

# Turning Event Logs into Process Movies: Animating What Has Really Happened



Instructions to install the software tool.

# Download of the ProM Framework / 1

- **The tool is developed as plug-in of ProM**
  - **ProM is a process-mining framework where different algorithms can be implemented and integrated in form of plug-ins.**
- **Therefore, the first step is to download ProM.**

## Download of the ProM Framework / 2

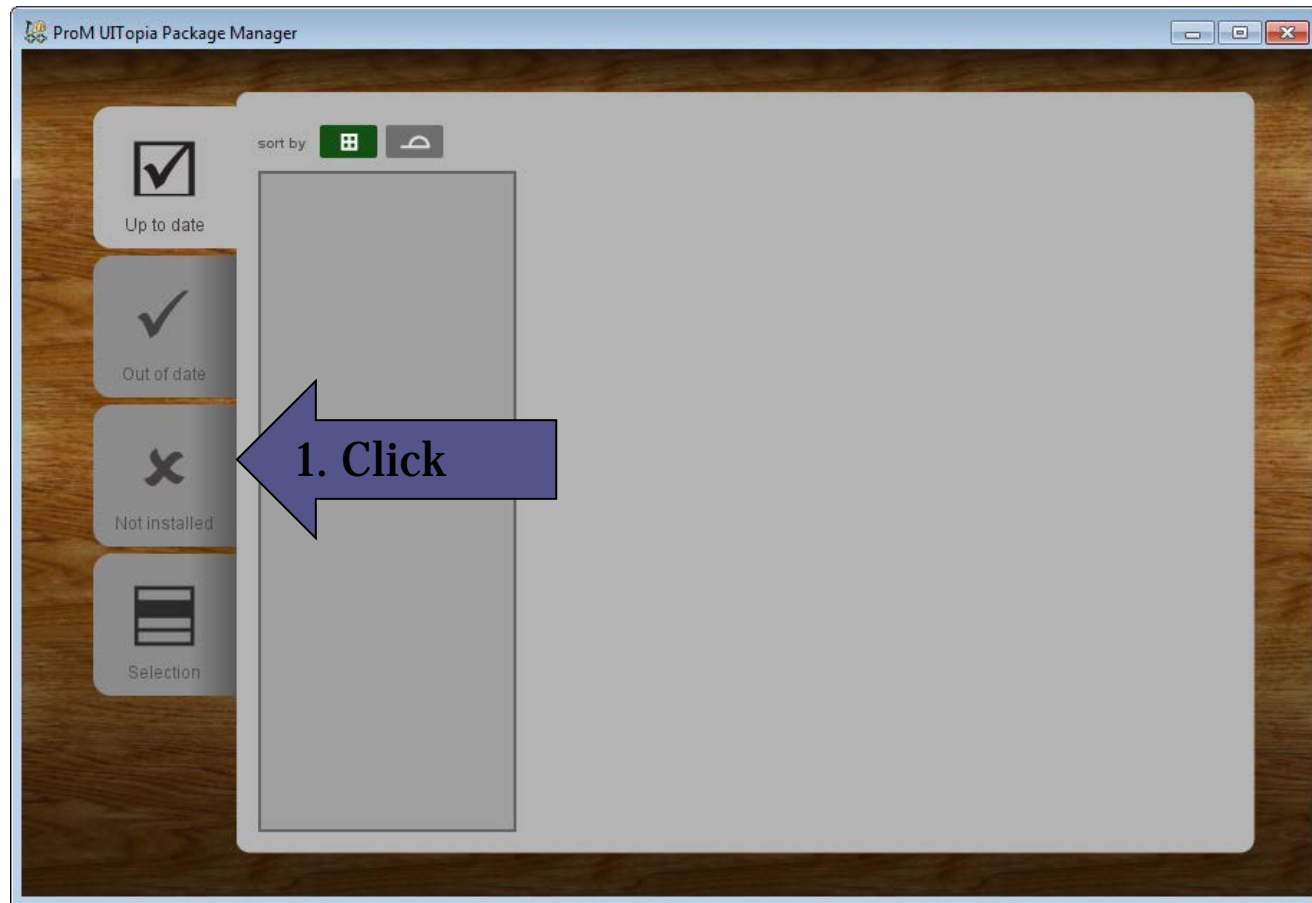
- The plug-in is part of the *Nightly Build*
  - The plug-in is not yet part of the latest official ProM release since it was developed after the latest release of ProM
- The Nightly Build can be download at <http://www.promtools.org/prom6/nightly/>
  - Please, download the «Nightly build archive» zip file and uncompress the file in any directory of choice

