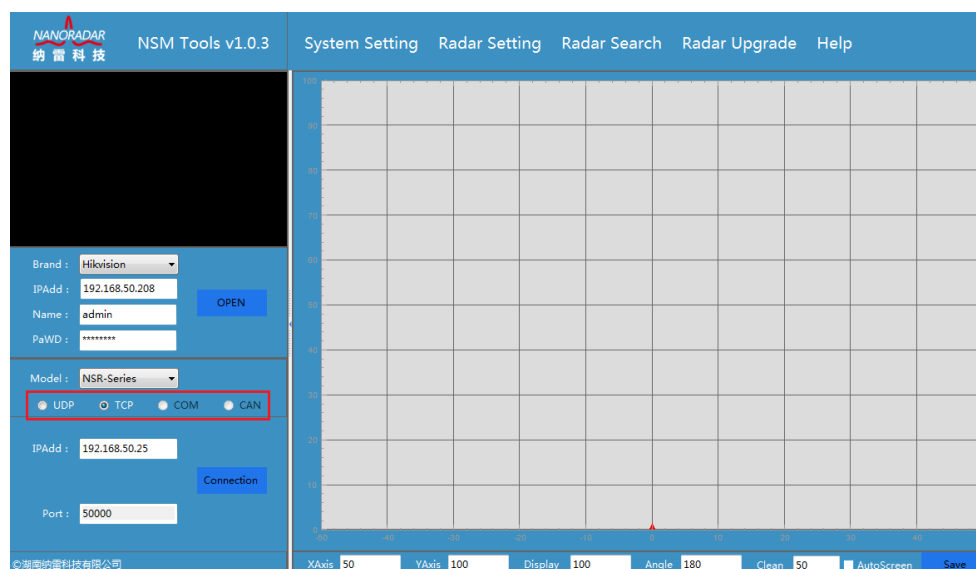


Fig 1-3 Connection Mode Selection

Step 3: Fill in the radar IP address, default UDP radar port : 8100, default TCP radar port : 50000. **Please do not change the port number** and kindly refer **【radar search】** if you do not know the radar IP address.

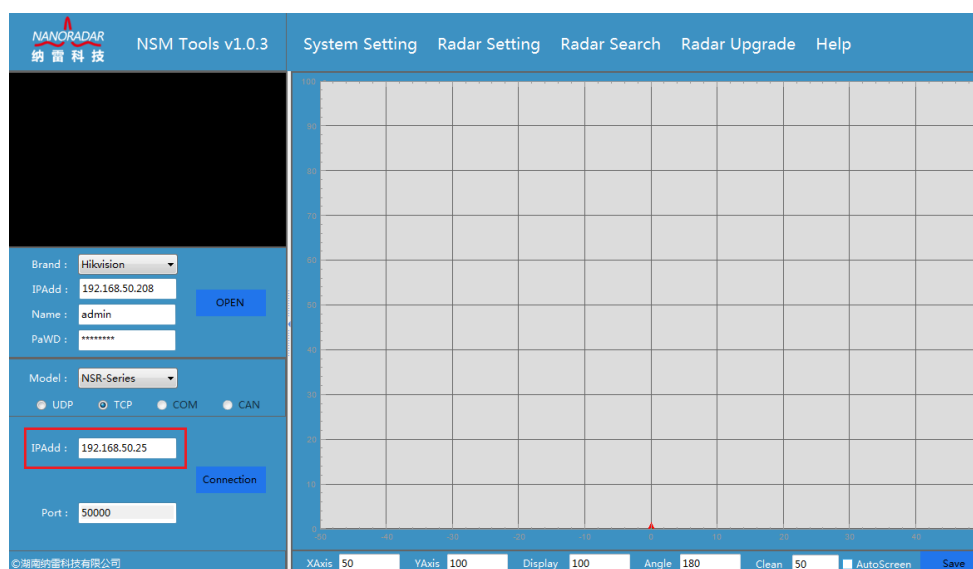


Fig 1-4 Select Radar IP Address

Step 4: Click **【Connect】**, the target display area will show target detected. Make sure IP of radar connected is in the same network of the computer.

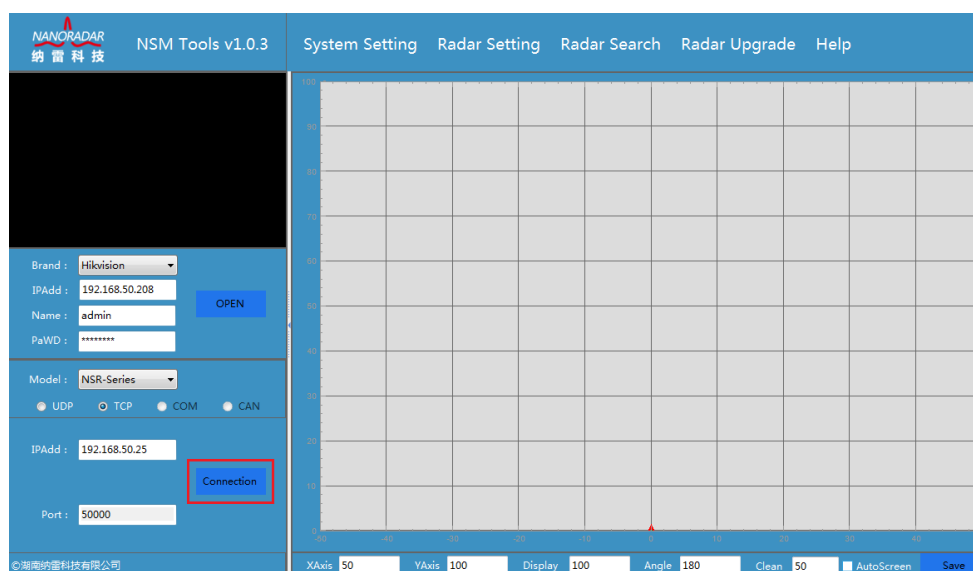


Fig 1-5 Radar Connection

Step 5: As shown in Fig 1-6, target ID:4718,A(angle)=-22.78°,R (range) =87.33m.

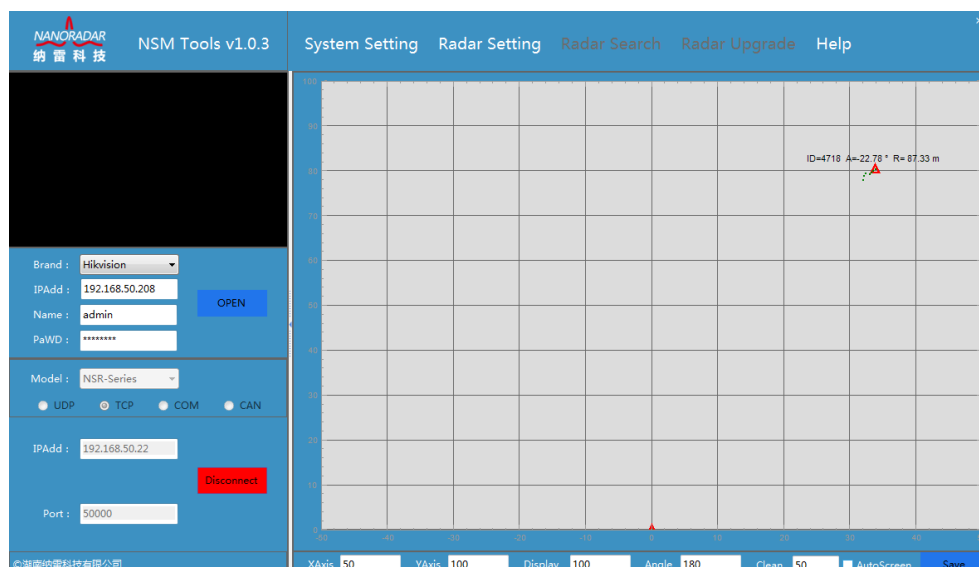


Fig 1-6 Target Information Display

1.3 Radar Connection (CAN)

Step 1: Select radar model. Radars support CAN connection are below: NRA24, CAR70, CAR150, CAR150T, ARS408.

