

# Floc Size and Count Application Software

## What is the Floc Size and Count App?

The Floc Size and Count App is used for teams interested in determining average floc size and count for research purposes.

Having access to data regarding floc size and count allows researchers to test the effects of different designs of certain components of the treatment plant.

Continuous image processing gives users of the application the ability to visualize changes in water quality over a span of seconds, minutes, or even days.

## How does the Floc App work?

The Floc App was made with LabVIEW. Two VI's were created; one takes the images from the camera and the other processes the images.

During the processing step, a gaussian filter is applied to each image and flocs that are too blurry or on the border of the images are removed. Then, the size and number of the flocs is determined by utilizing the image processing tools that LabVIEW offers. Processing hundreds or even thousands of images over a period of time will give an average size and count of the flocs in the water.

Further information about the essential components of the Floc Size and Count program can be found in Siwei Sun's thesis, attached here, [Siwei Sun Thesis.pdf](#).

## Step-by-step guide to

1. First, download the executable here: [FlocApp.exe](#)
2. Then, download the LabVIEW 2015 run-time engine and follow the steps for proper installation: <http://www.ni.com/download/labview-run-time-engine-2015/5507/en/>
3. Finally, download the Vision run-time engine and follow the steps for proper installation: <http://www.ni.com/download/vision-development-module-run-time-2015-sp1/5973/en/>
4. Second, after downloading is complete, simply connect a camera to your computer with a USB cable.
5. The application should open up after it is downloaded.
6. Add your camera to the application by clicking on the scroll down bar and selecting your camera's name.
7. Click on specific configurations that you are interested in having on the interface. Clicking on the following link will elaborate upon the different settings that you can choose. [Understanding Settings of Floc Size and Count Application](#)
8. Click on the "Test" button to start taking images.
9. Click on the "Test" button again to stop taking images.
10. Close the application when you are done analyzing.

## Related articles

- [Floc Size and Count Application Software](#)
- [Understanding the Settings of the Floc Size and Count Application](#)