Lab Guide

Using Task Mining for Discovery, Monitoring and Analysis of User Interactions on Desktops

Part 1 of 2

V 1.1

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1 Introduction

> Note: to complete the lab instructions you must have a GitHub account on https://github.com/
>
> 
>

1.1 Task Mining in IBM Process Mining

Task Mining is the discovery, monitoring, and analysis of user interaction data on desktops through the collection of frontend activities. While business data in your operational systems describes a process by showing you which and when steps has occurred, user interaction data is everything done by people to accomplish those steps. The main insights obtainable from task mining are the following insights:

Productivity

You can discover how much time users are allocating on the process and how much time the activities are idle because of context switches. For example, users who stopped working on the activity to work on something else:

- Precisely calculate the costs of your process based on the productive time of your resources on the process.
- Understand on which applications users are working the most.

Working Patterns

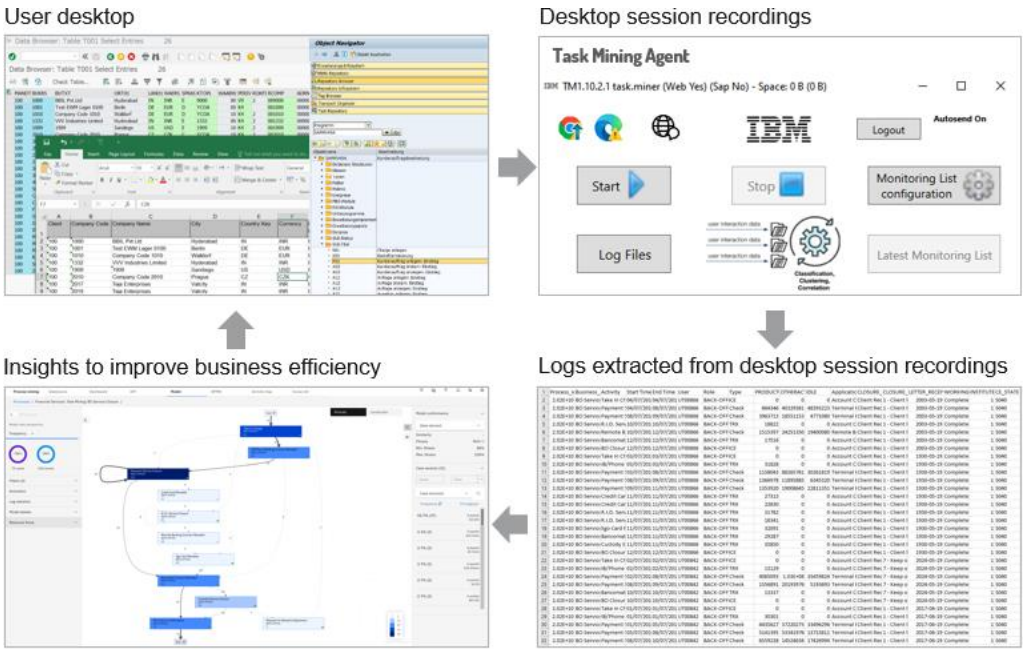
You can discover the main patterns of performing a business activity and the most efficient ways to complete the activity by identifying deviations and inefficiencies:

- Set the most efficient patterns as best practice for the employees.
- Understand root-causes of inefficiencies and take actions to solve them.

Automation

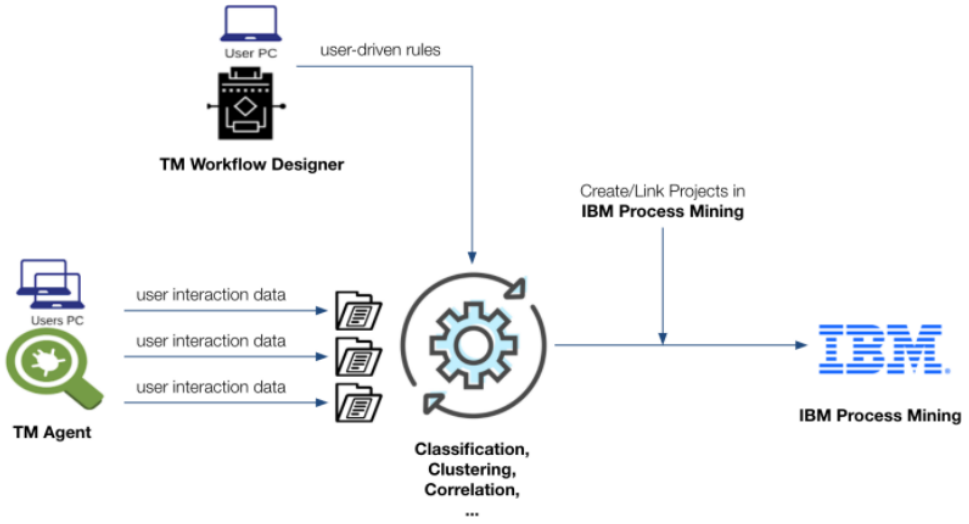
You can discover the working patterns to be automated, with the best tradeoff between benefits and complexity.

- Simulate the automation of the most suitable working patterns and verify performance and cost benefits:
- Get a complete picture of the process though the combination of business data and user interaction data creates the full picture of the process, which can be analyzed from both business level and task level.



