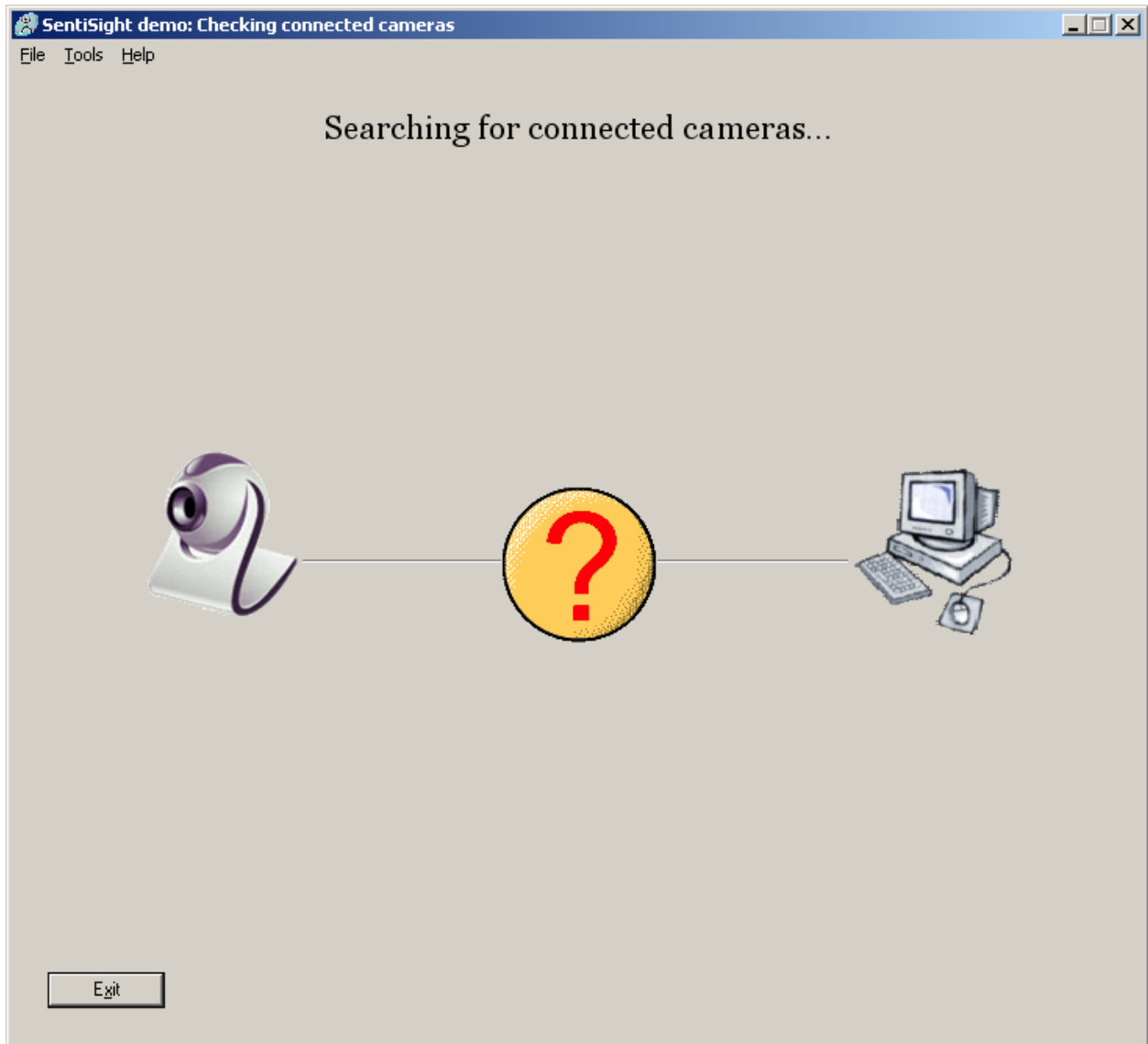


SentiSight algorithm demo application

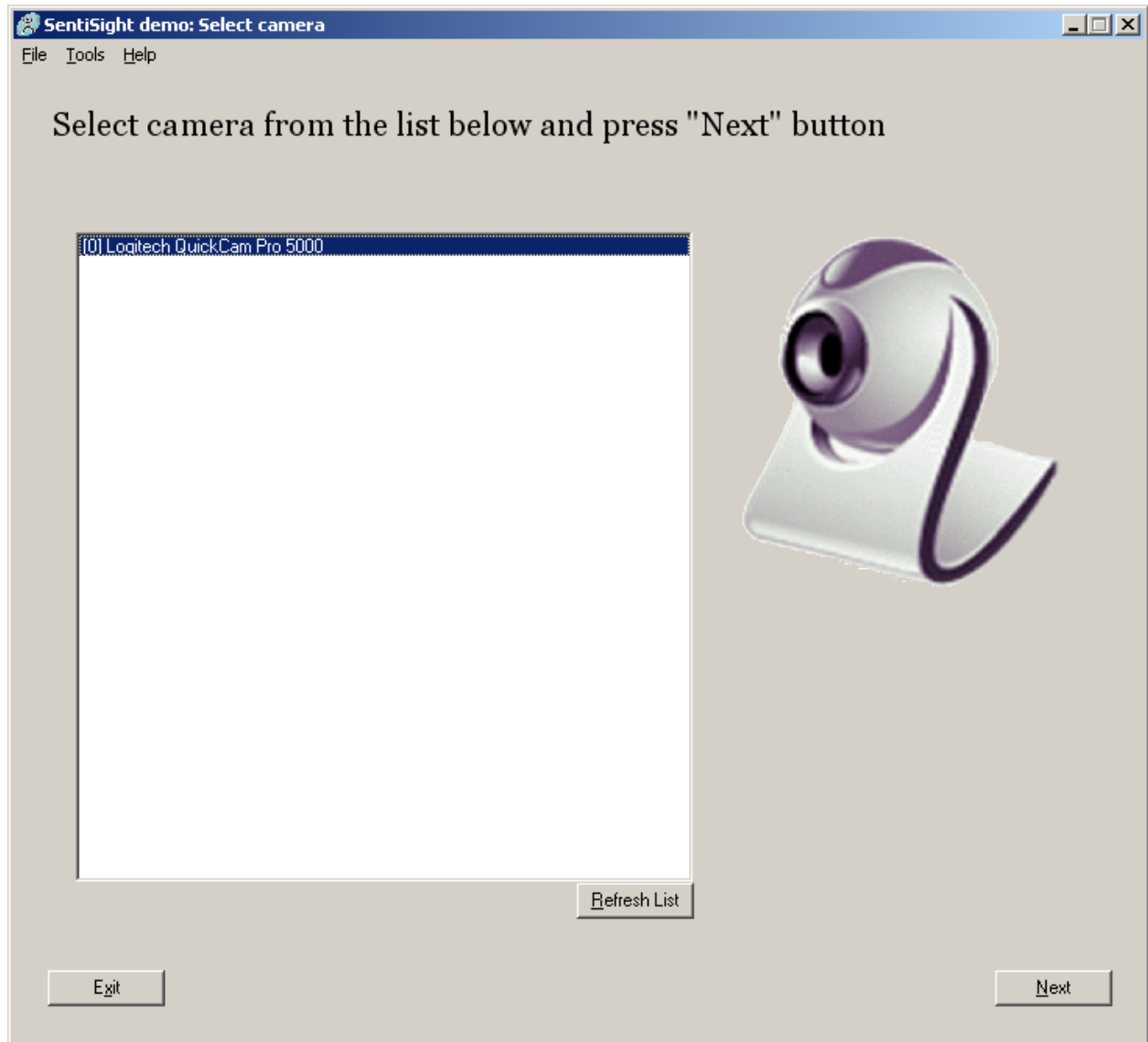
User guide

This demo requires camera supported by DirectShow®.

