Event Log Sampling for Predictive Monitoring

---- User Manual

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https://github.com/Malekhy/ws2122-lspm

🎯 Overview

The event log sampling for Predictive Monitoring (LSPM) proposes an instance selection procedure that allows sampling training process instances for prediction models.

We implement 3 different sampling algorithms as a training service in the form of web services, combine it with existing predictive models, and produce prediction results.

On our web service page, the user will be able to import (csv/xes) and export (xes) their files. With choosing the suitable sampling method as they want, they will get the prediction results with reliable levels of prediction accuracy instantly.

Getting started!

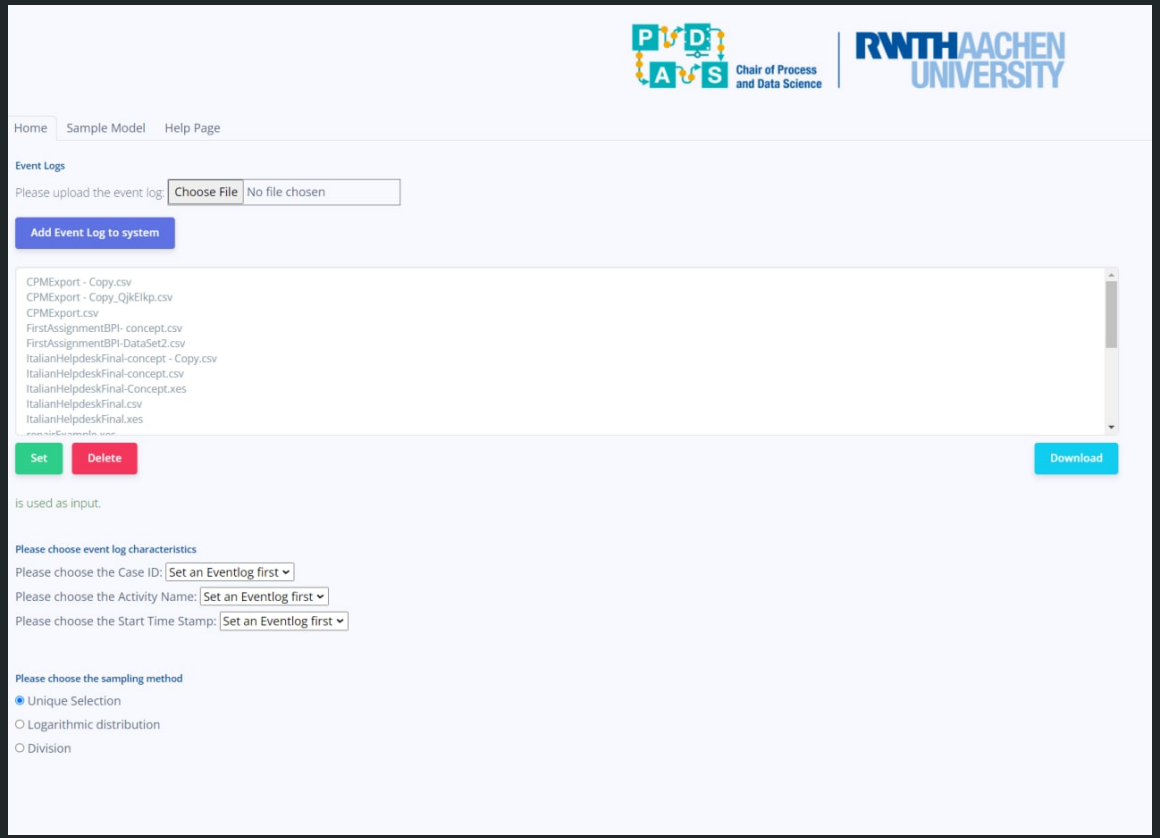
Steps (using virtual environment)

- Clone the project from https://github.com/Malekhy/ws2122-lspm
- Open the command terminal 'cmd'
- Move into the directory folder of the project:
  (project-path)\ws2122-lspm
- Move into project environment:
  - For Windows users: .\Scripts\activate
  - For Mac users: source Scripts\activate
- Install requirements: pip install -r requirements.txt
- Run the web app: python manage.py runserver
- Open the browser and hit the URL: http://localhost:8000/

Steps (using docker image)

- Clone the project from https://github.com/Malekhy/ws2122-lspm
- Follow the instruction from here to install Docker if you don't have:
  https://docs.docker.com/desktop/windows/install/
- Open the command terminal 'cmd'
- Move into the directory folder of the project:
  (project-path)\ws2122-lspm
- Build the docker image using this command:
  `docker build --tag python-lspm .`
- Run the docker container using this command:
  `docker run --publish 8000:8000 python-lspm`
- Open the browser and hit the URL: http://localhost:8000/