For example, ARS 408 only support CAN connection as shown in Fig 1-7:

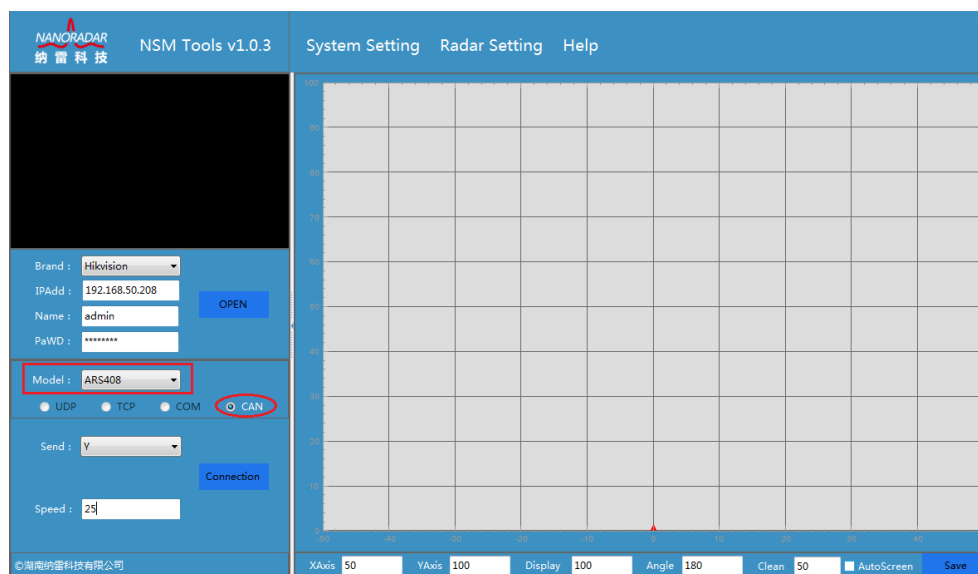


Fig 1-7 ARS408 CAN Mode Connection

Step 2: click **【Connect】**, the target display area will show target detected.

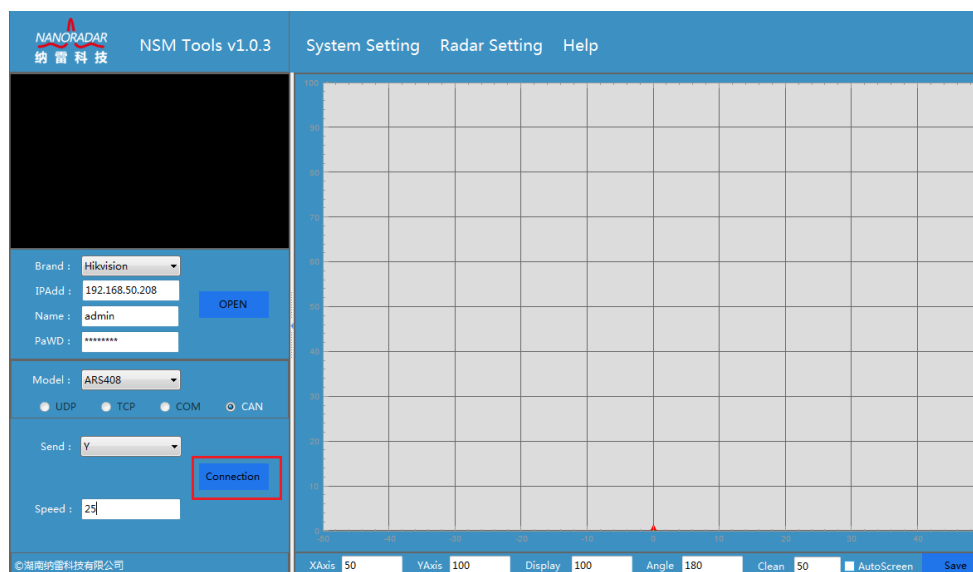


Fig 1-8 Radar Connection

Step 3: Click Radar Settings and select ARS408, target type can be set.

Target type: **ALL; MOVING; ONCOMING; STATIONARY; CROSS STATIONARY; CROSSING;**

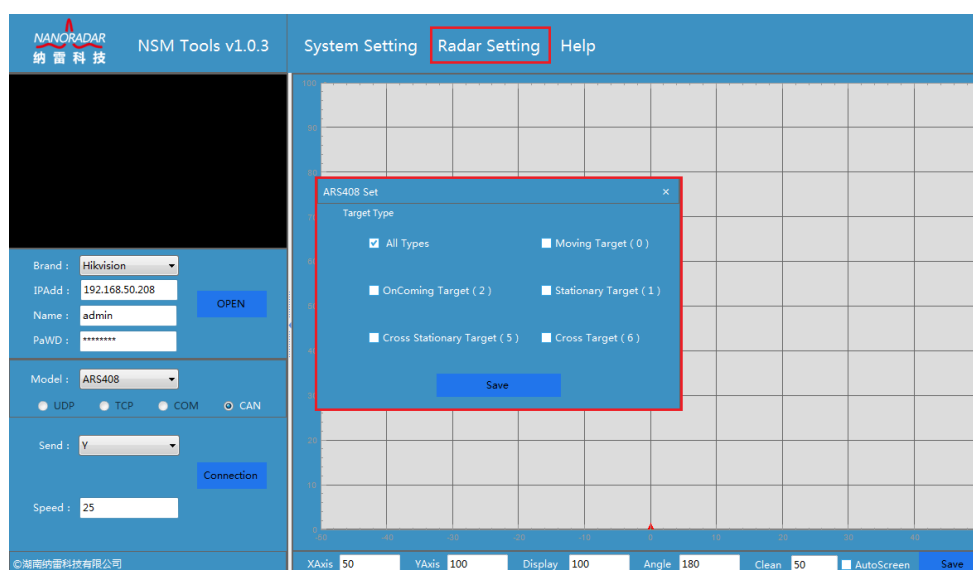


Fig 1-9. Target Type Setting

1.4 Radar Connection (COM)

Step 1: Select radar model. SP25、SP70C support CAN and COM connection mode as shown in fig.11. When radar is connected to the computer, the system will automatically recognize the serial Num. , then set correspondingly and automatically, as well as memorize the serial Num. Default baud rate: 115200, Data bit: 8, Check Digt: none; 1 Stop Bit: 1.

