

# Blockgraph live visualizer : UI guide

---

This documentation details UI features.

## Table of content

- [Blockgraph live visualizer : UI guide](#)
  - [Table of content](#)
  - [Compatibility](#)
  - [Start](#)
  - [Pan, zoom](#)
    - [Zoom-in, zoom-out](#)
    - [Center and zoom](#)
    - [Center only \(no zoom\)](#)
  - [Toolbar](#)
    - [Graph orientation](#)
    - [View Mode](#)
    - [Reset zoom \(\*auto-fit\*\)](#)
    - [Automate camera](#)
  - [Information bar](#)
  - [Optimizations](#)
  - [Security](#)

## Compatibility

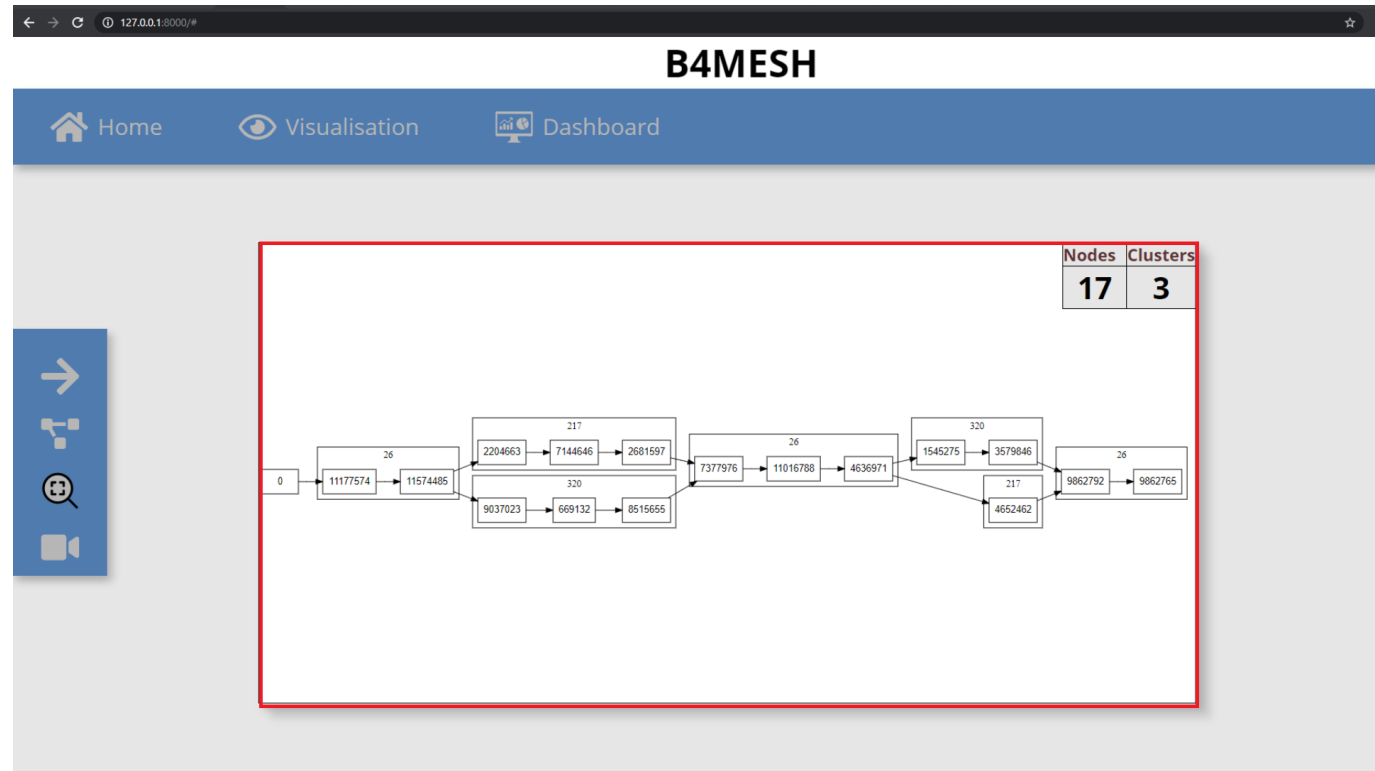
This UI passed tests on using the following web-browsers :

Web-browser	build
Google Chrome	90.0.4430.93 ( <i>Build officiel</i> ) (64 bits)
Firefox	88.0 ( <i>official build</i> ) (64 bits)

However, [Google Chrome](#) is highly recommended, its internal memory management is way better than Firefox's one.

