Instructions for Using the Model Program

The folder BB, which you have made by unzipping the file BB.zip, contains the following:

* This note
* A runnable java archive file BeesAndBats.jar for the model program
* A folder ‘source’ containing the program source code
* Pdfs of papers related to the program:
  + RE\_0\_8.pdf – the derivation of the Requirement Equation, a general statement of Bayesian optimal cognition
  + BB\_1\_6.pdf – describing the results of running the program
  + WH\_3\_6.pdf – describing evidence for wave storage of spatial information, in the central body of the insect brain and the mammalian thalamus

If you already use Java on your computer, start the model program by double-clicking the file BeesAndBats.jar, and then follow the instructions in the Help menu to run it. Typical help instructions are:

A screenshot of a computer game

Description automatically generated

If you do not have Java on your computer, you will need to download and install a Java Runtime Environment (JRE), for instance from <https://www.oracle.com/uk/java/technologies/downloads/> . This automated installation takes about a minute. You will download a .exe installer program, and double-click it to install Java.

The folder ‘Source’ contains the program source code. You can import the code to a development environment such as Eclipse or IntelliJ, to modify or extend the program. The program uses the JAMA matrix libraries, and has no other external dependencies.