



Configuration of your SpaceMouse

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Find out how to customize your SpaceMouse to suit your needs. From basic settings through to advanced button customization, macros and radial menus, you'll soon be enjoying new levels of speed, comfort and performance!

Important note: When using the SpaceMouse, there are two primary paradigms to keep in mind. The first is called "Object mode". In this mode, consider the cap of your SpaceMouse as the actual model (object) on your screen that you wish to manipulate. Any direction you move the cap, is the direction that your model will also move on screen. The second paradigm is called "Camera mode". In this mode, your perspective is shifted to that of a camera man. Meaning, any direction you move the SpaceMouse cap, is the direction the camera will then be oriented.

Setting up your SpaceMouse

1. Connecting

Make sure the SpaceMouse is connected to a USB port of your PC (for SpaceMouse/CadMouse Wireless devices, please connect the supplied universal receiver dongle to a USB port) before starting the installation process.

Important - Your SpaceMouse should be placed on the opposite side of the 2D Mouse (i.e. if you use your 2D mouse in your right hand, the SpaceMouse will be used in your left hand):



2. Download the latest software package

Make sure you have the latest 3Dconnexion software installed. The latest version can be downloaded at <https://www.3dconnexion.com/drivers>.

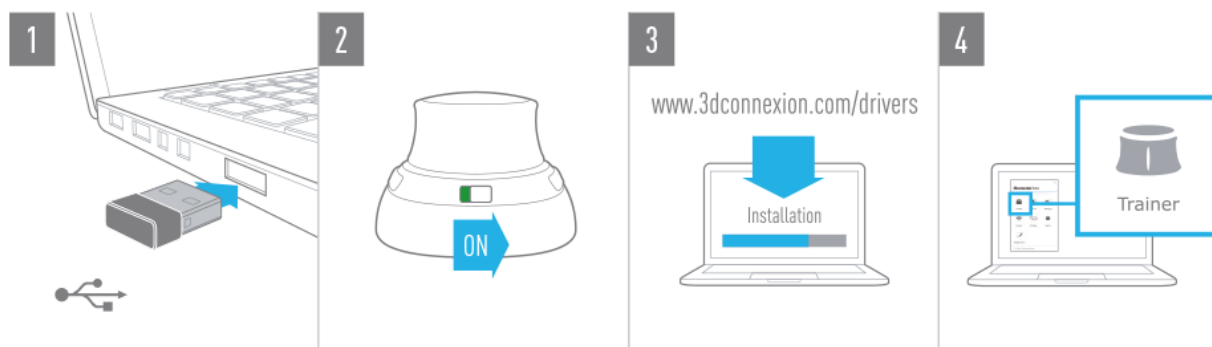
3. Software installation

Launch the downloaded software package and follow the on-screen instructions.

4. Pairing (wireless devices)

After installing the latest 3DConnexion software package, open the 3DConnexion folder on your PC and run the “3DConnexion Pairing tool”. Next, click the “Add Device” or “+” button and choose your device (alternatively, you can access this menu via 3DConnexion Home > Settings).

Connect SpaceMouse - Turn on the device via the power switch located on the front of the SpaceMouse Wireless. Once the device is on, you will receive an on-screen prompt in the 3DConnexion Pairing Tool to adjust your device. Once you do so, the device will be paired automatically.



5. Getting started

Like any new tool, there is a little bit of a learning curve - but most users tell us that within a short period of time, they stopped thinking about the SpaceMouse and began to intuitively navigate their 3D content in a way they could never do before.

To get you there as quickly as possible, we have included some helpful tools which are available via the SpaceMouse home icon on your Desktop:



3Dconnexion Home - training applications:

Available from SpaceMouse Home, some fun demo applications are available to provide extra assistance in learning the SpaceMouse. These include applications such as a Trainer and the 3Dconnexion Viewer. SpaceMouse Home offers also direct access to the 3Dconnexion product's Manual and the Registration web page.

3Dconnexion Properties:

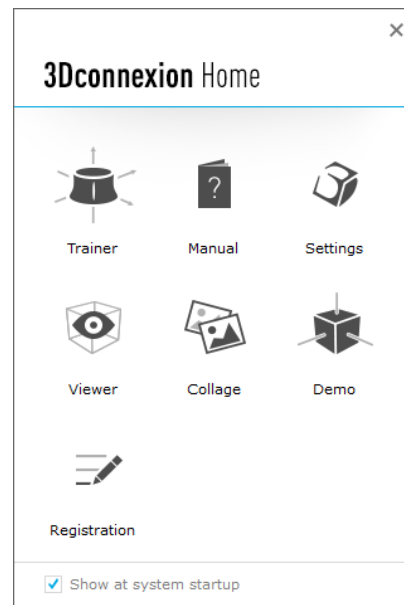
This is where you can customize settings for your SpaceMouse, including Speed, Button Mapping and a lot more.

3Dconnexion manual:

This help file, which provides general help in working with the properties panel settings and SpaceMouse usage.

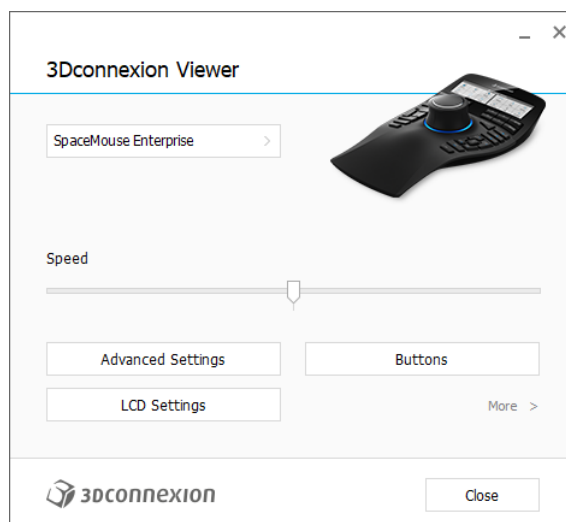
Website:

Our website, www.3dconnexion.com, also provides additional information on our 3D Mice and answers to frequently asked questions.



3Dconnexion Properties

After installing the 3Dconnexion software, you can access the 3Dconnexion Properties panel to configure your SpaceMouse. You can access the 3Dconnexion Properties panel via the icon in your notification area (systray), SpaceMouse Home or the "Menu" button on your SpaceMouse (by default this is the left button on 2-button devices). At the top left of the panel you see the active application. Any changes you make to SpaceMouse settings are relevant to this application only.