Then you will get... 👍



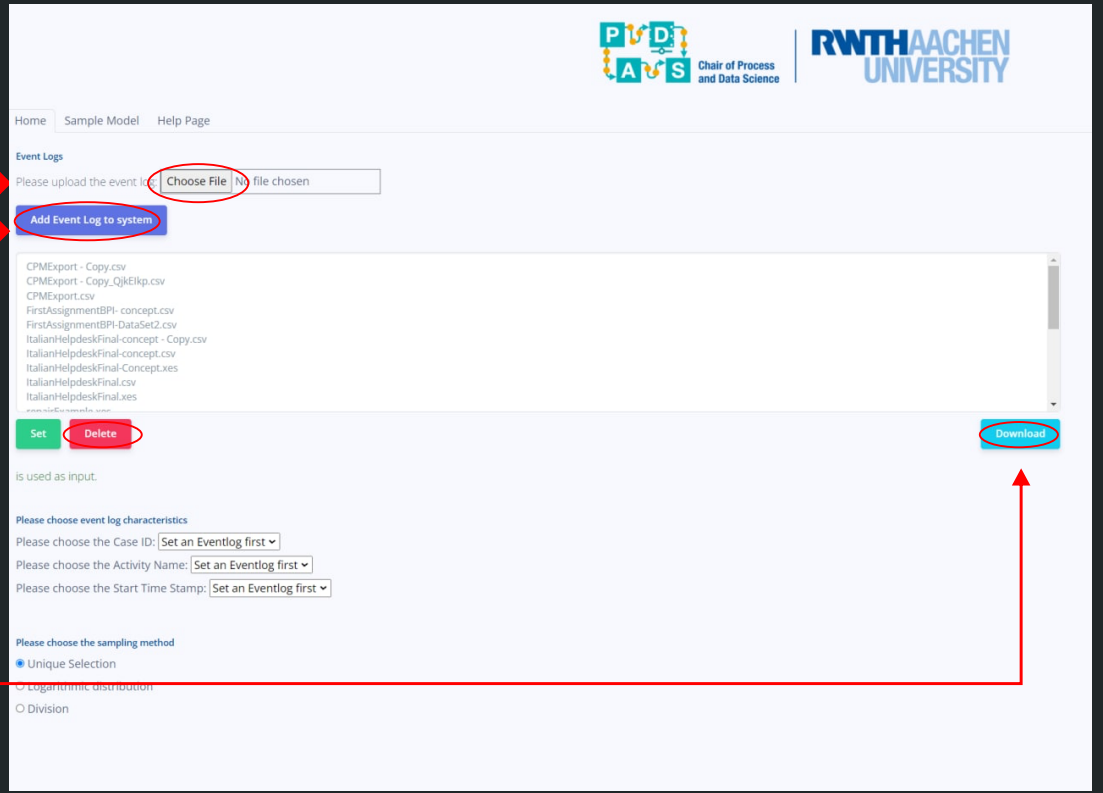
Instruction

1. Click here to choose files

2. Click here to add the file into the working directory

*Click here to delete the chosen files

*Click here to download the chosen files on the list



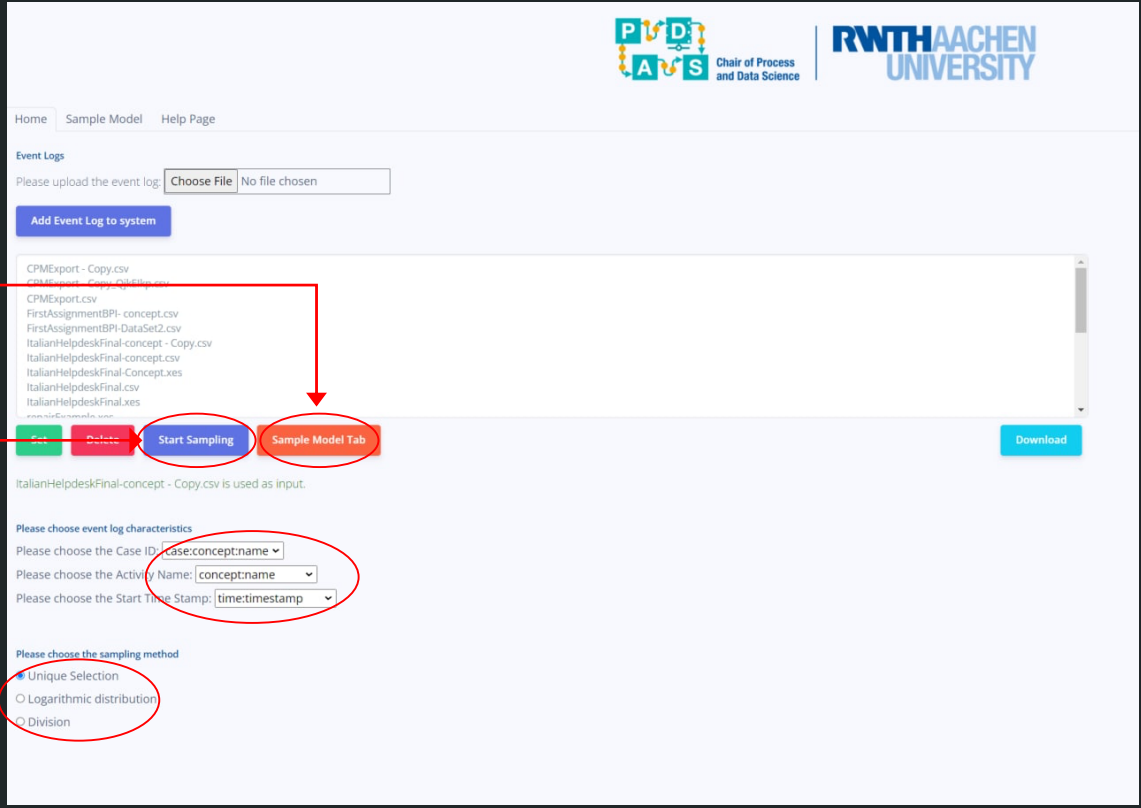
Instruction

*Click here to see statictics comparison between the original event log and the sampling results

