Benchmarking Tool User Guide

Introduction

This user guide is designed to help you navigate and utilize the Benchmarking Tool, a comprehensive application developed for evaluating CAPP (Computer-Aided Process Planning) systems. The tool assesses systems based on accuracy, speed, and interoperability to provide a holistic benchmark score.

Getting Started

1. **Launching the Application:** To start, double-click on the application executable. The main window titled "Test Application" will open.
2. **Entering CAPP System Name:** Upon launch, enter the name of the CAPP system you're testing in the "Enter CAPP System Name:" field at the top.

Navigating the Tabs

The application consists of four main tabs: Accuracy, Speed, Interoperability, and Leaderboard. You can navigate through these tabs to access different test functionalities.

Accuracy Tab

1. **Conducting the Test:** This tab contains a series of questions related to process requirements for your CAPP system.
2. **Reviewing Test Cases:** Open the test case folder provided with the application. Compare your CAPP system's predicted process plan against each test case in the folder to determine the correct answers.
3. **Submitting Your Answers:** After reviewing the test cases and determining your answers, click the "Submit" button to calculate your accuracy score based on your responses.

Speed Tab

- **Preparing for the Speed Test:** Locate the "Test Case 1" file within the test case folder. This specific file is designed for assessing the speed of your CAPP system.
- **Starting the Timer:** Click the "Start" button to begin the speed test. This initiates the timer.
- **Stopping the Timer:** Once completed, click the "Stop" button to halt the timer and automatically calculate your speed score.

Interoperability Tab

1. **Selecting Supported Formats:** Check the boxes next to the interoperable formats your CAPP system supports.
2. **Submitting Your Selection:** Click the "Submit" button to record your interoperability score based on the selected formats.

Leaderboard Tab

- **Viewing the Leaderboard:** This tab displays a leaderboard of all CAPP systems tested, ranking them based on their overall benchmark score. The leaderboard is automatically updated after each test.

Saving and Resetting Data

- **Automatic Saving:** Your scores and leaderboard data are automatically saved upon completion of each test.
- **Resetting the Leaderboard:** If needed, you can reset the leaderboard data by clicking the "Reset Leaderboard" button in the Leaderboard tab.

Closing the Application

To exit the application, simply close the main window or press Alt+F4.

Support

For technical support or troubleshooting, please contact the support team through email at muhammad.saleem@stud.th-deg.de