



Geomagic[®] Touch[™]

HAPTIC DEVICES

Geomagic[®] Touch Device Driver Installation Guide



3DSYSTEMS[®]

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Hardware usage guidelines are provided to assist the user in protecting the effectiveness and life of the device. They are not intended as recommendations for the prevention of repetitive stress injury, carpal tunnel syndrome or any other conditions, injuries or disorders; users should consult their own physicians. By using the Geomagic Touch device, the user acknowledges and agrees that Geomagic Solutions shall have no liability for any disorder, condition or injury arising from any use of the device.

Warning Do NOT open the Geomagic Touch device. Attempting to open or repair the device by anyone other than a certified authorized service center voids the manufacturer warranty and hardware maintenance contract.

Questions or Comments

If you have any questions for our technical support staff, please contact us at SensibleSupport@geomagic.com. You can also phone 1-888-736-7225 (U.S.A. only) or +1-781-939-7444 (International).

If you have any questions or comments about the documentation, please contact us at SensibleDocumentation@geomagic.com.



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Contents

	Preface.....	i
	Resources for Learning Freeform or OpenHaptics Toolkit	i
	Typographical Conventions	ii
Chapter 1	Getting Started	1-1
	Contents of the Shipping Box	1-1
	System Requirements	1-2
	Overview of the Geomagic Touch Device Driver Installation Process	1-3
Chapter 2	Installing the Geomagic Touch	
	Device Driver	2-1
	Uninstalling Previous Versions of the Device Driver	2-1
	Installing the Geomagic Touch Device Driver	2-2
	Setting Up the Geomagic Touch Device	2-3
	Connecting the Geomagic Touch Device	2-3
Appendix A	Appendix A: Customer Support	A-1

Preface

Congratulations on your purchase of a Geomagic Touch haptic device! This guide will step you through the installation and of the Geomagic Touch Device Driver. Detailed instructions for installing the Geomagic® Touch haptic device can be found in the *Geomagic Touch Device Guide*.

Throughout the documentation the use of the term “Geomagic Touch device” refers to any of the Geomagic Touch family of haptic devices. Any exceptions are noted.

Resources for Learning Freeform or OpenHaptics Toolkit

The following documentation and materials are provided to help you learn how to use the systems:

The *Claytools Installation Guide* The Claytools Install Guide is a printed and electronic document that contains instructions on installing and setting-up the Claytools system as well as troubleshooting tips.

The *Freeform Installation Guide* The Freeform Install Guide is a printed and electronic document that contains instructions on installing and setting-up the Freeform Modeling system as well as troubleshooting tips.

The *Freeform Tutorials* An electronic document containing several lessons that exercise the basic features of the system. If you do a typical install, this document is available from the Freeform program group. Otherwise the document can be found on the product DVD or online.

The *Openhaptics Installation Guide* The Openhaptics Install Guide is a printed and electronic document that contains instructions on installing the toolkit and deploying your haptically enabled application.

The *Openhaptics Programmer’s Guide* This guide explains the Openhaptics toolkit (which includes the QuickHaptics™ micro API), and introduces you to the architecture of the toolkit, how it works, what you can do with it, as well as the fundamental components of creating haptic environments.

The *Geomagic Touch Device Driver Installation Guide* The Geomagic Touch Device Driver Installation Guide (this document) is an electronic document that contains instructions on installing the Geomagic Touch Device Driver as well as troubleshooting tips.

The *Geomagic Touch Device Guide* An electronic document (located on the Freeform product DVD or online) that is shipped with your haptic device that describes the process of installing the device drivers and connecting the haptic device as well as how to work with the device including proper handling, troubleshooting, and device specifications.

Product DVD Users may also find helpful files located on the product DVD.

WebSite A variety of information is available via the website at <http://www.geomagic.com>, including updated information, answers to Frequently Asked Questions, expert “tips and tricks,” example models, and more.

Typographical Conventions

This guide uses the following typographical conventions:

Convention	Description	Example
Italics	First use of a new term; reference to another document or file.	A <i>Voxel</i> is...; see the <i>Device Guide</i> .
Bold	Keywords, actual user input, or examples.	Click Ok .
Greater Than (>)	Indicates a menu pick, as in “select Options from the Tools menu”.	Tools>Options

1

Getting Started

This guide covers the currently shipping Geomagic Touch Device Driver. The information contained in this manual was current at the time of publication. Visit www.geomagic.com for the latest information.