1.2 Task Programming Model Introduction

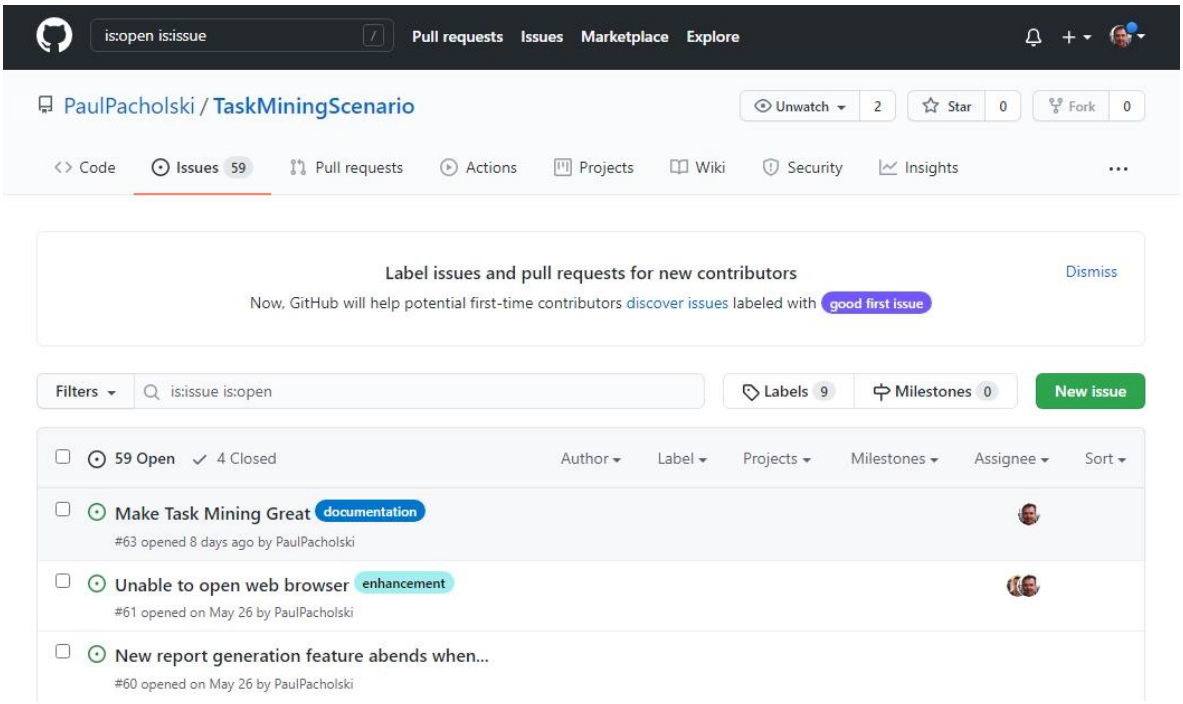
Task Mining is composed of two independent client components: TM Agent and TM Workflow Designer. These two components must be used in order to gather user interaction data and to configure the interpretation of those data.
TM Workflow Designer is sued the create RPA-based script that listen and record desktop events. TM Agent uses Workflows to listen, record, process events and then send them to Task Mining Server.



1.3 Lab Introduction

1.3.1 Business Scenario

The business scenario for this lab is involves capturing user interaction from GitHub Issues.



Specifically we will focus on the user interactions with exiting GitHub Issues. By capturing user integrations we will be able to determine how long Issues stay open or what actions are performed on open Issues.

1.3.2 Lab Objectives

In this lab you will use explore how Task Mining events are recorded, captured, and displayed in Task Mining projects. Specifically, in this lab you will learn how to:

1. Import and existing Workflow file
2. Set up a Task Mining project
3. Record desktop events
4. Visualize the desktop "process" based on the recorded events

1.4 Setup IBM Process and Task Mining Environment

1.4.1 Start the Environments

Follow the instruction in this document: https://ibm.box.com/v/IBMProcessAndTaskMiningEnvPDF

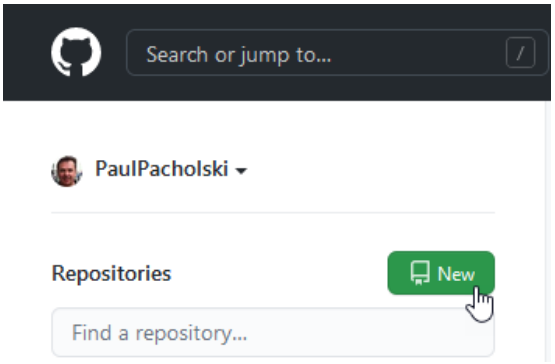
1.4.2 Create GitHub Project

You will need to create a GitHub project for use in this lab.

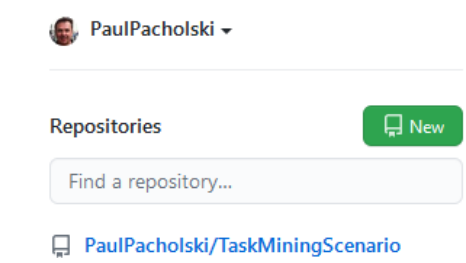
_1. Start the Chrome web browser form the desktop shortcut

_2. Login to your GitHub account on https://github.com/

_3. Click **New** to create a GitHub Repository named **TaskMiningScenario**



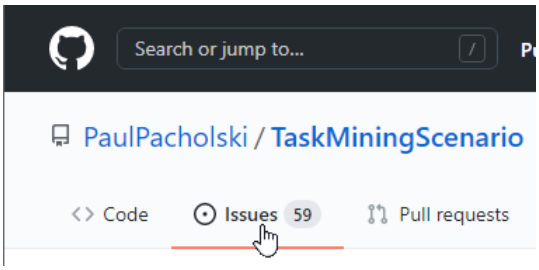
You should now have your mining repository, and it should look similar to this:



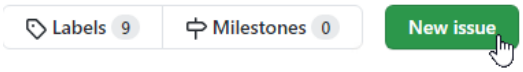
1.4.3 Create Issues

Since the Workflow used for event recording tracks interactions with opened issues, before we start recording, we will need to create some Issues.