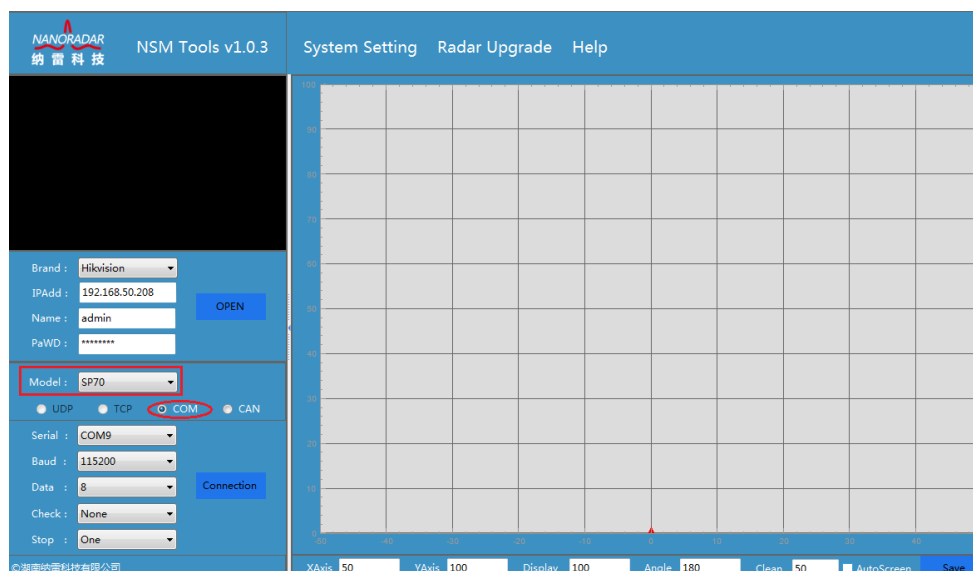


Fig 1-10 COM Mode Connection

Step 2: click **【Connect】**, the target display area will show target detected.

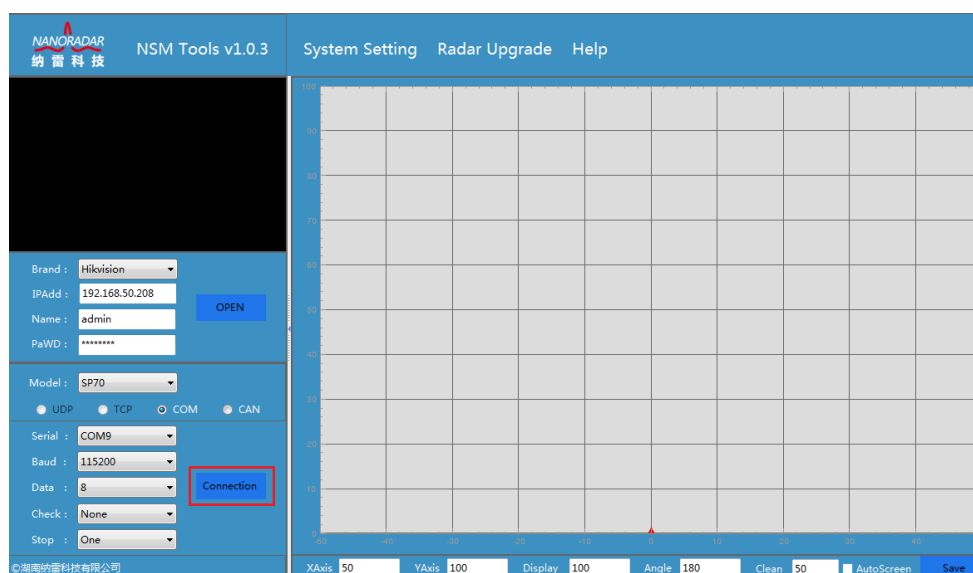


Fig 1-11. Radar Connection

Step 3: If radar connected, click the **【disconnect】** to break connection between radar and the system.

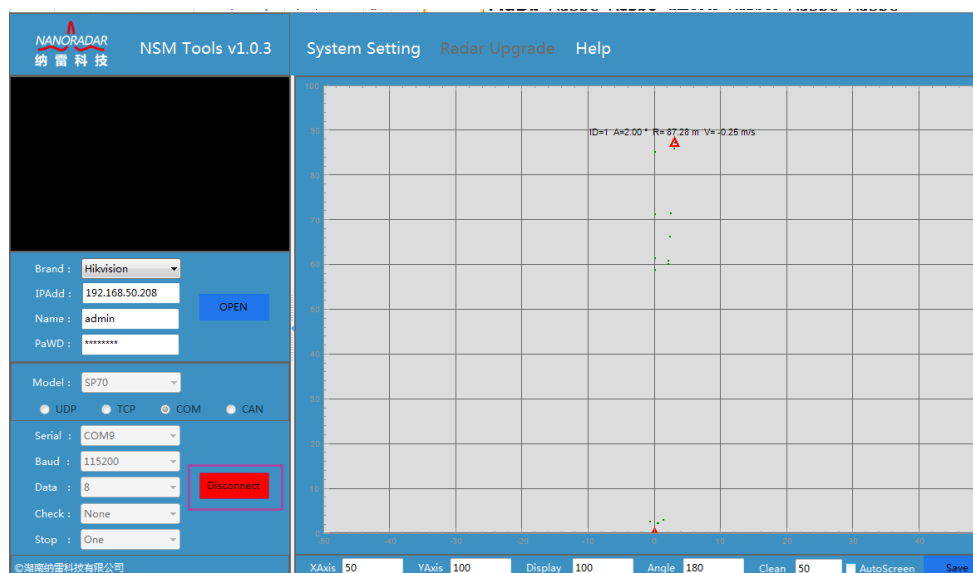


Fig 1-12 Disconnect Radar

2 Function Introduction

2.1 System Setting

2.1.1 Modify Login Password

Click System settings and select modify password option, dialog box display as in Fig 2-1. Put in Current Password, New Password, Repeat Password, then click **【Confirm】**; The system will restart after successful if password modified successful.

The password can be combination of Arabic numerals and alphabet of 6 to 15 digits.



Fig 2-1 Modify Password

2.1.2 Target Data Saving

Click System settings and select target save option , dialog box display as in Fig 2-2. Tick **Save Target Data** if you demand. File size set interval is **【1-49】** . Please do not set the large file size to avoid opening the file for too long.

Target data is saved in NSM_Data file under storage path by default.