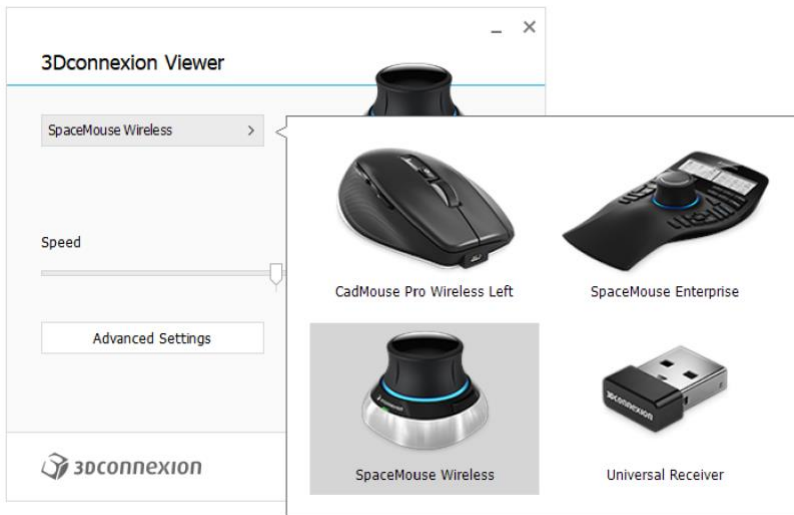
All changes made in the Properties panel are live (immediately applied).

Speed

This slider sets the overall speed for your device. In other words, it changes the amount of force or torque that needs to be applied to the SpaceMouse cap to move an object, scene, or image.

Selecting your SpaceMouse

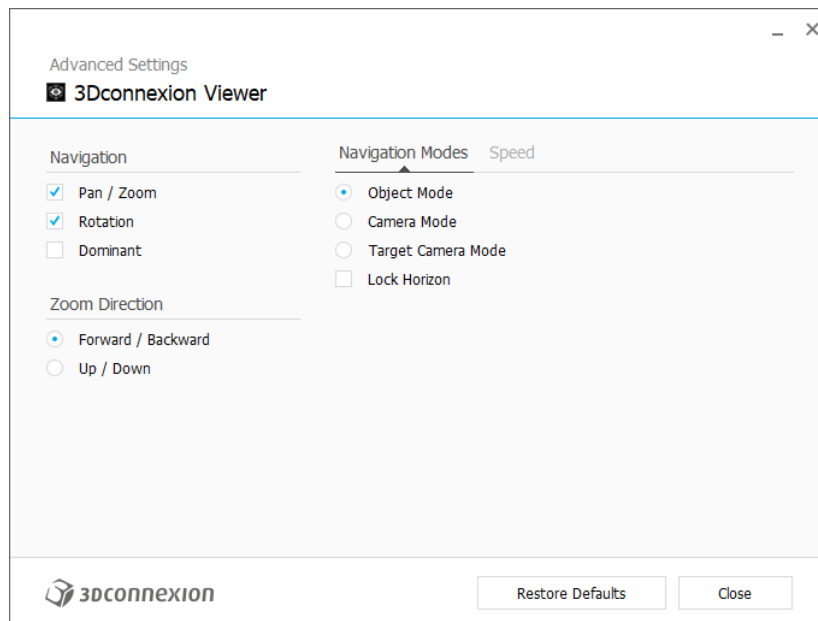
If you have multiple 3DConnexion devices connected, you can select the one you want to configure by clicking on the flyout button at the top left of the panel and then selecting the relevant device.



Advanced Settings

The "Advanced Settings" panel allows you to configure SpaceMouse settings for the active application (displayed at the top left of the panel).

Changes you make only affect the active application, so it's easy to configure your SpaceMouse to work just how you want it in each application.



Buttons

The Buttons panel within 3Dconnexion Properties allows you to assign commands, Macros or Radial Menus to the SpaceMouse buttons.

The active application is displayed at the top left of the panel and any changes made are only applied to that application. This allows you to configure your SpaceMouse individually for each of your applications.



Environment sensitivity

Some applications feature environment sensitive button mapping.

In those applications you can have different button assignments depending on the current active application environment. More information can be found in the application specific help sections of the mentioned applications:

Autodesk Inventor

Autodesk Fusion 360

Siemens NX

PTC Creo Parametric

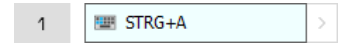
Siemens Solid Edge

Dassault Systèmes SolidWorks

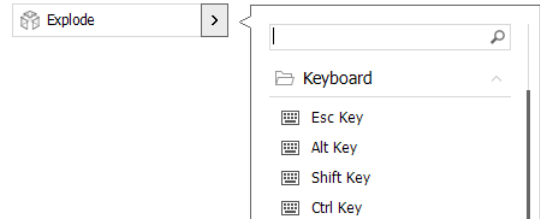
Welcome from 3Dconnexion

Assigning "Quick Macros" to buttons

To quickly assign a keystroke or macro to a button, simply click on the text in the button field and press the required key or key combination.

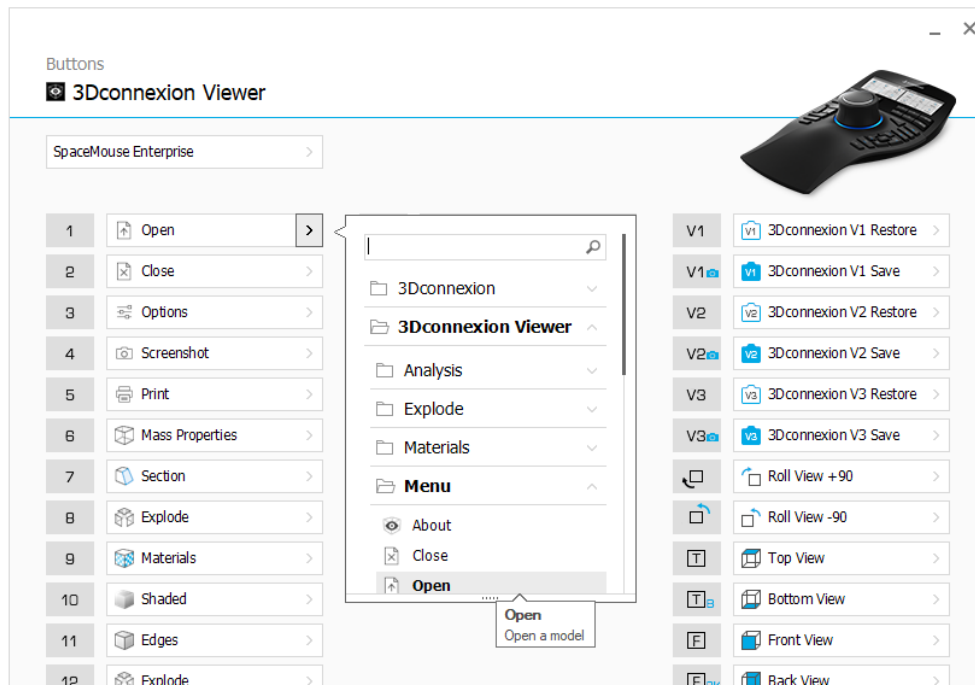


When a macro is created, it always sends a "press and release" command. If you want to assign a "press and hold" command instead (for example Ctrl or Shift), you should use the "Keyboard" command category in the flyout window (not the "Quick Macro" function described above).



