

How to use Wsmnt : Calculation monitor drawing program for Wsf

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1. Preparation before use

1. Status at the time of distribution

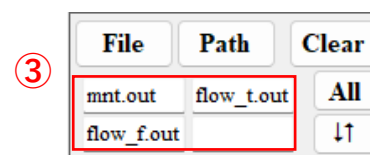
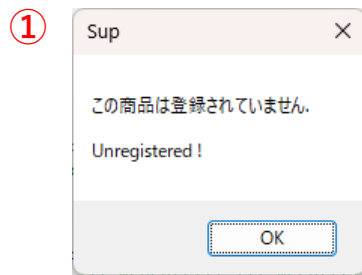
Ws_soft — Wsems —————
 └── Samples — 230601-cnt&mnt

Included files
 Wsmnt.exe, Sup.exe
 mnt.out, flow_t.out, flow_f.out

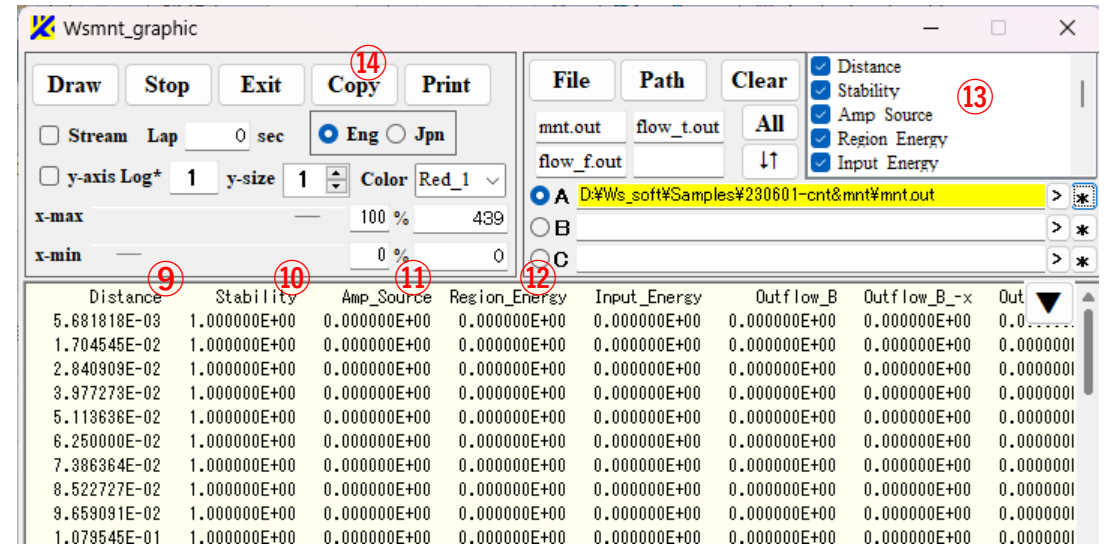
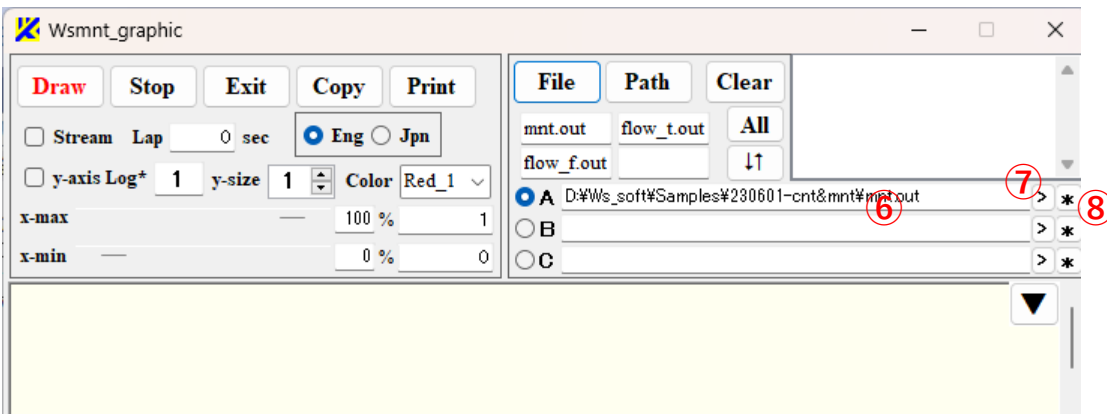
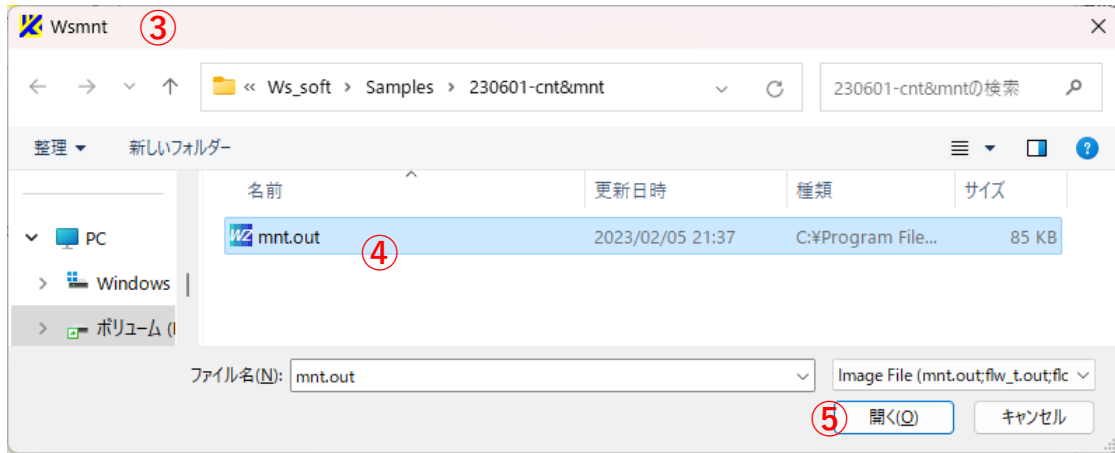
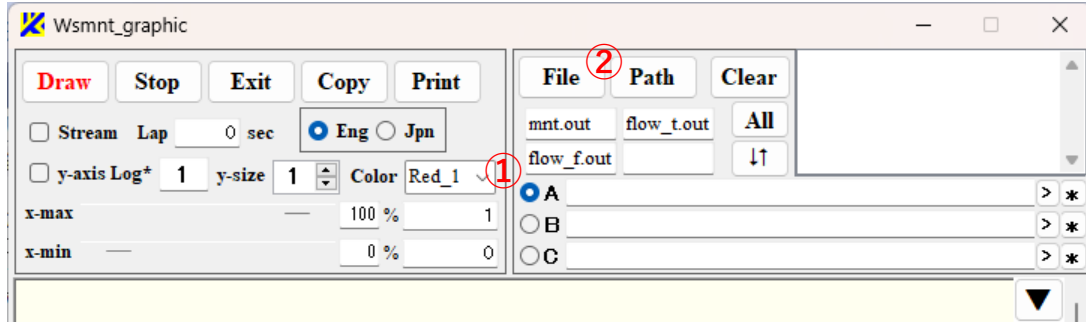
(note) Sup.exe is a file for determining registration, which should be stored in the same folder Wsems as other exe files.