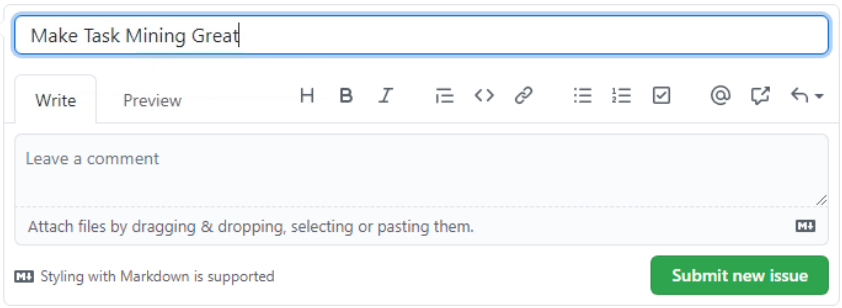
_1. Click **Issues** tab



_2. Click **New issue** button

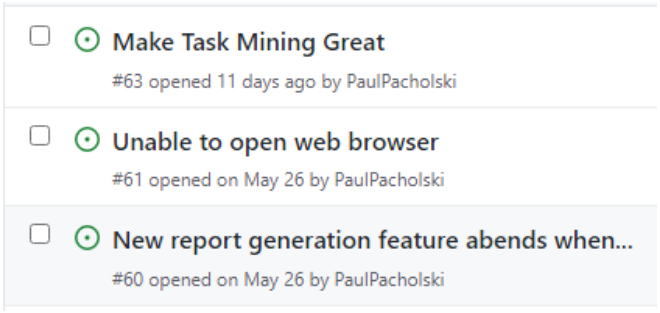


_3. Enter Make Task Mining Great and click Submit new button

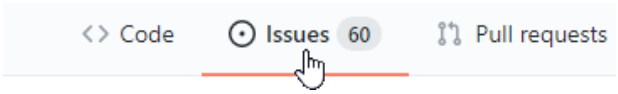


Do not click Close button!

_4. Create 2 more Issues



_5. When you finished click **Issues** tab to see all the Issues



2 Lab Instructions

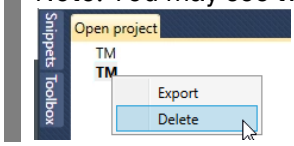
2.1 Import Competed Workflow

This already completed Workflow will act a s “listener” and “recorder” of the events associated with working with issues using www.github.com web application.
In the second part of this lab you will learn how to create this Workflow.

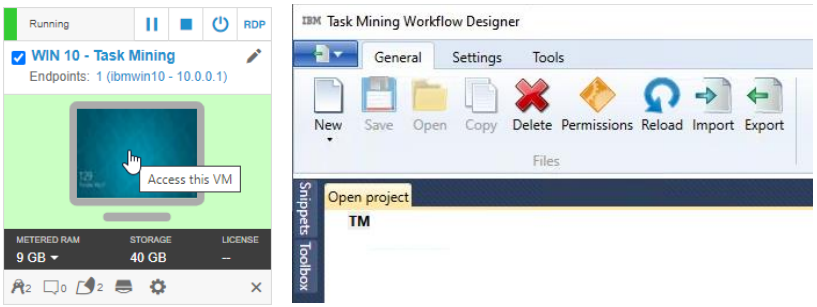
_1. Download **New Github-final.xaml** form this box folder: https://ibm.box.com/v/PROCESS-TASK-MINING-ENV-LABS to **C:\TM** folder

> Note: If the xmal file already exists, overwrite it.

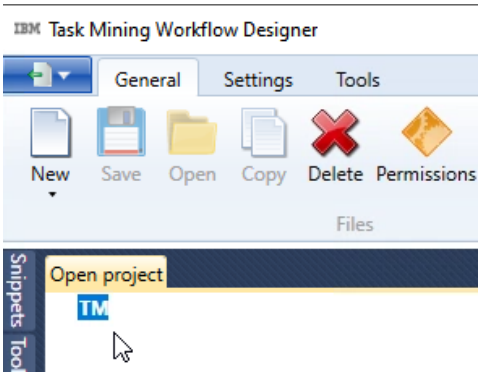
> Note: You may see two TM project. If you do, please delete one of them.



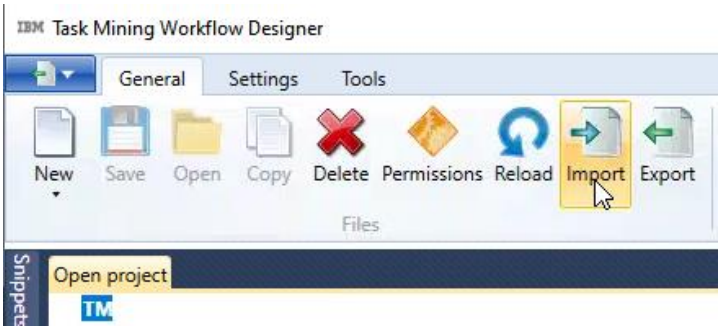
_2. In the **WIN 10 – Task Mining** VM, select **Task Mining Workflow Designer**



_3. Select **TM** Project

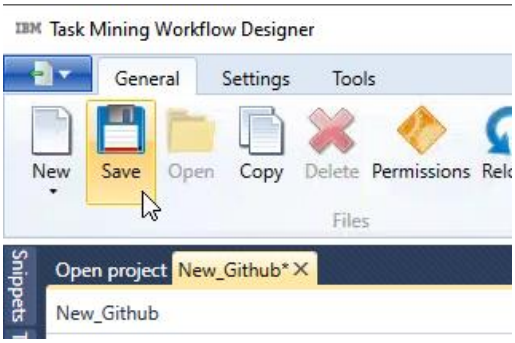


_4. Click **Import**



_5. Navigate to **C:\TM** folder, select **New Github-final.xaml** file and click **Open.**

_6. Click **Save**

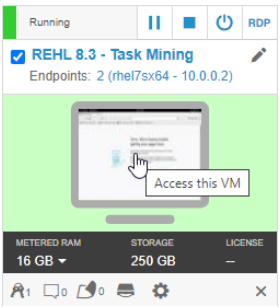


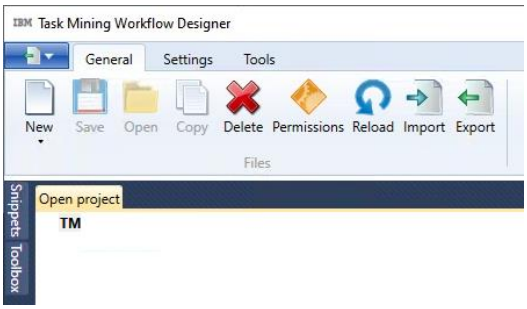
2.2 Create and Configure Task Mining Project

In this part of the lab you will create a Task Mining project and associate it with the Workflow you just imported to Workflow Designer in the Windows Task Mining client.

