

— Ekinox & Apogee Series

High Performance Inertial Systems

Quick Start Guide



Document
Revision

AEKQSG
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Following instructions will help you to start quickly with your new Ekinox, Ekinox 2, or Apogee Device. Please read and follow it carefully before plugging the device or installing software.

Content of a Software Development Kit

Provided through a USB stick, the SDK will contains software tools and documentation for quick and easy use of an Ekinox or Apogee sensor:

- sbgCenter analysis tool
- sbgECom C library
- Sample codes in C
- Full documentation including Firmware manual, Technical Reference Manual and Hardware manuals

Software development Kit Installation

- Plug the USB Stick
- launch the Inertial SDK executable
- follow the instructions.

Once installed, the Ekinox / Apogee will be visible in your network thanks to the zero conf protocol,

To connect on your device web page, simply type the following address in your web browser:

http://ekinox_020000001.local, where 020000001 is your device serial number (type http://apogee_xxxx.local or http://ekinox2_xxxx.local. If you have an Apogee or Ekinox 2).

Please note the final dot (.) in the http address.

*In case you did not install the SDK, make sure the **Bonjour Service** is running on your computer.*

For best experience, SBG Systems recommends the following web browsers to be used:

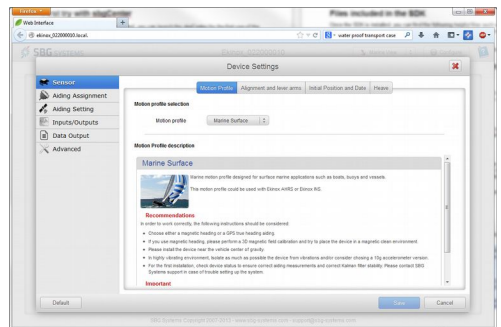
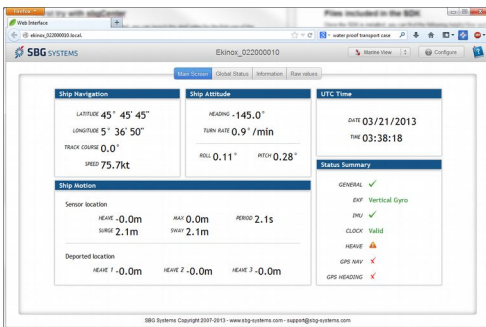
- Chrome / Safari
- Firefox
- Internet Explorer 9 or higher

Getting Started with the Ekinox / Apogee

There are several ways to make use of your new Ekinox or Apogee. The most important ones are the following:

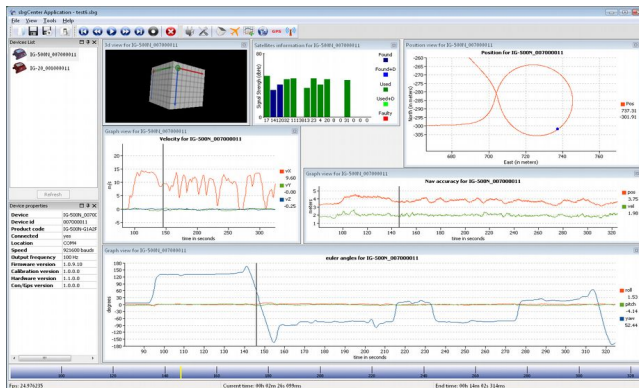
Configure through the Web interface

The web interface provide full access to the INS for information and configuration.



Record and Analyze with the sbgCenter

The sbgCenter allows to record logs and to analyze graphs of the data over time. It also provides data import and export features.



Interface with third party software and systems

The INS is compatible with most popular survey software suites such as Qinsy, Hyapck, or PDS2000 using their dedicated driver.

In addition to specific driver developed, the Ekinox and Apogee series are compatible with a wide range of third party devices thanks to the support of NMEA protocol as well as other protocols (ie; TSS1, SIMRAD, ...). This enables seamless integration into existing systems using those protocols.

Communicate with the sbgECom library

A convenient way to interface an Ekinox / Apogee with C programs is to use the sbgECom library. With simple C functions, you can retrieve the device's output very quickly. Library source code is provided with example to help you to start.

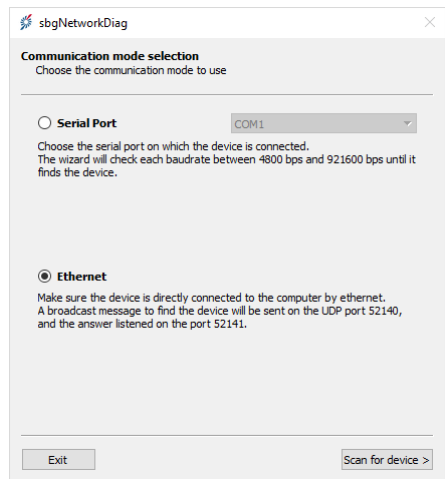
Reconfigure network with sbgNetworkDiag

This tool is intended to reconfigure easily your Navsight network settings without affecting other parameters.