Assigning Commands using the flyout window

Clicking on the ">" arrow on the right hand side of the button field opens a flyout window for that SpaceMouse button:

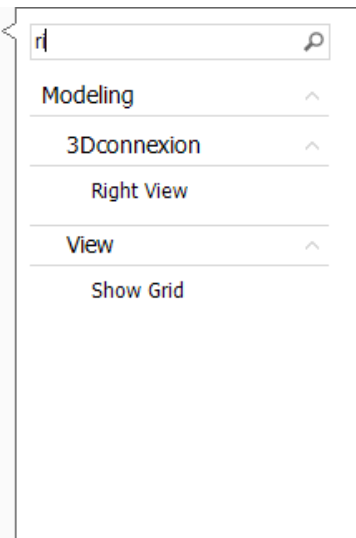


The category of the command that is currently assigned to that button is highlighted in bold.

The flyout window allows you to browse or search for commands in different categories such as 3Dconnexion or application commands. When you select a command by clicking on it, it is automatically assigned to the SpaceMouse button:

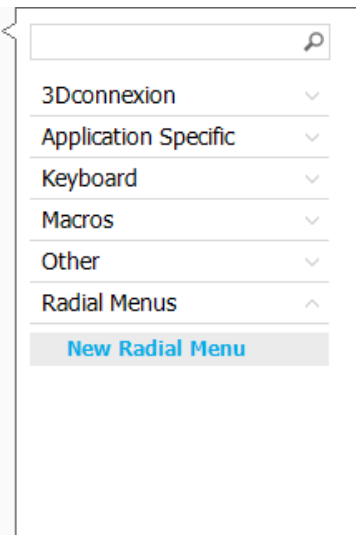
Using the Live Search field

You can search for specific commands by typing text into the Live Search field. Only commands (and their parent categories) which contain the text sequence you enter are shown in the flyout window.

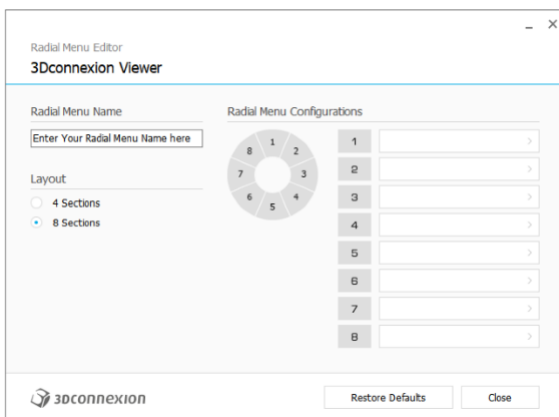


Creating Radial Menus

To create a new Radial Menu, expand the "Radial Menu" category and click on "New Radial Menu".

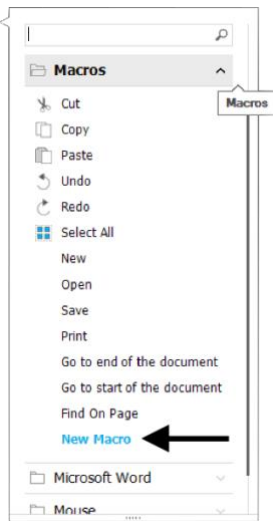


This brings up the Radial Menu Editor where you can assign a name and commands to the different sections. Your new Radial Menu will be automatically assigned to the button from where you opened the panel.

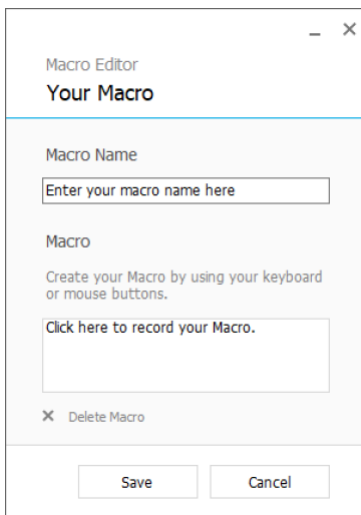


Creating Macros

To create a new Macro, expand the "Macro" category and click on "New Macro".

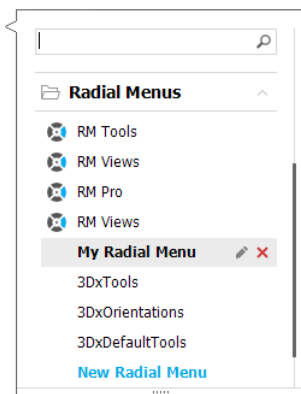


This opens the Macro Editor where you can assign a name for your Macro and a sequence of keystrokes in the corresponding fields. Clicking on "Save" will automatically assign the new Macro to the button from where you opened the panel.



Editing and deleting user defined Radial Menus and Macros

To edit or delete a user defined Macro or Radial Menu, click on the corresponding pencil (edit) or cross (delete) icons in the button mapping flyout window:



Note: These icons are only available for user-created Macros and Radial Menus. 3Dconnexion predefined Macros and Radial Menus cannot be edited or deleted.

Supported Applications

Which application works with my SpaceMouse?

If an application is listed under [All Supported Applications](#) it has already added support for SpaceMouse.

To ensure a consistent superior SpaceMouse experience across applications, 3Dconnexion provides a software development program allowing software vendors to integrate support for our input devices in their applications. This program includes a simple software development kit (SDK) for Windows, Mac OS X, UNIX and Linux. You must first register as a technology professional on our [website](#) to be eligible. Once logged in, you may download our SDK [here](#).

If your application of choice does not yet support 3Dconnexion 3D devices, the best way to help is to request support for our devices through feedback directly to the developer or through their support page and user forum. Just provide them with the information about our software development program and include a link to our [SDK](#). We appreciate your help!

Special Applications

Some applications feature additional SpaceMouse settings.