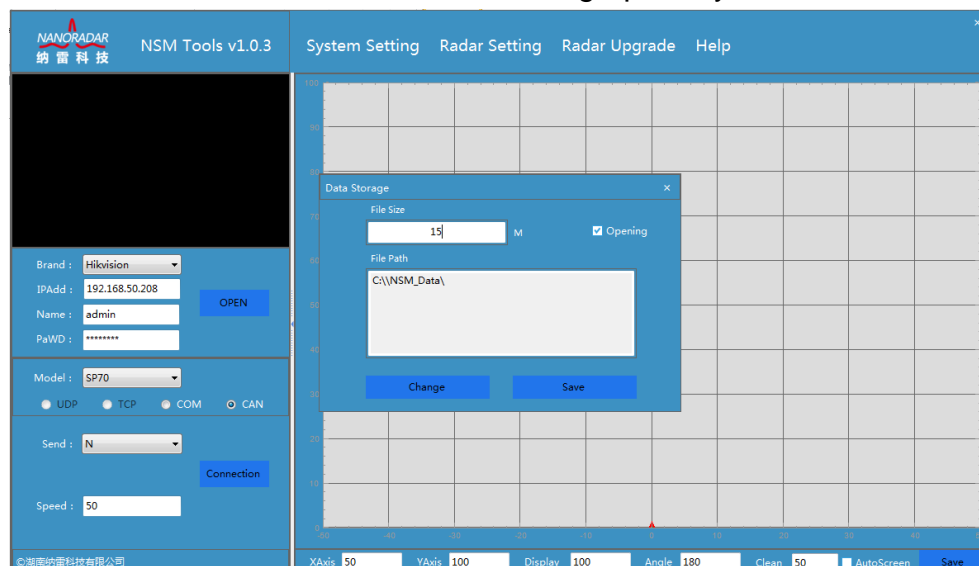


Fig 2-2. Modify Target Data Saving Path

2.1.3 Display Settings

Click System settings and select Display Settings option , dialog box display as in Fig 2-3. X-axis range and Y-axis range is **【200-500】** . Angle range is **【0-180】** . Click **【Confirm】** to save the setting if filled in.

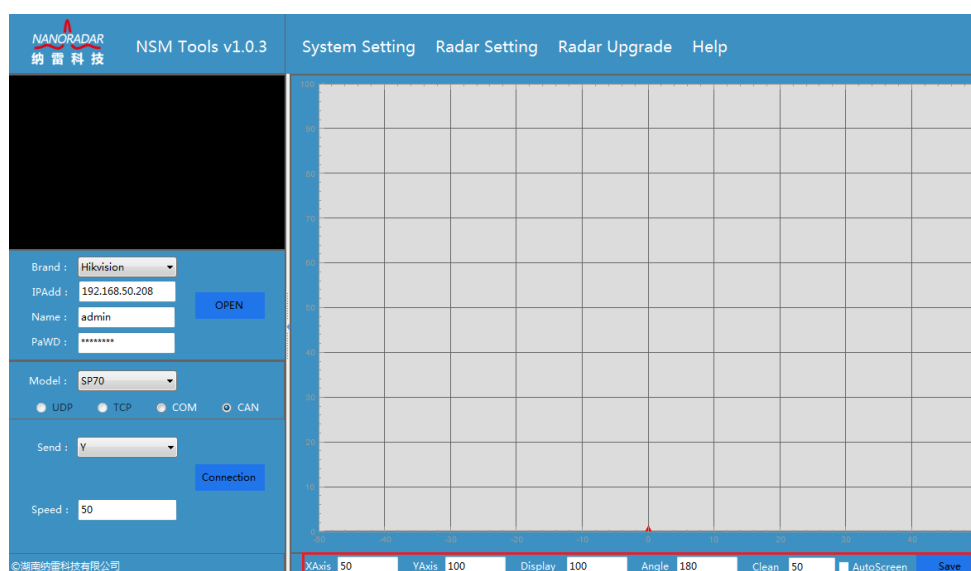


Fig 2-3. Display Settings

2.2 Radar Settings

2.2.1 ARS408

Only Login account admin support ARS408 settings.

Target type: ALL; MOVING; ONCOMING; STATIONARY; CROSS STATIONARY; CROSSING;

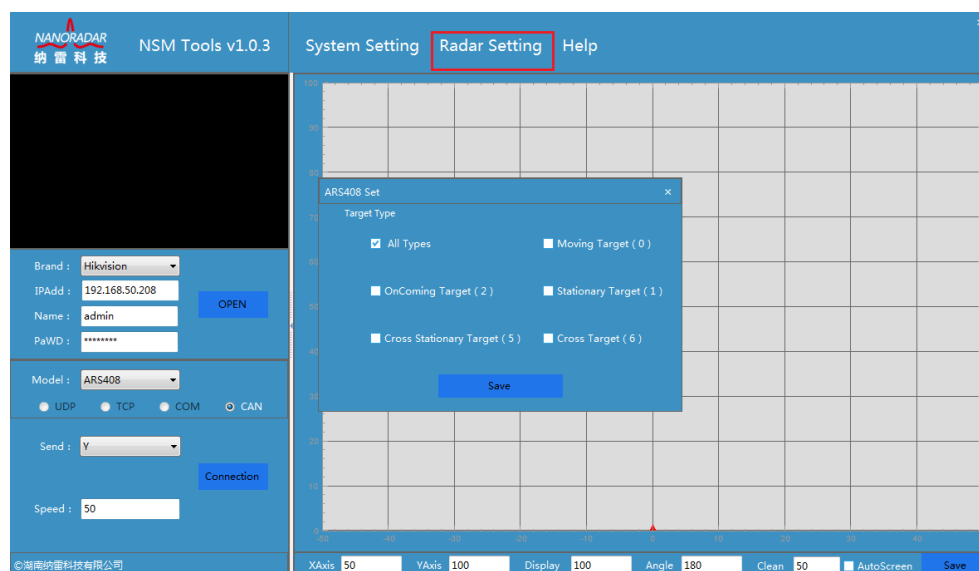


Fig 2-4 Modify ARS408 Target Type Display

Note: Default setting of ALL is mutual exclusive to other target types. Please select other target types separately.

2.2.2 Radar ID Modify

This function is available when the radar connection mode is CAN. The radar ID setting range is 0 ~15.

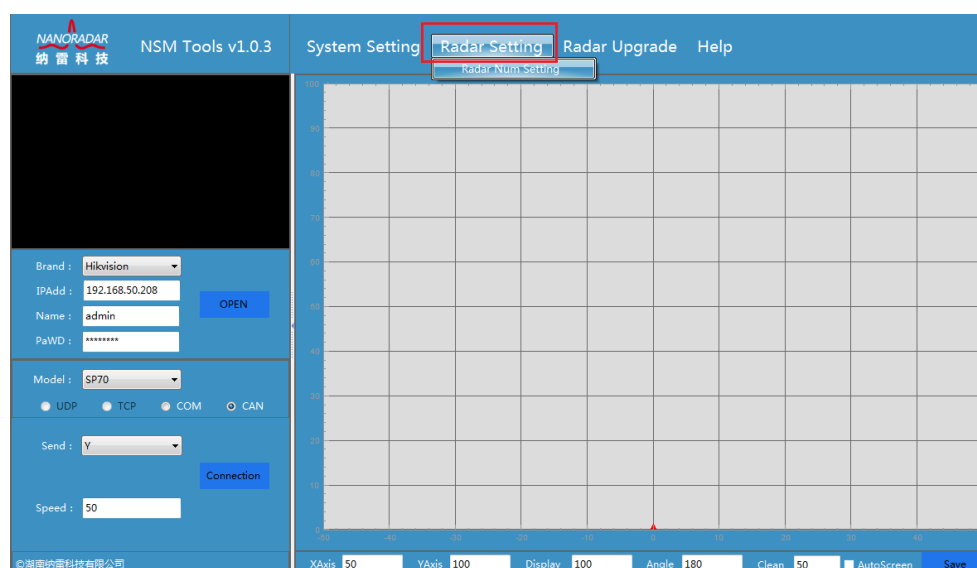


Fig 2-5 Select Radar with CAN Interface

Click radar setting and select Radar ID Modify option, dialog box display as in fig.2-6. Fill in radar ID and click save.

