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NaturalPoint SmartNav

Users Manual version 3.20.034

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1 Introduction

1.1 Forward

Information in this Users Manual is subject to change without notice and does not represent a commitment on the part of NaturalPoint. The software described in this Users Manual is furnished under a license agreement and may be used only in accordance with the terms of said license agreement.

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1.2 About NaturalPoint

NaturalPoint Inc. is pleased to provide you with superior optical tracking devices, we hope that you enjoy using your NaturalPoint SmartNav.

NaturalPoint
33872 SE Eastgate Circle
Corvallis, OR 97333
Telephone: 541-753-6645
Fax: 541-753-6689
www.naturalpoint.com

2 Getting Started

2.1 Minimum System Requirements

- ◇ Windows 98SE, Windows ME, Windows 2000, Windows XP, Windows Vista
- ◇ Pentium 500 Mhz
- ◇ Five (5) megabytes of available disk space on your hard drive
- ◇ 64 megabytes of RAM
- ◇ USB 1.1 or 2.0 port

If you wish to use the Voice Clicking feature, the Minimum System Requirements are:

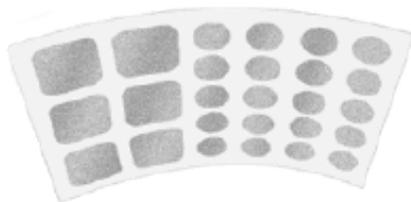
- ◇ Windows 2000/XP/Vista
- ◇ Pentium 600 MHz processor or faster
- ◇ 60 megabytes of available disk space on your hard drive
- ◇ 128 megabytes of RAM
- ◇ Audio Soundcard with speakers and microphone input jack

- ◇ Microphone or headset
- ◇ SmartNAV Software Version 3.20.028 or higher with Speech Support installer

2.2 What Is Included



1 SmartNav



26 Dots



Y-Split Adapter for Switch Input
(AT and EG models only)



Software CD

2.3 Installation

Install the SmartNav Software **BEFORE** you connect the SmartNav unit!

2.3.1 Hint for XP users

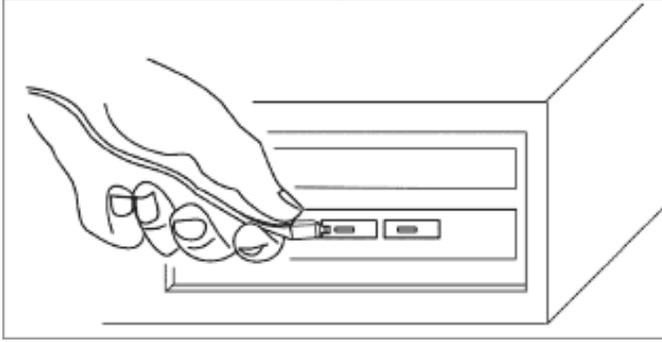
It is recommended that before installing any new hardware or software program that you set a system restore point. XP provides this feature to allow you to reset your system to a previous state very easily. After the software is installed and everything is working fine, set another restore point. Users that get into the habit of using this feature find they have fewer problems on their computers. The System Restore program can be found by clicking: Start/Programs/Accessories/System Tools/System Restore

2.3.2 Software Installation

NOTE: Windows 2000 and XP users must be logged in as an administrator. If you only have one user set up on your computer, you most likely already have administrator privileges.

1. Insert the included NaturalPoint software CD into your computer's CD drive. Wait for the install program to start. If the install program does not start within a few minutes, double click on the CD

- drive icon, and double click again on the Setup file, from your computer's My Computer menu.
2. Follow the software installation instructions on the screen.
Note:(Windows may display a warning message about the drivers not being signed. Click YES to accept the drivers, the drivers WILL NOT harm your system.
 3. A new SmartNav icon will appear on your desktop.
 4. Connect the SmartNav device to the USB port of your computer and place the unit on top of your monitor with the front facing the same direction as the monitor screen.



5. **The following are special steps for Windows XP users :**
6. The Windows XP Found New hardware Wizard should appear once you plug in your SmartNav .The Wizard will indicate that is has found the NaturalPoint SmartNav, and ask if you would like Windows to install drivers for the hardware automatically, or choose from a list of drivers in a specific location.
7. Select Install Automatically.
8. NOTE: A Hardware Driver Install Warning message will appear after you have selected Install Automatically. Click on the button labeled "Continue Anyway" and Finish. (This WILL NOT harm your computer).
9. Windows XP will now display a message indicating that it has finished installing the NaturalPoint SmartNav
10. It is recommended that you restart your computer after installation.
11. If you encounter further problems with this procedure, please consult the trouble-shooting guide at the end of this manual.

2.3.3 Special Note for XP Users

If you accidentally plugged the SmartNav unit into your computer before loading the NaturalPoint software and the camera is not working, unplug the SmartNav unit and go through the install procedure as instructed. After completing all of the above steps, go to the windows xp device manager, click on usb devices and look for a listing marked unknown usb device. If this listing appears, right click on unknown usb device and delete it. If the unknown usb device does not appear, you may close the device manager and begin using the SmartNav.

2.3.4 Virtual Keyboard Installation

SmartNAV AT Users looking for the Virtual On-Screen Keyboard. The On-Screen Keyboard is located on the same installation disk as the NaturalPoint software. The executables can be found under the keyboard directory. Double click the My Computer icon from the desktop or open Windows Explorer. Right Click on the CD-Rom drive and then click Open from the drop down menu. Click on the Keyboard folder and then click the CNTzip.exe file to install. To install the Word Prediction program, click the Words.exe file.

2.3.5 Hardware Installation

1. If your monitor is too far away from your computer for the SmartNav's USB cable to reach, simply unplug the SmartNav device, plug the USB extension cable into your computer's USB port, and plug the SmartNav into the extension cable's female connector.
2. Your computer may briefly display a message indicating that it is installing the drivers for the SmartNav.
3. Double click on the newly created NaturalPoint icon on your desktop to open the SmartNav software program.
4. Remove a dot from the sheet included with your SmartNav unit and place it on the tip of your index finger. With the dot facing the SmartNav unit, slowly move your finger back and forth in front of the SmartNav unit from about an arms length away. If the green indicator light comes on and the cursor moves along with your finger, you have installed the SmartNav unit and software correctly. If the green indicator light does not come on or the cursor does not move, please consult the trouble shooting guide at the back of this manual.

2.3.6 Voice Clicking Installation

The SmartNAV Software features built in voice recognition for command and control.

For available commands, please see section 3.1.6 (Voice Clicking)

If you purchased the SmartNAV Voice Clicking accessory CD, then you may install the voice recognition package from the CD.



Insert the SmartNAV CD into your CD-Rom. You may be prompted to uninstall any previous versions, follow the prompts as necessary to uninstall any older versions and run through the standard install procedure. Once setup is complete the software will prompt you: 'Would you like to install Voice Recognition Support for SmartNAV', click yes to proceed. This will launch the installer for the voice clicking software, please follow the prompts to install the software.



Once the software is installed you can start the SmartNAV software, hook up a microphone and start using Voice Recognition.

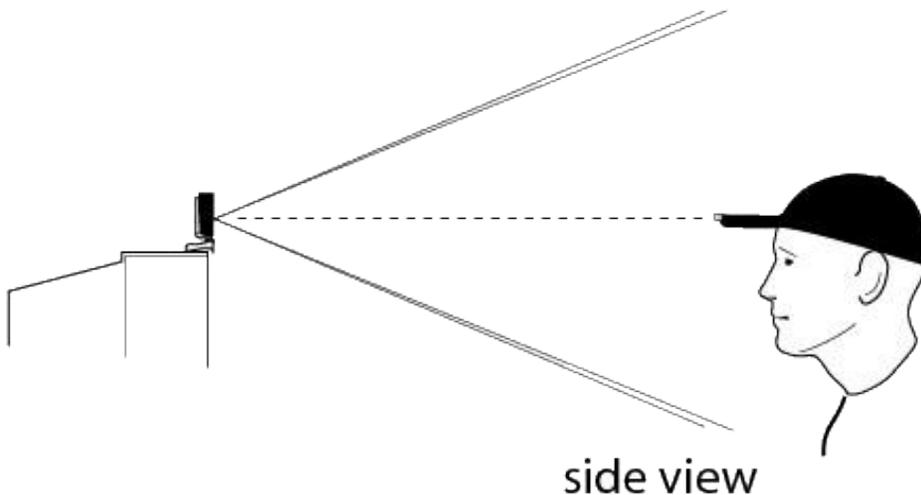
Notes

Do not plug the microphone into the jack on the SmartNAV. The input jack on the SmartNAV device is for input switches, not microphones.

Your internet firewall or anti-virus software may report a warning when installing the Voice Clicking feature of the SmartNAV software. This application does not need the internet to function properly and can be blocked if desired, the Voice Clicking feature does not contain any malicious code. Please proceed with installation accordingly.

2.4 SmartNav Desktop and Laptop Mounting

Setting up the SmartNAV unit on either a desktop or laptop is quick and easy. The horizontal distance between the camera and the user should be between 2 to 6 feet (61 cm to 183 cm). The vertical position of the camera should be as close as possible to the vertical position of the user's head. The camera should be adjusted so the front of it points toward the user's face.