This chapter describes the following:

- The contents of the shipping box
- System Requirements
- An overview of the installation process

Contents of the Shipping Box

If you are purchasing a Geomagic Touch haptic device for the first time, in your shipping box you should find the following:

- **The Geomagic Touch Device Guide:** The Geomagic Touch device uses high-fidelity force feedback to make it possible to touch and manipulate virtual objects. This can be found in electronic form on the Freeform product DVD and online.
- **The Geomagic Touch Device Driver Installation Guide:** Describes the process of installing the device drivers and connecting the haptic device as well as how to work with the device including proper handling, troubleshooting, and device specifications. This can be found in electronic form on the Freeform product DVD and online.
- **The Claytools, Freeform or Openhaptics Kit:** This kit contains a DVD and the Installation Guides.
- One of the following:
 - **Parallel Port Cable:** (For Geomagic Touch X Units) The cable is used to attach the device to the computer's parallel port.
 - **FireWire® Cable:** (For Geomagic Touch Units) This IEEE-1394a compliant six pin to six pin FireWire cable is used to connect the device to the IEEE-1394a compliant six pin FireWire port on your computer.
 - **RJ45 Ethernet Cable:** This cable is used to attach the computer's Ethernet port to the device or, one unit to another.
- **Universal Power Supply:** The power supply can be used on any standard circuit, using the supplied power cord.
- **Power Cord:** The power cord connects the Universal Power Supply to the wall outlet.

If any items are missing, please call Customer Support at 1-888-736-7225.

System Requirements

This section describes the hardware and software requirements for running one of the applications. Check the support section of the website for the latest system requirements information and specific qualified system configurations.

Some users have had success running system configurations that deviate from the following. In such cases, these configurations are not officially supported by Geomagic, Inc.

Additionally, a variety of hardware platforms are tested in combination with the graphics subsystems. While we make every attempt to be as thorough as possible, hardware manufacturers change their products frequently and may be shipping newer products or have discontinued active support for others. Check the support section of the website for the latest system requirement information and specific qualified systems.

32-Bit Operating Systems

The 32-bit editions of software are designed to run on the Microsoft® Windows® XP Professional (32 bit edition) or Windows® 7 (32 bit edition). Running the system requires the following:

- 512 MB of free hard disk space for OpenHaptics, 4GB for Freeform.
- 1280 x 960 or higher display resolution
- Either:
 - Geomagic Touch X: An EPP or ECP compatible parallel port, or if using the Phantom Communications Converter (sold separately), an IEEE-1394a compatible FireWire Card.
 - Geomagic Touch: IEEE-1394a compatible FireWire Card.
 - RJ45 Ethernet Cable

Additionally, your machine must meet either the recommended or minimum requirements:

Recommended:

