JRate

Overview

JRate is a Java-based emulation of the PCKnot Rate Program (©1998) developed by McDonald, Schvaneveldt, and Sitze. The original software is available through Interlink Inc. (5114 Copper Bar Rd, Las Cruces, NM 88011 or interlinkinc.net).

JRate was initially developed to provide a cross-platform alternative to the original Windows-only software, enabling broader accessibility through compatibility with any system running Java Runtime Environment (JRE) version 1.4.2 or higher. Beyond cross-platform support, JRate introduces a more visually appealing user interface and originated as a side project during thesis research.

The primary function of JRate is to collect similarity ratings for all possible pairings of terms from a predefined list. The output is generated in a format compatible with PCKnot (.PRX files), including additional metadata such as the date and total elapsed time (in milliseconds) of the rating session.

Installation

Precompiled executables are available for Windows, Linux, and MacOS in releases.

If you wish to build from source, clone the repository and use Apache Maven:

```
mvn package
```

Distribution files should be produced under /target/distribution

Configuration

JRate requires three customizable text files to be located in the application's root directory. These files can be empty but must be present. In their absence, default example content will be used.

1. `startingInstructions.txt`

This file defines the initial instructions displayed to participants after they successfully enter a valid ID. Instructions are presented in a scrollable text box with no restriction on length.

2. `terms.txt`

This file contains the list of terms to be rated. JRate reads the list, generates all unique pairs, and presents them randomly to the participant for similarity ratings. Results are saved in a half-matrix format, readable by PCKnot.

Important: The total number of pairwise comparisons is calculated using the formula: $\mathbf{N \times (N - 1) / 2}$, where N is the number of terms. To avoid participant fatigue, it is recommended to limit the list to 15 terms or fewer, which results in 105 pairwise comparisons.

3. `endingInstructions.txt`

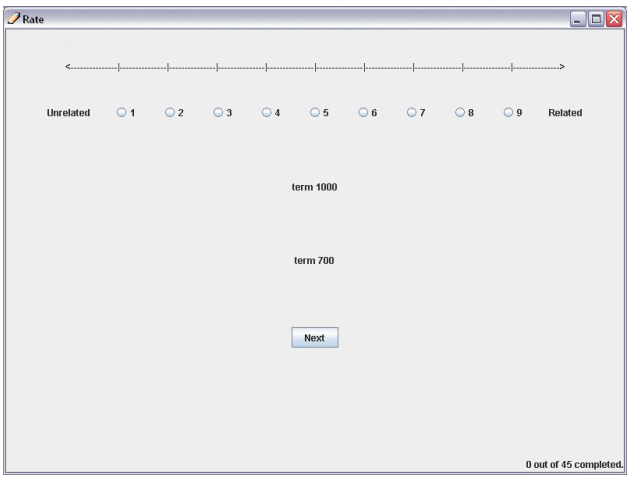
This file contains the final instructions shown upon task completion. Like the starting instructions, this content is displayed in a scrollable window and may be of any length. It is typically used for debriefing.

Rating Task Description

Upon launching JRate, participants are prompted to enter an identification code consisting of any alphanumeric characters. They are then required to re-enter the code for verification. If the two entries do not match, the participant is prompted to try again until a valid match is made. This step prevents input errors and ensures consistency, as the ID is used as the data file name.

If a file with the entered ID already exists (e.g., `foobar.prx`), the software automatically appends a number to create a unique filename (`foobar1.prx`, `foobar2.prx`, etc.).

Once the ID is confirmed, the participant views the starting instructions followed by the rating task.



Participants are shown two terms at a time and asked to rate their similarity on a scale from 1 to 9. Ratings can be submitted either by selecting a radio button or by pressing the corresponding number key. The participant then advances to the next pair using the Next button, the Enter key, or the Spacebar.

The interface clears the previous selection before displaying a new pair of terms, and it does not allow advancement without a completed rating. A progress indicator is displayed in the lower-right corner to track task completion.

After all term pairs have been rated, the participant is shown the ending instructions.

About The Mad Statter

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