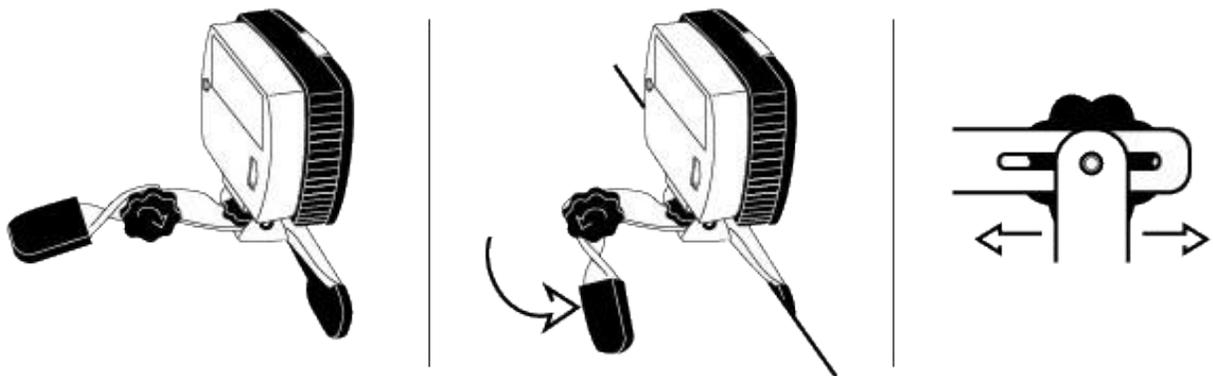


2.4.1 Using The Adjustable Base

Using the adjustable base, the SmartNav can be secured to any surface including laptop and flat panel screens. If the SmartNav is removed from your monitor, it can also be adjusted to sit on flat surfaces as well.

Follow these steps for mounting the SmartNAV on flat panel and laptop displays :

1. Twist the thumbscrew to loosen the small leg at the back of the SmartNAV.
2. Set the SmartNAV on the display with its front legs flush. Push the small rear leg in until it touches the monitor, then re-tighten the thumbscrew.
3. Note that the small back clamping leg can slide in and out as well as rotate.



3 Using the SmartNav

3.1 Head Control How-To

3.1.1 How it works

The SmartNav works by tracking infrared light reflected off the dot on your forehead, glasses, headset or TrackHAT.

3.1.2 Set-up

1. Put on the TrackHAT or peel a dot from the sheet and place it on your forehead, bridge of your glasses, or headset microphone, etc.
2. Place the SmartNav unit on top of your monitor or clip to the top of your laptop screen.
3. Make sure the SmartNav unit is plugged in and the software is running.
4. Aim the SmartNav unit at your head.
5. First time users should select a slow to medium profile.

3.1.3 Use

1. Sit in a comfortable position with your head facing toward the monitor about 1 arms length away from the SmartNav unit.
2. Move the cursor from one side of the monitor to the other and back by rotating your head. Large head movements are not necessary.
3. Once you get used to the feel of the cursor movement, try increasing your speed setting. The faster your speed setting, the less you have to move your head to move the cursor from point A to point B.
4. Practice and get comfortable using your Hot Keys, external switch, or Dwell Clicking while moving the cursor with your head.

Important Note

The SmartNav unit **MUST** be able to see your dot. When deciding where to place the dot, make sure to check the line of sight between the unit and dot from all angles. Please look at the pictures below for hints on dot placement.

3.1.4 Tips and Tricks

Since there can be a small learning curve to using the SmartNav, the following tips and tricks will help get you up and going quickly.

Head Movement

You should not need to move your head much to control the cursor; by customizing the different features the SmartNAV can easily deliver a smooth and pixel precise mouse experience. The biggest thing to remember is to remain relaxed and comfortable, do not tense up and try to control the cursor; just sit back and let your small natural head movements do the work for you.

SmartNav Speed For beginning users the smoothing and speed can be decreased. Start with the speed near the middle (try a setting around 5) and set the smoothing toward the middle of the scroll bar range. Having either set too high is not usually necessary. As you become more comfortable with the SmartNav you can increase the settings, but it helps to start slow. You may also want to try decreasing your screen resolution while you are getting used to the device.

Tracking

If the SmartNav software is having trouble following your reflective dot then check the tracking tab in the SmartNAV software. Look for anything showing up besides your reflective dot. If there are other objects visible then you can use the light filtering option to remove them.

Windows Mouse Settings

More advanced users may want to take advantage of the windows mouse acceleration settings. Beginning users will want to wait until they have more experience since too much acceleration may cause the cursor to 'swim' around.

The Windows settings which affect cursor movement are found under the "Mouse Settings" area in the Windows Control Panel. The precision can be increased by turning on "Mouse Acceleration" or Increasing the "Pointer Accuracy" (the name for the setting depends on the version of Windows). Also try turning up the speed in the Mouse Settings to about 3/4 and then lowering the speed setting in the SmartNav

software, this can improve cursor movement on some systems.

Using Hats

Using a hat with a large reflective dot placed on the end of the brim will increase precision by a factor of 2X. The brim of the hat travels a greater distance when you rotate your head than your forehead does, creating more movement for the SmartNav software to use.

Key Activated Mode Key Activated mode with Key Release Clicking is a very convenient way of using the SmartNav. If you assign the Move action to your CapsLock key then you can simply press this key to engage your mouse control and let up over the item you want to select, then press down again to double click (or drag). This setting, along with other useful hotkeys like "Pause" and "Precision" are located in the Behavior tab of the SmartNAV software.

Gravity

Gravity is a great feature included with the SmartNAV software and should be tried out. Try having it turned on for just "Buttons", it will make the "Control Boxes" (Close, Minimize and Maximize) easier to click on. Once you get comfortable with gravity, you can add more buttons in.

3.1.5 Cursor Modes

There are two different ways to control the cursor using the SmartNAV, which allows users to choose the mode that feels the most natural.

Relative Mode

This is the easiest cursor control mode for a new user to get used to. It works in the same kind of way that a regular mouse does, bumping the cursor against the edge of the screen allows the user to change the relationship between their head position and the location of the cursor on the screen. Pressing the Center Hotkey will re-center the cursor on the screen.

Absolute Mode

Absolute mode is intended for advanced SmartNAV users, and allows a fixed relationship to be set up between the head location and the cursor position. Bumping the cursor against the edges of the screen will **not** change the relationship of the cursor to the users head position. Pressing the Center Hotkey will reset the relationship and re-center the cursor on the screen. Therefore, the user should make sure that their head is positioned where they wish the new center to be when they re-center.

3.1.6 Clicking

The SmartNAV provides three different methods for clicking within Windows.

Hotkey Clicking

The SmartNAV software allows the user to re-map keys from their keyboard and assign them to emulate the Left, Right and Middle mouse buttons. This provides a convenient way to click without having to take your hands off the keyboard.

SmartNAV software versions 3.20.025 and higher support using modifiers with non-clicking hotkeys, you can add modifier keys such as Ctrl+Z or Alt+Z to hotkey commands.

Please note that it is no longer possible to map just a modifier key to a hotkey function. The reason for this is so that they must not be "trapped" and so that they can continue to function as modifier keys in other applications.

Ability Switch Clicking

(only available on SmartNAV EG and AT models)

Ability switches provide an alternative clicking method that can be operated by hand, foot or sip-and-puff switches. On the back (SmartNav 4) or side (SmartNav 3) of the SmartNav there is an industry standard Ability Switch jack which allows users to plug Ability Switches in to perform various actions. By default the switches are mapped to emulate the Left and Right mouse buttons, but may be configured to perform other functions related to the SmartNAV software such as Middle Click, Pause, Scroll or Precision Mode.

Dwell Clicking

(only available on SmartNAV AT models)

Dwell Clicking is a complete hands-free clicking method which allows the user to send clicks by simply holding the cursor still over the item they wish to click on. The Dwell Clicking software is a complete package which allows the user to perform all of the tasks that can be accomplished with a mouse, such as Left Click, Double Click, Right Click and Drag.

Voice Clicking

(Available on All SmartNAV models)

Voice activated clicking allows you to issue mouse clicks and commands by speaking to your computer. Simply say 'left click' and a left click will be performed. This powerful feature makes the SmartNAV more intuitive to use than ever and does not come with any other hands free mouse package, we hope you enjoy using it!

Available Commands

◇ Mouse Commands:

- Left down - left button down
- Left up - left button up
- Left click - left button down and up
- right down - right button down
- right up - right button up
- right click - right button down and up
- middle down - middle button down
- middle up - middle button up
- middle click - middle button down and up
- Double click - left button up/down twice
- Enter - presses the enter key

◇ SmartNAV Hotkeys:

- Precision - start / stop precision mode
- Scroll - start / stop scrolling
- Pause - start / stop pause mode
- Center - center the cursor (said only once)
- Activate - used in key activation mode to start / stop mode

The Grammar File

The above commands are defined in grammar.bnf, a text file that can be edited by the user, these are only the default values.

You can edit the commands in the grammar.bnf file from within WordPad. Open the file (located in 'C:\Program Files\Naturalpoint\SmartNAV) with Wordpad and change the text that is NOT in quotes.

Remember when changing the speech commands to only change text outside of quotes. Do not change the order of items, the text in quotes "" or their IDs.