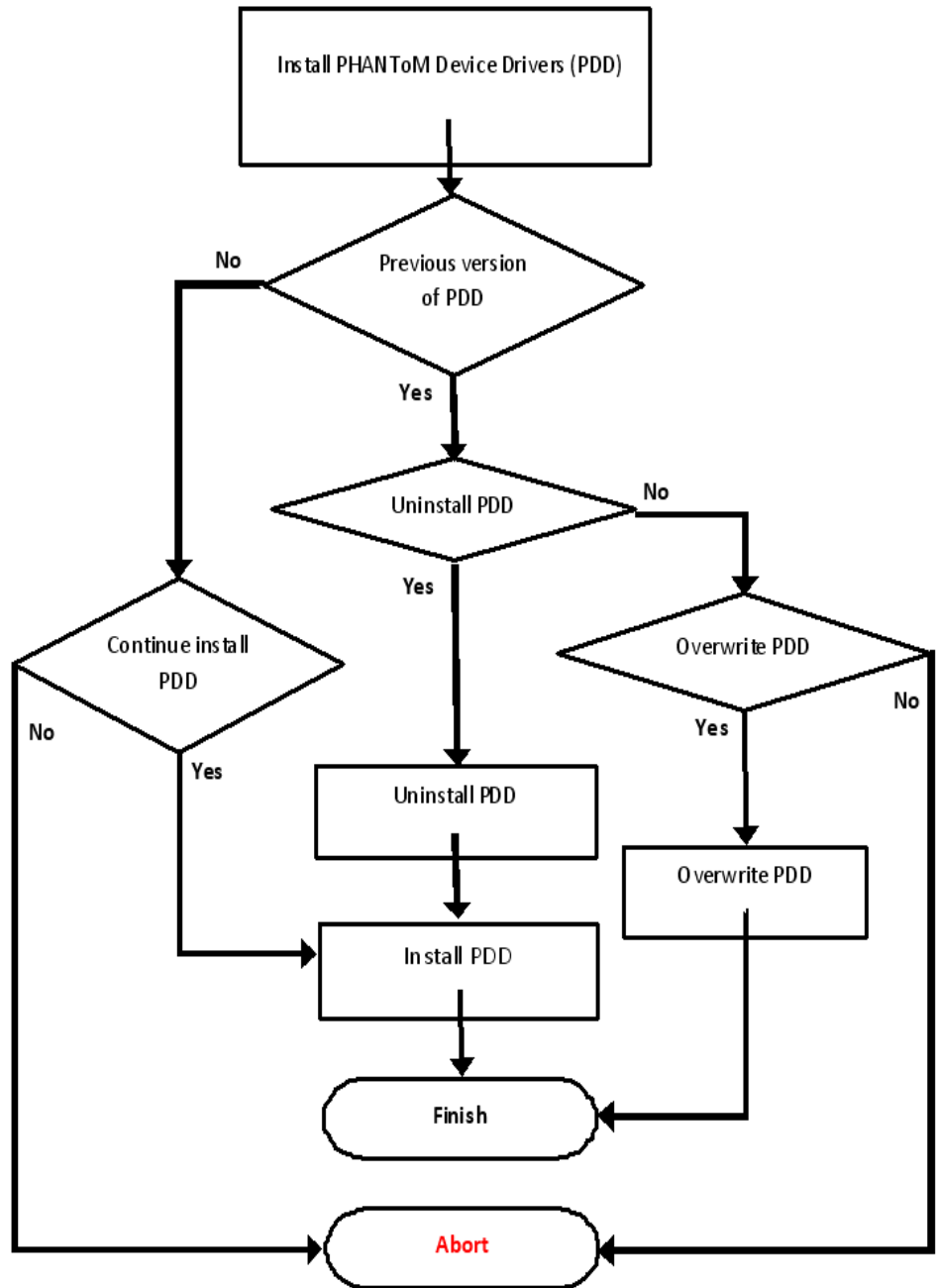
- Dual Xeon® Pentium® IV 2.4 GHz or better processor
- 2 GB RAM
- Windows® XP Professional SP3 or Windows® 7

64-bit Operating Systems

The 64-bit editions of the software are designed to run on the Microsoft® Windows® XP (64 bit edition), Windows® 7 (64 bit edition), or Windows 8 (64 bit edition). Running the system requires the following:

- 512 MB of free hard disk space for OpenHaptics, 4GB for Freeform.
- 1280 x 960 or higher display resolution
- Either:
 - Geomagic Touch X: An EPP or ECP compatible parallel port, or if using the Phantom Communications Converter (sold separately), an IEEE-1394a compatible FireWire Card.
 - Geomagic Touch: IEEE-1394a compatible FireWire Card.
 - RJ45 Ethernet Cable

Overview of the Geomagic Touch Device Driver Installation Process



1 GETTING STARTED

Overview of the Geomagic Touch Device Driver Installation Process

2

Installing the Geomagic Touch Device Driver

This chapter will step you through the Geomagic Touch Device Driver installation process, help you verify that your system is set up properly, and describe how to properly handle the Geomagic Touch haptic device. The instructions are for both existing and new users except as noted.

The DVD contains two types of software:

- The Claytools, Freeform *or* OpenHaptics Toolkit application
- The Geomagic Touch Device Drivers

Note that, as with most other software packages, you must have administrator privileges on the machine in order to install. If you are unfamiliar with installing software or do not have administrator privileges, please see your System Administrator for more information.

Uninstalling Previous Versions of the Device Driver

Before installing the new Geomagic Touch Device Driver, you **MUST** first uninstall any previous versions of the Phantom Device Driver (PDD) that you have installed on your system.

- 1 From the Control Panel, click Programs and Features.
- 2 Locate and select PHANToM Device Drivers.
- 3 Click Uninstall and follow the instructions.