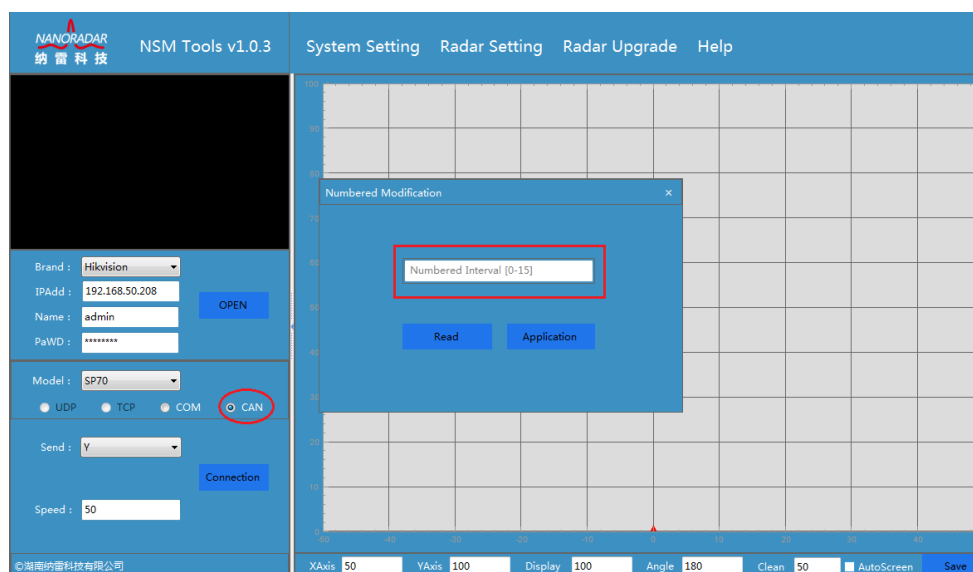


Fig 2-6 Radar ID Settings

2.2.3 NSR-Series

When radar connected belongs to **【NSR-Series】**, this function is available.

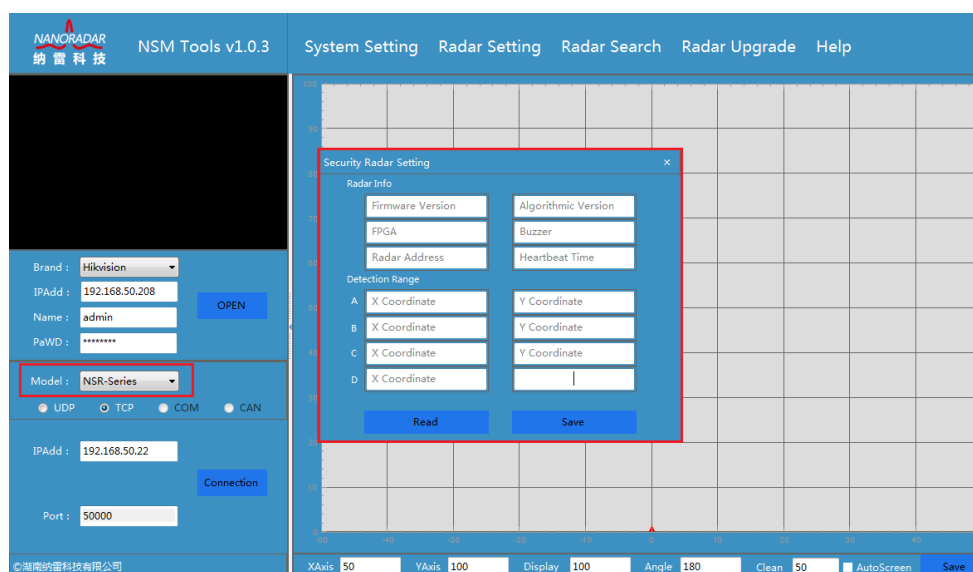


Fig 2-7 Select **【NSR-Series】** Model

Click the **【Read】** in NRS settings menu can view the radar info, radar detection range, heartbeat time and probe range. Please refer to Fig 2-8, when modifying the probe range.

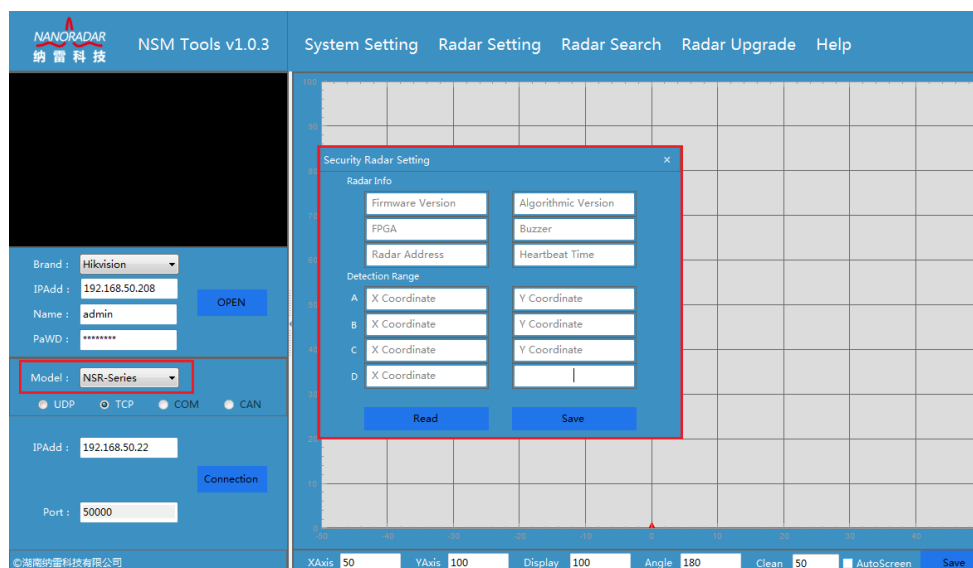


Fig 2-8 NSR Radar Probe Range Setting

The probe range is formed by four points as a rectangle , Point A, B, C, D, locates as below:

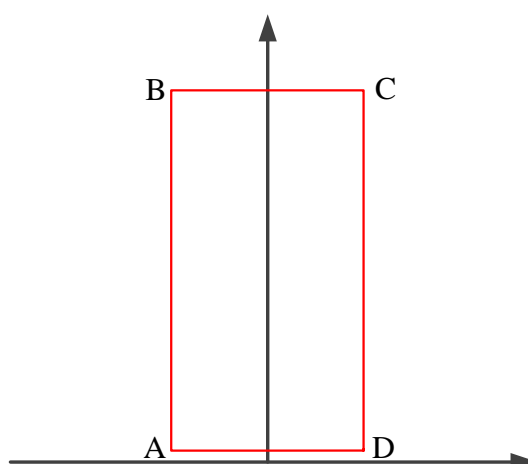


Fig 2-9. Probe Range Point Illustration

2.3 Radar Search

Step 1: Select Radar model as **【NSR-Series】** as Fig 2-10, click **【radar search】** .