Please let us know if you have any problems.

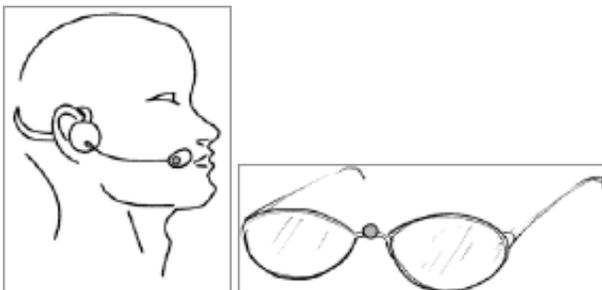
Note :

Do not plug the microphone in to the jack on the SmartNAV. The input jack on the SmartNAV device is for input switches, not microphones.

Please see sections 2.3.6 (Voice Clicking Installation) and 4.2.3 (Clicking Tab) for details about how to enable speech recognition if it is not running.

3.1.7 Suggested Alternate Dot Placements

There are many different locations where the reflective dot can be placed for tracking, here are two examples.



3.1.8 Status LED indicators

The SmartNAV camera has status LEDs which give the user visual cues about the status of the SmartNAV software. There are two Status LEDs, one is located on the front directly above the infrared shield, and the other is on the underside of the SmartNAV camera which will cause the case to "glow" blue when it is illuminated. Use the following key to interpret what the state and color of the status LEDs mean.

Front Status LED

- ◇ **Off** : No object is being tracked, and cursor movement is NOT paused.
- ◇ **Green** : An object is being tracked, and cursor movement is NOT paused.
- ◇ **Orange** : An object is being tracked, and cursor movement IS paused.
- ◇ **Red** : No object is being tracked, and cursor movement IS paused.

Case Status LED (*SmartNav 3 models only*)

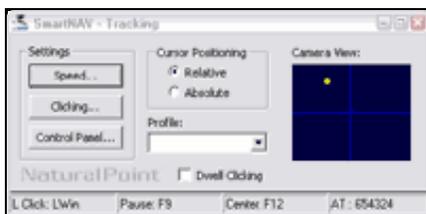
- ◇ **Off** : The software is operating in Relative cursor positioning mode.
- ◇ **Glowing Blue** : The software is operating in Absolute cursor positioning mode.

4 Navigating the NaturalPoint Software

The SmartNav software is designed to provide you, the user, with a variety of options to maximize your enjoyment of the product. We encourage you to try out all of the settings and features to see what works best for you.

4.1 Quick Access Panel

The Quick Access Panel provides a condensed view of camera dot tracking, the ability to change your Cursor Positioning mode, load preset or custom profiles, activate Dwell Clicking and 3 buttons to access the Advanced Settings menu and a status bar.

**Cursor Positioning**

This allows the user to select between Relative and Absolute cursor positioning modes.

Profile

The profile dropdown box provides a quick way to switch between profiles.

Dwell Clicking check box

(*SmartNAV AT users only*)

This turns on and off the Dwell Clicking software

Status Bar

The Status bar displays various Hotkey assignments as well as the type of SmartNAV that is connected to the computer.

Settings

These three buttons provide shortcuts to various tabs in the SmartNAV control panel.

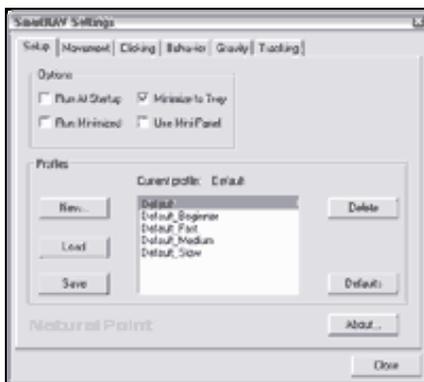
4.2 Control Panel

SmartNav Control Panel has several different tabs which control how the software works. The features on each of these tabs will be explained below in detail.

- ◇ Setup
- ◇ Movement
- ◇ Clicking
- ◇ Behavior
- ◇ Gravity
- ◇ Tracking

4.2.1 Setup Tab

This panel contains general settings which control the SmartNAV application.



Run at Startup

When checked, the SmartNav software will automatically start as soon as Windows loads, every time you turn on or restart your computer.

Run Minimized

When this box is checked and "Run at Startup" is selected, the SmartNav Software will run in a minimized state when it is started.

Close to Tray

When checked, this option places the SmartNav software into the system tray when the application is minimized.

Use Mini Panel

When checked, this option makes use of a more condensed version of the "Quick Access Panel" with a tracking window, status indicator, Control Panel access button and status bar.

Profiles Section

Profiles allow the user to save all of the settings from the SmartNAV software into custom profiles. This makes it easy for different users who share the same computer but have different preferences when using the SmartNAV. Several default profiles are provided with the software to help get users up and running with as little effort as possible. We recommend that beginners use a **Slow or Medium** profile when trying out the SmartNav for the first time.

To create and save a new profile, click button marked New button and type in a name for the profile. Then click on the Save button. To load this, or any other profile later, click on the desired profile from the list

adjacent to the buttons and click load.

Profile Management buttons

New

This button allows you to create a new profile, it will open a dialog which prompts for a profile name.

Load

The Load button will load the profile currently selected in the Profile list.

Save

The Save button saves the profile currently listed in the Active Profile text box.

Delete

This button deletes the profile currently selected in the profile list.

Defaults

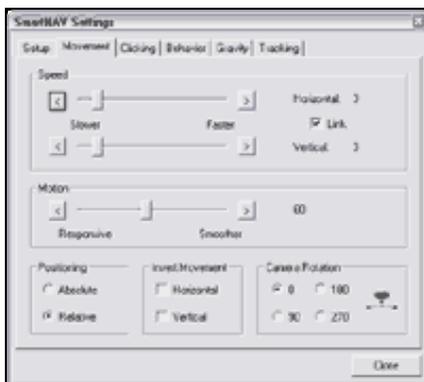
This button will restore the selected profile to the default profile settings.

About

This button displays the version and build information about the SmartNav software.

4.2.2 Movement Tab

This panel adjusts settings which affect how the cursor moves.



Horizontal Speed slider bar

Use this bar to customize your speed values. The further the bar is moved to the right, the less head movement is necessary to move the cursor on the X axis. Any adjustments you make to this setting will be stored under the profile that is loaded when you quit the SmartNav program.

Vertical Speed slider bar

Use this bar to customize your speed values. The further the bar is moved to the right, the less head movement is necessary to move the cursor on the Y axis. Any adjustments you make to this setting will be stored under the profile that is loaded when you quit the SmartNav program.

Link check box

When this box is checked, the X and Y axis are locked together and the Speed sliders affect the X and Y axis simultaneously.

Motion slider bar

This bar controls the degree of head movement that the system will filter out. In environments such as a car or airplane where a fair amount of unintentional movement is unavoidable, it may be desirable to move this bar further to the right.

Positioning

There are two different ways to control the cursor using the SmartNAV, which allows users to choose the mode that feels the most natural.

Relative

This is the easiest cursor control mode for a new user to get used to. It works in the same kind of way that a regular mouse does, bumping the cursor against the edge of the screen allows the user to change the relationship between their head position and the location of the cursor on the screen. Pressing the Center Hotkey will re-center the cursor on the screen.

Absolute

Absolute mode is intended for advanced SmartNAV users, and allows a fixed relationship to be set up between the head location and the cursor position. Bumping the cursor against the edges of the screen will **not** change the relationship of the cursor to the users head position. Pressing the Center Hotkey will reset the relationship and re-center the cursor on the screen. Therefore, the user should make sure that their head is positioned where they wish the new center to be when they re-center.

Invert Movement

Invert Movement check boxes: These allow you to invert Horizontal (X) and Vertical (Y) axis movement.

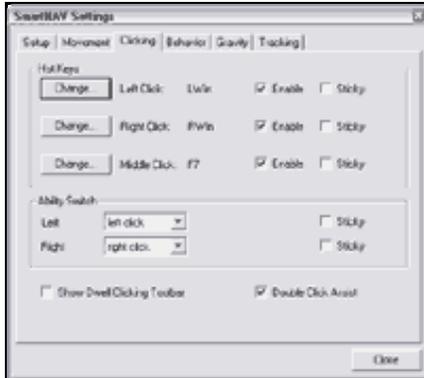
Camera Rotation

This menu allows you to choose the correct rotation of the SmartNav unit if you have clipped the unit to any part of your laptop screen. To ensure that the proper rotation has been selected, compare the angle of your SmartNav unit to the graphic shown in this menu.

If the SmartNav is upright (sitting on its stand), then the rotation should be set to 0. If the unit is positioned on its left or right side or is upside down, then the Camera Rotation should be set to 90, 270 or 180 degrees respectively.

4.2.3 Clicking Tab

This panel adjusts the clicking settings.



Hotkeys

The SmartNAV software allows the user to re-map keys from their keyboard and assign them to emulate the Left, Right and Middle mouse buttons. This provides a convenient way to click without having to take your hands off the keyboard. The action for each Hotkey is listed along with the currently assigned keyboard key, whether it is enabled (On/Off) and whether Sticky is enabled.

Left Click

Emulates a left mouse button, it can be used to perform Left Clicks, Double Clicks and Dragging.