2.2.1 Create Project

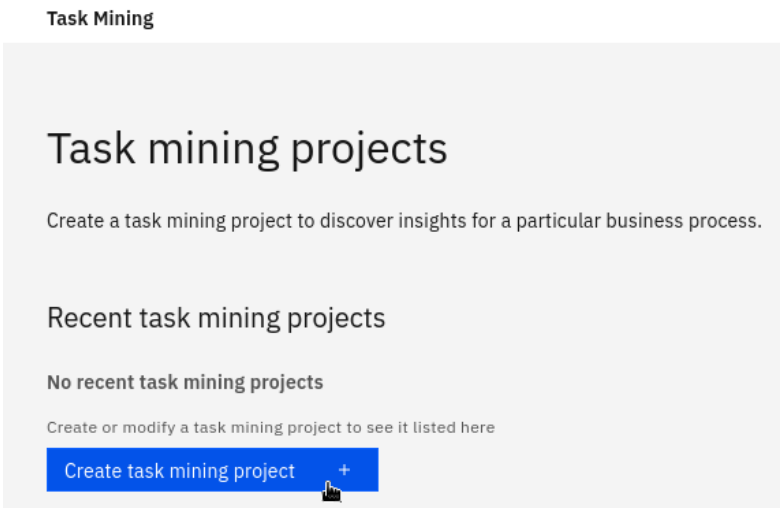
_1. In the RHEL 8.3 – Task Mining VM, Switch to Task Mining Workflow Designer



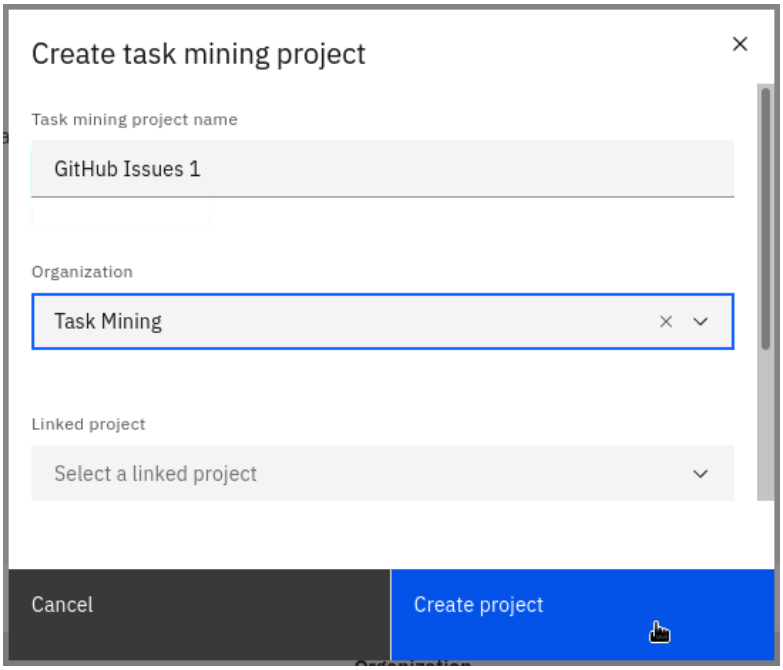


> Note: you mean need to sign to **IBM Task Mining | Sign** in bookmark with **tash.miner** / **TM/admin1** credentials. See https://ibm.box.com/v/IBMProcessAndTaskMiningEnvPDF

_2. Click **Create task mining project +**



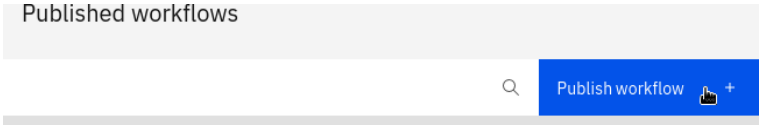
_3. For *Task mining project name* enter **GitHub Issues 1**, for *Organization* enter **Task Mining** and click **Create project**



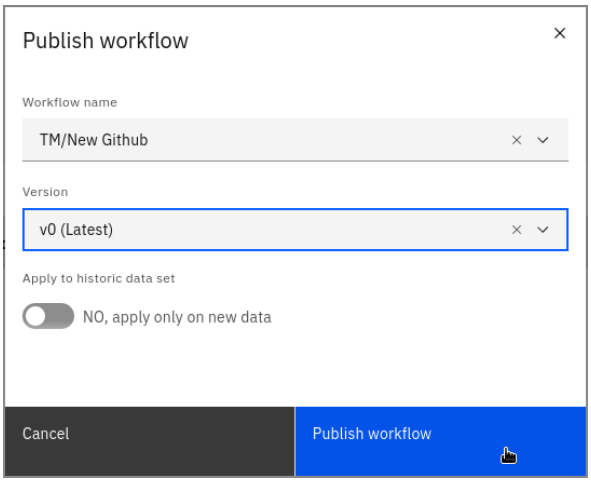
_4. Click **GitHub Issues 1** project to open it.

2.2.2 Associate Task Ming Project with Workflow

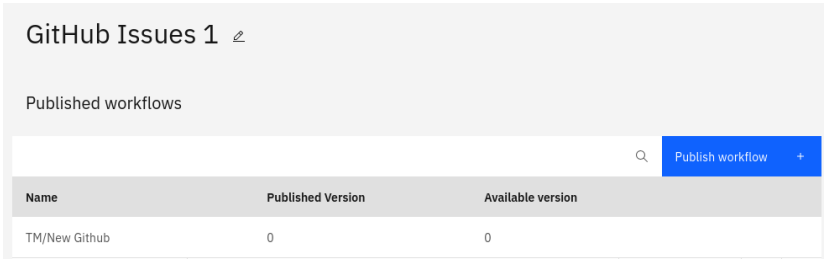
_1. Click **Publish workflow +** button



_2. For *Workflow name* select **TM/New Github**, for *Version* **select v0 (Latest), and**



You should now see the *TM/New GitHub* Workflow is associated with *Task Mining Project GitHub Issues 1*

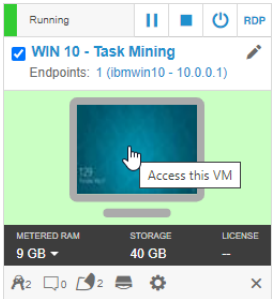


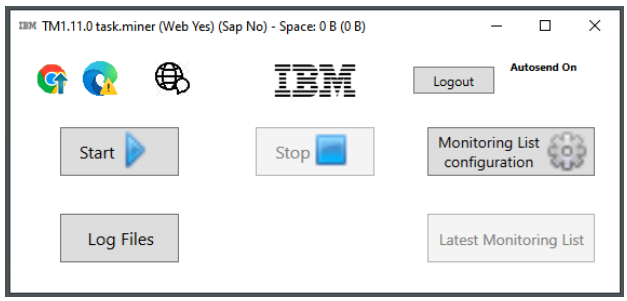
2.3 Record Desktop Activities

In this part of the lab you will using the TM Agent. The TM Agent uses the *New Github* Workflow to listen, record and process desktop even. Once the recording is completed the events will be send to the Task Mining Server.