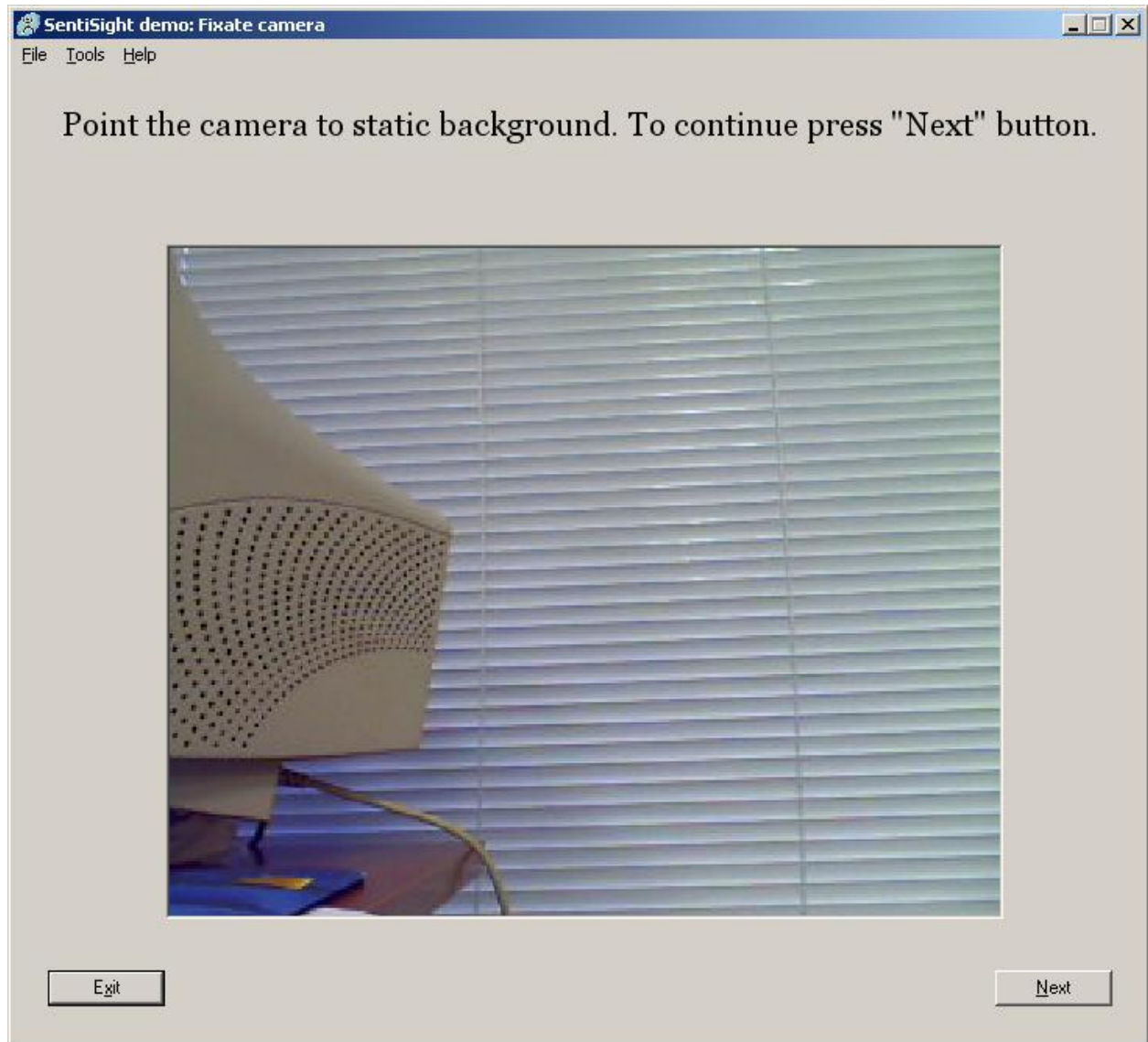


In this step application searches for connected cameras. If no camera was connected then application will display appropriate message.

If at least one camera is found a camera list is displayed.

