

GUIDELINES FOR THE ARENA ASSIGNMENTS

Each of the assignments should normally comprise the following three elements:

1. Main body of assignment

The key issues to be addressed in the main body of the assignment are in brief the following:

Flowchart Description: A clear explanation of how the model was built should be provided. This should mainly refer to the modules that were used and their exact place in the flowchart. This part should also provide an indication of how the major parameters of these modules have been set. One good way to achieve this is by using screenshots of the windows/dialog boxes presenting the modules' parameters.

→Note: You are not expected to describe how you literally built the model using Arena. Descriptions of how the modules were selected from the project bar and then placed on the model window or of how the property dialog boxes of each module were accessed so as to enter data are considered to be obvious and therefore should be omitted.

Run Setup Parameters: Based on the requirements of each specific problem/exercise, you are expected to make decisions on how the simulation run setup parameters should be determined. The simulation run setup refers mainly to the number of replications, replication length, time units and in general all the parameters included in the *Replication Parameters* tag appearing in the *Setup* option of the *Run* menu. The determination of setup parameters that conform to the requirements of the assignment is a key point. Incorrect selection of the run setup parameters will result in findings different from those expected (regardless of the fact that the model can be absolutely correct).

Answers to the exercises' questions: Following the presentation of the model, the main part of the assignment should serve the purpose of identifying the questions that need to be answered for each problem/exercise. Furthermore, it is expected that a **complete** and **clearly stated** answer should be provided for **each** of these questions. Whenever the problems' questions are related to one or more of the collected statistics, the answers presented should be in accordance with those appearing in the statistics reports (see section below for the appendix).

In some cases the problems/exercises require, in addition to a number of statistics, information on e.g. the system performance under a number of alternative scenarios or a number of plots, animations etc. It is important to note that you will be assessed against all the required information.

2. Report Appendix

In the appendix you are expected to provide the Statistics Reports. You are advised to prefer the Summary Statistics Reports, which are considerably shorter than those appearing in the *Reports Panel* (in the Project Bar) of the Arena interface. The Summary Statistics Reports are generated automatically by Arena after each simulation run and are saved in the form of a text file (*.out) in exactly the same folder where you saved the model. In order to be able to get such (*.out) files you may need to make appropriate changes in the fields *Default Report* and *Display SIMAN summary report (*.out file)* in the *Reports* tag appearing under *Tools >Options*.

There are a number of issues that will be checked during the marking. Apart from the correctness of the collected statistics attention will also be paid to the:

- run set up parameters that should be consistent with those presented in the main body of the assignment,
- analyst's name that in turn should point to the student submitting the assignment.

3. Floppy Disk/CD

Along with the assignment you are also expected to submit a floppy disk or CD where you should have saved the *.doe file/s containing your model/s.

More specifically, the **Floppy Disk/CD** should:

- first and foremost be virus-free,
- be accessible,
- include only the final version of the file/s that correspond to the required model/s,
- contain files that the Arena software **can** run and can thus generate results (bear in mind that even using unacceptable filenames can result in Arena being unable to run the model in spite of the fact that the latter can be absolutely correct. In such cases it is also impossible to collect any statistics reports). Failed runs during assessment will result into F.
- contain files which correspond to the models that have been presented in the assignment (both main body and appendix). In other words, it is unacceptable to discover that running the model contained in the floppy generates different results from those presented in the assignment.

- contain the student's (submitting the assignment) name as well as the reference number of the assignment on the label of the floppy disk/CD,
- be attached to the assignment so that it should not get lost or examined separately from the assignment.

Students are also requested to provide their email so that they will be contacted in case that there are problems with accessing their floppy disk/CD.

Assignments' Submission Deadlines

The submission of the assignments should not under any circumstances exceed the relevant submission deadlines. However, when special cases apply (e.g. whether there are mitigating circumstances) justifying late submission, assignments will be accepted and marked beyond the submission deadline only when they are accompanied by the late submission cover sheet bearing the Module Coordinators' signature.

Additional Help

For technical support you can contact:

Miss Tina Papadopoulou
Dept. of Design and Systems Engineering (Tower A)
TA 303 (3rd floor)
tel no: 01895 274 000, ext: 2940
email: empgtcp@brunel.ac.uk

Office hrs: Monday 11⁰⁰-12⁰⁰