2. Restriction on use

- If a registered USB dongle is connected (or MAC address is registered) and the corresponding sup.exe is installed in the folder “Wsems”, calculation starts without any function restrictions.
- If the sup.exe included in the folder “Wsems” does not correspond to the registered USD dongle or registered MAC address, the message ① is displayed for 5 seconds. If the USB dongle is not connected, the message ② is displayed for 5 seconds. Drawable files are restricted to the patterns shown in ③, and don't include the types of files, *.ot?, which are output by Wsbch.exe.

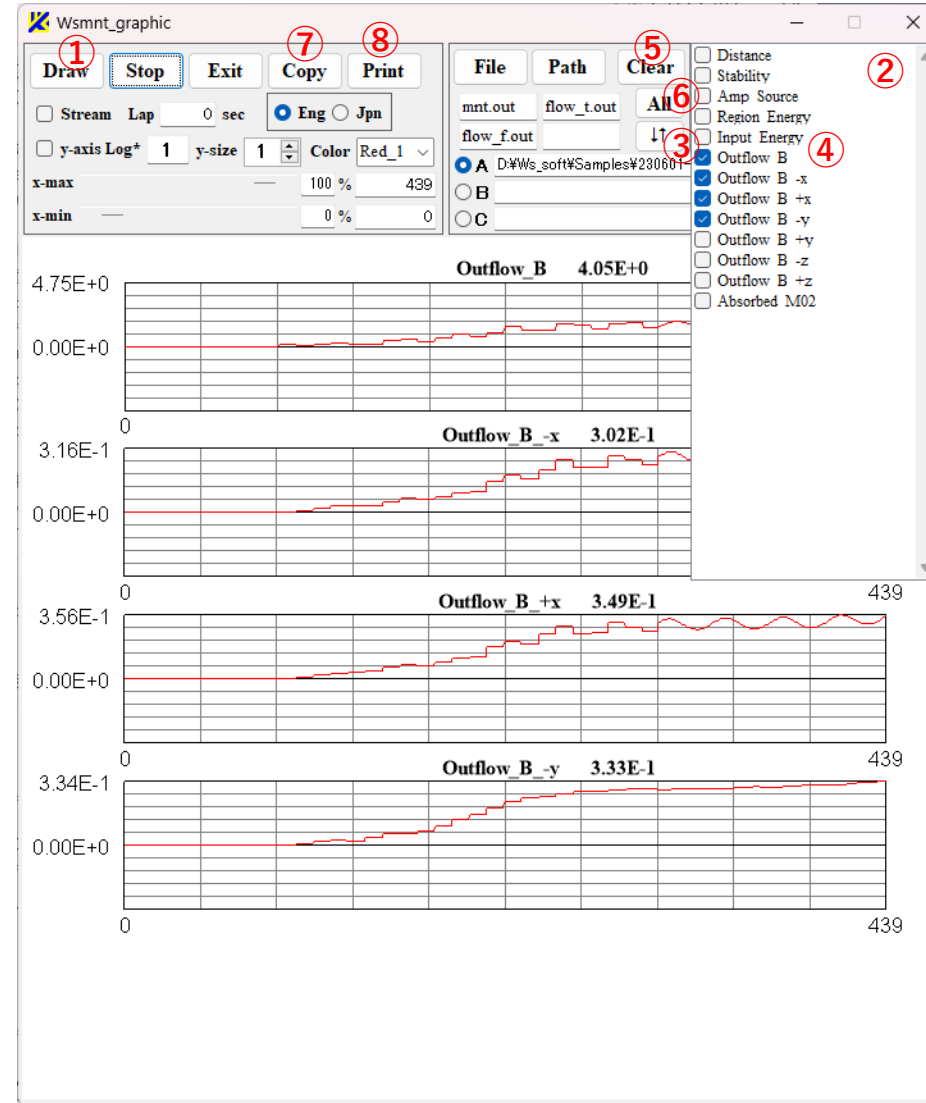
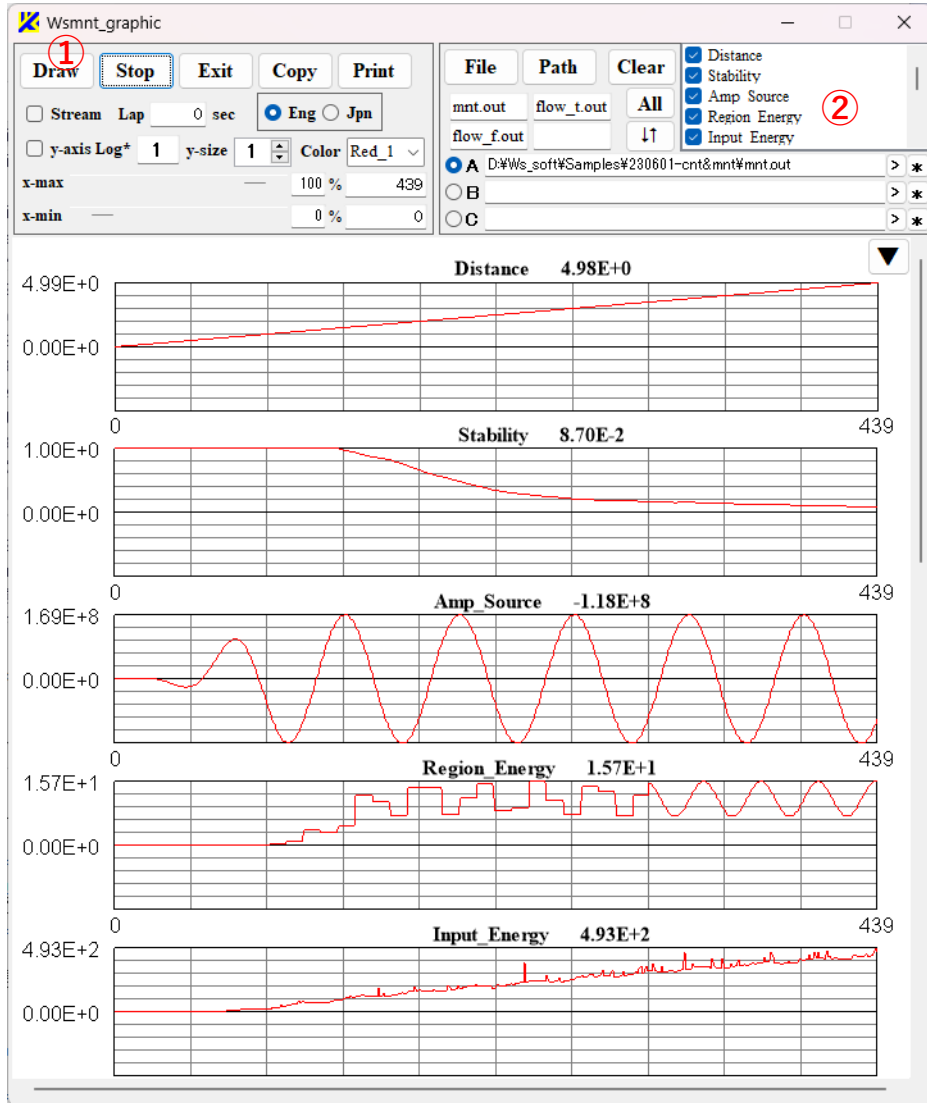