Please turn off the computer firewall, or else, radar could not be detected.

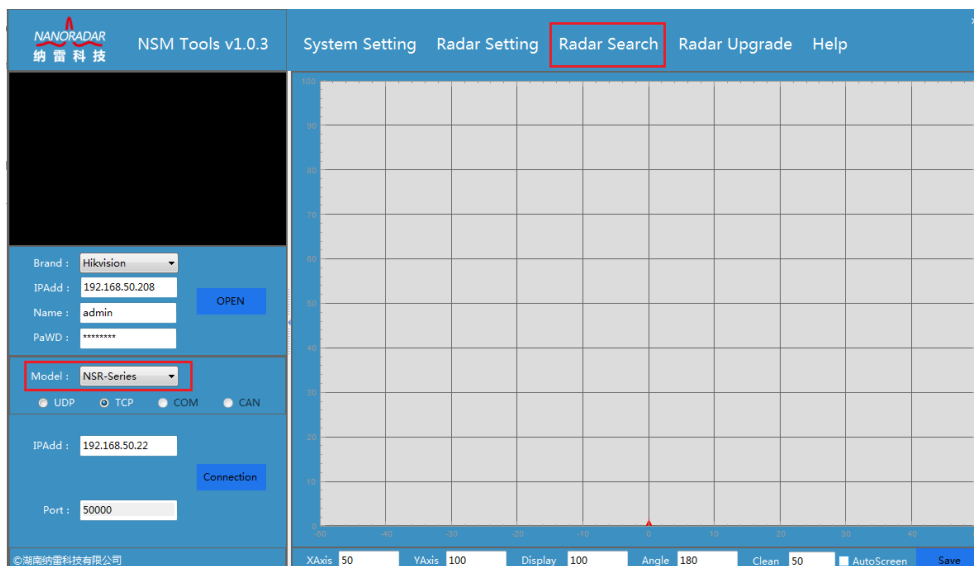


Fig 2-10 Radar Search

Step 2: Select the radar will be connected, double-click the corresponding radar IP, then click **【Confirm Return】**, the system will automatically set the optimal connection mode according to radar model.

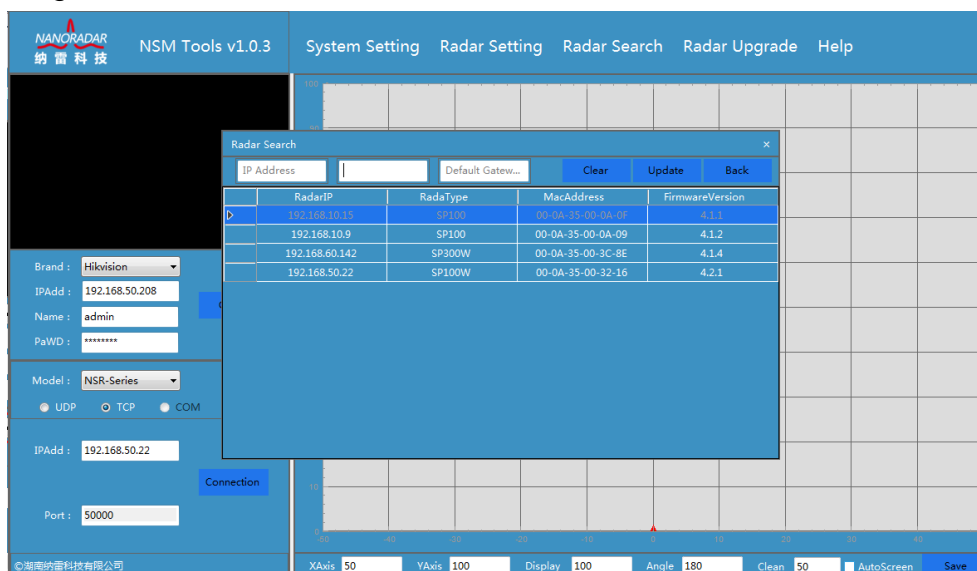


Fig 2-11. Select Radar to be Connected

Radar IP address can also be modified as in Fig 2-12. Select the radar IP and fill in new IP address, then click **【Modify IP Address】** to save setting. The radar needs Reboot after the setting.

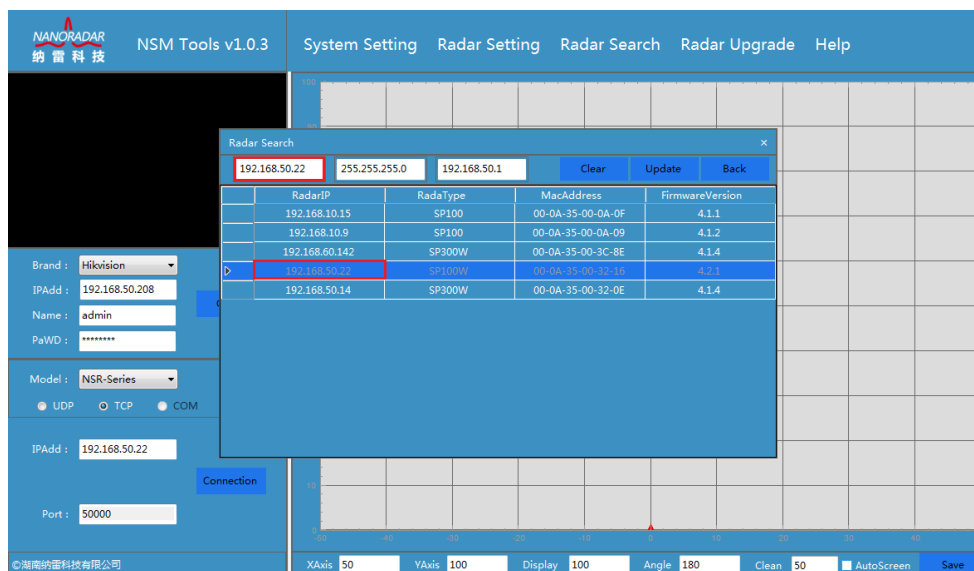


Fig 2-12 Modify Radar IP Address

Reconnect the radar after modify radar IP address.



Fig 2-13 Radar Connection

2.4 Radar Upgrade

Click **【Radar Upgrade】**, dialog box display as in Fig 2-14, please refer to Radar Upgrade Tools User Manual for details.