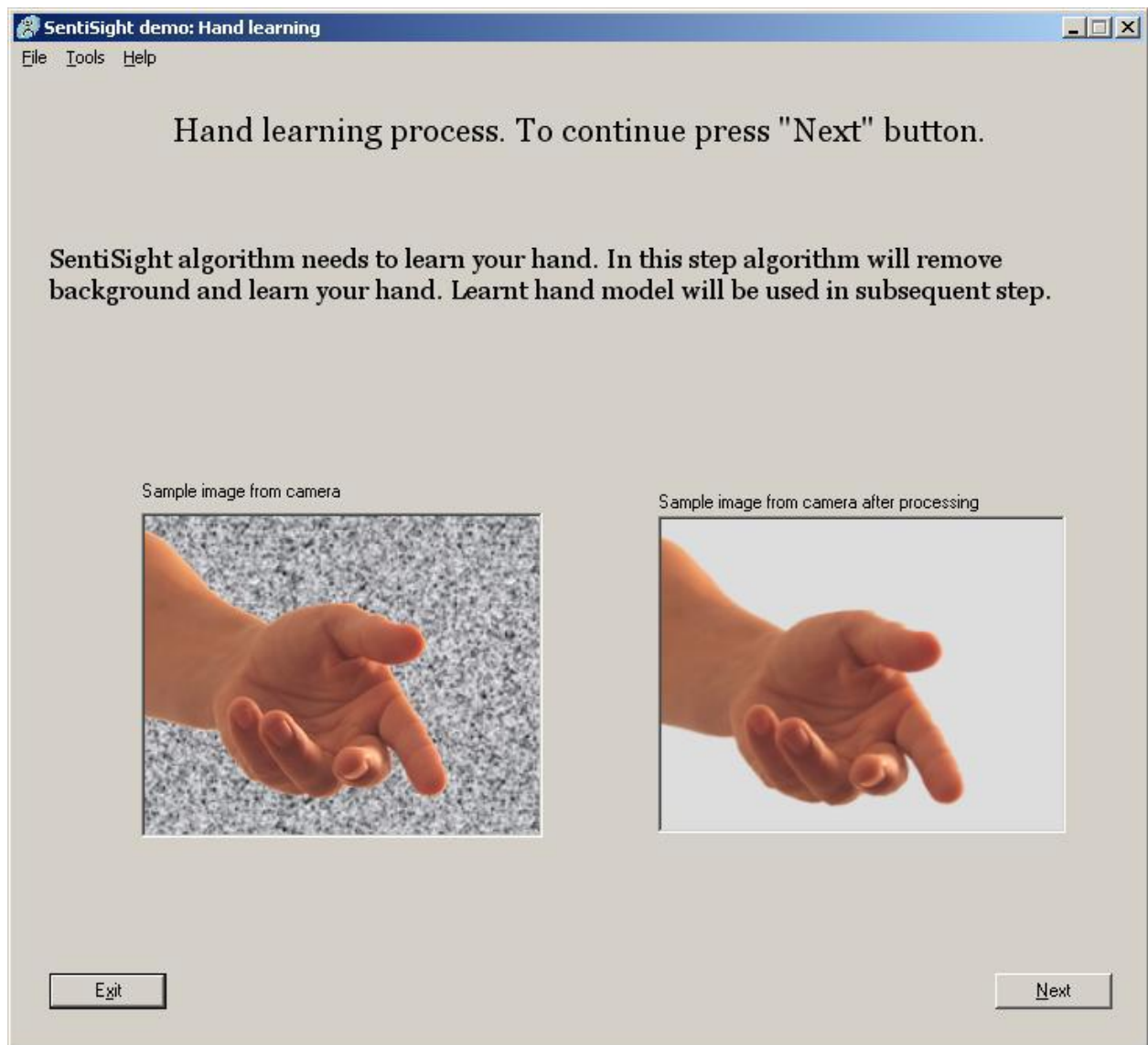


From the list you can select any camera to work with. Press Next button to continue.



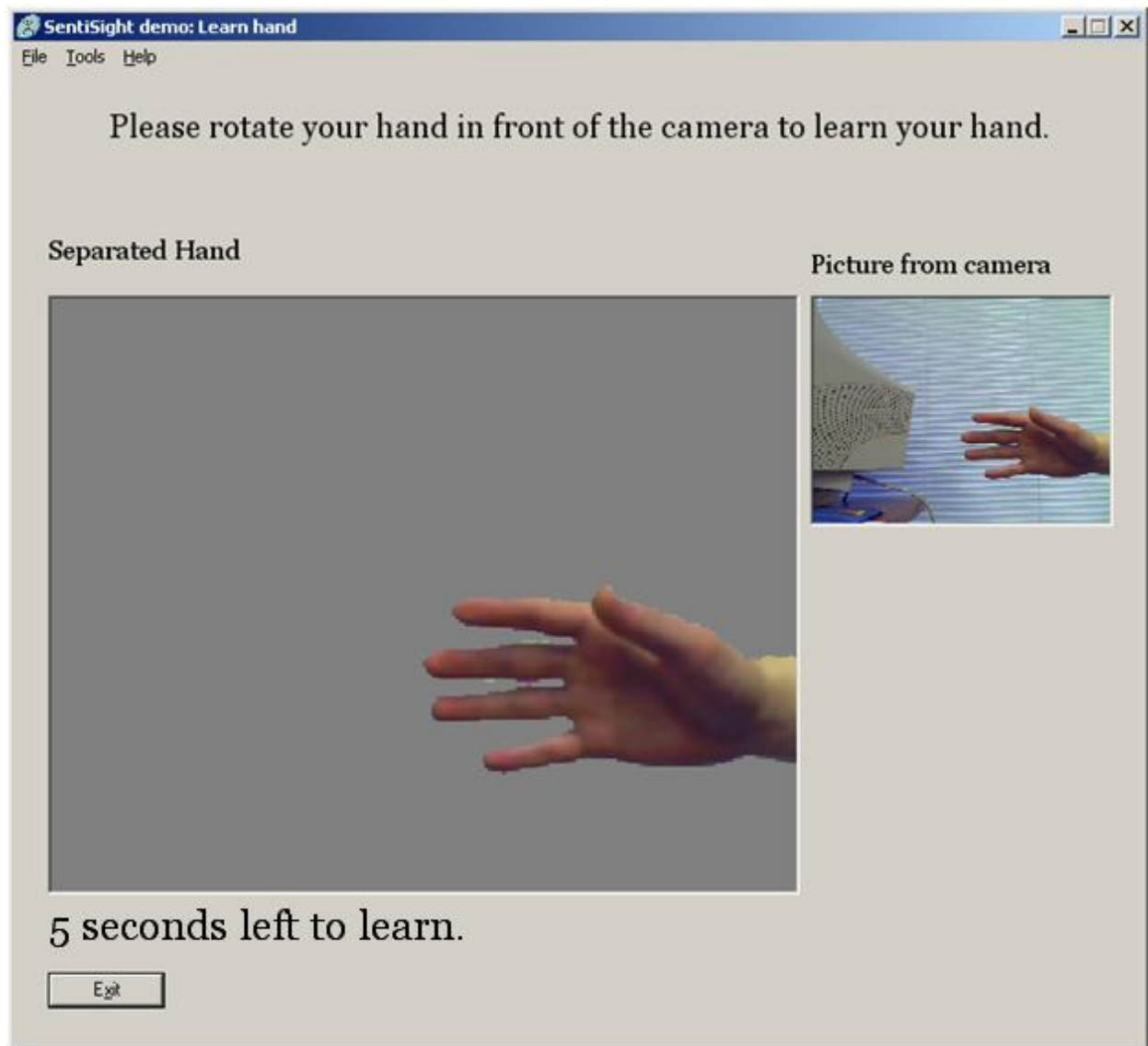
In current step you should point your camera at a static background. After camera position is set move to the next step by pressing "Next" button.