2. Specifying a drawing file and displaying file contents



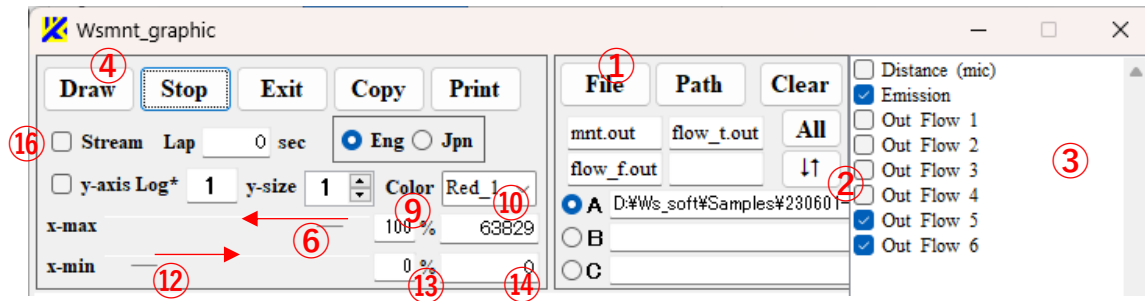
Check the Select button (1) and click the File button (2), and then the file selection window (3) will appear. Select the “mnt.out” (4) and click Open (5), and then the path and file name will appear in box (6). If the file name is too long to fit into the box (6), click the button (7) to slide the text. When the * button (8) is clicked, the background color of box (6) is changed to yellow and the contents of the file is displayed in the box below. The file contents are listed in columns (9), (10), (11), (12), etc., with the item name on the first line and numerical data on the subsequent lines, and the item name is also shown in box (13). The file contents can be copied to the clipboard by clicking the Txt_Copy button (14).

