User Manual of EpiProfile

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A. Requirements:
1. Windows system (Windows 7 or later version, any Intel or AMD x86-64 processor, RAM with 2 GB or more).
2. Xcalibur and Matlab should be installed firstly.

B. Instructions:
1. modify the input parameters (open the folder 'EpiProfile', open the file 'paras.txt', put your data path after 'raw_path', set other parameters following the instructions).

2. start Matlab (in the folder 'EpiProfile', doubly click the file 'EpiProfile.m').

3. run EpiProfile (in the Matlab Command Window input "EpiProfile" and press "Enter").

The results are under the data path (histone_layouts and histone_ratios.xls, or histone_ratios_SILAC.xls, or histone_ratios_C13.xls, or histone_ratios_N15.xls, or histone_ratios_13CD3.xls).

C. Steps:
Step 1 (modify the input parameters)

[EpiProfile]
% the datapath of raw files
raw_path=C:\F\Exp76\1

% 1: Human, 2: Mouse
norganism=1

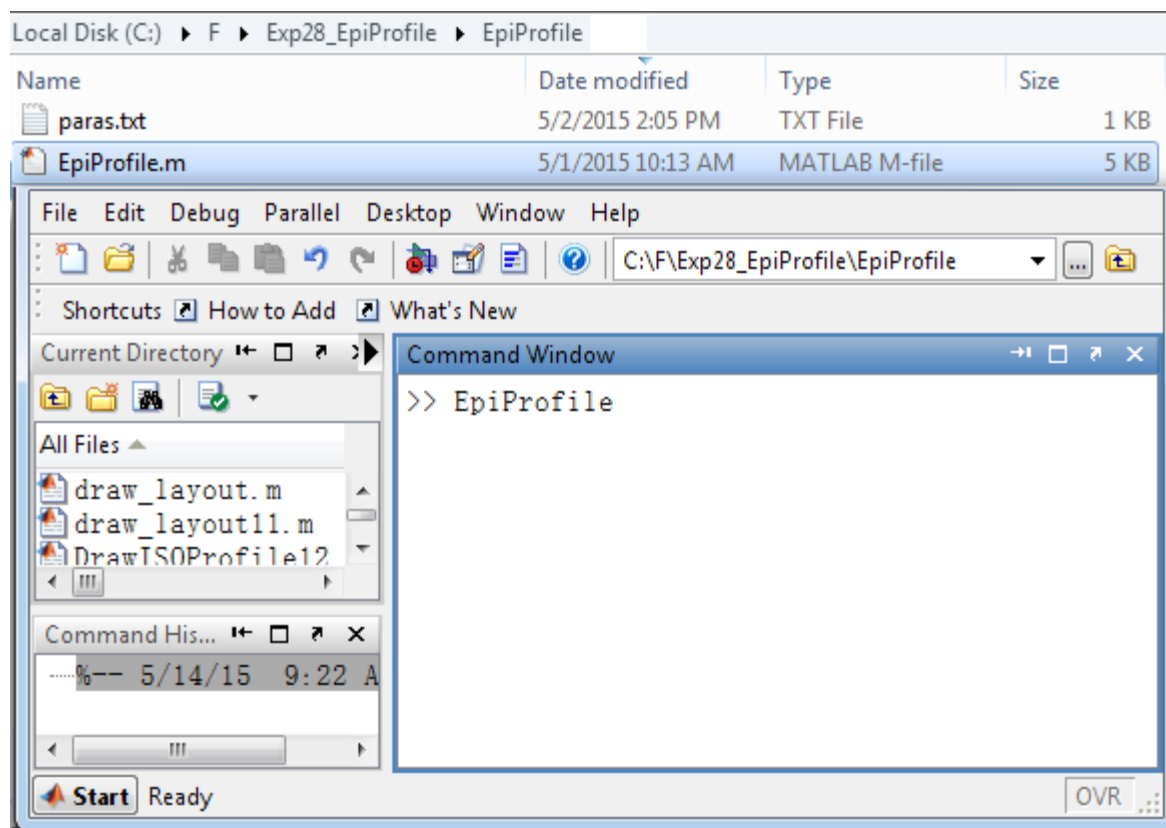% 1: histone_normal, 2: histone_SILAC, 3: histone_C13, 4: histone_N15, 5: histone_13CD3
nsource=1