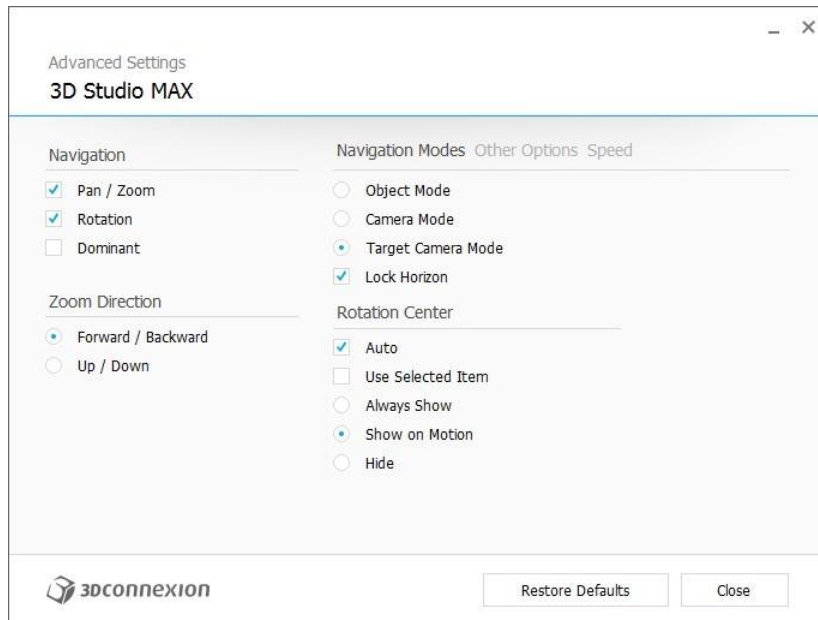
For those applications you have additional options available in the Advanced Settings Panel:

Autodesk 3ds Max Autodesk Maya Trimble SketchUp Autodesk Softimage Dassault Systèmes SolidWorks Siemens SolidEdge

3ds Max

How do I personalize the behavior of my SpaceMouse in 3ds Max?

Click on the "Advanced Settings" button on the 3Dconnexion Properties panel. This will open the following window:



Navigation

Pan Zoom: Enables/disables panning of your part, assembly or drawing. Enabled by default.

Rotation: Enables/disables rotation of your part, assembly or drawing. Enabled by default.

Dominant: Turns on and off dominant filter axis, which when enabled restricts the pan, zoom or rotations to a single axis.

Zoom Direction

Forward Backward: Zoom by pushing the cap away from you and towards you parallel to desk.

Up / Down: Zoom by pulling the cap upwards and pushing the cap downwards parallel to screen.

Navigation Modes

Object Mode enables "Object Mode" navigation - this is like reaching into the screen and holding the model in your hand. Push the SpaceMouse cap left and the model moves left. Push right and the model moves right. Lift up or push down and the model moves accordingly. Push away or pull forward on the SpaceMouse and the model responds accordingly. Twist in any direction and the model rotates in that direction.

Camera Mode enables using the SpaceMouse cap as if it is the camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the camera moves up. Push down and the camera moves down. You are entering the scene as if walking around in it.

Target Camera Mode enables "Target Camera Mode" navigation. Manipulate the SpaceMouse cap as if it is a target camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the

camera moves up. Push down and the camera moves down. When rotating the cap in any direction you will orbit around the target point (see "Rotation Center" below).

Rotation Center

Auto sets the center of rotation dynamically. When the complete model is in view, the center of volume of the whole model is used as rotation point. When you move closer, the center of rotation will be set on an object close to your center of the view. You can also set the Rotation Center manually using "CTRL + middle mouse button".

Always Show always visualizes the current Rotation Center as shown below.

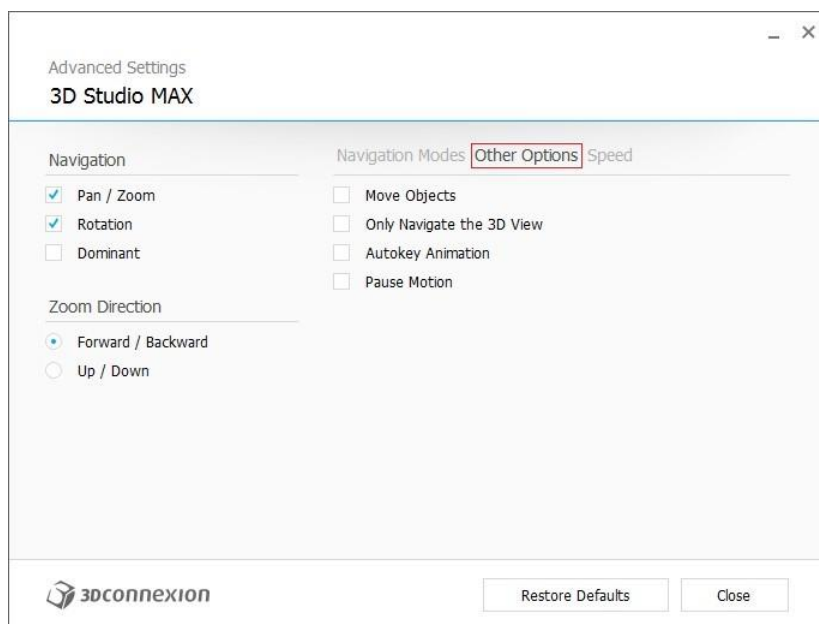


Show on Motion will visualize the Rotation Center only during movement.

"Hide" will disable the Rotation Center visualization.

Other Options

Clicking on "Other Options" provides additional features to adjust:



Move Objects: Enables the movement of selected objects inside of the scene.

Only Navigate 3D View: If enabled, the SpaceMouse movement will be locked to 3D Viewports. This option is very useful if you are doing some editing work in orthographic view and simultaneously using the SpaceMouse to pan, zoom and rotate in a perspective view for improved visualization.

"Autokey Animation" allows you to automatically set keys when moving a camera with the SpaceMouse. To use this mode, follow these steps:

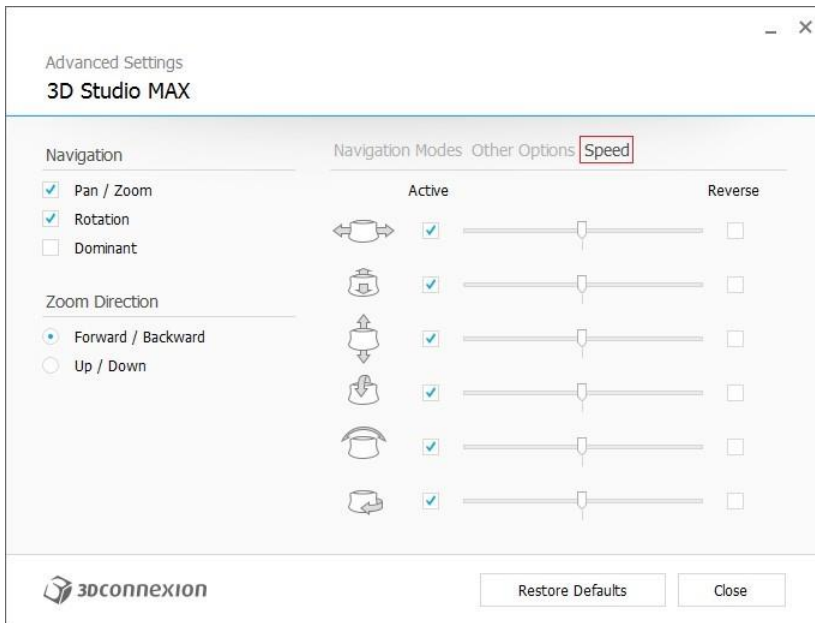
1. Change view to a created camera, not the perspective view.
2. Ensure "Autokey Animation" is enabled.
3. Enable Auto Key within 3ds Max
4. Now move the camera with the SpaceMouse. The timeline will move and keys will be automatically set.
5. Once complete, disable "Auto Key" within 3ds Max. The newly created animation can be played back.