# Plug-in Installation / 1

- Plug-ins are grouped in several packages
  - The package that contains the plug-in of interest is named *LogOnMapReplay*
- This and any other package can be installed through the *Package Manager*.
  - To run Package Manager, please execute the batch file *PackageManager.bat* from the directory where the Nightly built has been uncompressed.

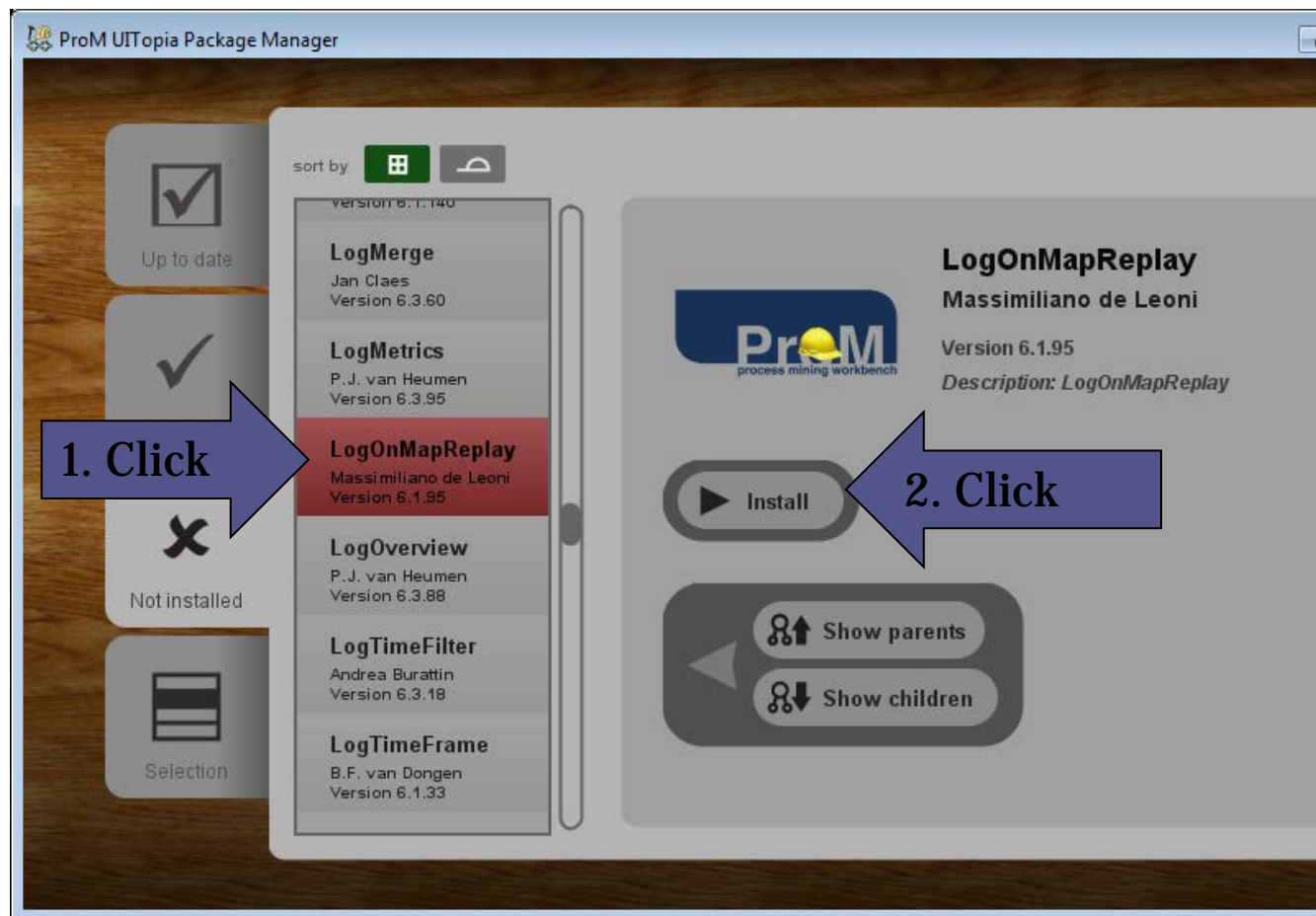
# Plug-in Installation / 2

- The package manager UI should look like the figure on the right.
- Please, move to the «Not installed» tab