3. Drawing line graphs and selecting drawn graphs

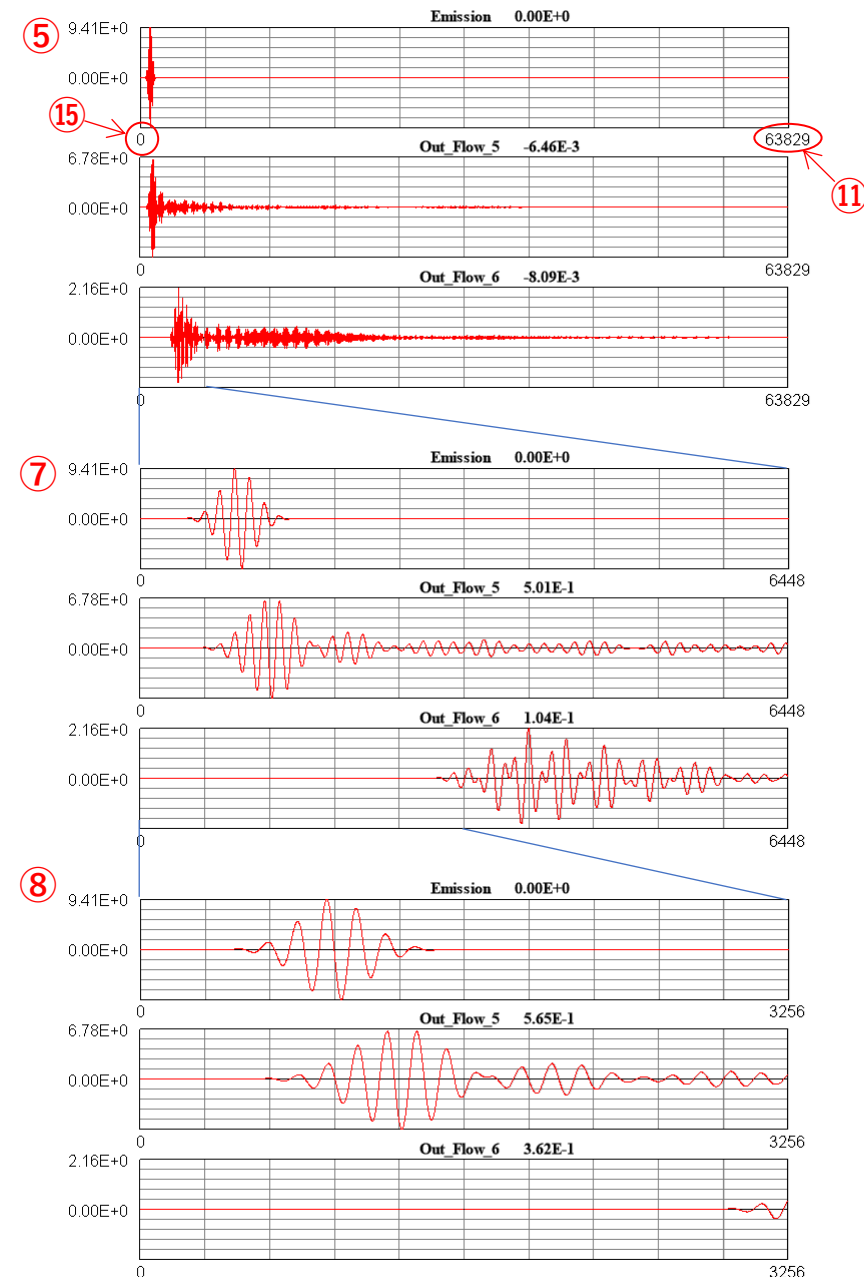


Clicking the Draw button ① will draw a graph of numerical data (vertical axis) against line numbers (horizontal axis) for each item. Right-clicking on the box ② expands the vertical width downward as shown in the right-side figure, and checking the button ③ displays the hiding lower-half of the box ②. When some of the boxes ④ are checked and the Draw button ① is clicked, only the graphs excluding the checked items will be drawn. Clicking the Copy button ⑤ copies the drawing image to a clipboard. If an area on the image is specified by Drop down & up, clicking the Copy button ⑤ cuts the image in the specified area and copy it to the clipboard. If the Print button ⑥ is clicked, the image is printed out.