This option is very useful for quickly creating test animations to ensure that object positioning is as expected.

Pause Motion: Allows the SpaceMouse to zoom in to where the traditional mouse is pointing. Press the middle mouse button and move the SpaceMouse cap forward and backward parallel to desk to activate fast zooming mode.

Speed

Clicking on "Speed" provides the standard functions outlined in the [Advanced Settings](#) section.



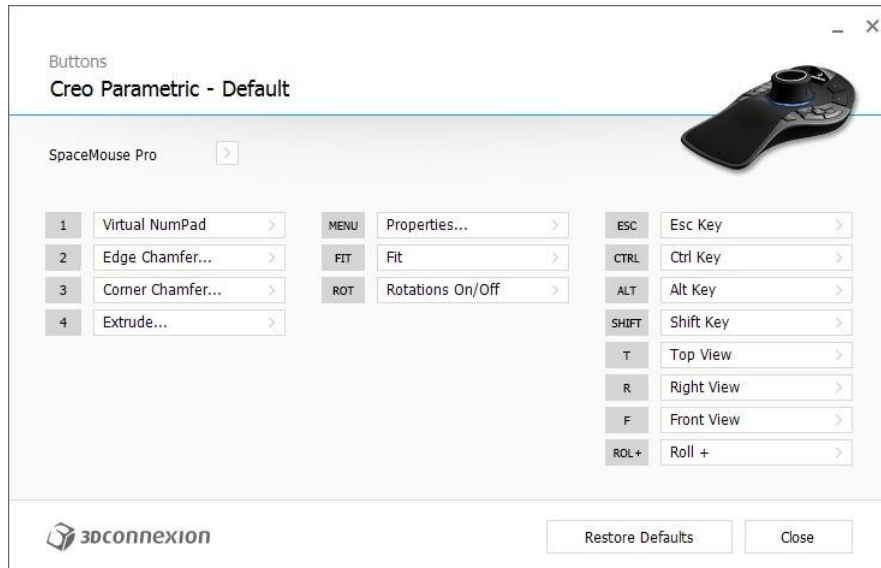
Creo Parametric

Button Mapping in Creo Parametric

Each environment, such as sketch, part or assembly has its own button mapping. Your SpaceMouse automatically recognizes the active environment.

All changes to the buttons in the active mode are only effective for the active environment.

The active environment is shown in bold on the top left of the button mapping panel.



Inventor

Button Mapping in Inventor

Each environment, such as sketch, part or assembly has its own button mapping. Your SpaceMouse automatically recognizes the active environment.

All changes to the buttons in the active mode are only effective for the active environment.

The active environment is shown in bold on the top left of the button mapping panel.

Maya

How do I personalize the behavior of my SpaceMouse in Maya?

Click on the "Advanced Settings" button on the 3Dconnexion Properties panel. This will open the following window:

Navigation

Pan Zoom: Enables/disables panning of your part, assembly or drawing. Enabled by default.

Rotation: Enables/disables rotation of your part, assembly or drawing. Enabled by default.

Dominant: Turns on and off dominant filter axis, which when enabled restricts the pan, zoom or rotations to a single axis.

Zoom Direction

Forward Backward: Zoom by pushing the cap away from you and towards you parallel to desk.

Up / Down: Zoom by pulling the cap upwards and pushing the cap downwards parallel to screen.

Navigation Modes

Object Mode enables "Object Mode" navigation - this is like reaching into the screen and holding the model in your hand. Push the SpaceMouse cap left and the model moves left. Push right and the model moves right. Lift up or push down and the model moves accordingly. Push away or pull forward on the SpaceMouse and the model responds accordingly. Twist in any direction and the model rotates in that direction.

Camera Mode enables using the SpaceMouse cap as if it is the camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the camera moves up. Push down and the camera moves down. You are entering the scene as if walking around in it.

Target Camera Mode enables "Target Camera Mode" navigation. Manipulate the SpaceMouse cap as if it is a target camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the camera moves up. Push down and the camera moves down. When rotating the cap in any direction you will orbit around the target point (see "Rotation Center" below).

Rotation Center

Auto sets the center of rotation dynamically. When the complete model is in view, the center of volume of the whole model is used as rotation point. When you move closer, the center of rotation will be set on an object close to your center of the view. You can also set the Rotation Center manually using "CTRL + middle mouse button".

Always Show always visualizes the current Rotation Center as shown below.

Show on Motion will visualize the Rotation Center only during movement.

"Hide" will disable the Rotation Center visualization.

Other Options

Clicking on "Other Options" provides additional features to adjust:

Move Objects: Enables the movement of selected objects inside of the scene.

Only Navigate 3D View: If enabled, the SpaceMouse movement will be locked to 3D Viewports. This option is very useful if you are doing some editing work in orthographic view and simultaneously using the SpaceMouse to pan, zoom and rotate in a perspective view for improved visualization.

"Autokey Animation" allows you to automatically set keys when moving a camera with the SpaceMouse. To use this mode, follow these steps:

1. Change view to a created camera, not the perspective view.
2. Ensure "Autokey Animation" is enabled.
3. Enable Auto Key within Maya
4. Now move the camera with the SpaceMouse. The timeline will move and keys will be automatically set.
5. Once complete, disable "Auto Key" within Maya. The newly created animation can be played back.

This option is very useful for quickly creating test animations to ensure that object positioning is as expected.

Pause Motion: Allows the SpaceMouse to zoom in to where the traditional mouse is pointing. Press the middle mouse button and move the SpaceMouse cap forward and backward parallel to desk to activate fast zooming mode.

Speed

Clicking on "Speed" provides the standard functions outlined in the [Advanced Settings](#) section.