Right Click

Emulates a right mouse button, it can be used to perform Right Clicks.

Middle Click

Emulates the middle button of a 3 button mouse.

Enable checkboxes

These turn the Hotkeys On and Off.

Note :

Hotkeys will only work while the SmartNAV software is running. Keyboard keys assigned to Hotkeys will not perform their normal keyboard function while they are being used as Hotkeys. For example, if the CAPS LOCK keyboard key is assigned to Left Click, it will only perform Left Clicks while the SmartNAV software is running. It will resume performing the normal CAPS LOCK function when the SmartNAV software is closed, or if the Hotkey is re-assigned or disabled.

Change buttons

Clicking these buttons brings up a dialog box that allows the user to change the key assigned to the function listed next to the button. Note that you can only assign keyboard keys to as Hotkeys.

Sticky checkboxes

The Sticky feature makes Hotkeys easier to use if a user is having difficulty pressing and holding the keys. It changes the way the Hotkey works such that pressing the key once turns the associated hotkey feature on, and pressing the Hotkey again turns the feature back off. For example, turning Sticky on for the Left Click hotkey would allow the user to send a Left Mouse Down with the first keypress, and a Left Mouse Up with the next keypress.

Ability Switches

(only available on SmartNAV EG and AT models)

Ability switches provide an alternative clicking method that can be operated by hand, foot or sip-and-puff switches. On the back (SmartNav 4) or side (SmartNav 3) of the SmartNav there is an industry standard Ability Switch jack which allows users to plug Ability Switches in to perform various actions. By default the switches are mapped to emulate the Left and Right mouse buttons, but may be configured to perform other functions related to the SmartNAV software such as Middle Click, Pause, Scroll or Precision Mode.

A Y-split adapter is included with the SmartNAV EG and AT models to allow two single action (mono) Ability Switches to be used. A dual action switch with two buttons and a stereo cable can be plugged directly into the back (SmartNav 4) or side (SmartNav 3) of the SmartNav without using the Y-Split adapter.

Left & Right

Use the drop-down menus to select the action that the ability switch will perform when it is activated.

Sticky

The Sticky feature changes the way the Ability Switches work such that activating the switch once turns the assigned action on, and activating the switch the Hotkey again turns the assigned action back off.

Show Dwell Clicking Toolbar

(SmartNAV AT users only)

When selected the Dwell Click toolbar will be enabled, this enables the dwell clicking functionality.

Double Click Assist

When this box is checked a small pause will be inserted after single-left clicks to make it easier for the user to double-click. This works with left clicks issued by both the Hotkeys and Ability Switches.

Enable Voice Recognition

To enable speech recognition for the SmartNAV software; go to the 'Clicking' tab and check the box titled 'Use speech recognition for clicking and hotkeys'. This will enable the voice recognition functionality. If you receive an error, please see the Chapter 9 (Trouble Shooting Section). If you receive no error, then the speech recognition engine has been engaged successfully, plug in your microphone and get clicking!

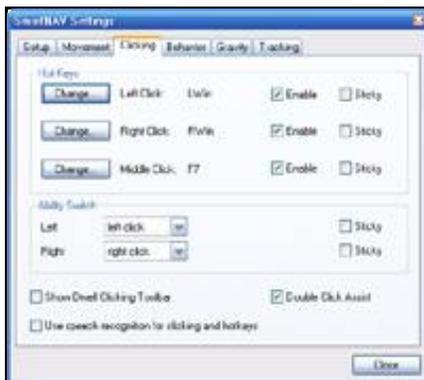


Note

Your internet firewall or anti-virus software may report a warning when activating the Voice Clicking feature of the SmartNAV software. This application does not need the internet to function properly and can be blocked if desired, the Voice Clicking feature does not contain any malicious code.

4.2.4 Behavior Tab

This panel adjusts settings which affect cursor behavior.



Hot Keys

The SmartNAV software allows the user to re-map keys from their keyboard and assign them to special functions of the SmartNAV software. The action for each Hotkey is listed along with the currently assigned keyboard key, whether it is enabled (On/Off) and whether Sticky is enabled.

Pause

Stops and starts cursor movement.

Center

Moves the cursor to the center of the screen. In Absolute positioning mode, it also re-sets the fixed relation between the users head location and the cursor position on the screen.

Scroll

Allows you to scroll through text by moving the cursor above or below a pop-up scroll icon.

Precision

Allows you to use your full range of head movement in a very small area so that you can easily do much finer cursor control operations like those required in photo editing.

Change buttons

Clicking these buttons brings up a dialog box that allows the user to change the key assigned to the function listed just to the right of the button. Note that you can only assign keyboard keys to functions

Enable

This checkbox turns the Hotkey on and off.

Note :

Hotkeys will only work while the SmartNAV software is running. Keyboard keys assigned to Hotkeys will not perform their normal keyboard function while they are being used as Hotkeys. For example, if the CAPS LOCK keyboard key is assigned to Pause, it will only perform the Pause function while the SmartNAV software is running. It will resume performing the normal CAPS LOCK function when the SmartNAV software is closed, or if the Hotkey is re-assigned or disabled.

Sticky

The Sticky feature makes Hotkeys easier to use if a user is having difficulty pressing and holding the keys. It changes the way the Hotkey works such that pressing the key once turns the associated hotkey feature on, and pressing the Hotkey again turns the feature back off.

Key Activated

The Key Activated Feature prevents the cursor from moving unless the Move Key is pressed and held down. The Move Key (F12) takes the place of the Center Key while Key Activated is in use.

Start At Center

This feature also only works when Key Activated is in use. It automatically centers the cursor whenever cursor movement is initiated. To use this function, check the Key Activated clicking box and then check the Start At Center box

Click On Release

This feature only works when Key Activated is in use. It allows you to initiate cursor movement and Left Click with the same key. When this feature is active, simply depress the center/move key to move the cursor to the desired icon or button and let off to click. To double click, let off, then press down and let off again. To use this function, check the Key Activated box and the Click On Release box.

Mouse Override Delay

The Mouse Override Delay Slider Bar controls how long cursor control is released to the Mouse when the SmartNav detects that the Mouse is being moved. The setting range is from 0-10 seconds.

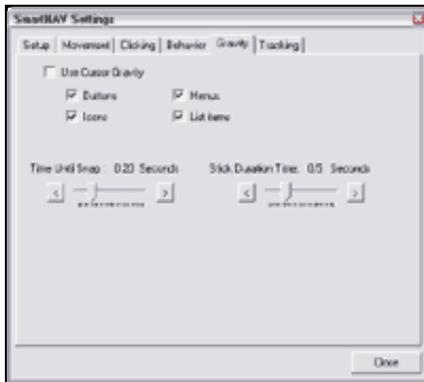
Pause While Typing Delay

The Pause While Typing Delay Slider Bar controls how long the cursor will pause after you have stopped

pressing keys on the keyboard (typing). A higher setting is helpful if you have limited head movement or are not familiar with the keyboard layout.

4.2.5 Gravity Tab

This panel adjusts settings which affect the cursor Gravity feature.



The Gravity feature helps you click on hard to hit icons and check boxes by snapping and optionally stick the cursor to them.

Use Cursor Gravity checkbox

This checkbox turns cursor gravity on and off.

When this feature is turned on, the cursor will snap to the center of whatever icon or button you are trying to hit after you have held the cursor over it long enough. If the Stick duration is greater than 0 seconds, then the cursor will briefly remain stuck to the center after snapping.

Gravity Options

These checkboxes allow you to designate which objects (Windows controls) you want the Gravity feature to work with. If you only want Gravity to work with some objects and ignore others, uncheck the appropriate boxes.

- ◇ Buttons
- ◇ Icons
- ◇ Menus
- ◇ List items

Time Until Snap

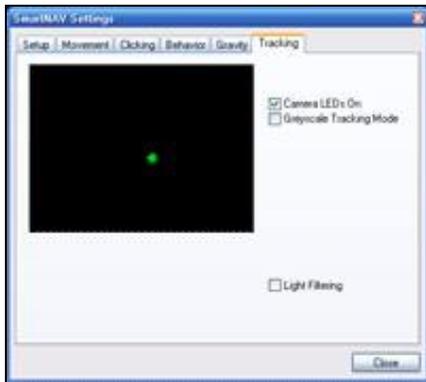
This slider bar adjusts the amount of time that the cursor must be held over a windows object before the cursor will snap to it. The time is adjustable from 0-1 second. A shorter time will make it easier to activate, while a longer time will reduce the chance of accidentally activating the feature.

Stick Duration Time

This slider bar determines how long the cursor will stick to a particular object after it has snapped before allowing cursor movement again. Time is adjustable from 0-2 seconds.

4.2.6 Tracking Tab

This panel adjusts settings which affect the cursor Tracking.



Camera View window

This window shows what the SmartNav camera is currently seeing. The color of the objects in the window indicates what they mean.

- ◇ A Green object indicates that the object is active and being used to control the cursor.
- ◇ Grey objects indicate light sources which are detected but are not being tracked.

You can also use this feature to check for background interference. If more than one object appears on the screen, check the background for strong direct lighting or glare. Adjust the position of the SmartNav unit or room conditions if cursor behavior becomes erratic. Adjust the Light Filter level if strong lighting is a problem. Avoid positioning the camera such that it looks directly at windows, sunlight or indoor lights. The greater the number of objects seen in the camera view, the more likely it will be that an incorrect object could be picked by the software to do cursor control.

