Purpose:

The purpose of this report is to take any data that is run in a plate (or other spatial) format and display the values on a grid.

This is a general reporting tool. There are two required input files: a coordinates file and a metrics file.

The metrics file has the sample, the metric as it will be displayed in the report, and then the value of the metric for that sample. The coordinate file has the position of the sample on the plate. The sample name serves as a key between the two files. The name, therefore, has to be exactly the same and is case sensitive.

This is a beta version and the program is not fully debugged.

Known bugs:

If the metrics file contains extra lines at the bottom the program will crash.

% at then end of data will make it crash. Format as number and save without the %.

To run:

set up environment to call the Matlab runtime compiler:

e.g at the Broad:

use .matlab\_2013a\_mcr

Run the command in this format,

MakePlateReport metricsFileName coordinatesFileName metricBoundariesFileName reportTitle outputDirName

For example:

cd PlateReportingTool/current

use .matlab\_2013a\_mcr

./MakePlateReport ../DemoData/metricsFile.txt ../DemoData/coordinatesFile.txt ../DemoData/metricBoundariesFile.txt 'Test Report' ../DemoData/testReport

FILE FORMATS

Metrics file:

A tab delimited file with three columns and a header line.

The columns are Sample (string), Metric (string), Score (number – do not include %!)

For example:

|  |  |  |
| --- | --- | --- |
| Sample | Metric | Value |
| B2\_SM-AFTD9\_Link41 | Total Reads | 293,522 |
| B2\_SM-AFTDA\_Link11 | Total Reads | 449,417 |
| B2\_SM-AFTDB\_Link60 | Total Reads | 682,553 |
| B2\_SM-AFTDL\_Link36 | Total Reads | 1,086,100 |
| B2\_SM-AFTDM\_Link35 | Total Reads | 282,978 |
| B2\_SM-AFTDN\_Link76 | Total Reads | 726,656 |
| B2\_SM-AFTDX\_Link22 | Total Reads | 281,881 |
| B2\_SM-AFTDY\_Link43 | Total Reads | 858,213 |

Etc.

CoordinatesFile

This has the x-y location of the well in the plate. All coordinates start at 1. The well in the upper left hand corner of the first plate is 1 1 1

Negative and zero values are ignored in plots Sample X Y Z

|  |  |  |  |
| --- | --- | --- | --- |
| Sample | X | Y | Z |
| B2\_SM-AFTD9\_Link41 | 1 | 1 | 1 |
| B2\_SM-AFTDA\_Link11 | 1 | 2 | 1 |
| B2\_SM-AFTDB\_Link60 | 1 | 3 | 1 |
| B2\_SM-AFTDL\_Link36 | 1 | 4 | 1 |
| B2\_SM-AFTDM\_Link35 | 1 | 5 | 1 |
| B2\_SM-AFTDN\_Link76 | 1 | 6 | 1 |
| B2\_SM-AFTDX\_Link22 | 1 | 7 | 1 |
| B2\_SM-AFTDY\_Link43 | 1 | 8 | 1 |

Etc.

Metric Boundaries (file optional - if no file put in a dummy file name)

Has the metric, the minimum value on the plot, the maximum value on the plot, and whether or not to plot the metric on a heatmap. If there is no file, min and max values are taken from the data and all metrics in the metrics file are plotted on the heatmap.

|  |  |  |  |
| --- | --- | --- | --- |
| Metric | MinValue | MaxValue | Whether to plot (0=No,1=yes) |
| Total Reads | 0 | 1000000 | 1 |
| % rRNA | 0 | 1 | 0 |