When learning object any redundant graphical information in the image prevents creating robust object model. To eliminate hand from the image it should be learnt.



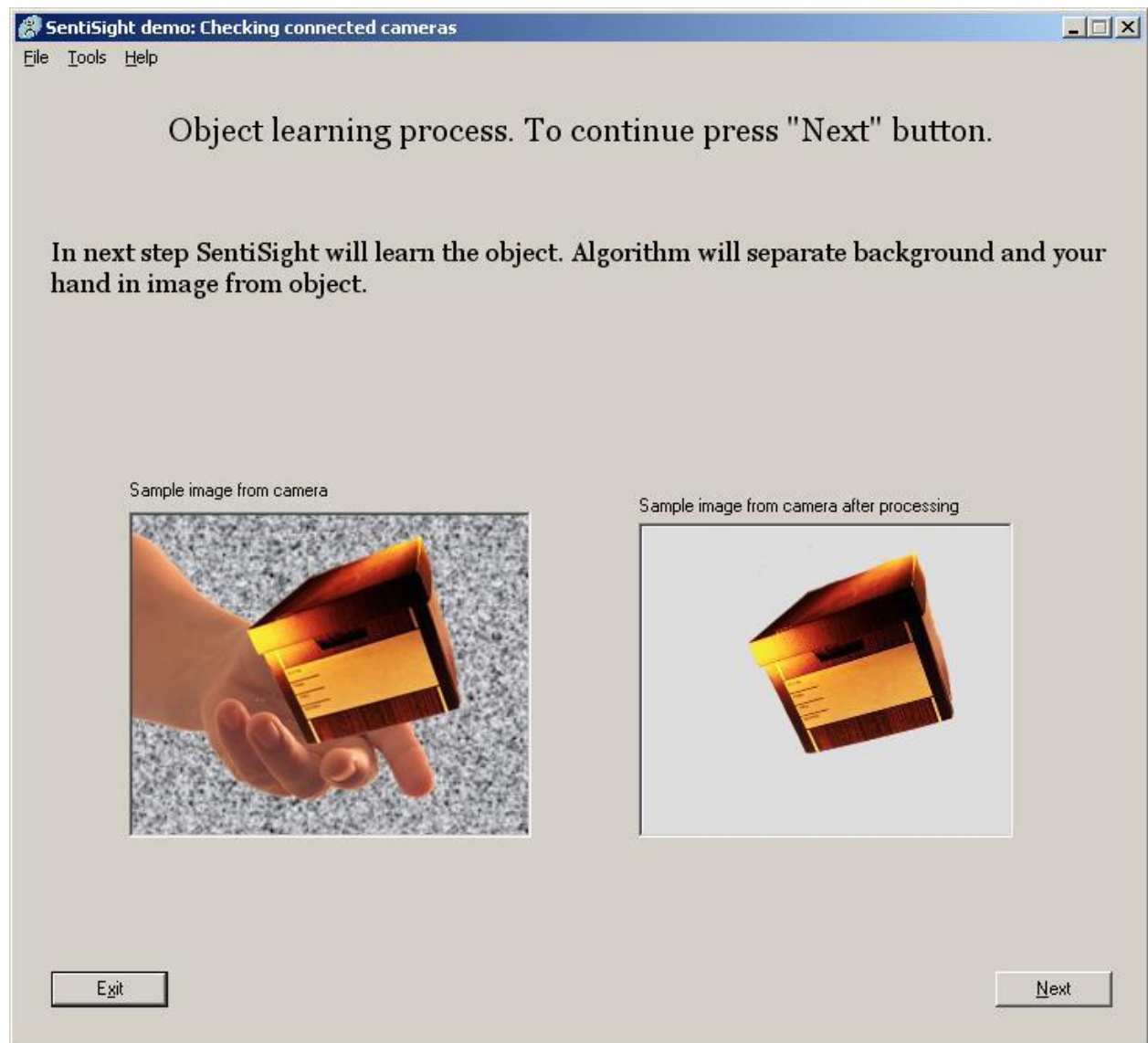
In current window you can see instructions for hand learning process. Press next to run hand learning process.

Before extracting hand application automatically learns background and directs you to the next step.



Here you can see two windows. One is a picture from the camera another is a processed image. Try to rotate your hand in various ways so that algorithm could receive as much information as possible. Text label under processed image window shows how many seconds left until the end of learning process.