# Plug-in Installation / 3

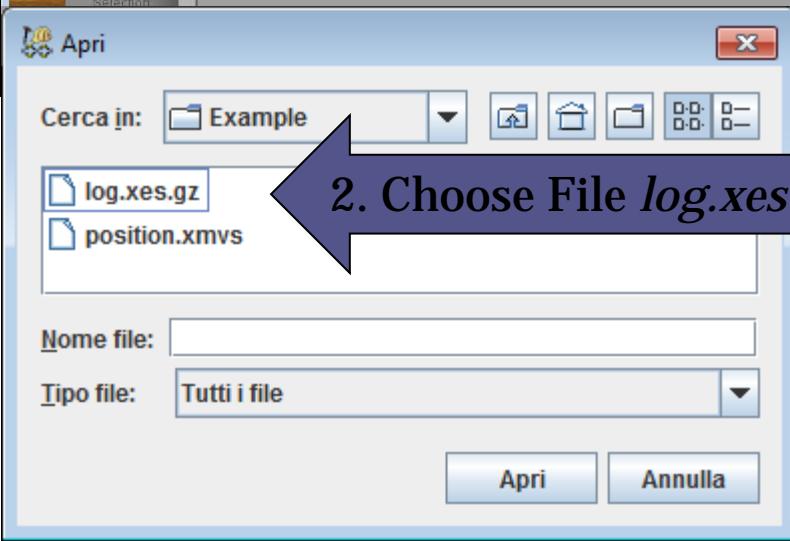
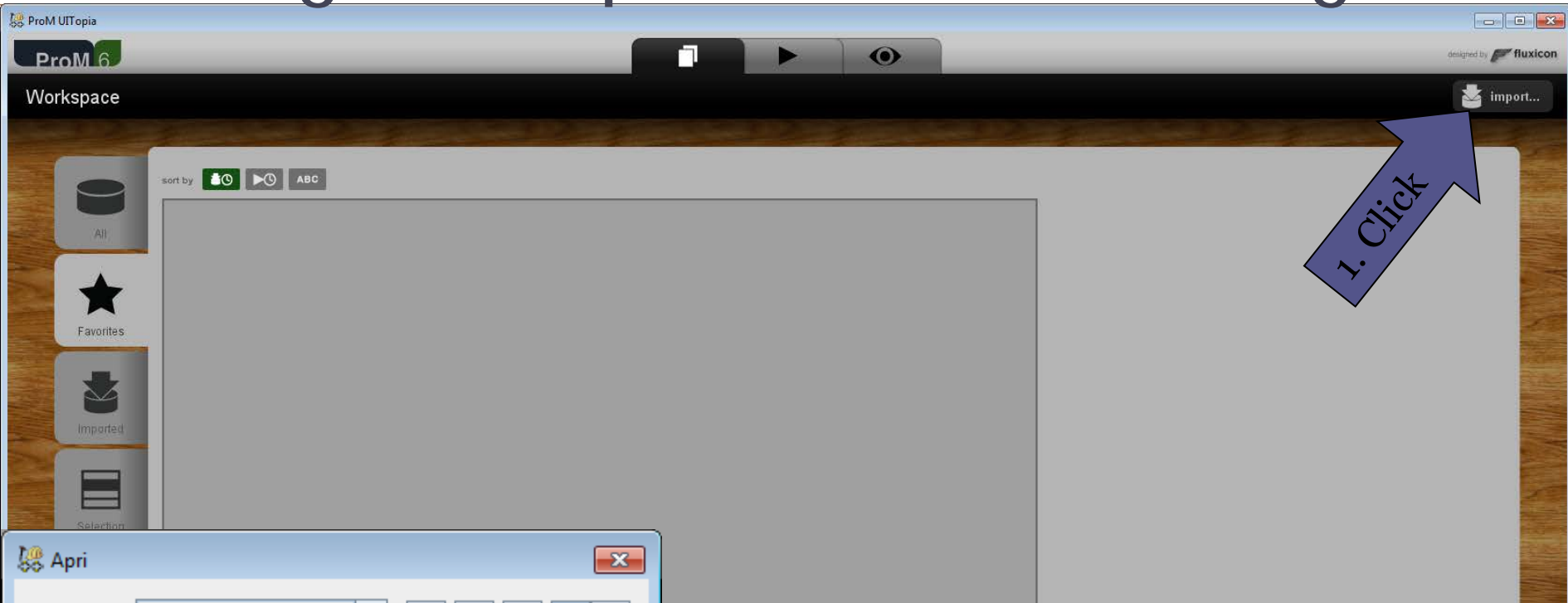
- Here is the list of the available packages
- Choose package *LogOnMapReplay*
- Click on button *Install* to install the package
  - Along with *LogOnMapReplay*, package *Log* will also be automatically installed, as necessary for the former package.