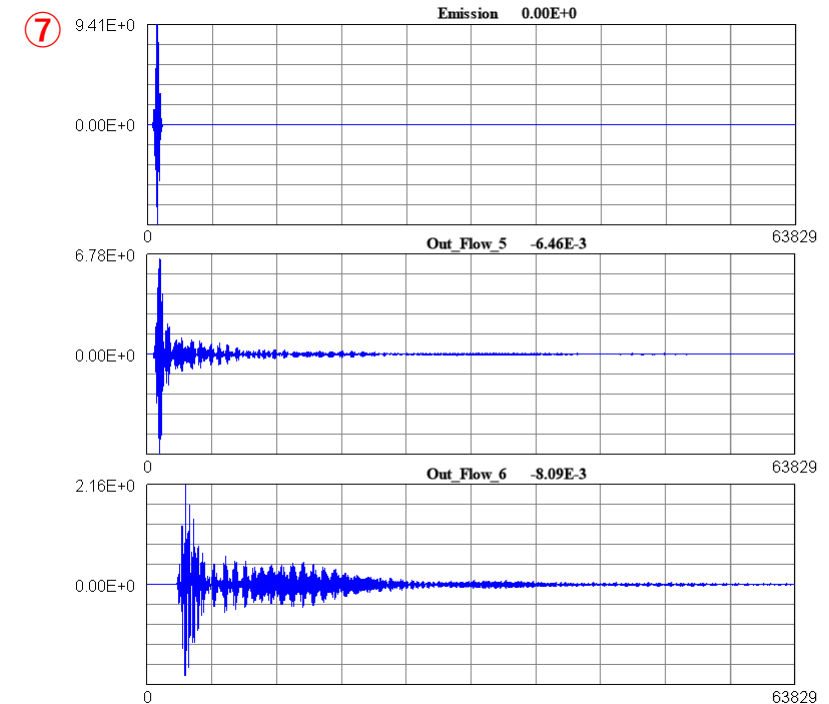
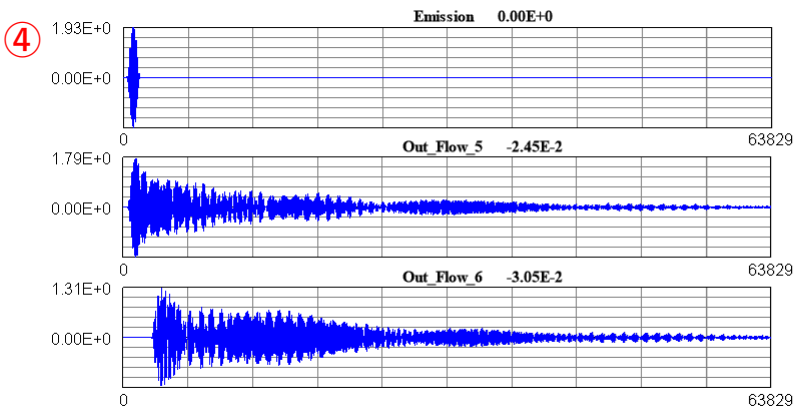
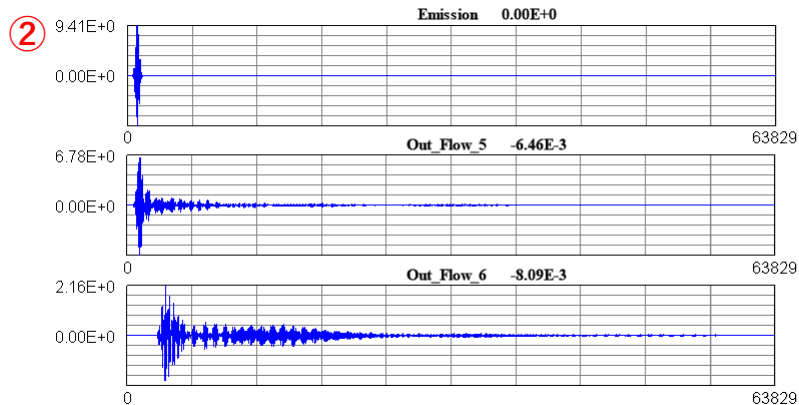
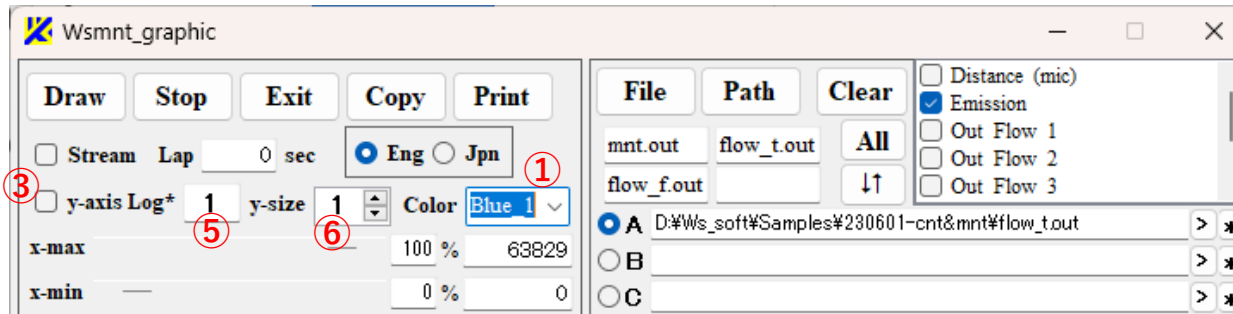
4. Expansion of graphs along the horizontal axis, extraction and real-time graph drawing