After learning hand is done application displays instructions for the next step – learning object.



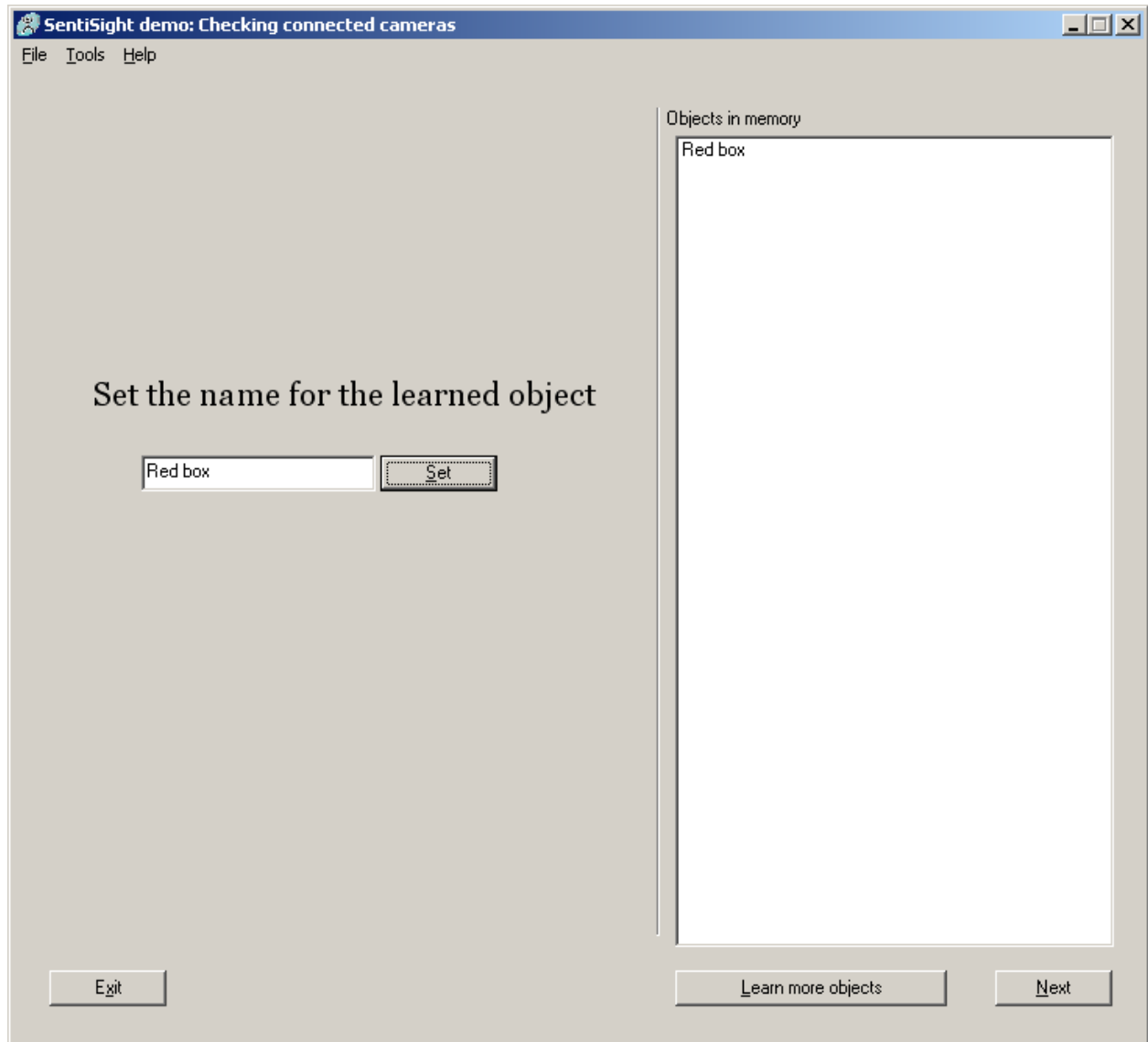
Same as in learning hand process application automatically learns background first and then directs you to the next step.