Use this window to help align the SmartNav, adjust the SmartNAV camera until the green dot (the reflective dot on your head) is near the middle of the black background.

Camera LED's On

This checkbox turns on or off the SmartNAV camera's internal Infrared LED's. This box is checked by default.

Greyscale Tracking Mode

This checkbox turns on or off a tracking mode in SmartNav 4 cameras which can provide additional cursor precision. Enabling this mode requires more USB bandwidth and may interfere with devices such as webcams. This mode should not be used when large, bright objects (such as windows) can be seen by the SmartNav.

Light Filtering

Use this Checkbox to enable or disable the slider bar which controls the filtering.

Light Filtering Slider

This slider bar is used to control the light filtering of the SmartNAV camera. A higher setting will result in more light being filtered. If used outside, the slider may need to be set to a higher value to filter sunlight. When used inside, a value of 130 should produce good results (or just un-check the Sunlight Filter checkbox). Increasing this setting above 200 may reduce the precision of the cursor

movement.

4.3 Dwell Clicking

The concept behind dwell clicking is to allow total hands free control of a computer using only the SmartNAV head pointing device. This section will outline how to use the dwell click option available with our SmartNAV AT model to perform mouse click operations. When this feature is active, holding the cursor still for a user defined amount of time .2-2 seconds, will produce a Left Click, Double Click, Drag and Drop, or Right Click.

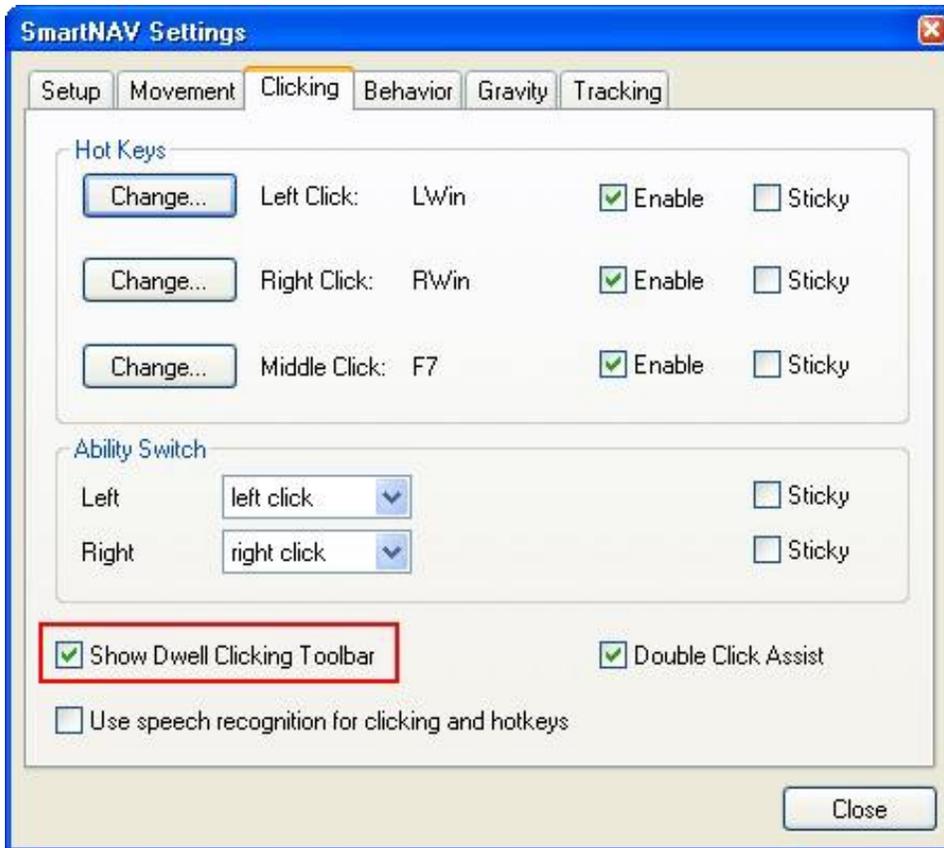
(Please note that Dwell Clicking is only available with the SmartNAV AT model)

4.3.1 Enabling Dwell Clicking

To use this feature, enable the Show Dwell Clicking Toolbar checkbox on Quick Access Panel



Or from the Clicking Tab of the Control Panel, enable the Show Dwell Clicking Toolbar checkbox.



When Dwell Clicking is turned on, a bar with eight buttons will appear at the top of your screen. This bar gives you the option to; Pause Dwell Clicking, Single Left Click, Double Left Click, Drag and Drop, Right Click, change Dwell Clicking options, Close Dwell Clicking, and move/drag the Dwell Clicking button/tool bar to another location.



4.3.2 How to Select and Perform a Click

Dwell Clicking button bar color key



Unselected

The type of mouse click represented by this button has not been selected as either the default or a single use action.

Dashed

The type of mouse click represented by this button has been selected for a single use action.

Highlighted

The type of mouse click represented by this button has been selected as the default action.

Highlighted vs. Dashed

When you start the Dwell Clicking application for the first time, you will notice that the Single Left Click button is Highlighted blue. This indicates that Single Left Click is the default function. When you dwell on an object with this Single Left Click button highlighted, the system will produce a Single Left Click.

Each type of mouse click represented on the Dwell Clicking button bar can be made the default action for continuous use.

If you would like to perform a type of mouse click only once, and then have the Dwell clicker go back to the default action you can select a button to be the action for one time only. This is useful for example if you want to drag and drop something only once, then go back to doing normal single left clicks. To select a button for one time only use move the cursor to the button that corresponds to the mouse click you wish to perform and rest the cursor on it for a moment. When clicked once, a Dashed line will appear around the button, this button is now selected for single use. After this mouse click is completed, the system will revert back to whichever mouse click is default or 'Highlighted' blue.

If the button is clicked on a second time, the button will become highlighted blue and the selected type of mouse click will now be your default action.

Selecting the Type of Mouse Click

To select what kind of mouse click to perform move the cursor to the button that corresponds to the type of click you wish to perform and rest the cursor on it for a moment. If a dashed line is around the button it will be the single action, if the button is highlighted blue it will be the default action.

The available types of mouse clicks and their associated button icons are listed below:

Pause button

The button furthest to the left of the toolbar pauses and un-pauses Dwell. When this button displays green, Dwell Clicking is active. When it displays red, Dwell Clicking is paused. Even if Dwell Clicking is paused, it can still be un-paused by simply dwelling on the red circle.



Single Left Click button

The second button in the dwell clicking toolbar looks like a single cursor arrow. This button is used for single left clicking.

When this button has a dashed line around it, the system will single click the next time you dwell on an object then go back to the default (highlighted) button. When this button appears highlighted blue, it is the default action and you may single click continuously without highlighting the button each time.

Please note that this behavior is the same for all mouse click buttons on the dwell toolbar.



Double Click button

The third button on the dwell clicking toolbar is the Double Click Button and looks like two overlapped cursor arrows, and is used for double clicking.



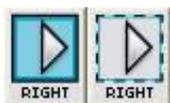
Drag button

The fourth button looks like a cursor arrow connected to three dots, and is used for dragging and dropping. This type of mouse click works great for playing games like Solitaire.



Right Click button

The fifth button looks like a single cursor arrow pointed to the right and is used for right clicking.

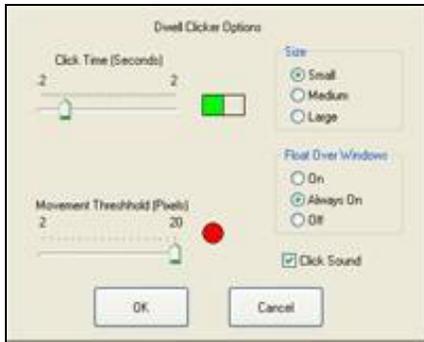


4.3.3 Dwell Clicking Configuration Options

To open the Dwell Clicking Options box, click on the sixth button from the left on the Dwell Clicking toolbar. It has a picture of a wrench on it and is labeled Setup.



This button opens the Dwell Clicking configuration menu, which is a pop-up box that will open which allows you to adjust how long you must hold the cursor in one position before the system clicks, and how much movement you are allowed to make while trying to hold the cursor still as well as other dwell clicker settings.



Click Time slider bar

This slider bar adjusts your dwell click time, or the amount of time you must hold still before the software will produce a click. This time can be adjusted from .2 seconds with the bar moved all the way to the left of the bar, or 2 seconds if the bar is moved all the way to the right side. Click time is also shown graphically in a green bar to the right of the Click Time slider bar.

Movement Threshold slider bar

This slider bar allows you to adjust the Movement Threshold from 2 pixels to 20 pixels. This is the amount of movement that the system will ignore while you hold the cursor still. Move the slider bar marked Movement Threshold to the left to decrease the amount of movement that the system will ignore. Move it to the right to increase the amount of movement the system will ignore. The Movement Threshold is also shown as a red target to the right of the Movement Threshold slider bar.

Button Bar size selector

Use this menu to change the size of the Dwell Clicking button bar.

Float Over Windows

The difference between On and Always On is that when set to 'On' the dwell software will set itself to be at the top of the window stack.