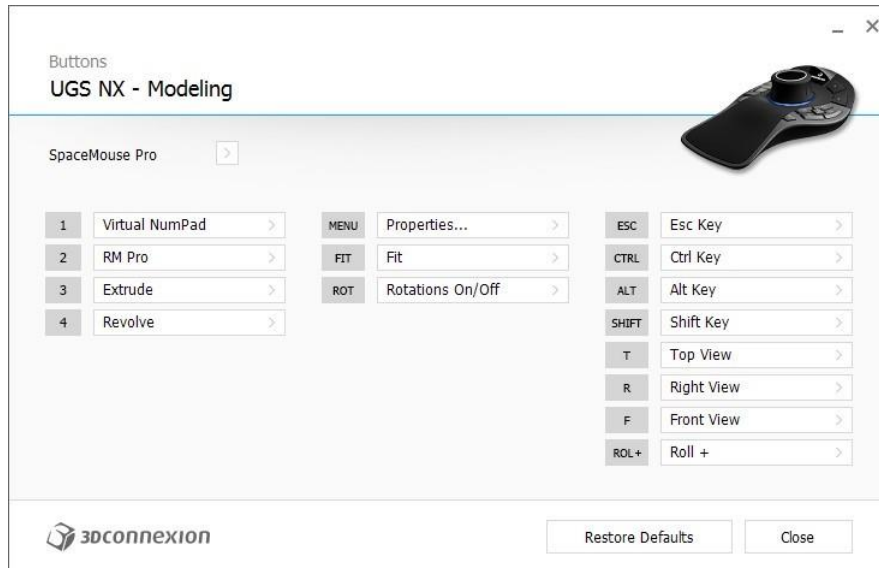
NX

Button Mapping in NX

Each environment, such as Modeling or Sheet Metal, has its own button mapping. Your SpaceMouse automatically recognizes the active environment.

All changes to the buttons in the active mode are only effective for the active environment.

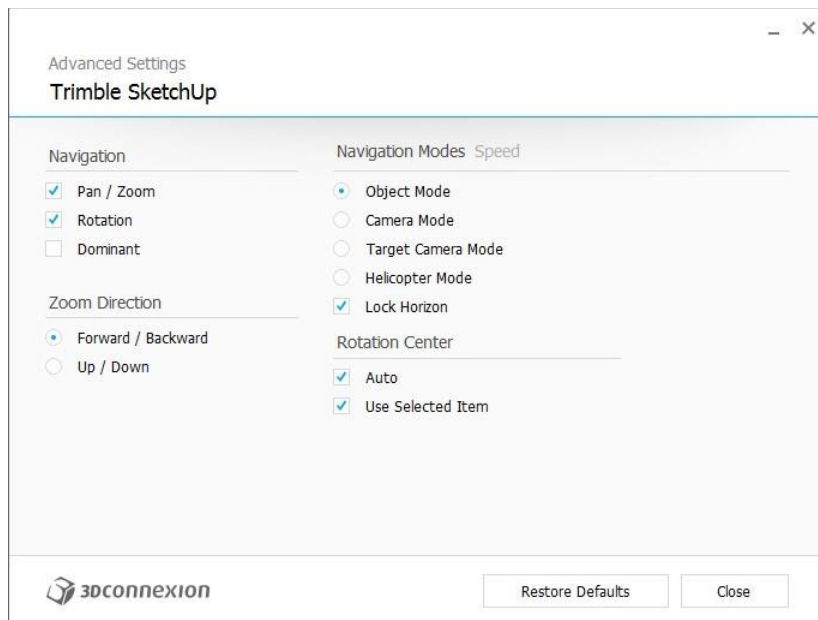
The active environment is shown in bold on the top left of the button mapping panel.



SketchUp

How do I personalize the behavior of my SpaceMouse in SketchUp?

Click on the "Advanced Settings" button on the 3Dconnexion Properties panel. This will open the following window:



Navigation

Pan Zoom: Enables/disables panning of your part, assembly or drawing. Enabled by default.

Rotation: Enables/disables rotation of your part, assembly or drawing. Enabled by default.

Dominant: Turns on and off dominant filter axis, which when enabled restricts the pan, zoom or rotations to a single axis.

Zoom Direction

Forward Backward: Zoom by pushing the cap away from you and towards you parallel to desk.

Up / Down: Zoom by pulling the cap upwards and pushing the cap downwards parallel to screen.

Navigation Modes

Object Mode enables "Object Mode" navigation - this is like reaching into the screen and holding the model in your hand. Push the SpaceMouse cap left and the model moves left. Push right and the model moves right. Lift up or push down and the model moves accordingly. Push away or pull forward on the SpaceMouse and the model responds accordingly. Twist in any direction and the model rotates in that direction.

Camera Mode enables using the SpaceMouse cap as if it is the camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the camera moves up. Push down and the camera moves down. You are entering the scene as if walking around in it.

Target Camera Mode enables "Target Camera Mode" navigation. Manipulate the SpaceMouse cap as if it is a target camera. Push into the scene and the camera moves forward into the scene. The scene will appear to move toward and around you. Push left and the camera moves to the left (the scene moves to the right). Push right and the camera moves to the right (the scene moves to the left). Lift up and the camera moves up. Push down and the camera moves down. When rotating the cap in any direction you will orbit around the target point (see "Rotation Center" below).

Helicopter Mode enables a "Camera Mode" navigation but pushing the cap forward while looking down will not change the altitude of the camera.

Lock Horizon forces the horizon to be kept leveled as it currently is.

Rotation Center

Auto sets the center of rotation dynamically. When the complete model is in view, the center of volume of the whole model is used as rotation point. When you move closer, the center of rotation will be set on an object close to your center of the view. You can also set the file:///C:/Users/rstadie/AppData/Local/Temp/MCDLT2K3.htm 22.02.2021

Rotation Center manually using "CTRL + middle mouse button". use Selected Item forces the rotation center to only take the currently selected objects into account.

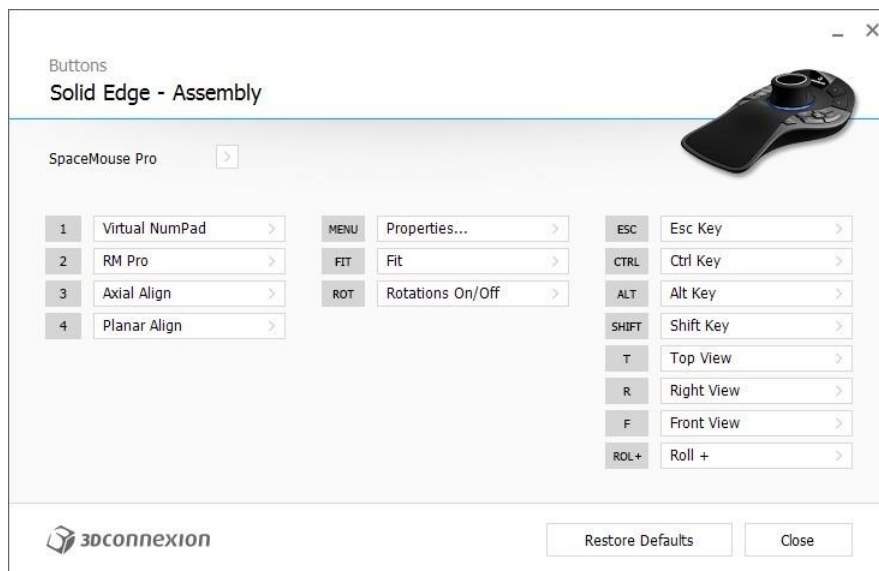
Solid Edge

Button Mapping in Solid Edge

Each environment, such as sketch, part or assembly has its own button mapping. Your SpaceMouse automatically recognizes the active environment.