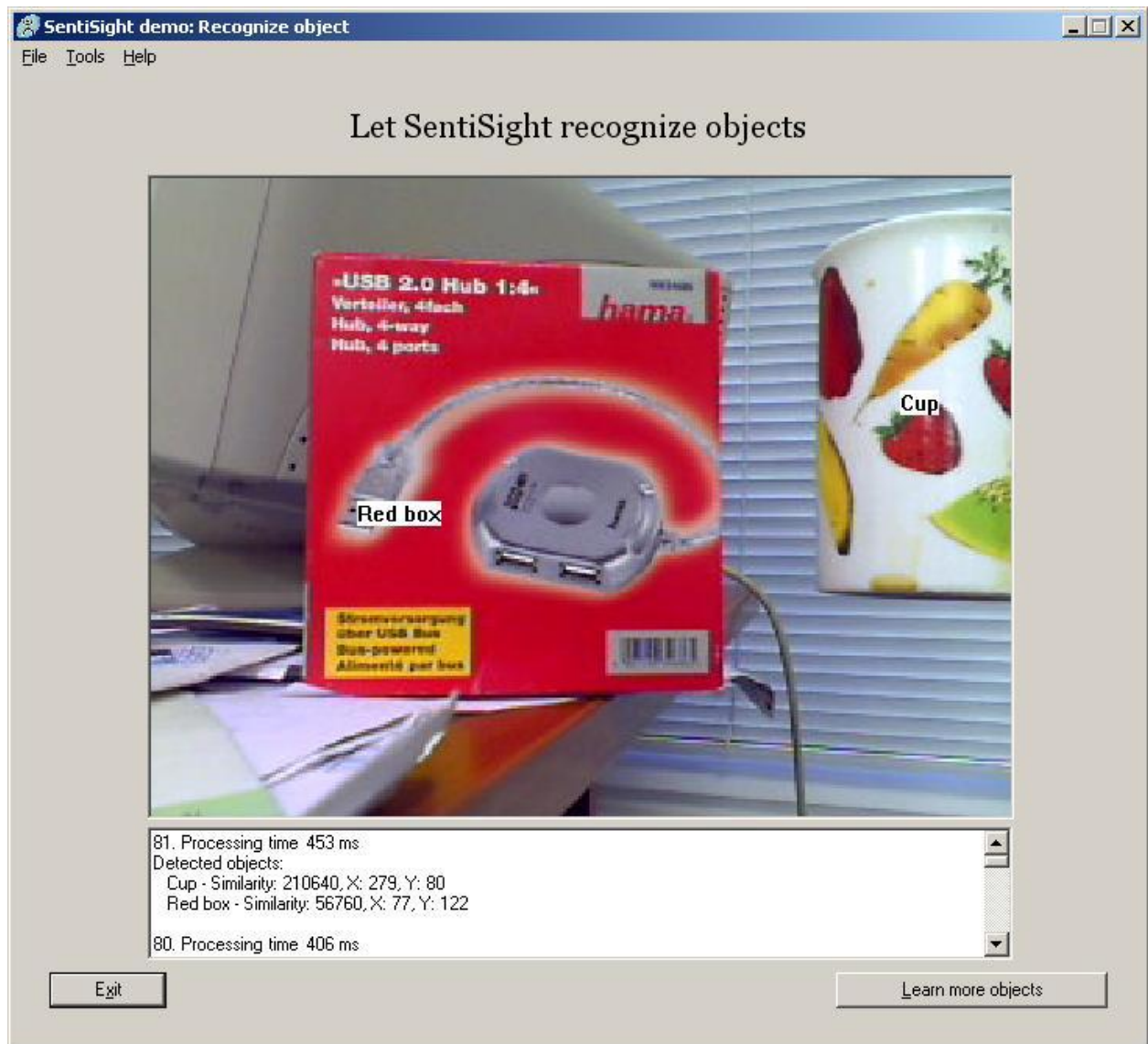
During object learning process rotate an object in front of camera. If previous steps went smoothly window with processed image should display only object.

Algorithm is able to recognize object views which it has learnt previously. So rotate your object according to this "philosophy".

When object learning is finished the list of learnt objects will be shown.