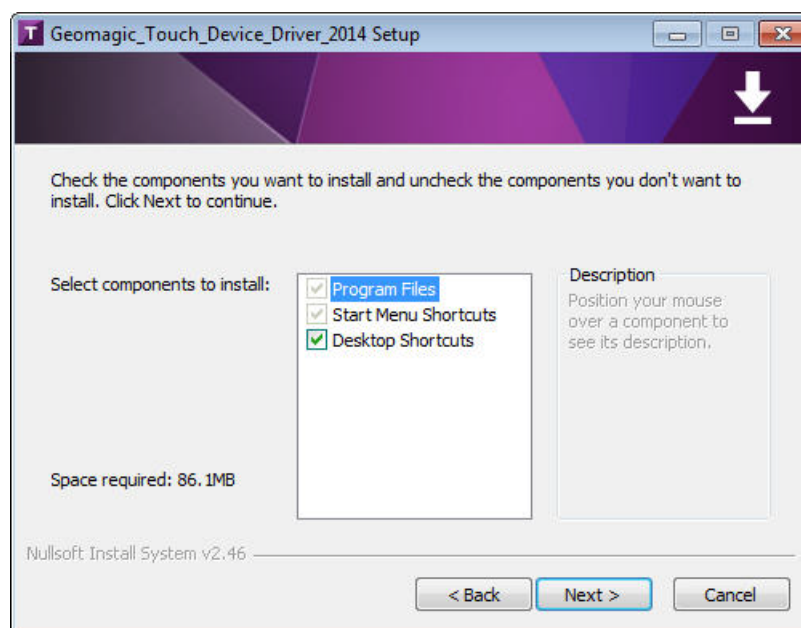
Installing the Geomagic Touch Device Driver

- 1 If you have a previous version of the (Phantom) device driver on your system, you **MUST** manually uninstall the previous version of the device driver before starting the installation process. See [Uninstalling Previous Versions of the Device Driver](#).
- 2 Insert the product DVD into your DVD drive or download the Geomagic Touch Device Driver from <http://sensable.com/support-downloads.htm>. The Installation Wizard starts automatically.

Note If the installation wizard does not start, you will need to manually start the installation. Using Windows Explorer, browse the **DVD** and locate and double-click the **Install Wizard.exe** file.

- 3 Follow the Install Wizard to start the installation of the Geomagic Touch Device Driver.
- 4 In the **Choose Components** dialog, be sure the check box, "Desktop Shortcuts" is selected. This will create desktop shortcuts for the **Geomagic Touch Setup** and **Geomagic Touch Diagnostic**. If you do not install the Desktop Shortcuts, you will need to go to **Start>Programs>Geomagic Touch** to run the Geomagic Touch Setup and Geomagic Touch Diagnostic.

FIGURE 1.



You are now ready to setup your device.

Setting Up the Geomagic Touch Device

As part of the installation, the Geomagic Touch Setup tool will appear. If it does not appear, after you have installed the Geomagic Touch Device Driver, double-click the **Geomagic Touch Setup** icon on your desktop. You will be presented with a dialog box for setting up your device. Make sure that the correct Geomagic Touch model is chosen.

Note If you have not installed Desktop Shortcuts, go to **Start>Programs>Geomagic Touch** to run the Geomagic Touch Setup.

Connecting the Geomagic Touch Device

Plug the Geomagic Touch device into a power source and into your PC as described in the *Geomagic Touch Device Guide*.

Warning To lift the Geomagic Touch X, grab the metal covers and support the base when moving it. To lift the Geomagic Touch, grasp both sides of the base. Lifting a Geomagic Touch device by any of its moving parts may break the device. DO NOT lift by the stylus.

2 INSTALLING THE GEOMAGIC TOUCH DEVICE DRIVER

Connecting the Geomagic Touch Device

Appendix A: Customer Support

If you encounter any difficulties within your warranty period, you can obtain Technical Support through the three channels listed below. If you are out of warranty and do not have active maintenance, Technical Support is limited.

- If you purchased your software/device from a distributor, please contact them first.
- Customer Support can be reached via e-mail at SensibleSupport@geomagic.com.
- Customer Support can also be reached via telephone:
 - In the United States: 1-888-736-7225
 - Outside the United States: +1-781-939-7444