Click the File button ① to select a new file ② (flow_t.out) and check the excluded items as shown in ③. If the Draw button ④ is clicked, the graphs shown in ⑤ are drawn. Scrolling the scroll bar ⑥ changes the percentage box ⑨ in conjunction with the line number box ⑩ which appears in the maximum value ⑪ of the horizontal axis and, by clicking the Draw button ④, the graphs are scaling in the horizontal axis direction as shown in ⑦ and ⑧. Similarly, scrolling the scroll bar ⑫ changes the percentage box ⑬ in conjunction with and line number box ⑭ which appears in the minimum value ⑮ of the horizontal axis. If the file ② is updated in a calculation process, check the Stream box ⑯. When the Draw button ④ is clicked, the drawing results are updated in real time so that the maximum value on the horizontal axis may increase. This allows you to check the progress of the calculation.

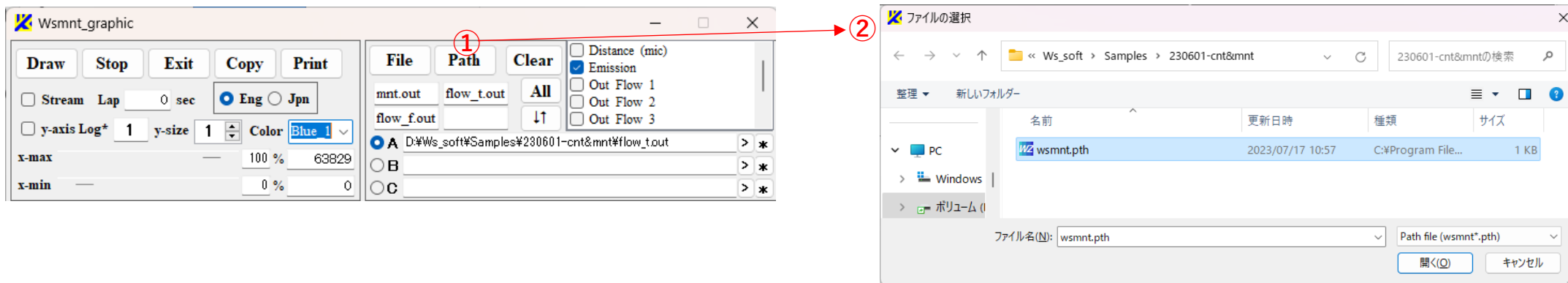


5. Select color and thickness of graphs, scale selection (Linear or Log) and magnification of vertical axis



The Color box ① allows selection of the color and thickness for the graph ②. When box ③ is checked, a linear scale of the y-axis changes to a log scale as shown in graphs ④. Box ⑤ is the exponent n of the log scale defined by a relation of y' (log scale value) = $\text{sign}(n \cdot \log_{10}(9 \cdot |y| + 1), y)$. Therefore, the larger n is, the more a low level is emphasized. The y-axis can be scaling using the y-size box ⑥. The graphs ⑦ are an example for graphs ② with the value for box ⑥ sets to 2.

6. Reproduction of past settings



When the Path button ① is clicked, a file selection window ② appears. By selecting a file named wsmnt.pth, the past settings can be reproduced. The file of wsmnt.pth is created (overwritten) in the folder containing wsmnt.exe and the folder written in the path box (the right of the selection button ②) every time the Draw button is clicked.