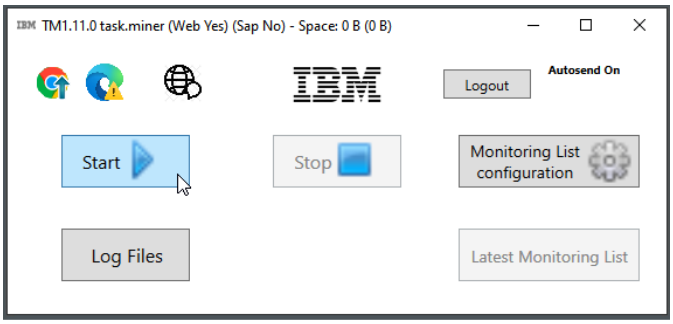
2.3.1 Record Desktop Events

_1. In the **WIN 10 – Task Mining** VM select **Task Mining Agent**

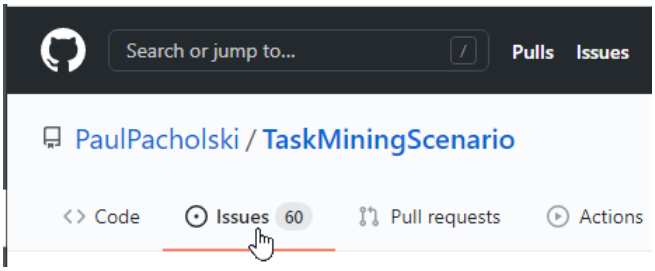




_2. Click **Strat** button to start the recording

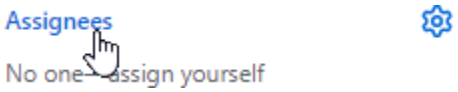


_3. Switch to Chrome and click **Issues**

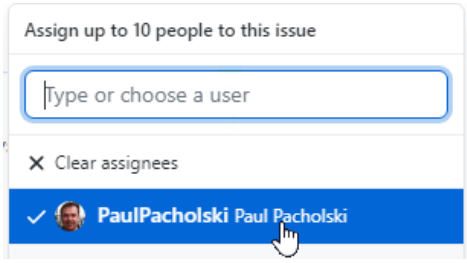


_4. Click **Make Task Mining Great** issue

_5. Click **Assignees**



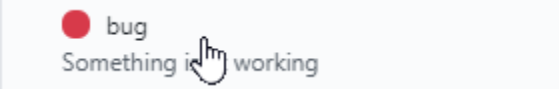
_6. Select **an Assignee**



_7. Click anywhere on the **white space** on the web page.

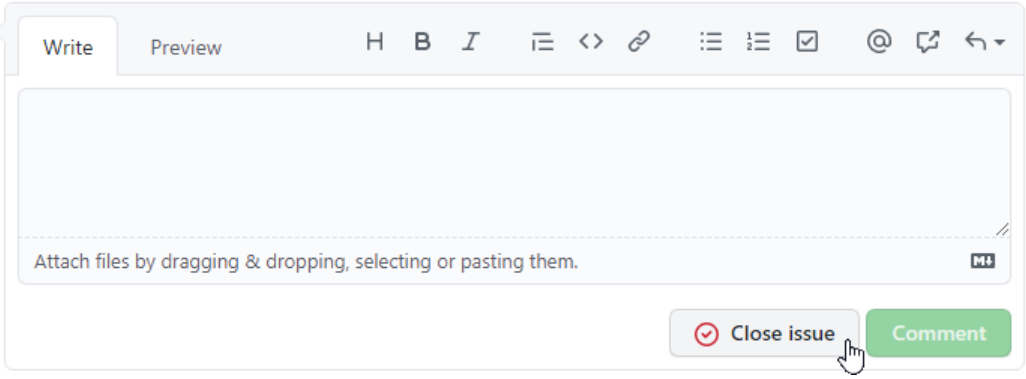
_8. Click **Labels**

_9. Select **bug**

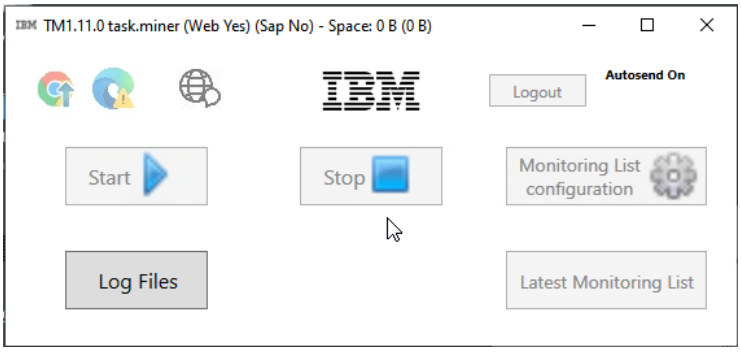


_10. Click anywhere on the **white space** on the web page.

_11. Click **Close issue** button.

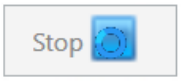


_12. Click Task Mining Agent background to give it focus



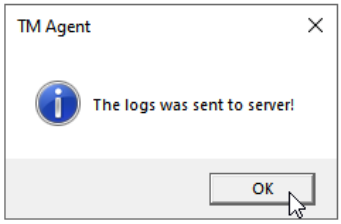
_13. Click **Stop**

You should now see spinning circle



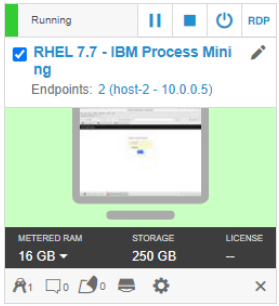
If you had more events to process the circle would spin for a while!