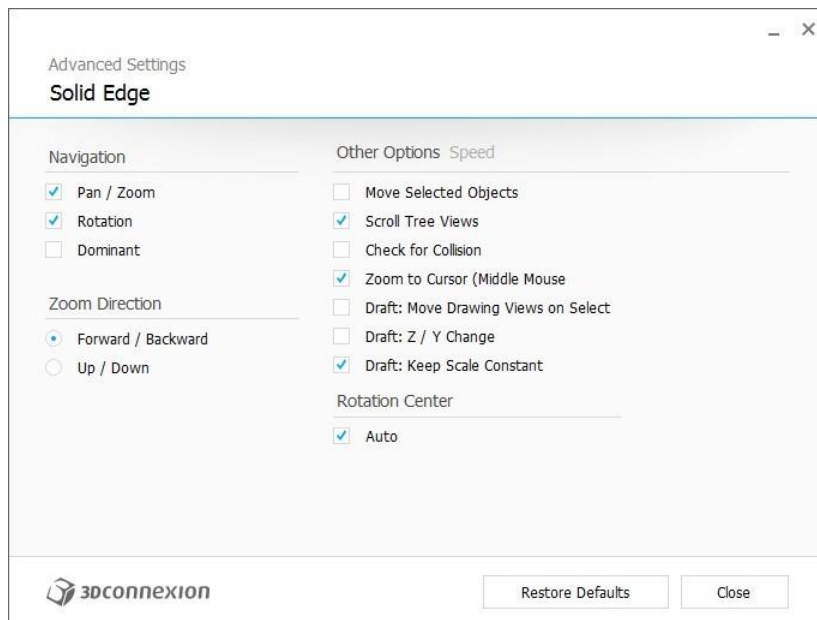
All changes to the buttons in the active mode are only effective for the active environment.

The active environment is shown in bold on the top left of the button mapping panel.



How do I personalize the behaviour of my SpaceMouse in Solid Edge?

Click on the "Advanced Settings" button on the 3Dconnexion Properties panel. This will open the following window:



Navigation

Pan Zoom: Enables/disables panning of your part, assembly or drawing. Enabled by default.

Rotation: Enables/disables rotation of your part, assembly or drawing. Enabled by default.

Dominant: Turns on and off dominant filter axis, which when enabled restricts the pan, zoom or rotations to a single axis.
file:///C:/Users/rstadie/AppData/Local/Temp/MCDLT2K3.htm 22.02.2021

Zoom Direction

Forward Backward: Zoom by pushing the cap away from you and towards you parallel to desk.

Up / Down: Zoom by pulling the cap upwards and pushing the cap downwards parallel to screen.

Other Options

Move Selected Objects: Enables or disables independent movement of sub-parts within an Assembly.

Scroll Tree Views: Allows the SpaceMouse to scroll (vertically and horizontally) any tree or list view under the mouse pointer.

Check For Collision: Activates collision detection in Solid Edge when manipulating a component with the SpaceMouse.

Zoom to Cursor: Allows the SpaceMouse to zoom in to where the traditional mouse is pointing. Press the middle mouse button and move the SpaceMouse cap forward and backward parallel to desk to activate fast zooming mode.

Draft: Move Drawing Views On Select: allows the SpaceMouse to move any selected Drawing View. This setting is enabled by default..

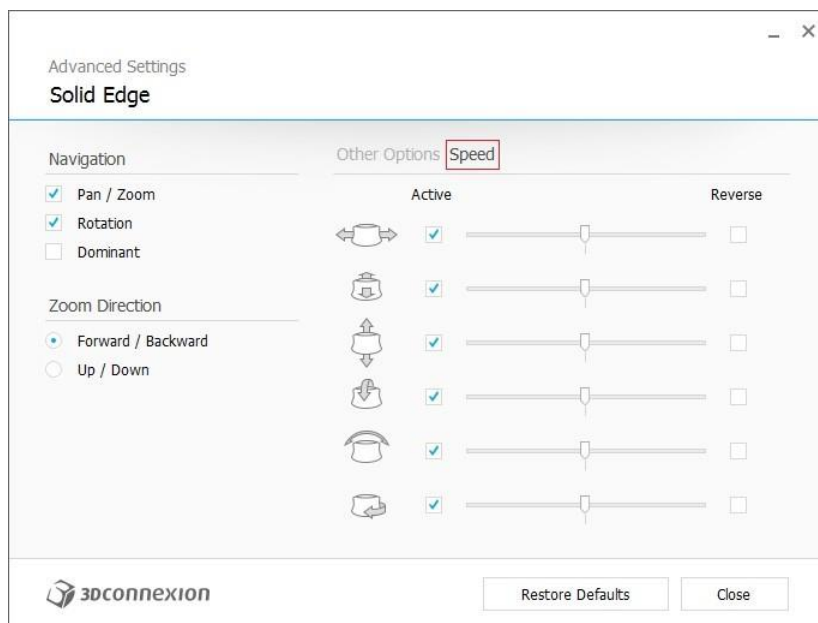
Draft: Z / Y Change: Allows to swap the Y and Z coordinates. This option is disabled by default, and is useful if the display is a horizontal screen.

Rotation Center

Auto sets the center of rotation dynamically. When the complete model is in view, the center of volume of the whole model is used as rotation point. When you move closer, the center of rotation will be set on an object close to your center of the view. You can also set the Rotation Center manually using "CTRL + middle mouse button".

Speed

Clicking on "Speed" provides the standard functions outlined in the [Advanced Settings](#) section.



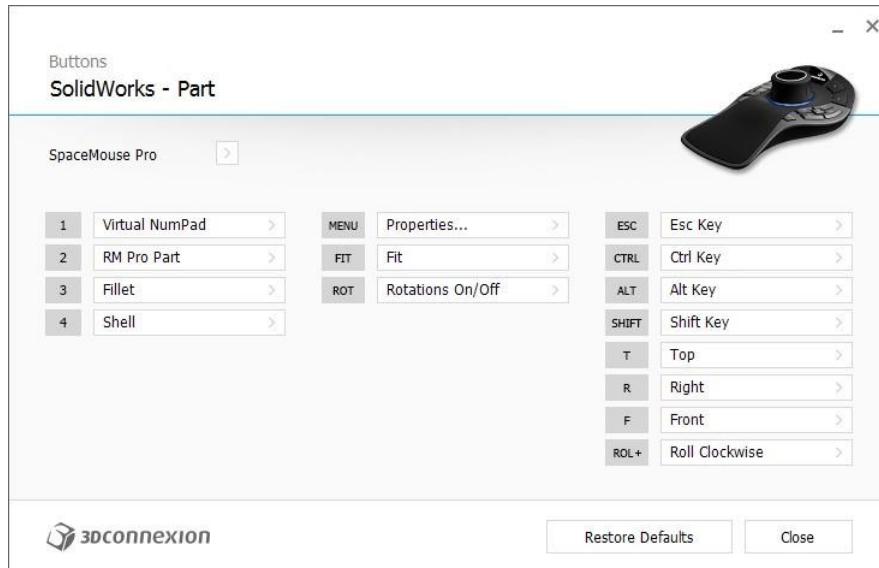
SolidWorks

Button Mapping in SolidWorks

Each environment, such as sketch, part or assembly has its own button mapping. Your SpaceMouse automatically recognizes the active environment.