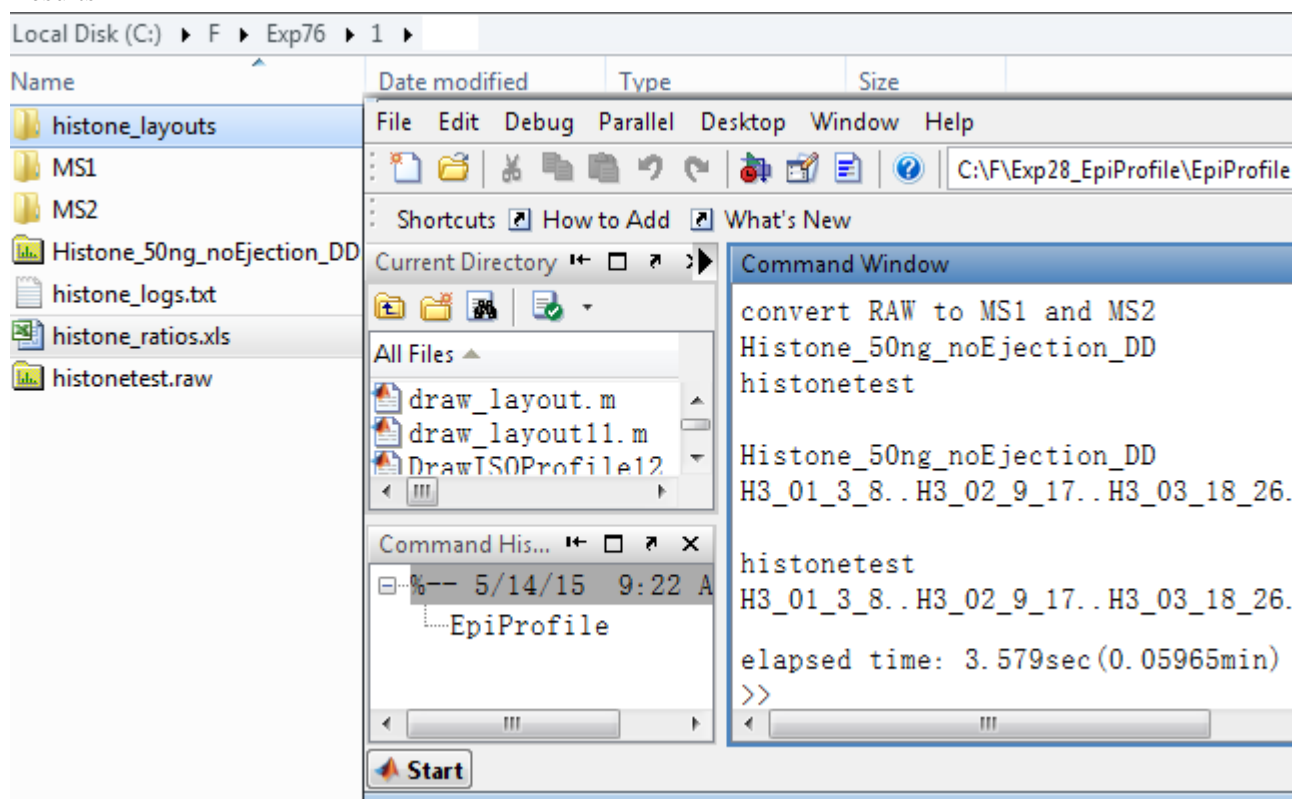% if histone_N15, 0: N14 light Mods, 1: N15 light Mods, 2: N14 heavy Mods, 3: N15 heavy Mods, 4: 0+1, 5: 0+3
nsubtype=0

Step 2&3 (start Matlab and run EpiProfile)

Start and Run

Results

D. Trouble shooting

1. The folder of 'EpiProfile' cannot be put under a path contains a space (e.g. C:/my folder), through the data path can contain a space.

2. If Xcalibur is installed but EpiProfile cannot use Xcalibur to convert RAW to MS1 and MS2, then MSFileReader need be installed, which can be downloaded from https://thermo.flexnetoperations.com.

3. In addition to MATLAB, EpiProfile2.0 uses the following 3 toolboxes: Statistics and Machine Learning Toolbox, Curve Fitting Toolbox, and Bioinformatics Toolbox.

4. The application file 'xtract.exe' in the folder of 'EpiProfile' will expire on the end day of each year. Therefore, it needs be updated in the beginning of each year.