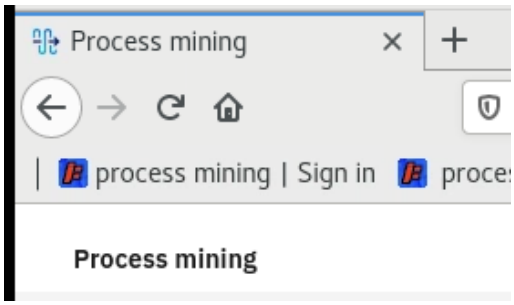
_14. Om *TM Agent* window click **OK**



2.3.2 Examine Task Mining Flow

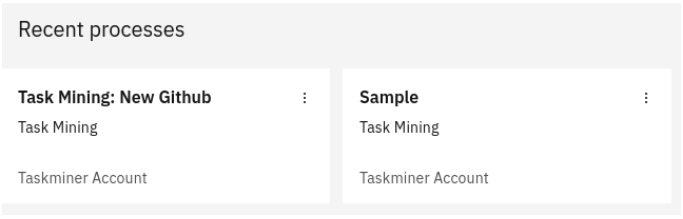
_1. In the **RHEL 7.7 – VM Process Mining** VM select **IBM Process Mining** in web browser



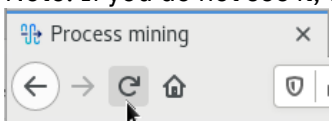


> Note: you may need to sign to **IBM Task Mining | Sign** in bookmark with **tash.miner** / **TM/admin1** credentials. See https://ibm.box.com/v/IBMProcessAndTaskMiningEnvPDF

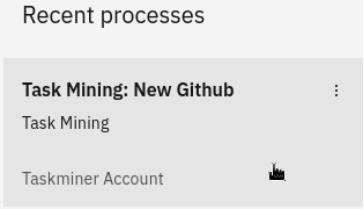
_2. You should now see *Task Mining: New Github* project



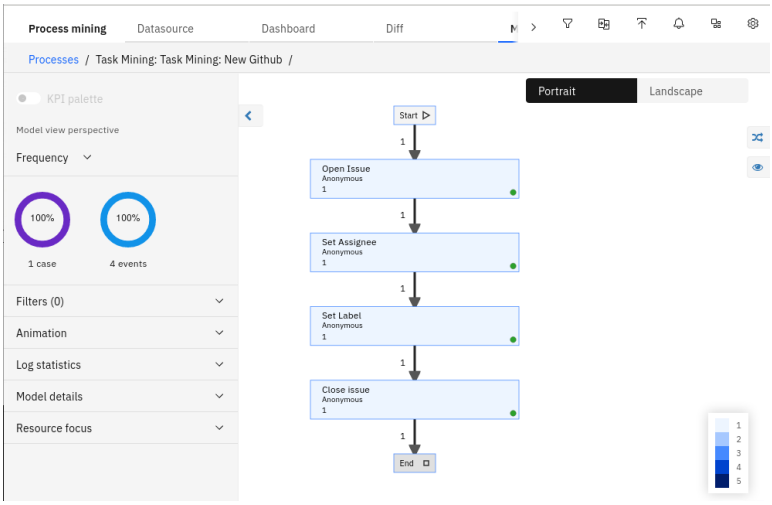
> Note: If you do not see it, click the Reload icon on the browser.



_3. Click **Task Mining: New Github** project



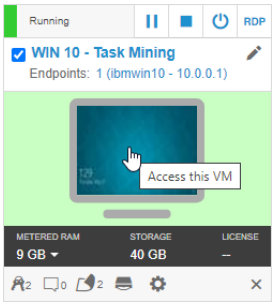
You should now see the model similar to this:

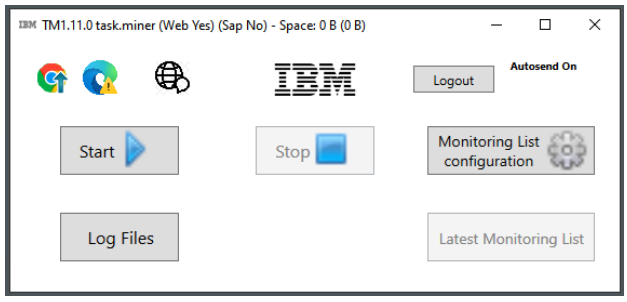


2.4 Record More Desktop Activities

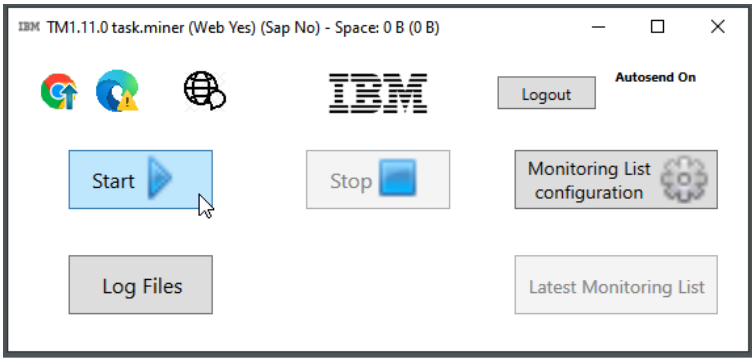
2.4.1 Record Desktop Events

_1. In the **WIN 10 – Task Mining** VM select **Task Mining Agent**

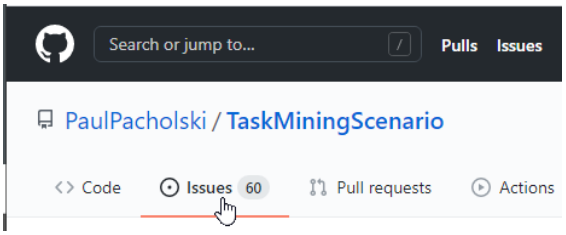




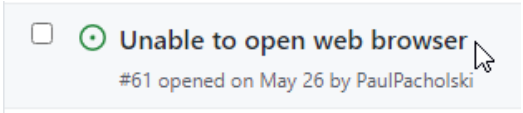
_2. Click **Strat** button to start the recording



_3. Switch to Chrome and click **Issues**



_4. Click **Unable to open web browser Issue**



_5. Click **Labels**

_6. Select **bug** label

_7. Click anywhere on the **white space** on the web page.