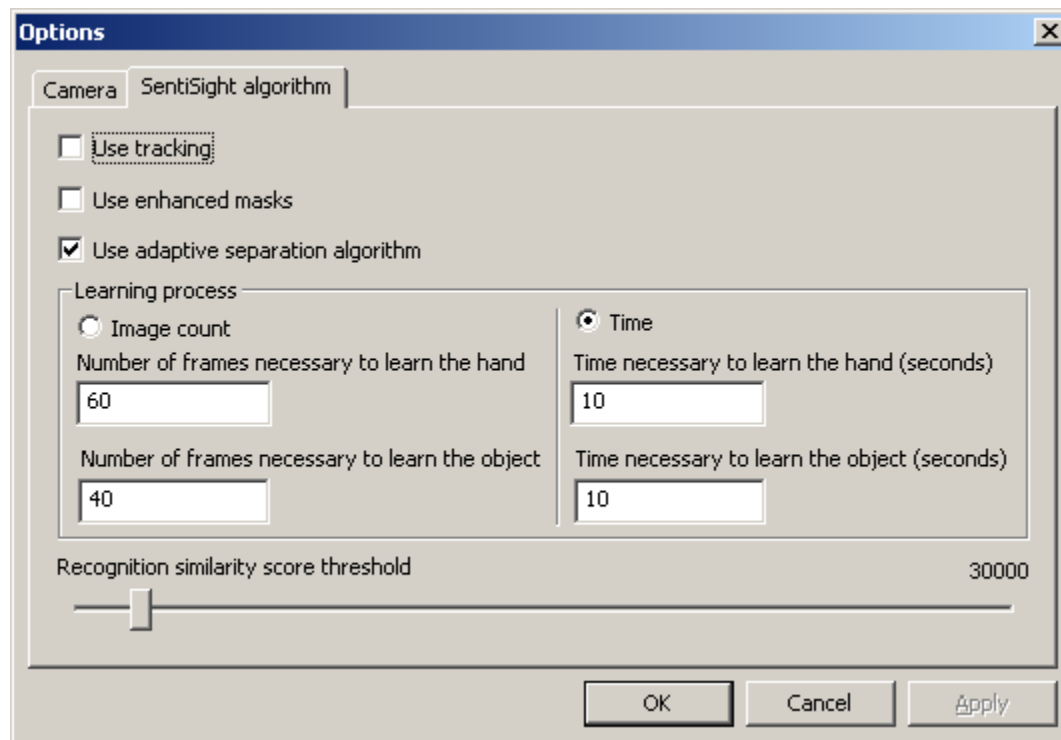


You can change the name of the learnt object and learn more objects or go directly to the recognition process. To learn more objects press “Learn more objects” button then you will be directed to the object learning step.



During recognition process algorithm is able to locate objects in the image and display their coordinates and recognition score.

You can change the recognition score threshold to meet your needs. To do this go to the “Tools” menu and press “Options”. Select “SentiSight algorithm” tab.



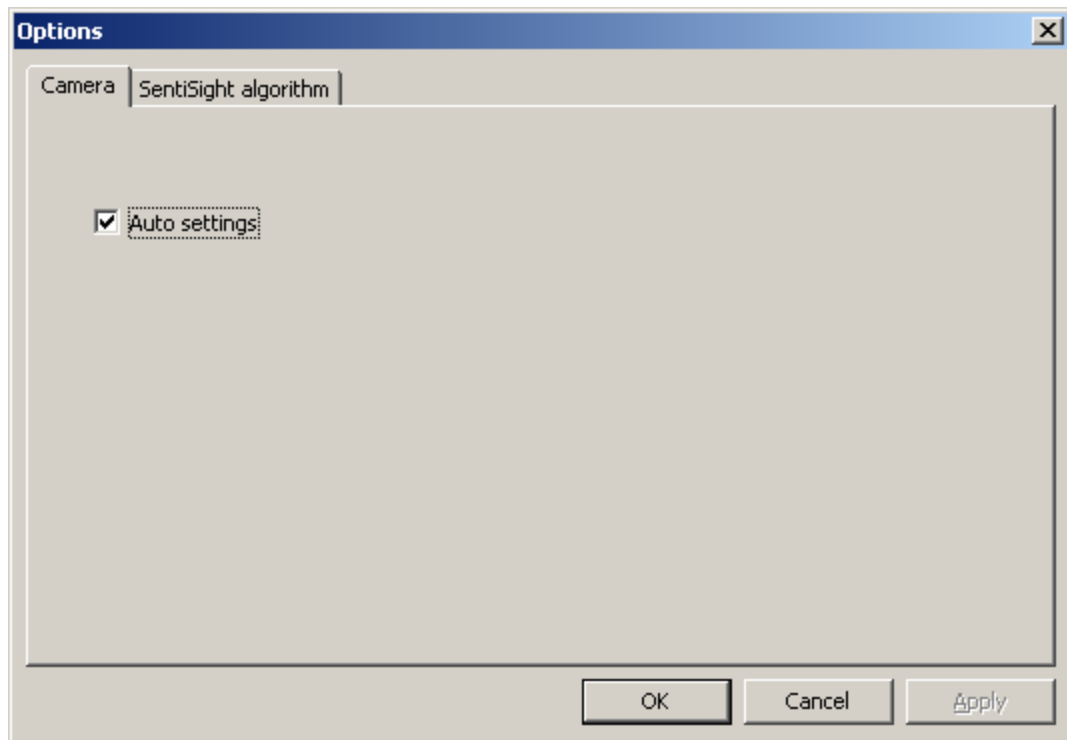
“*Use tracking*” checkbox enables or disables the tracking algorithm. When tracking option is enabled recognition process becomes faster but less robust.

“*Use enhanced mask*” applies additional transformations to the input image in hand learning and object learning processes to increase recognition robustness.

“*Use adaptive algorithm*” improves hand and object learning by compensating camera’s automatic white color balancing.

Learning process duration can be limited either by number of input images or by time elapsed. To set input image number limit select “Image count” radio button and modify values below to limit hand and object learning processes. To limit learning process by time choose “Time” radio button and modify values below to meet your needs.

“*Recognition similarity score threshold*” slider bar: number at the right side of the slider shows the threshold value. Move slider to change the value.



In the camera settings tab you can switch automatic white balancing on or off.