With 'Always On' the dwell software will set itself to be at the top of the window stack and then check back every 60 seconds to make sure it is still at the top, and if not, will re-assert itself.

The 'Off' setting will allow the dwell toolbar to be put behind windows and will not stay on top, useful for users who only need one mouse function.

Click Sound check box

When this box is checked, the system will produce a clicking sound when ever a Dwell Click is registered.

Close Button

The seventh button displays an X-box. Click on this button to close the Dwell Clicking application.



Move Toolbar button

The eighth button, furthest to the right of the toolbar shows four arrows. This button is used to drag the dwell clicking toolbar. To drag the toolbar; highlight the drag button, click on the Toolbar Dragging button and move to the desired location.

**5 Accessories**

There are several accessories available for your SmartNav unit that are intended to give you more options for cursor control and clicking based on your needs and preferences.

5.1 External Ability Switches

(Only available on SmartNAV EG and AT models)

The Ability Switches allow the user to perform clicking and other functions through the use of hand, foot or sip-and-puff operated switches. The switches are sold separately from the SmartNAV device.

How they work

The SmartNav EG and AT models include a functional stereo Ability Switch jack for built into the back (SmartNav 4) or side (SmartNav 3) of the SmartNav, and a Y-split adapter for connecting two single (mono) switches at once. These switches can be used to perform all normal Hot Key functions.

Set-Up

1. If open, shut down the SmartNav software.
2. If using two single (mono) switches, securely plug the Y-split adapter into the SmartNav's stereo Ability Switch jack.
3. Plug the cable(s) from switch(es) into the jack(s) and place switches in the desired location.
4. Open the SmartNav software and place a dot on your forehead. Move your head to ensure that the SmartNav unit is tracking the dot properly. Click each switch several times to determine which switch is the one Right and which is the Left.

Use

After determining which is the Right switch and which is the Left switch, experiment with switch placement to determine your optimal set-up. The SmartNav Ability Switch jack and Y-split adapter will work with most switches. So if you already have a switch you like, feel free to try it with the SmartNav.

Switch clicking does not interfere with the SmartNav's other clicking methods. All clicking methods can be used at the same time.

5.2 Rings**How it works**

Using the SmartNav Ring you can control your computer's cursor by pointing your finger toward any location on your monitor.

Set-Up

1. Place the ring on your right index finger if you plan to use your left hand to hit the Hot Keys.
Place the ring on your left index finger if you plan to use your right hand to hit the Hot Keys.
2. The ring should be placed halfway between the first and second knuckles of your index finger.
3. Place the unit on top of your monitor or clip the unit to the top of your laptop screen and aim it at the keyboard. OR clip the unit to the side of your laptop screen and select 90 degree rotation from the Advanced Settings menu (described in section 2.4) if the unit is clipped to the right side of the screen, or 270 degrees rotation if the unit is clipped to the left side of the screen. The unit can also be placed in front of your keyboard.
4. Place your ring hand on the keyboard and use your other hand to adjust the SmartNav unit. Adjust the unit until the green indicator light comes on when your ring finger is lifted slightly above the keyboard.

Use

Raise your finger slightly off the keyboard until the cursor begins to move. Move your finger slowly from side to side and up and down to get used to the feel of the cursor movement.

Once you get used to the feel of the cursor movement, try increasing your speed setting. The faster your speed setting, the less you have to move your finger to move the cursor from point A to point B. If you have difficulty moving the cursor to the top, bottom, or either side of the screen, raise your finger slightly off the keyboard and press the center key.

Note: It is advisable to use the Data Window to properly align the SmartNav unit with your finger.

6 Software Updates

In order to better serve your needs we continually update the SmartNav software package. You may download these updates free of charge from www.naturalpoint.com.

To download and install new software, please follow these steps

1. Go to www.naturalpoint.com and click on the Support link at the top of the page, then go down to SmartNav software.
2. If the version of software listed for your product is more recent than the version of the software installed on your computer (use the SmartNAV Control Panel : Setup : About button to check your version), then download and save the updated installer file to your desktop or temp folder. If a newer version is not available, then there is no need to update your software.
3. Disconnect your SmartNav unit from your computer.
4. Use the "Add and Remove Programs" feature of the Windows Control Panel to un-install your existing SmartNAV software.
5. Double click on the downloaded installer .exe file to install the new software. After the program icon reappears on your desktop, you may reconnect the SmartNav to your computer and run the updated software.

7 Contact NaturalPoint NaturalPoint

33872 SE Eastgate Circle
Corvallis, OR 97333

www.naturalpoint.com
541.753.6645

8 Limited Warranty

NaturalPoint warrants to the original consumer or other end user that this product, the NaturalPoint SmartNav, is free from defects in materials and workmanship for a period of one year from the date of purchase. During the limited warranty period, and upon proof of purchase (in the form of product registration) this product will be repaired or replaced at our option, without charge.

This warranty shall be voided if the product is modified, tampered with, misused, or subjected to abnormal working conditions. This warranty does not cover physical damage to the surface of this product. This warranty does not apply when the malfunction results from the use of this product in conjunction with accessories, other products, or peripheral equipment.

Repair or replacement as provided under this warranty is the exclusive remedy of the purchaser.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS OR SUITABILITY FOR A PARTICULAR USE OR PURPOSE, AND NATURALPOINT INC SHALL IN NO EVENT BE LIABLE TO PURCHASER FOR INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER.

Some states do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

In order for NaturalPoint to honor your return, you must receive an RMA number by calling or emailing NaturalPoint, and then return the entire SmartNav package, including all accessories and software to:

NaturalPoint
Attn: RMA #####-####
33872 SE Eastgate Circle
Corvallis, OR 97333

9 Trouble Shooting

If you are still experiencing difficulty after trying the suggestions in this trouble shooting guide, call 1-541-753-6645 or visit our main website at www.naturalpoint.com or our online forums at forums.naturalpoint.com for advanced customer support.

9.1 Problem : Software loads and runs, but LED indicator light on unit does not come on. OR you receive a message saying: The system cannot find the file specified or the software could not connect with the SmartNav device

Possible Causes

1. Improper software/ hardware installation.
2. Improper unit alignment.

Solutions (98SE, ME, 2000, XP)

If you connected the SmartNav unit before installing the software, do this:

1a. Shut down the software and wait 30 seconds. Unplug the SmartNav unit from your USB port. Then plug the SmartNav back into your USB port, wait another 30 seconds and restart the software.

1b. Right click on My Computer. Go to Properties. Go to the Device Manager. Double click on USB devices. If you see a device listed as SmartNav or TrackIR then this is not the problem.

1c. If you see a device listed as unknown or has a yellow and black "?" next to it, remove/uninstall that device. Disconnect the SmartNav unit and reboot. After system restarts, unplug all extraneous USB devices except the keyboard and mouse. Uninstall the NaturalPoint software.

Reboot two times. When the system restarts the second time, install the software again.

Reboot. After the system comes up, reconnect the SmartNav unit. The camera should now be recognized and the Found New Hardware Wizard should start. Install the software drivers accordingly

2. Click the Advanced Settings button on your SmartNav software screen. Place a dot on your forehead or place the ring accessory on your finger and aim the unit at the object you wish to track. Continue adjusting the unit until a yellow dot appears near the center of the Data window.

Additional Solutions (XP systems only - System Restore)

If step (1c.) did not work, then you can try restoring your system to an earlier time period.

If there are no unknown USB devices in the device manager, unplug the camera and then uninstall the software; otherwise, remove the unknown USB device first, then unplug the camera and uninstall the software.

Click on start/programs/accessories/system tools and click on system restore.

Check the box next to restoring to an earlier point then click next. This will bring up a calendar and a list of restore points. Go to the day before you had your problems and see if there is a checkpoint to restore to. If not, then you will have to back up a day at a time until you find one then restore to that day. This will clear your registry and reset your system to that day. Any installations of software or hardware since this date will need to be reinstalled again.

Once the restore is done and system reboots, unplug all extraneous USB devices. Joysticks, etc... Leave Mouse and Keyboard plugged in.

Reboot a second time.

Now begin the installation of the SmartNav from scratch.

Install the software first. Use the latest version from the download section of our website.

Plug in the SmartNav unit. The found new hardware wizard should start. Follow the Special Windows XP Instructions at the beginning of the manual.

9.2 Problem : Erratic tracking, cursor "jumps" around the screen.

Possible Causes

Interference from another light source.

Solutions

1. Go into the SmartNav Settings screen / Tracking tab. You should see a green dot in the Data Window. If you see more than one object in this window, or the focus on the green dot jumps from one dot to another, check for mislaid dots in the SmartNav's 30 degree field of view. If there are no other dots in the field of view and the problem persists, check for highly reflective items or direct light sources in the background. Move these objects, move the camera a bit, adjust the light filtering on the Tracking tab or reposition your computer.

2. Go to the Movement tab and adjust the speed sliders toward the left/slower side and adjust the smoothing slider to the right to increase the smoothing.

9.3 Problem : Software loads and runs, and green indicator LED is on, but the cursor does not move.

Possible Cause

1. Key Activated Clicking box is checked.
2. LEDs are turned off.

Solution

1. Uncheck the Key Activated box on the Behavior tab.
2. Go to the Tracking tab and make sure the Camera LED's On box is selected.