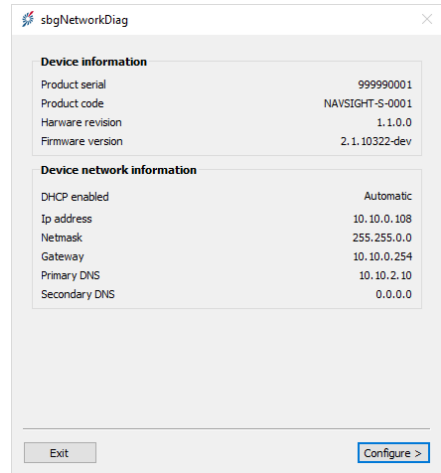
Step 1, connect to your system (Ethernet or Serial)

You can use either a direct Ethernet connection to your PC (Leaving the Navsight system on a network is not recommended for this step).

Alternatively, it is possible to use this tool through a UART connection on Navsight PORT A, B or C.



When a device is detected, sbgNetworkDiag lists the main device information and its current network configuration.



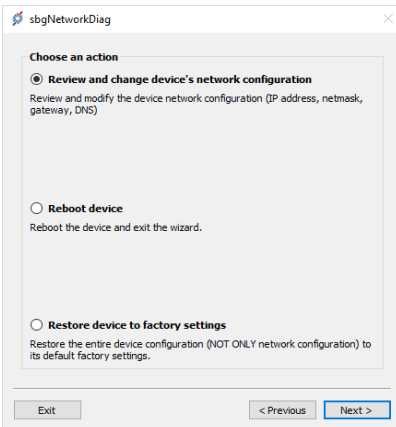
The screenshot shows the 'sbgNetworkDiag' window with two sections: 'Device information' and 'Device network information'. The 'Device information' section lists: Product serial (999990001), Product code (NAVSIGHT-S-0001), Hardware revision (1.1.0.0), and Firmware version (2.1.10322-dev). The 'Device network information' section lists: DHCP enabled (Automatic), Ip address (10.10.0.108), Netmask (255.255.0.0), Gateway (10.10.0.254), Primary DNS (10.10.2.10), and Secondary DNS (0.0.0.0). At the bottom, there are 'Exit' and 'Configure >' buttons.

Device information	
Product serial	999990001
Product code	NAVSIGHT-S-0001
Hardware revision	1.1.0.0
Firmware version	2.1.10322-dev

Device network information	
DHCP enabled	Automatic
Ip address	10.10.0.108
Netmask	255.255.0.0
Gateway	10.10.0.254
Primary DNS	10.10.2.10
Secondary DNS	0.0.0.0

Step 2, reconfigure the network or restore settings

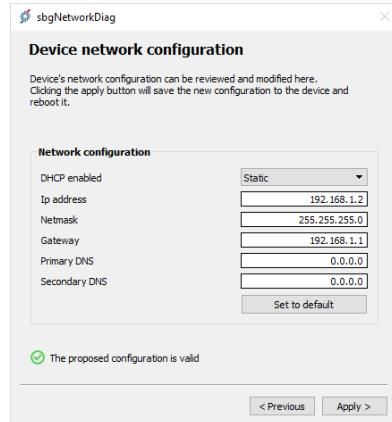
Once connected, you have the possibility to setup Navsight Ethernet configuration or revert it to defaults. You can also revert all settings to factory defaults and simply reboot the unit.



The screenshot shows the 'sbgNetworkDiag' window with a 'Choose an action' section. It has three radio button options: 'Review and change device's network configuration' (selected), 'Reboot device', and 'Restore device to factory settings'. Each option has a brief description. At the bottom, there are 'Exit', '< Previous', and 'Next >' buttons.

Choose an action

- ☒ **Review and change device's network configuration**
Review and modify the device network configuration (IP address, netmask, gateway, DNS)
- ☐ **Reboot device**
Reboot the device and exit the wizard.
- ☐ **Restore device to factory settings**
Restore the entire device configuration (NOT ONLY network configuration) to its default factory settings.



The screenshot shows the 'sbgNetworkDiag' window with a 'Device network configuration' section. It includes a description, a 'Network configuration' section with a dropdown menu set to 'Static', and input fields for DHCP enabled, Ip address (192.168.1.2), Netmask (255.255.255.0), Gateway (192.168.1.1), Primary DNS (0.0.0.0), and Secondary DNS (0.0.0.0). There is a 'Set to default' button. A green checkmark indicates 'The proposed configuration is valid'. At the bottom, there are '< Previous' and 'Apply >' buttons.

Device network configuration

Device's network configuration can be reviewed and modified here. Clicking the apply button will save the new configuration to the device and reboot it.

Network configuration

DHCP enabled: Static

Ip address: 192.168.1.2

Netmask: 255.255.255.0

Gateway: 192.168.1.1

Primary DNS: 0.0.0.0

Secondary DNS: 0.0.0.0

Set to default

✓ The proposed configuration is valid

Find out more

You will find the full Ekinox / Apogee documentation within this Development Kit:

The Hardware Manual provides deep information about your INS features and explains in details how to install and use it.

The Operating Handbooks are a quick guides to install the unit in a specific application.

The Firmware Reference Manual provides low level protocol specifications as well as advanced features information.

Support

If you have any trouble or question with the use of your INS, feel free to contact our support team:

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