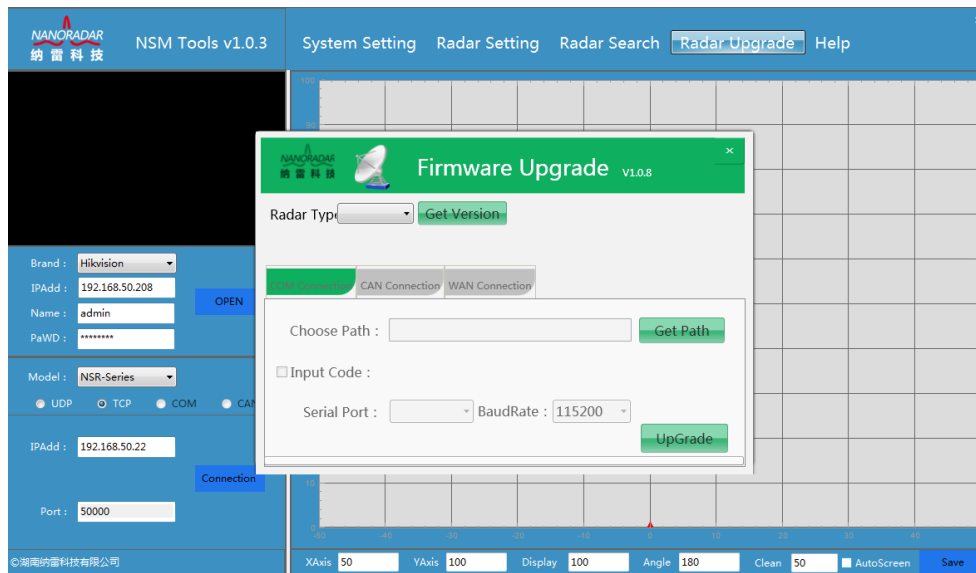


Fig 2-14 Radar Upgrade

2.5 System Authorization

When the admin account expires, but you still want to use it, please click **【Machine Code】** to get a code and send it to your salesman(please confirm the number of days to continue to use). We will offer a authorization file with the Machine code .

Please **import** the file, and click **【Confirm】** .

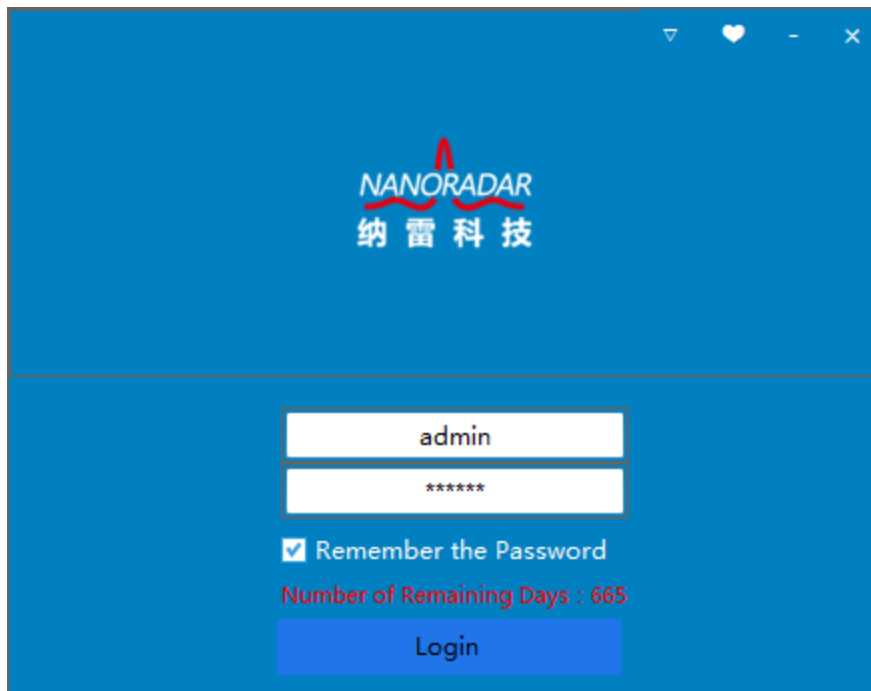


Fig 2-15 System Authorization

2.6 Video Monitor

The system currently supports connection with web camera from Hikvision and Dahua. Please select camera manufacturers and fill in camera IP address, user name, password, then click **Open**.

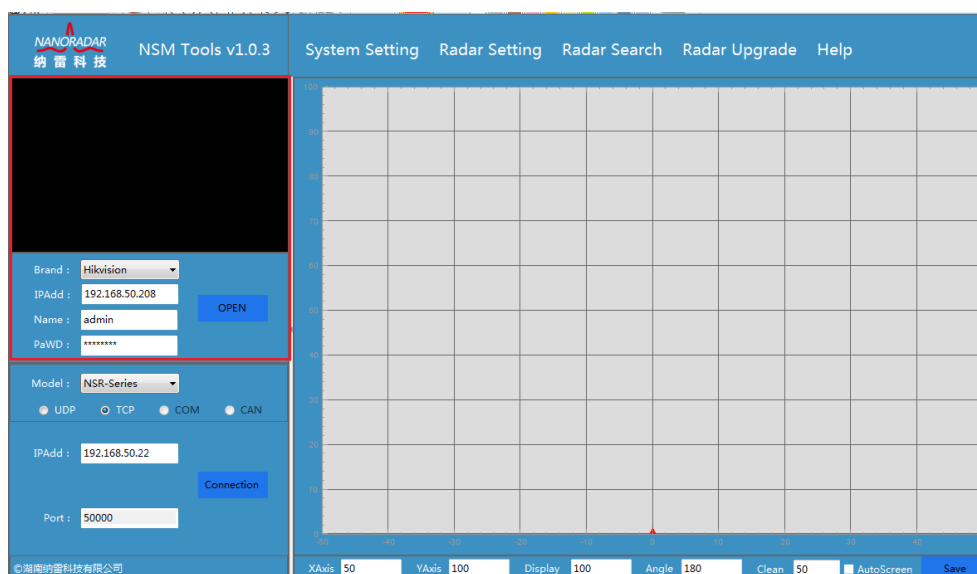


Fig 2-16 Video Monitor Interface

2.7 Help

Click Help to get NSM Tools System Management User Manual.

3 System Configuration Requirements

3.1 Software

Microsoft .Net Framework 4.0 and version above

The installation-free version requires manually installation. Net Framework 4.0 and version above.

3.2 Hardware

The system requires computer configuration as shown below. Low configuration will be unable to start the system, or lead to stuck phenomenon.

Minimum Equipment		Recommended Configuration	
OS	Windows7 SP1 / 8 / 8.1 / 10	OS	Windows7 SP1 / 8 / 8.1 / 10
CPU	Intel Core i3530 / AMD	CPU	Intel Core i5 4590 / AMD FX8300

	Phenom II X4925		
RAM	4GB	RAM	8GB
Hard Disk	8 GB	Hard Disk	8GB
GPU	NVIVIA GeForce 590 / AMD Radeon HD 6990 / Intel HD Graphics 4400	GPU	NVIVIA GeForce 1080Ti / AMD Radeon R9 295X2 / Intel HD Graphics 7000
Sound Card	DirectX compatible audio card	Sound Card	DirectX compatible audio card
DX	DirectX 9.0c	DX	DirectX 9.0c

Fig 3-1 Hardware Configuration Requirement

3.3USBCAN Adapter

When connect CAN interface radar with the system, please use specified USBCAN adapter, and install driver, as shown below:



Fig 3-2 USBCAN Adapter

Note:

NSM Tools installed, there are USBCAN adapter win2000_xp_win7-32 and win7-64 driver in the Driver folder.

