

dBETS - diffusion Breakpoint Estimation Testing Software

<https://dbets.shinyapps.io/dBETS/>

This document describes the data format required for the online software package dBETS. If you encounter any problems please contact Glen DePalma at glen.depalma@gmail.com. The example data set used throughout this document is the default data set provided on the Load Data page. It can be found at <https://dbets.shinyapps.io/dBETS/data1.csv>.

1 Data Preparation and Data Upload

Uploading data and getting data set characteristics for user specified MIC breakpoints is done on the Data Entry page. Prior to loading any data set, you need to make sure it is properly formatted. The data should be entered in a .csv (comma delimited) file with two columns labeled MIC and DIA. The first row should include these header names with the MIC data entered in the first column. Censoring information is important. If a value is censored put a < or > symbol before the value, with no space between. No other symbols are permitted.

On startup, the default data set (location is listed in the File URL text box and available for download) is available for download by clicking the load data button. If you have your own data set, you will need to specify the location prior to hitting the load data button. This process is described in detail in Section 1.1.

A portion of an example data spreadsheet with censoring is shown in Figure 1.

	A	B	C
1	MIC	DIA	
2	>256	<6	
3	>256	<6	
4	>256	<6	
5	>256	<6	
6	>256	<6	
7	>256	<6	
8	>256	<6	
9	>256	<6	
10	>256	<6	
11	>256	<6	
12	>256	<6	
13	>256	<6	
14	>256	<6	
15	>256	<6	
16	>256	<6	
17	>256		7
18	>256		7
19	>256		7
20	>256		7
21	>256		7
22	>256		7
23	>256		7
24	>256		7
25	>256		8
26	>256		8
27	>256		8
28	>256		8
29	>256		9
30	>256		9
31	>256		9
32	>256		10
33	>256		10
34	256	<6	
35	256	<6	
36	256	<6	
37	256	<6	
38	256	<6	

Figure 1: Example data set for use with dBETS. Notice the distinction between > 256 (censored) and 256 (not censored).

Note the MIC data can be stored on the original ug/mL dilution scale or \log_2 ug/mL dilution scale. DIA is assumed to be measured in mm.

1.1 Uploading Data and Setting Parameters

To upload a data set, there are a couple options on the side bar that need to be specified by the user. First, you need to specify where the data set is located. If the data set is online, enter the appropriate address in the "File URL" text box. If the data set is on your local machine, check the "Use a file stored on my local machine" box and the "File URL" text box becomes a file location textbox with a browse button. The other two options pertain to the data set itself. First you need to specify if the MIC results are reported on the \log_2 scale or not. Then you need to specify the MIC breakpoints. Once these are set click the load data button to upload the data. Data set characteristics and graphing options are then displayed.

Note that these MIC breakpoints are used throughout your session. If you wish to change them, you must return to the Data Entry page, make the change, and then click the load data button. Figure 2 displays the Date Entry page along with an example of the descriptive statistics and graph of the data that may be produced.

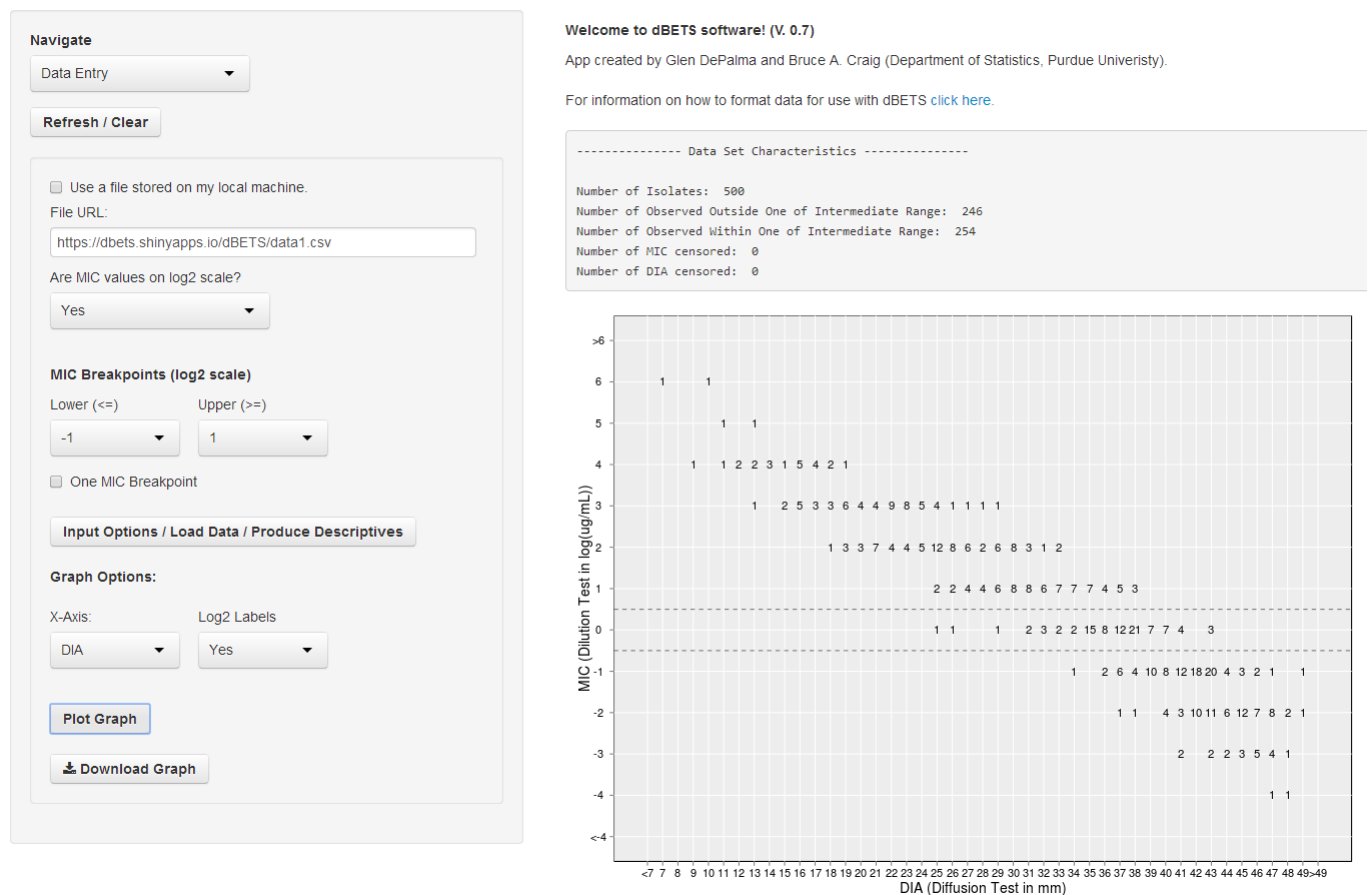


Figure 2: Data Entry Screen