_8. Click **Assignees**

_9. Select an Assignee

_10. Click anywhere on the **white space** on the web page.

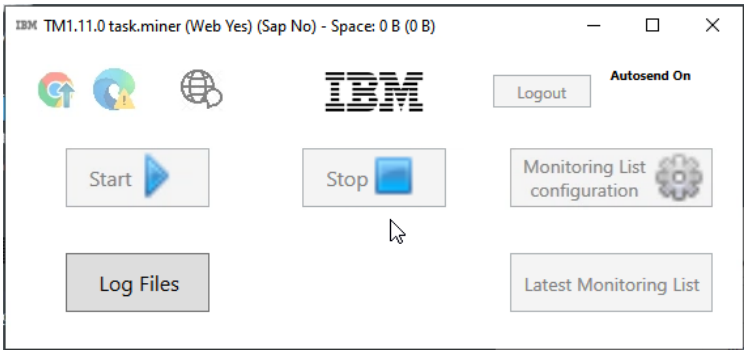
_11. Click **Labels**

_12. Select **documentation** label

_13. Click anywhere on the **white space** on the web page.

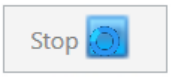
_14. Click **Close issue** button.

_15. Click **Task Mining Agent** background to give it focus



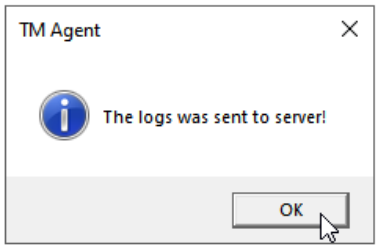
_16. Click **Stop**

You should now see spinning circle



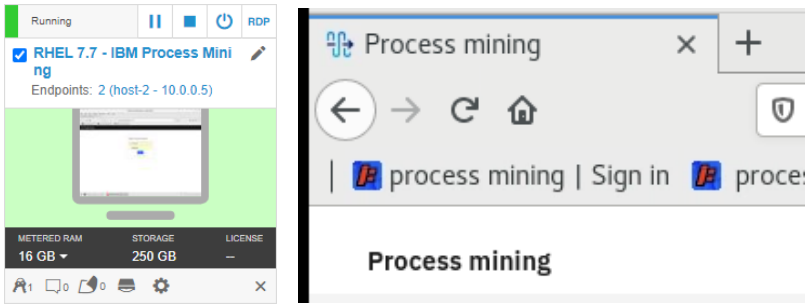
If you had more events to process the circle would spin for a while!

_17. On *TM Agent* window click **OK**



2.4.2 Examine Task Mining Flow

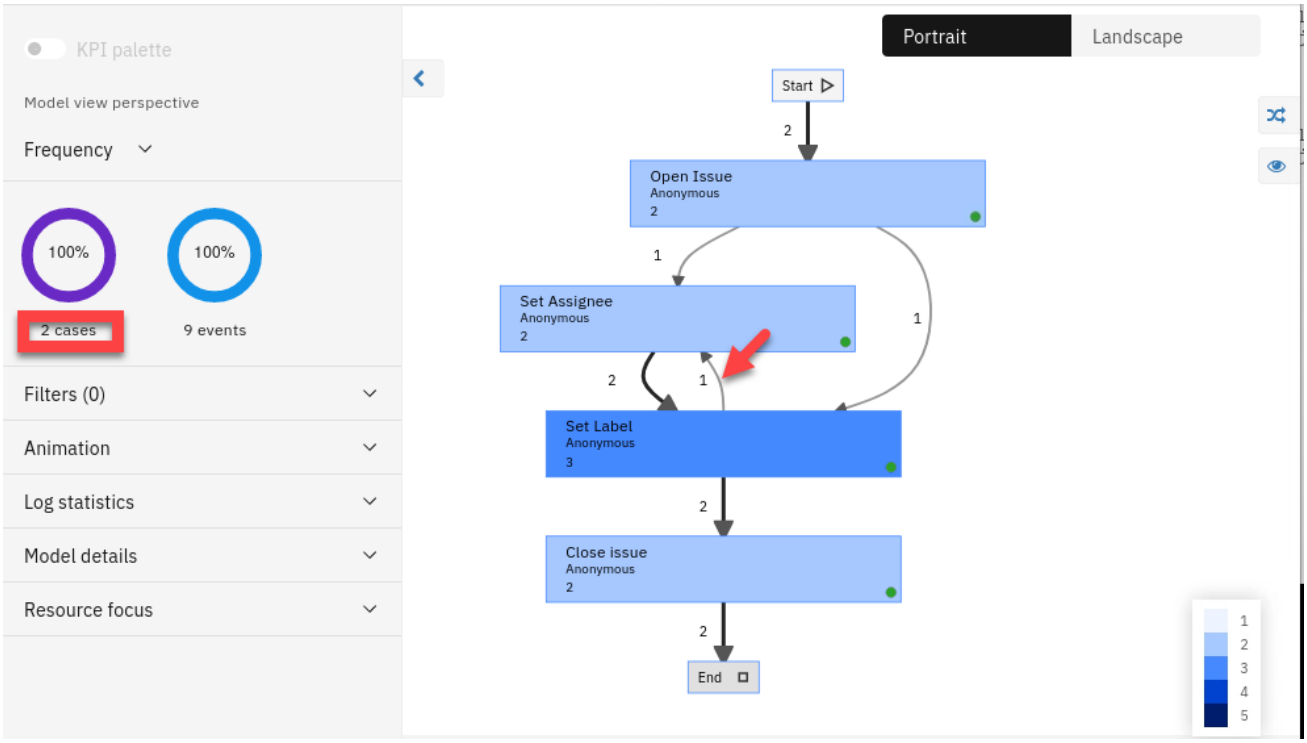
_1. In the **RHEL 7.7 – VM Process Mining** VM select **IBM Process Mining** in web browser



Note: you may need to sign to **IBM Task Mining | Sign** in bookmark with **tash.miner** / **TM/admin1** credentials. See https://ibm.box.com/v/IBMProcessAndTaskMiningEnvPDF

_2. Click the **Reload** icon on the browser.