5. Click here to start sampling

3. Click here to adjust the prefered characteristics

4. Click here to choose the sampling methods

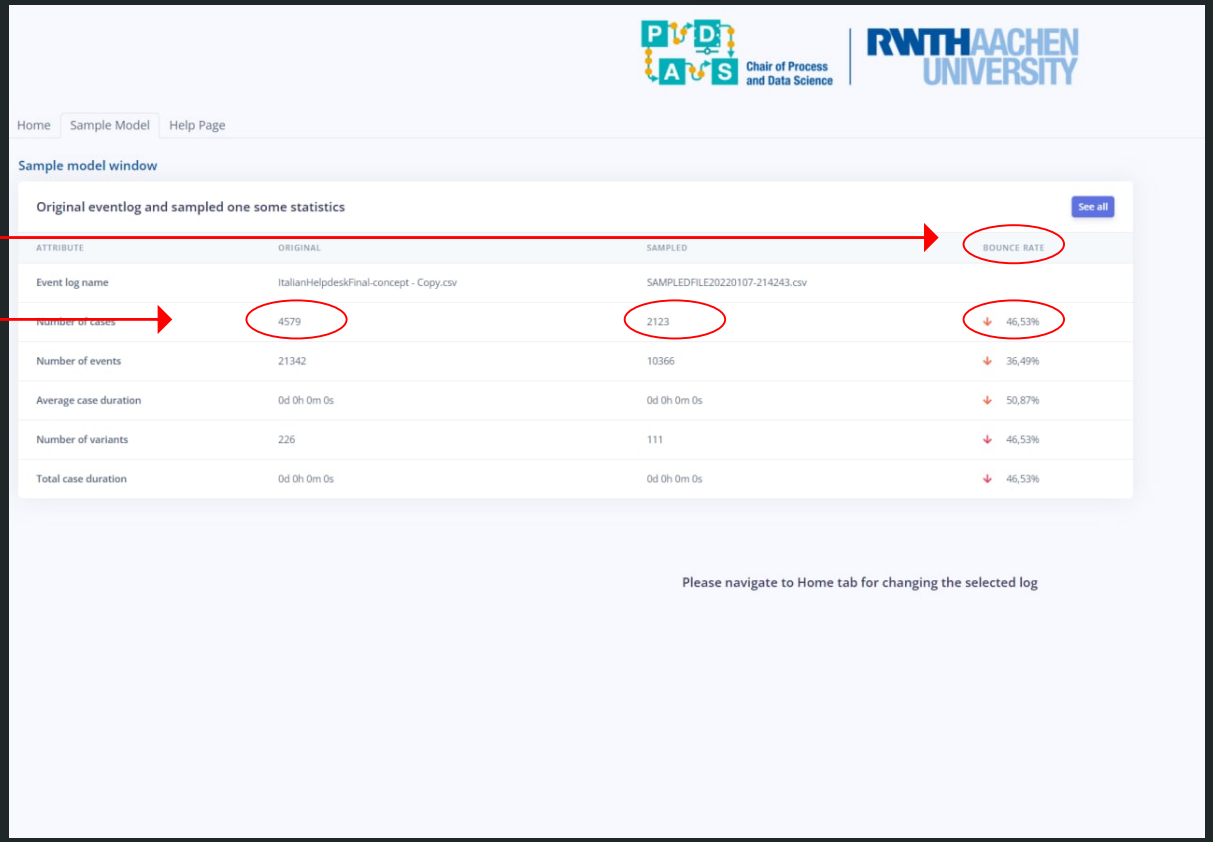


Instruction

results page

In the Bounce Rate column we can see the reduced percentage after sampling process.

e.g. In this row we can see the significant changes after implementing our sampling methods.



Happy process mining :)