# Running ProM

- Now, the ProM framework can be launched.
- To run ProM, please execute the batch file *ProM.bat*
- Now, let us try the plug-in on the pre-cooked input files that are available.
  - From [www.processmining.org/online/logonmaps](http://www.processmining.org/online/logonmaps), download and unzip file **input.zip**, which contains the following files:
    1. **log.xes.gz**: the event log to test the plug-in with.
    2. **position.xmlvs**: specification of the *position functions* for the maps of the example

# Loading the input files: event log





# Loading the input files: the map specification file

- Please, load the file **position.xmlvs** as well.
  - It contains the definition of the maps of interest and the position functions.
- Each map has a different background image
  - The background images are uploaded on a web site and referenced by the map specification file.
  - Hence, an internet connection needs to be active while executing the plug-in!!

# Execution of the plug-in/ 1

ProM 6

Workspace

import...

sort by [refresh] [play] [stop] ABC

MapVis  
MapVisData

Timeframe (Wed Jul 28 02:00:00 CEST 19...)  
Event Log

1. Click on the event log

2. Click

Timeframe (Wed Jul 28 02:00:00 CEST 19...)  
Event Log  
created less than 5 seconds ago  
imported

Show parents  
Show children  
Export to disk

# Execution of the plug-in/ 2

ProM 6

Actions

Input

Timeframe (Wed Jul 28 02:00:00 ...)  
Event Log

Visualization data  
Map VisData

Filter:

search...

Add Missing Events  
J. Hakatumba (jnakatum@tue.nl)

Generate Map Replay policy  
A. Erdodi, M. de Leoni (atilla.erdodi@gmail.com; m.d.leoni@tue.nl)

Generate Map Replay policy  
A. Erdodi, M. de Leoni (atilla.erdodi@gmail.com; m.d.leoni@tue.nl)

Replay Log on Map  
Massimiliano de Leoni (m.d.leoni@tue.nl)

Reverse Log  
T. van der Wiel (t.v.d.wiel@student.tue.nl)

Filter log on first six months per trace  
H.M.W. Verbeek (h.m.w.verbeek@tue.nl)

