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Polyworks PIFedit: Cleaning Point Cloud Data

This page will show you how to view and 'clean' the data in Polyworks PIFedit.
Hint: You can click on any image to see a larger version.

[POLYWORKS PIFEDIT](#)

[VIEW DATA](#)

Introducing Polyworks PIFedit:

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[CONFIRM SELECTION & DELETE DATA](#)

[CONTINUE TO...](#)

PIFedit is a data viewing and editing software available in the PolyWorks suite. It is used to clean scan data of unwanted data/points before importing the data into IMAAlign.

* **Note:** You have to have a full license of Polyworks (w/dongle) to be able to edit and save data out of PIFedit (otherwise it functions only as a viewer).

Basic Navigation:

Upon opening the PIF file in PIF Edit, view the scan using the appropriate mouse buttons:

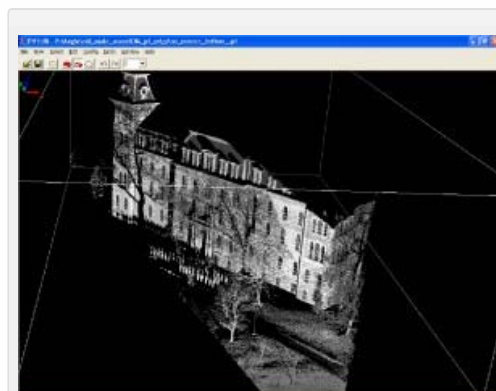
Left Button: Rotates the scan

Middle Button: Translates the scan

Right Button: Zooms in and out on the scan

Get accustomed to the use and "feel" of these buttons because they are used in all of the PolyWorks modules.

View the data from every angle to identify which data you want to keep and which data can be removed.



In this "un-cleaned" data the trees and people, in this case ROTC soldiers, are seen

In the image above, a group of ROTC soldiers were included in the scan. Since the focus of the scan is the building, the scan data of the soldiers, the trees, and the ground in front of the building will all be removed.

Notice how the trees and the soldiers (objects in the forefront) cause shadows or holes in the scan data of the structure (object in the rear). This can be remedied by simply acquiring another scan of the same area from another location if access and time permit another scan.

To remove the unwanted scan data, press the **space bar**. This activates the Selection dialog box.

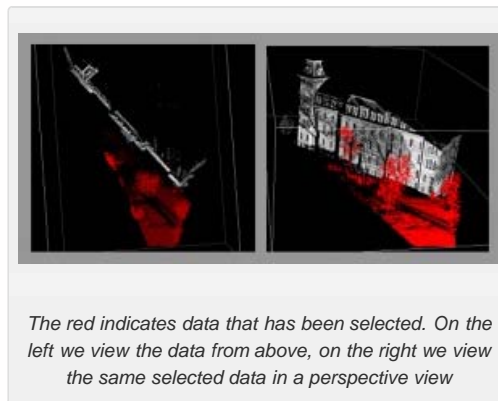
Hold down the **Shift and Ctrl keys and use the middle mouse button** to make your selection.

Shift: Enables Volumetric Selection – otherwise it is in Surface Selection mode which is only useful with polygon meshes

Ctrl: Enables Polygonal Selection – otherwise in Freeform Selection mode

Because you have to perform a volumetric selection in PIFedit (aka it selects everything in the selection window), it is always good to **double check** the integrity of your selection before you delete any data.

Once you have done so you can go ahead and delete the unwanted data points from the scan. Repeat this operation as many times as needed.



When finished, go to **File – Save As – save as name_cln.pf**.

Note: Our naming convention is to tack a 'cln' onto the scan name or to put the cleaned data into a 'clean' subfolder. **As a rule of thumb – never overwrite the original data.**

For further processing in the Polyworks Suite, continue on to [Importing Data into IMAAlign](#).

You are reading the series: [ILRIS-3D Parser and Polyworks v.11 - Suggested workflow for Basic Processing of Optech ILRIS-3D Data](#)
[Optech ILRIS-3D Parser: Pre-Processing Scan Data](#)
Polyworks PIFedit: Cleaning Point Cloud Data
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