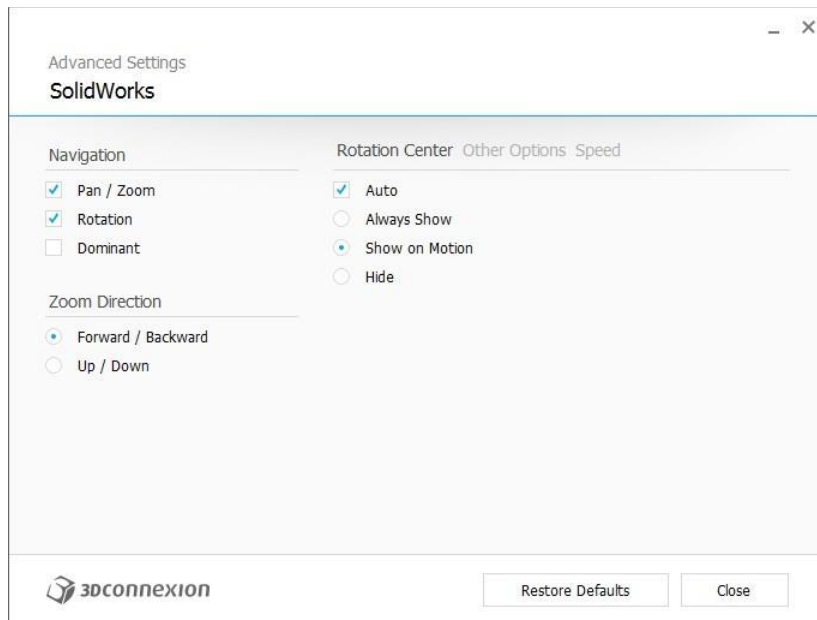
All changes to the buttons in the active mode are only effective for the active environment.

The active environment is shown in bold on the top left of the button mapping panel.



How do I personalize the behaviour of my SpaceMouse in SolidWorks?

Click on the "Advanced Settings" button on the 3Dconnexion Properties panel. This will open the following window:



Navigation

Pan Zoom: Enables/disables panning of your part, assembly or drawing. Enabled by default.

Rotation: Enables/disables rotation of your part, assembly or drawing. Enabled by default.

Dominant: Turns on and off dominant filter axis, which when enabled restricts the pan, zoom or rotations to a single axis.

Zoom Direction

Forward Backward: Zoom by pushing the cap away from you and towards you parallel to desk.

file:///C:/Users/rstadie/AppData/Local/Temp/MCDLT2K3.htm 22.02.2021

Up / Down: Zoom by pulling the cap upwards and pushing the cap downwards parallel to screen.

Rotation Center

Auto sets the center of rotation dynamically. When the complete model is in view, the center of volume of the whole model is used as rotation point. When you move closer, the center of rotation will be set on an object close to your center of the view. You can also set the Rotation Center manually using "CTRL + middle mouse button".

Always Show always visualizes the current Rotation Center as shown below.

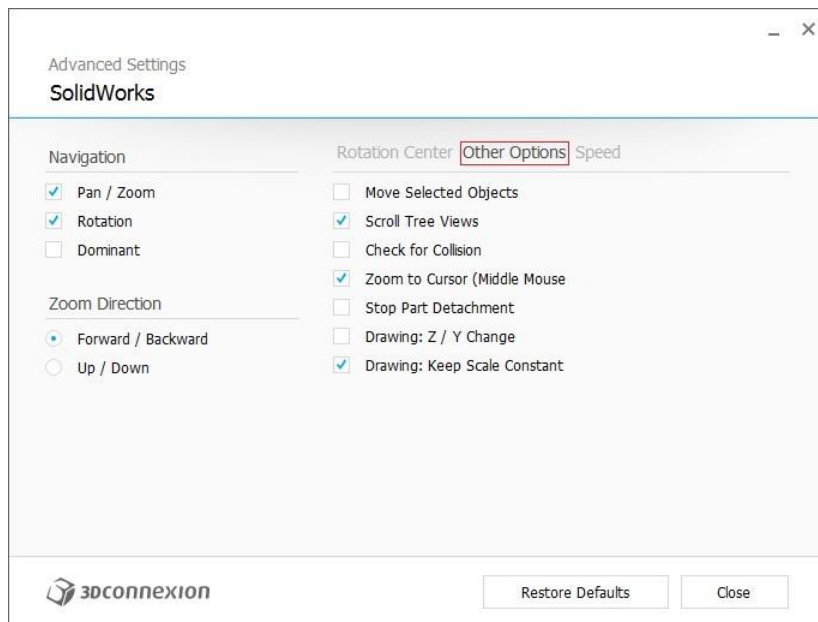


Show on Motion will visualize the Rotation Center only during movement.

"Hide" will disable the Rotation Center visualization.

Other Options

Clicking on "Other Options" provides additional features to adjust:



Move Selected Objects: Enables or disables independent movement of sub-parts within an Assembly.

Scroll Tree Views: Allows the SpaceMouse to scroll (vertically and horizontally) any tree or list view under the mouse pointer.

Check For Collision: Activates collision detection in SolidWorks when manipulating a component with the SpaceMouse.

Zoom to Cursor: Allows the SpaceMouse to zoom in to where the traditional mouse is pointing. Press and hold the middle mouse button and move the SpaceMouse cap forward and backward parallel to desk to activate fast zooming mode.

Stop Part Detachment: Prevents a part or sub-assembly becoming separated from the assembly if panned or rotated beyond the allowed limits. Enabling this option will also slow down the movement of the object considerably. This option is disabled by default.

Drawing: Z / Y Change: Allows to swap the Y and Z coordinates. This option is disabled by default, and is useful if the display is a horizontal screen.

Drawing: Keep Scale Constant: Stops the SpaceMouse from changing the scale of a drawing view when you are manipulating it individually. Should you wish to increase or decrease the size of the drawing view, this option must be disabled. This setting is enabled by default.

Speed

Clicking on "Speed" provides the standard functions outlined in the [Advanced Settings](#) section.

Advanced Settings
SolidWorks







Navigation

- Pan / Zoom
- Rotation
- Dominant

Zoom Direction

- Forward / Backward
- Up / Down

Rotation Center Other Options **Speed**

	Active		Reverse
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="range"/>	<input type="checkbox"/>