You should now see the model similar to this:



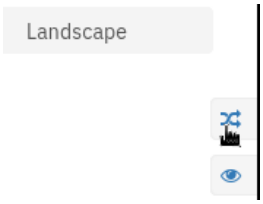
Note the following changes:

- Two cases (each Case represents interaction with a different issue)
- Set Label to Set Assignee link (recall that in the second recording you added second label after you added an assignee)

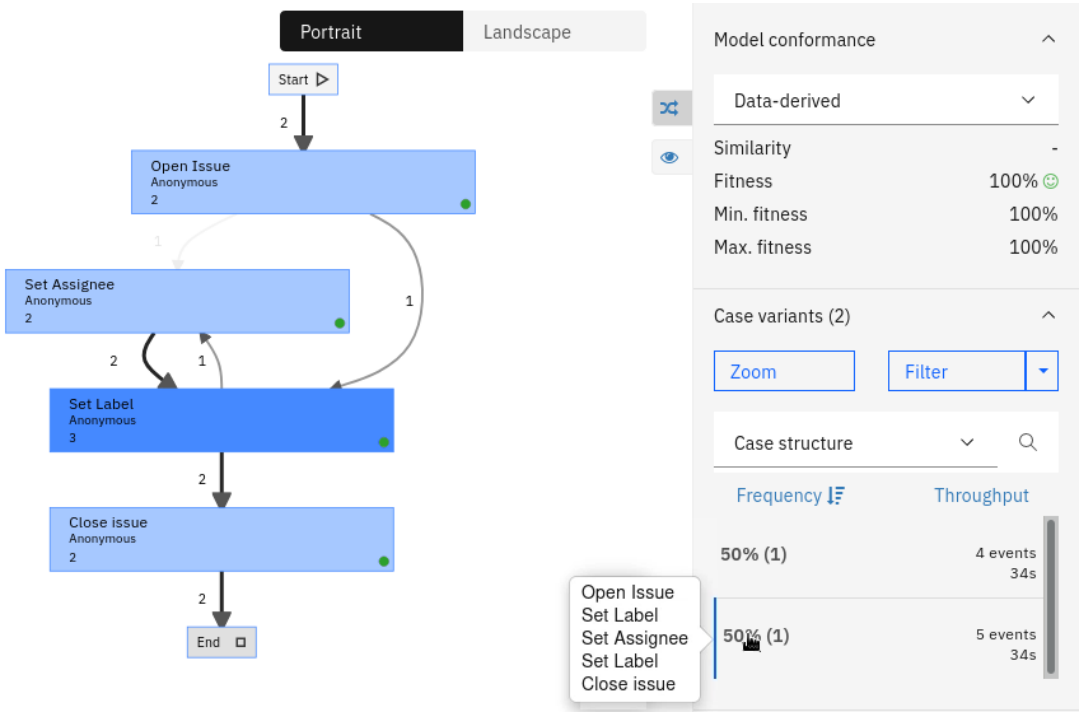
2.5 Explore Task Mining Model

Let's explore some other views in Process Mining.

_1. Click the **twisted-arrow** icon



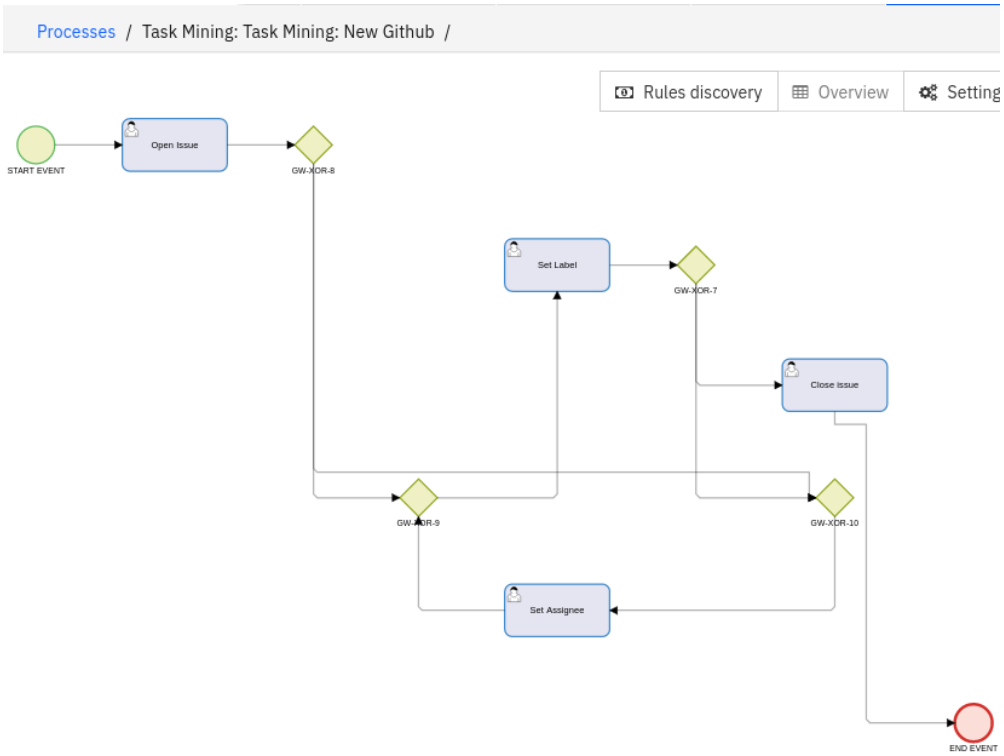
_2. Click the **second variant**.



You should now see the sequence of browser actions associated with the second recording you have made.

_3. Click **BPMN** tab

You should now see the BPMN process diagram.



2.6 Lab Summary

In this lab you will use explored how Task Mining events are recorded, captured, and displayed in Task Mining projects. Specifically, in this lab you will learned how to:

- Import and existing Workflow file
- Set up a Task Mining project
- Record desktop events
- Visualize the desktop “process” based on the recorded events

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Congratulations, you have successfully completed IBM Process Mining Introduction Lab

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