New to Spartan Version 2.2

1. Summarise Latin-Hypercube Generated Correlation Coefficients

The spartan method `lhc_generatePRCoEffs` generates Partial Rank Correlation Coefficient values for each parameter-output response pairing. These values are included in the header of the plot of that pairing. For simulation studies containing a large number of parameters and output responses, comparison of the calculated coefficients was previously not trivial.

Now, spartan can produce a plot summarising the correlation coefficients, in two formats:

i. Run the latin-hypercube analysis method as described in our paper in the R Journal

ii. Now run the new method: `lhc_plotCoEfficients(FILEPATH,CORCOEFFSOUTPUTFILE, MEASURES,PRINTOPT)`

   FILEPATH should point to the directory containing your simulation results

   CORCOEFFSOUTPUTFILE should contain the name of the file generated by the previously mentioned `lhc_generatePRCoEffs` method

   MEASURES should contain a vector of your simulation output responses

   PRINTOPT should be set to either “ALL” or “INDIVIDUAL”. This tells the method to either plot all output responses on the same plot (ALL, Figure Left), or to produce a plot for each individual simulation output measure (INDIVIDUAL, Figure Right). The latter may be useful if you have a large number of simulation output responses.

2. Better handing of spaces in PARAMETERS and MEASURES.

When reading in simulation CSV files where the parameters or measures contain spaces, R replaces these spaces with a period. This has caused errors where the value in the PARAMETERS and MEASURES vectors is used to reference the results. Now, spartan checks for spaces in the PARAMETERS and MEASURES and replaces these with periods, ensuring errors do not occur.

3. Small bug fixes in Consistency Analysis method

It has been noticed that the former version of this method would not allow the processing of just one simulation output measure. This error has been corrected.

---

Kieran Alden, York Computational Immunology Lab
ycil@york.ac.uk | www.york.ac.uk/ycil
March 2015