1) It will display no driver if the USBCAN adapter connect to the computer first time, as shown below:

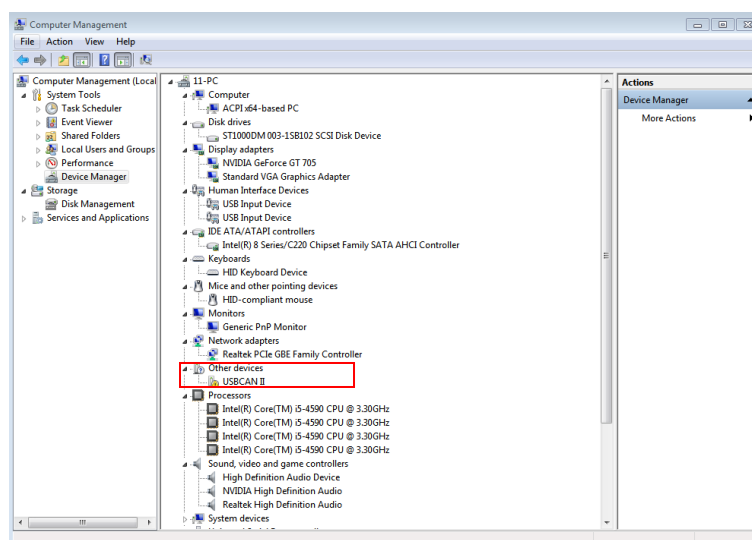


Fig. 3-3 No USBCAN Adapter Driver Interface

Click **USBCAN II**, dialog box displays as below, please click **Update Driver Software**.

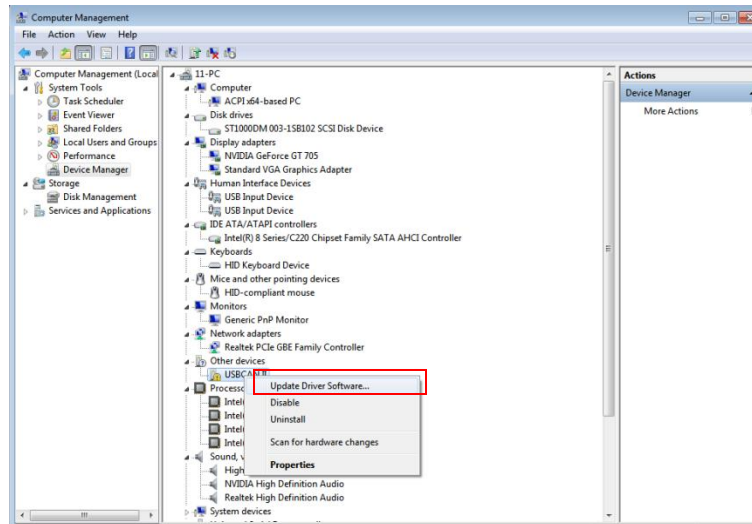


Fig. 3-4 Update Driver Software

3) Select **Browse my computer for drive software**.

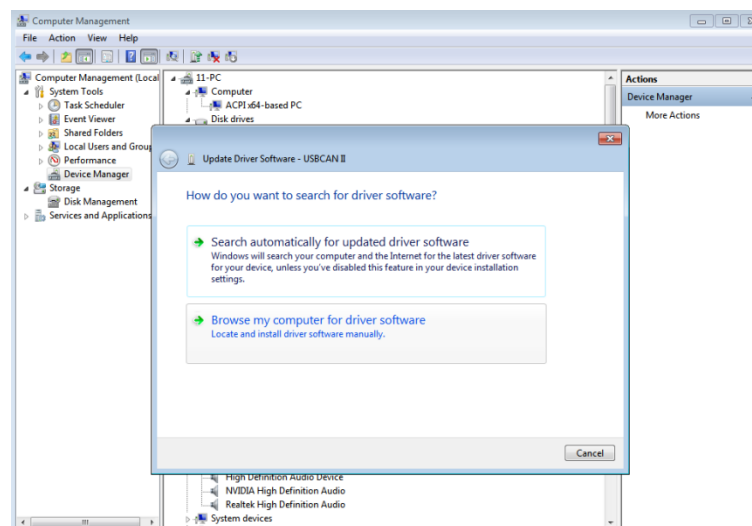


Fig. 3-5 Search Driver Software

4) Select corresponding driver software path, which is in **Driver folder** under NSM Tools installation path.

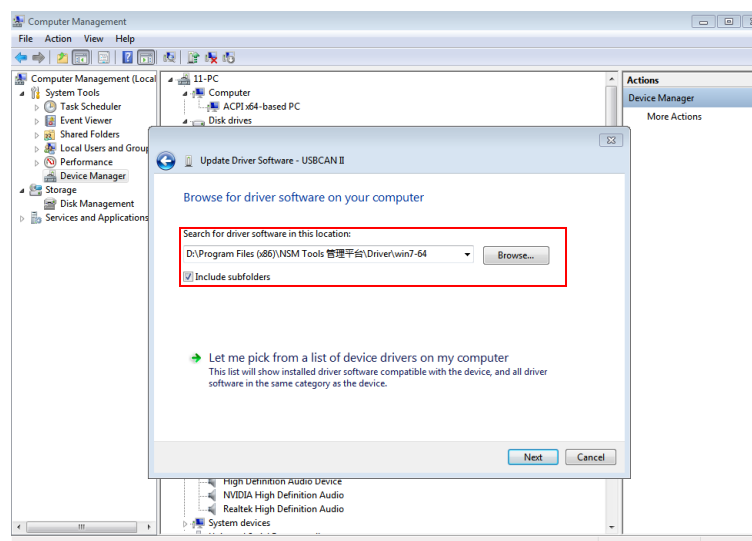


Fig. 3-6 Search Driver Software

4) Click **Next** until finish installation. Installation is finished when dialog box comes as below:

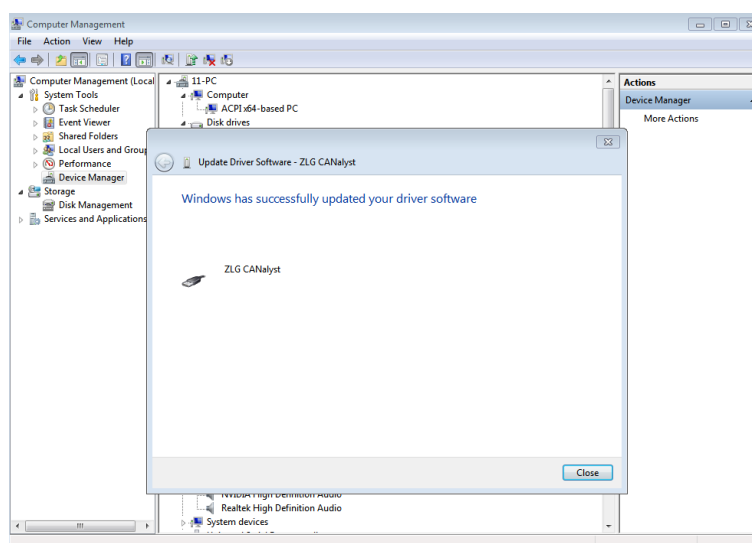


Fig. 3-7 Installation finished

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