9.4 Problem : All or some of my Hot Keys will not work.

Possible Causes

Conflict between selected key function and other system properties, or key already selected as a different Hot Key.

Solution

Select a different key for this function.

9.5 Problem : Switch Clicking does not work.

Possible Cause

1. Your SmartNav unit is not an AT or EG model.
2. Switches and / or breakout cable not securely plugged in.
3. The SmartNav is not tracking an object.
4. Switches were plugged in without shutting down the software first.

Solution

1. No Fix. The standard SmartNav basic model does not recognize switch input.

2. Check all connections. Unplug and securely reattach all male-female connections.
3. Go to the Tracking tab and move a dot back and forth 2' in front of the SmartNav device and check to ensure that the yellow dot in the data window is green. If so, keep moving dot and try switch clicking again.
4. Unplug switches and breakout cable. Shut down software. Reattach switches and breakout cable. Run software.

9.6 Problem : When using the Dwell Clicking feature, the system clicks faster/slower than I would like.

Possible Cause

Dwell Click speed set too fast/slow.

Solution

On the Dwell Click toolbar, click on the setting box. (Hammer & wrench). Click on the Dwell tab. Adjust the slider bar marked Click Time (Seconds). This will be saved as your new Dwell Click speed.

9.7 Problem : When using the Gravity feature, the cursor locks onto undesired icons or does not lock onto desired icons.

Possible Cause

Wrong icons selected for Gravity feature.

Solution

Click on the Gravity tab. Uncheck the boxes next to the icons that you do not want the cursor to lock onto.

9.8 Problem : None of the speed settings for Ring/Dot feel right.

Possible Cause

Incorrect speed settings.

Solution

Click on the Movement tab. Adjust the speed slider bars. Move these bars to the left for slower speeds and to the right for faster speeds.

9.9 Problem : In Dot mode the unit stops tracking me when I move the cursor towards the edges of the screen.

Possible Causes

1. Incorrect speed setting.
2. Improper unit placement.
3. Too much distance between the user and SmartNav unit.

Solution

1. Select the next highest speed setting.
2. Click the Tracking tab on the SmartNav software screen. You should see one green dot in the Data

Window. Move your head so the cursor travels from one side of the screen to the other. If the green dot in the data window stops moving at any point, reposition the SmartNav unit and repeat the previous step.
3. Try sitting closer to your computer, or move the SmartNav unit closer to you.

9.10 Problem : When I move my head/ring, the cursor moves in a different direction than I do.

Possible Cause

Incorrect Rotation setting.

Solution

Click on the Movement tab. Find the Rotation Menu. Make sure that your unit is sitting at the same angle as the SmartNav unit in the rotation window.

9.11 Problem : Cursor movement feels mushy.

Possible Cause

Incorrect Smoothing setting.

Solution

Move the Smoothing slider bar to the right.

9.12 Problem : The Zone Alarm software prevents the SmartNAV from working.

Possible Cause

By default, SmartNAV cursor movement and clicking does not work with Zone Alarm running.

Solution

The user will need to go into the Zone Alarm Program Control section and click the Programs tab. They can then left click on SmartNAV and allow it to run normally. After that mouse functionality should work.

9.13 Problem : Windows displays an Internet Firewall or Anti-Virus warning about SmartNAV or ViaVoice voice recognition software.

Solution

Your internet firewall or anti-virus software may report a warning when installing and activating the Voice Clicking feature of the SmartNAV software. This application does not need the internet to function properly and can be blocked if desired, the Voice Clicking feature does not contain any malicious code. Please proceed with installation and setup accordingly.



9.14 Problem : You receive an error when trying to enable voice clicking

Possible Cause

SmartNAV Voice Clicking software is not enabled or properly installed

Solution

If you receive an error when trying to enable the voice recognition (see Section 4.2.3 for how to enable speech recognition) then the speech recognition has not been installed properly.

- ◇ Verify that the latest version of the SmartNAV software has been installed.
- ◇ If you are installing from CD then make sure you click 'yes' when prompted to install the speech recognition support
- ◇ Make sure the 'Use Speech recognition for clicking and hot keys' is checked under the 'clicking' tab.



9.15 Problem : Voice Clicking software is properly installed, but Voice Commands are still not being recognized

Possible Cause

Issue with Microphone, or Soundcard Settings in Windows

Solution

Once you have verified the latest version of the SmartNAV software has been installed and the voice recognition engine has also been installed, and if you are still having problems here are a few things to try:

- ◇ Verify that the microphone is correctly plugged into the microphone input of the sound card.
- ◇ Verify that the sound card is correctly installed and configured. You can test this with another application that uses sound input like the Sound Recorder program which should already be installed with the Microsoft Windows operating system.
- ◇ You can open the Sound Recorder application from the Start menu. On the taskbar, click Start, then All Programs, then Accessories, then Entertainment (or Multimedia, depending upon the version of Microsoft Windows) and finally, Sound Recorder. When the application window has opened, click the Record button and speak into the microphone. The display in the window should now move in response to your voice input.
- ◇ If the Sound Recorder application doesn't record your voice correctly, open the Volume Control and verify the Microphone In is not muted. If this does not help then the sound card may not be compatible you're your version of Microsoft Windows, it may not be set up correctly, there may be a problem with its software drivers or some other cause. These errors should be corrected before you continue on with the other troubleshooting suggestions. Contact the sound card manufacturer's technical support for assistance, if necessary.
- ◇ For more info on how to troubleshoot problems with your microphone and soundcard settings please follow these steps below:

Testing Your Microphone in Windows

You can also test your microphone by using the Sound Recorder built into Windows. To open the Sound Recorder, press **Start** and select **All Programs** → **Accessories** → **Entertainment** → **Sound Recorder**. Press the Record button and speak briefly into the microphone. While you are speaking, you should see a waveform appear in the Sound Recorder window.



Press the Record button and speak into your microphone



A waveform will appear while you are speaking

Press Stop to end the recording

Press Play to listen to the recording. If you hear your recording, your microphone is properly configured.



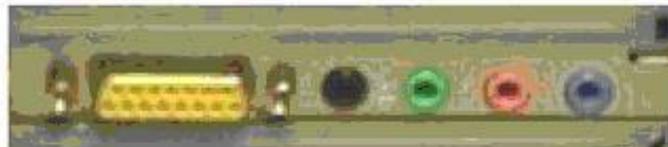
Press Play to listen to the recording

Configuring Your Microphone

If you cannot hear your voice in Sound Recorder, your microphone must be configured to work correctly.

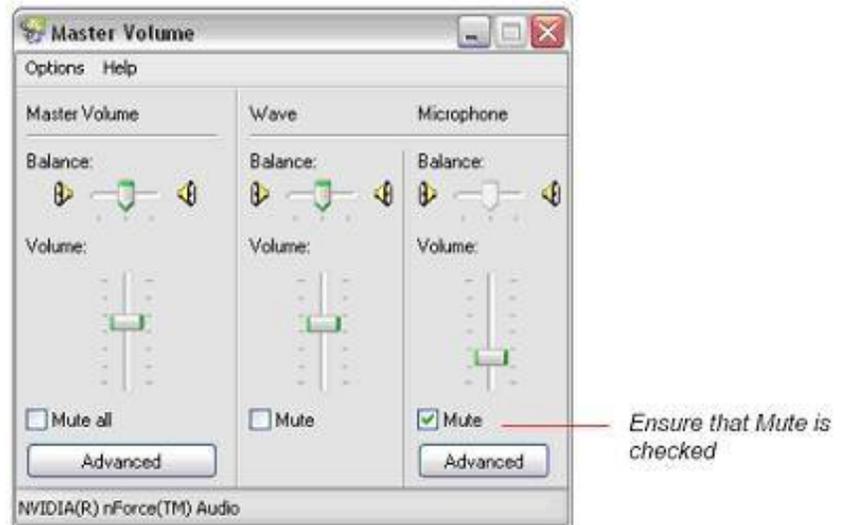
Microphone Basics

Check the back of your computer to make sure the microphone is plugged in to the correct jack. The correct jack might be colour-coded, or identified by a symbol representing a microphone.