Output

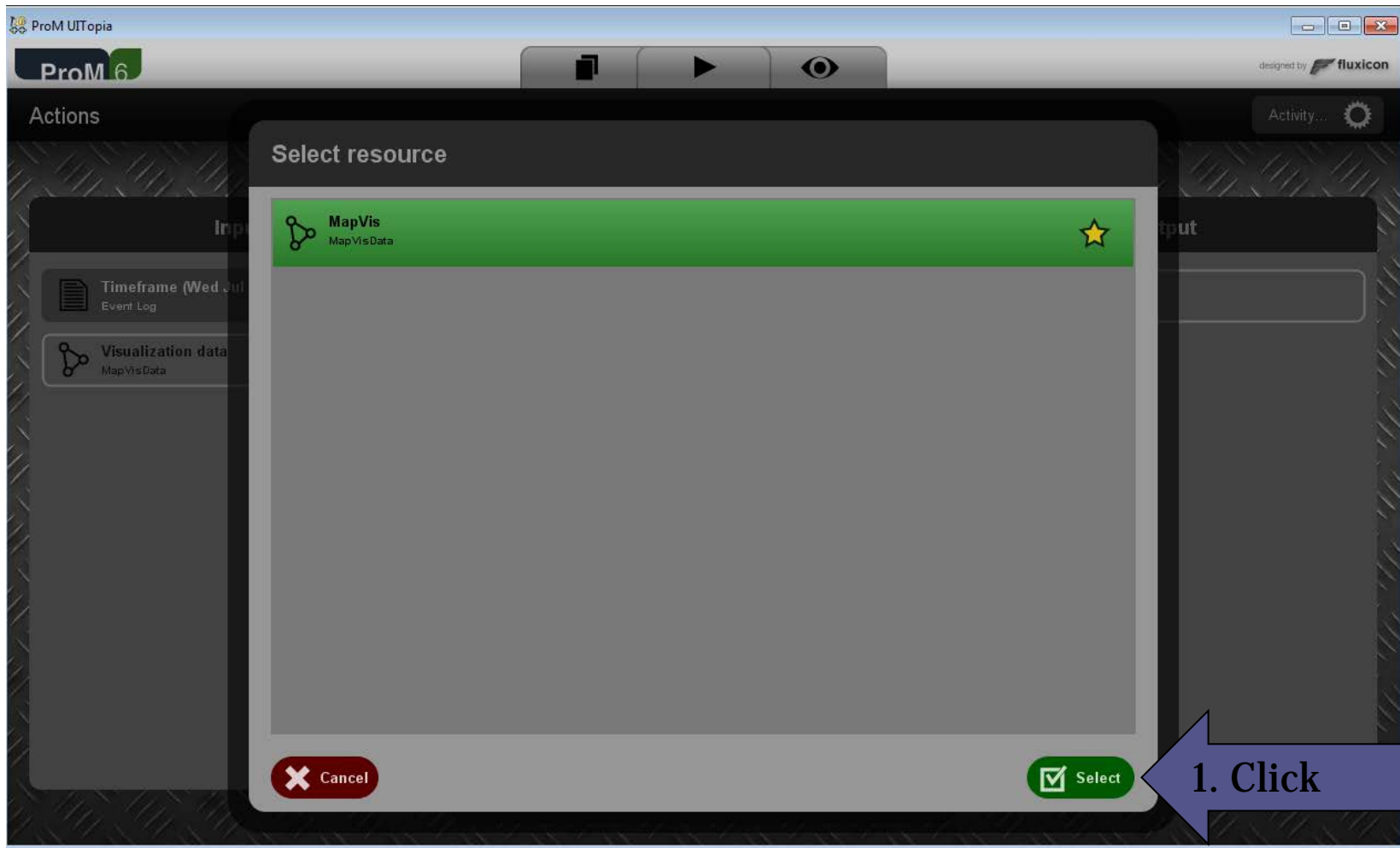
Visualization data  
VisData

2. A second object is needed. Click here!

1. Choose this plug-in

Reset Start

# Execution of the plug-in / 3



# Execution of the plug-in / 4

The screenshot shows the ProM UTTopia software interface. At the top, there is a title bar with 'ProM UTTopia' and window control buttons. Below that is a navigation bar with 'ProM 6', a play button, an eye icon, and 'designed by fluxicon'. The main area is divided into three panels: 'Input', 'Actions', and 'Output'. The 'Input' panel on the left contains two items: 'Timeframe (Wed Jul 28 02:00:00 ...)' and 'MapVis'. The 'Actions' panel in the center has a 'Filter:' section with a play icon, a gear icon, and a search box. It lists several actions, with 'Replay Log on Map' by Massimiliano de Leoni highlighted in green. At the bottom of the 'Actions' panel are 'Reset' and 'Start' buttons. The 'Output' panel on the right contains 'Visualization data'. A blue arrow points to the 'Start' button with the text '1. Click'.

# Execution of the plug-in / 5

- On the next screen, please simply click on *Continue*
- Now the plug-in starts the computation:
  - First, the sequence of states is constructed, starting from the data stored in the event log
  - Second, the movie frames are constructed for each map.
- **WARNING!** the computation can take a little while: the positions of all activity instances need to be computed for each map and state!
  - However, there is a progress bar

# The output: 5 movies for 5 different maps

