Instructions of LINBOU Point Scanning Function (Beta)

LINBOU Nearfield © | 20181123

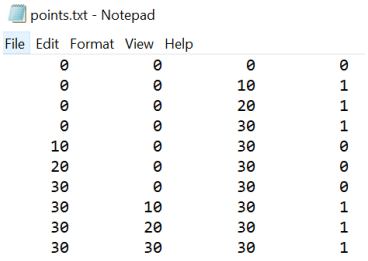
(CAUTION: before starting scanning, make sure nothing obstructs the scanning path)

The instruction shows how to use LINBOU software to perform scanning of designed point cloud.

1. Designing Point Cloud

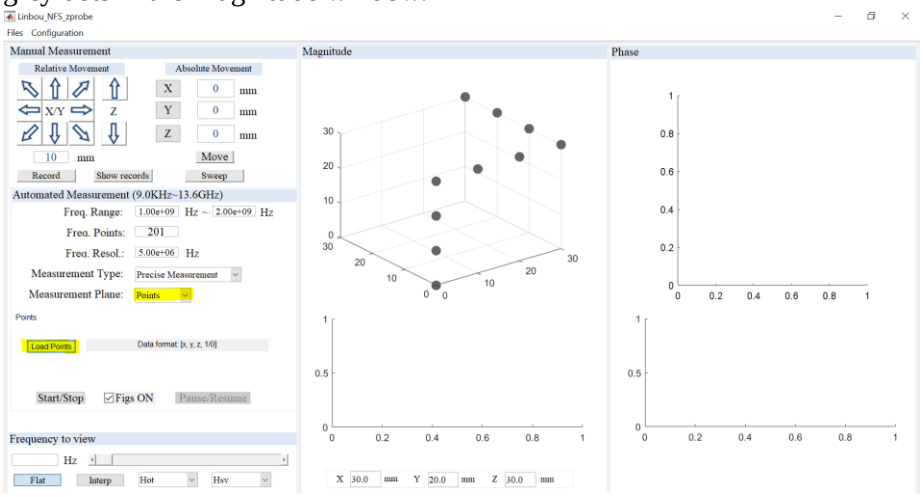
The point cloud should be prepared as a *points.txt* file. It's format should be an n (row) by 4 (column) matrix: [x y z flag] (each column of x, y, z and flag is separated by Tab), where column x, y and z represent the spatial position, in the unit of millimeter, ranging from positive value of 0 to 800 mm. Flag, whose value should be 1 (to be measured) or 0 (not to be measured), represent whether the point is to be measured and obtain relative data.

The example of point cloud file is as following:



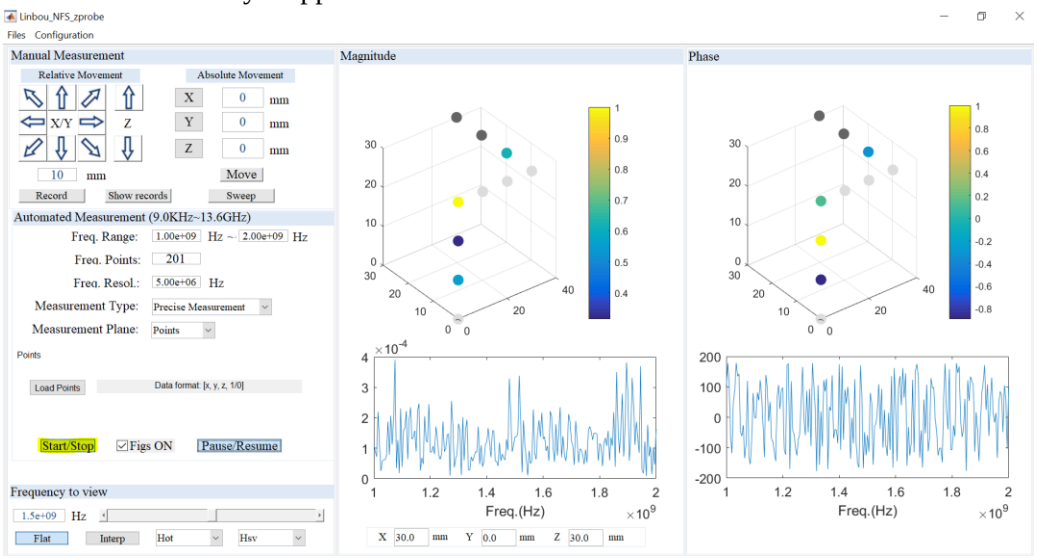
2. Load Point Cloud

Select Points in Measurement Plane, and click Load Points in the panel below (As highlighted as yellow color in the following figure). Successful loaded point clouds will be displayed as dark grey dots in the Magnitude window.



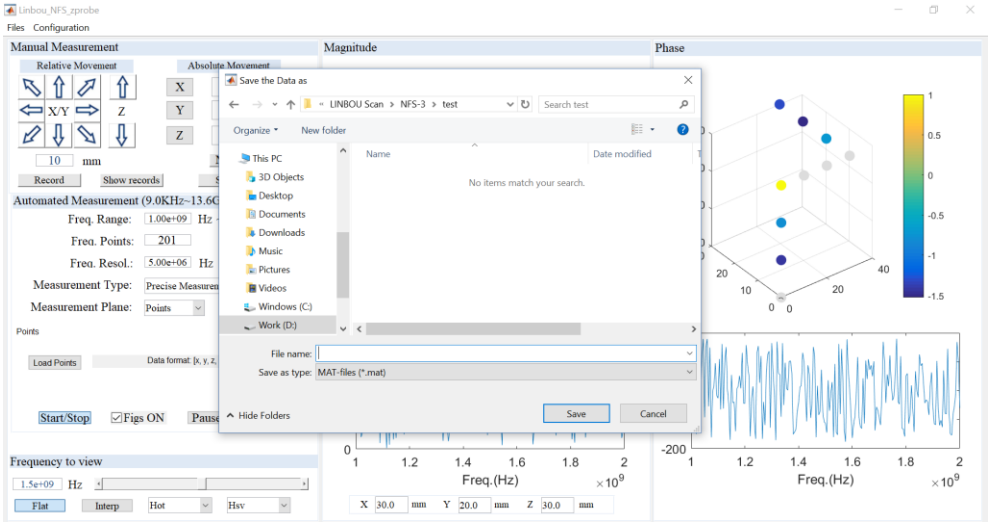
3. Start Scanning

After aligning the device under test and filling in the frequency information, click the Start/Stop button. The scanning process will begin. **Dark grey** dots represent points to be scanned, and **light grey** dots represent points that have been scanned without measurement (i.e. flag value is 0). **Colored** dots represent points that have been scanned with measurement (i.e. flag value is 1). The color value is linearly mapped with the measured value.



4. Save Measurement Result

After the scanning process finishes, the measurement result can be saved as .mat file (readable and editable by MATLAB), through an automatically pop-up window as shown in the following figure. The data contains frequency information (*freq_list*), and spectrum information (*S_mat*) for each position points. In the example, there are 201 frequency points and 10 position points.



Name	Value
freq_list	*1x201 double*
S_mat	*10x201 complex double*