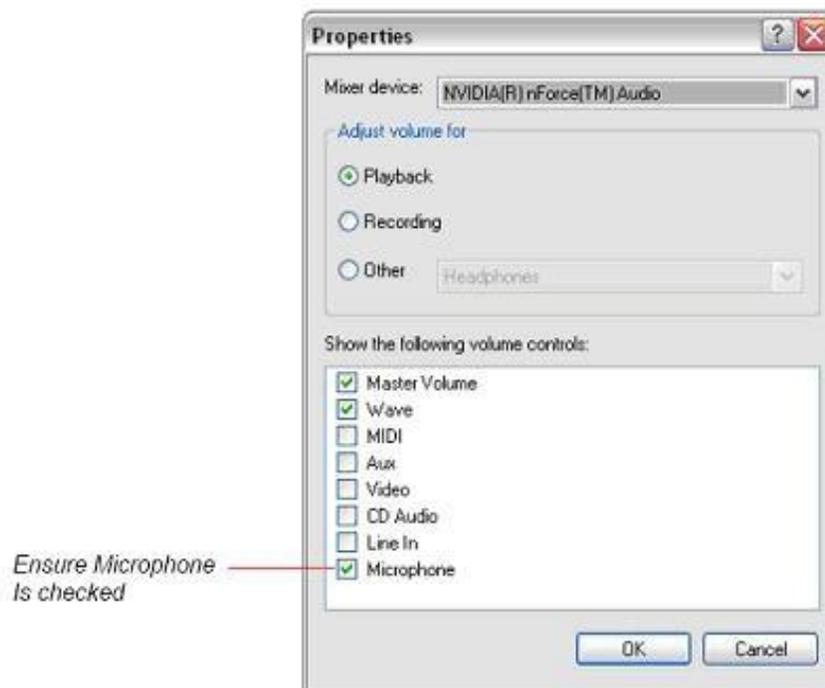


Microphone Settings

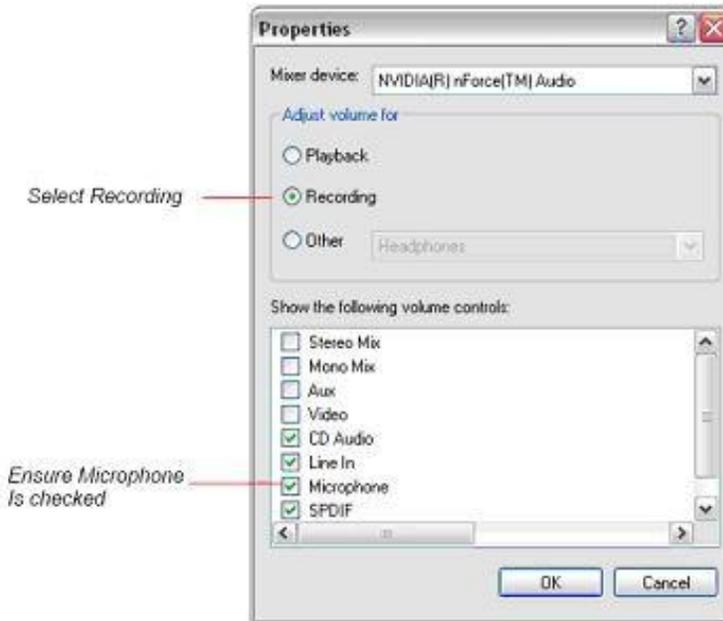
Check your **Play Control** settings. Click on the **Start** menu and select your **Control Panel**. Open your **Sound and Audio Devices** control. Ensure that **Microphone Mute** is checked.



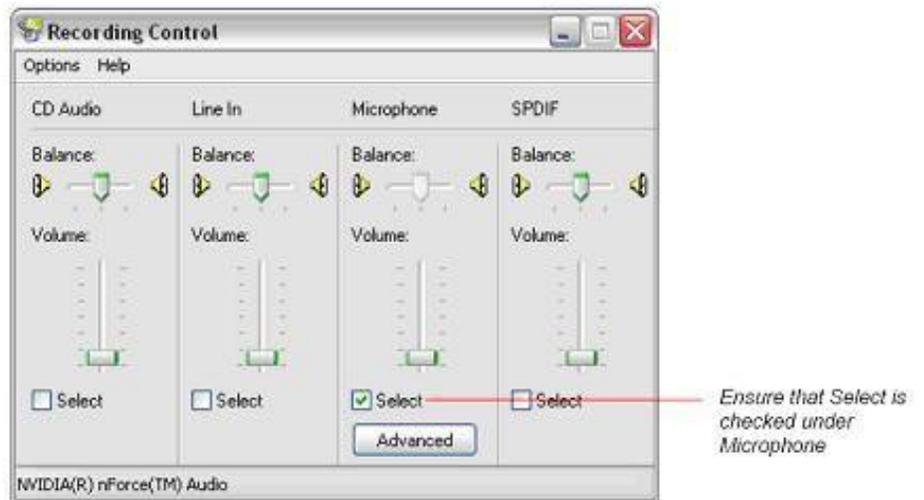
If **Microphone** is not visible on the **Play Control**, select **Options** → **Properties** and ensure that there is a checkmark beside **Microphone**. Press **OK**.



Check your **Record Control** settings. On the **Play Control** window, select **Options** → **Properties** and select **Recording**. Ensure that there is a checkmark beside **Microphone**, and press **OK**.



When you press **OK**, the Record Control will open. Select the microphone by clicking in the check box. When you have selected it, you can close the Record Control.



Sound Configuration

Are your speakers plugged in?

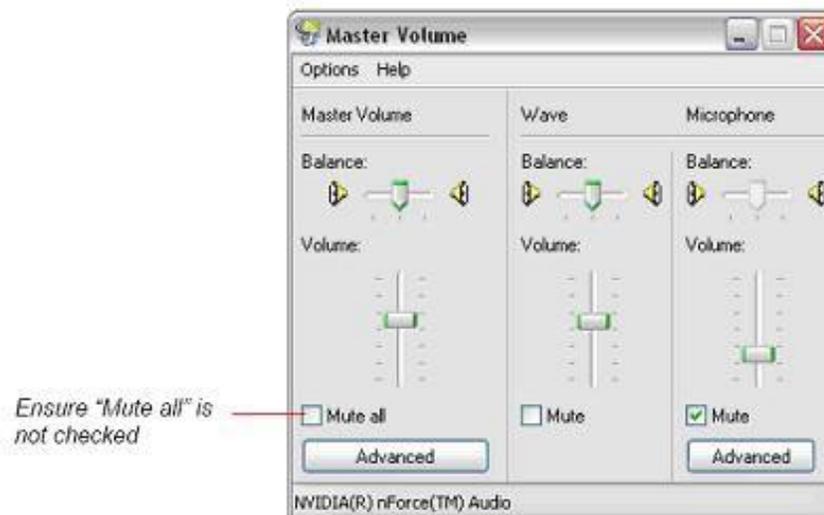
Ensure that your speakers have power, and that they are plugged in to the correct port of your sound card.

Is the volume turned up on your computer?

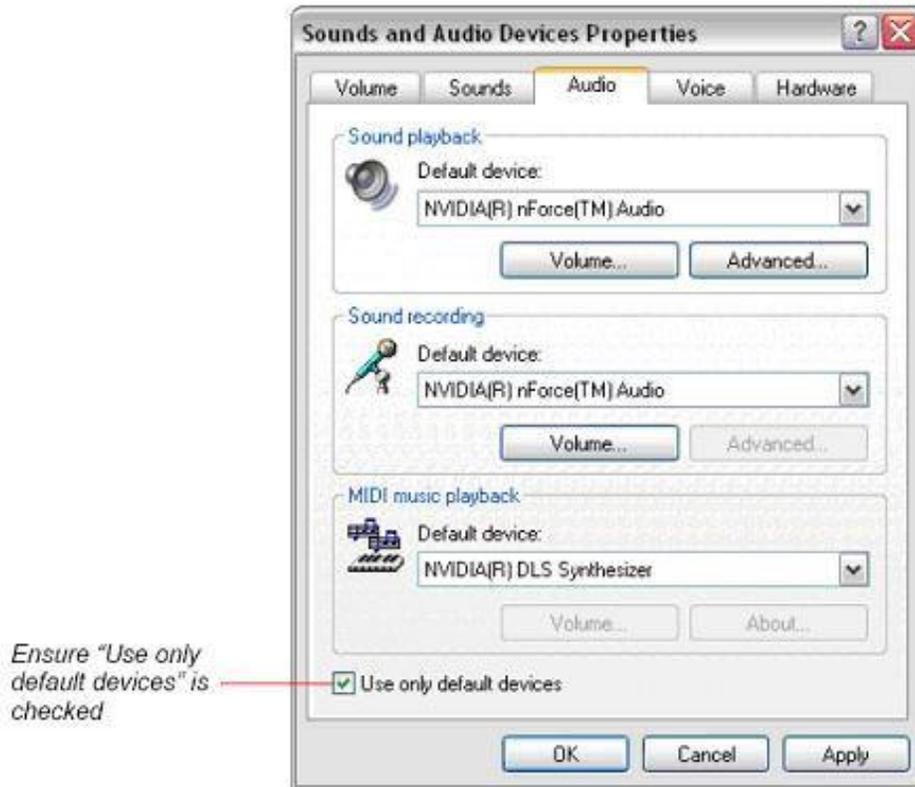
Ensure that the speakers have not been muted by clicking on the volume icon in your taskbar (the lower right hand corner of your screen). The box should be unchecked (not muted). Ensure that the volume is not turned down all the way. Adjust it to desired level by dragging the volume slider up or down.



If you can't see the volume icon on your taskbar, ensure that the volume settings are turned on in the Play Control. Click on the **Start** menu and select **Programs** → **Accessories** → **Entertainment** → **Volume Control**. Ensure that the Play Control is all the way to the top and that the check box beside the "Mute all" label is not checked.



Ensure that the Audio Properties are set correctly. To check the Audio Properties, right click the sound icon in the system tray and select Adjust Audio Properties, or open your control panel and select the Sound and Audio Devices control. Select the Audio tab and ensure that the Use only preferred (or default) devices checkbox is checked.



Ensure "Use only default devices" is checked

- <http://www.computerhope.com/issues/ch000282.htm>
- <http://www.microsoft.com/msagent/support/user/sr.asp>
- http://www.hotcomm.com/FAQ/FAQ_trouble_mic.asp