

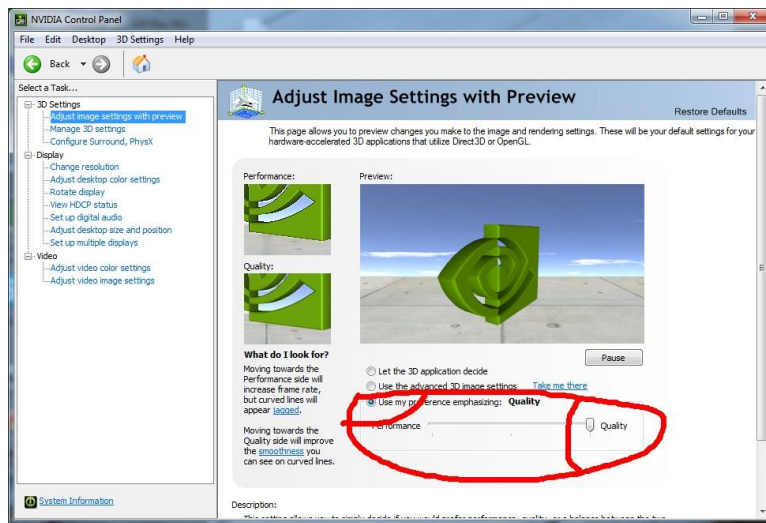
# Quality-driven Poisson-guided Autoscanning

This software is a demo for the following paper

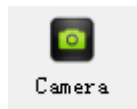
[http://vcc.siat.ac.cn/index/getInfo?title\\_id=453&id=624&to\\_path=project](http://vcc.siat.ac.cn/index/getInfo?title_id=453&id=624&to_path=project)(SIGGRAPH ASIA 2014)

## How to get a nice display:

You need to open the optimize quality in the graphics card's option, for example:



## Icons:



Camera

: algorithm and data see our paper.



Down Sample

: randomly down-sample original points into sample points.

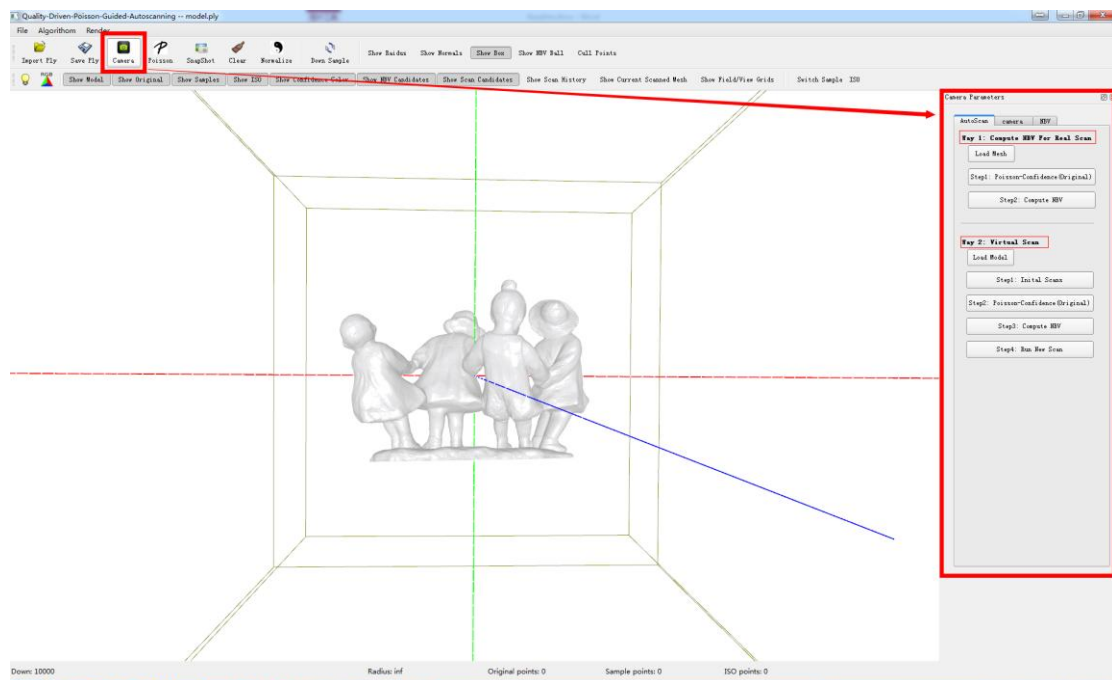


Poisson

: poisson reconstruction.


## How to use it.


1. If you want just to use the software, you can download the release version:  
(<https://github.com/sunwaylive/quality-driven-poisson-guided-autoscanning/tree/master/Release>).
2. In the folder, simply run "Quality-Driven-Poisson-Guided-Autoscanning.exe".  
Pay attention:  
Ignore "PoissonRecon.exe", it's what we use for poisson reconstruction in the code.
3. Default you will get the following UI. Left click the "Camera" in the menu, a panel will appear at the right of the UI.




4. As you can see, We provide two ways:

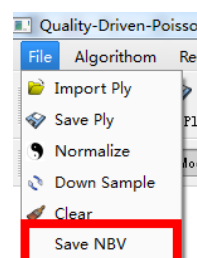
### Way 1: (for real scan)

Step 1. Click the button  to load scanned points, based on which NBV will be computed. Test data is located in folder “./data”

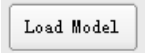




Step 2. Click the button  to do the Poisson reconstruction and extract iso points with confidence.

Step 3. Click the button  to compute the NBVs

Step 4. Click the button, save NBV as \*.ply



## Way 2: (for virtual scan)

- Step 1. Click the button  to the model you want to scan.
- Step 2. Click the button  to do initial scans.
- Step 3. Click the button  to do the Poisson reconstruction and extract iso points with confidence.
- Step 4. Click the button to  compute the NBVs.
- Step 5. Click the button to  run virtual scans using the NBVs.

If you're interested in our source code, you can visit:

<https://github.com/sunwaylive/quality-driven-poisson-guided-autoscanning>

## Configuration for the source code:

This code is complied well on Win7(64bit) + Qt4(64bit) + VS2010.

If you are also working in this environment, you just need to make sure your Qt works well.

If you want to use 32bit QT, just make sure your path of QT is correct and use the right dlls(ANN.dll, glut32.dll that we have provided in the "dlls" floder),very simple.

Any questions or bugs send email to [sunwayliving@gmail.com](mailto:sunwayliving@gmail.com) please.

Hope you have fun.

(version 1.0 2014-10-10)