## Start

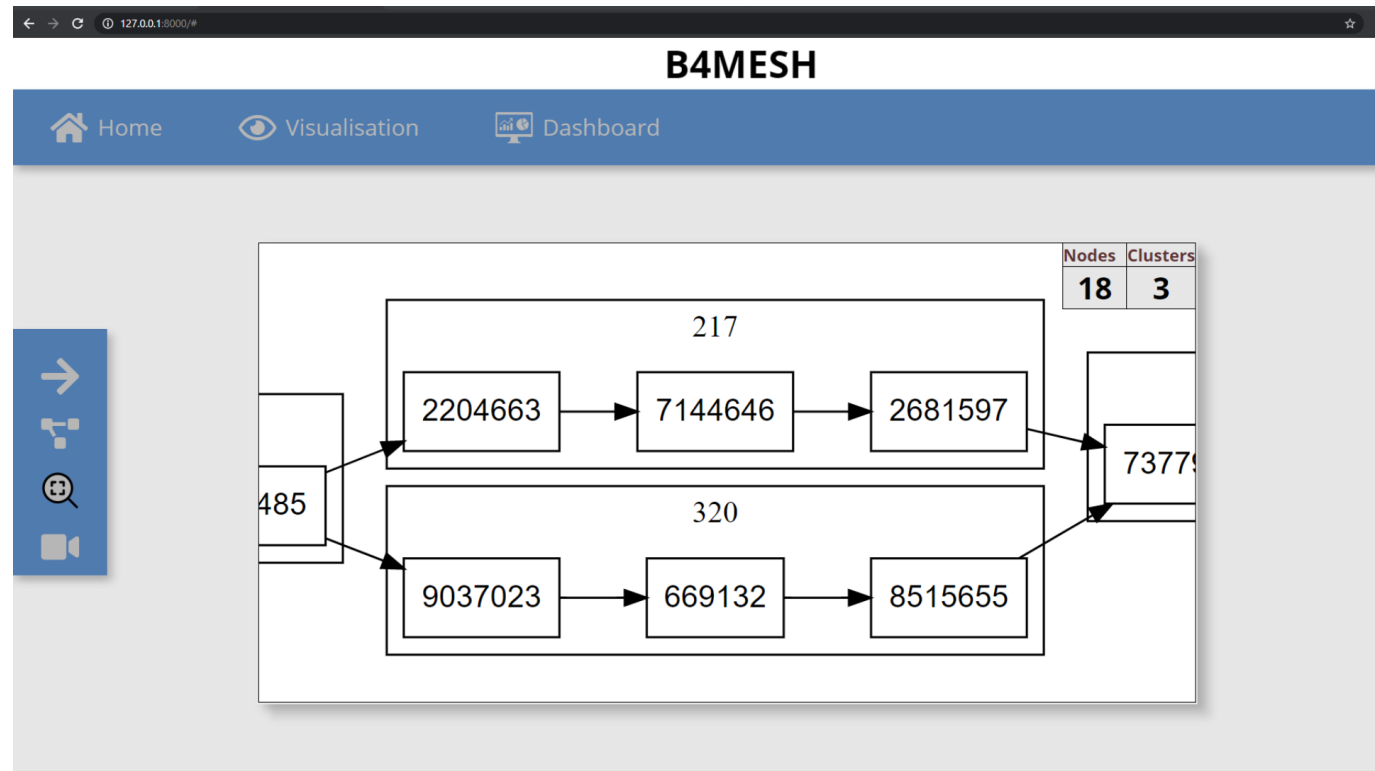
When the application starts, the polled datas are displayed so that the entire graph is contained in the rendering frame.



Pan, zoom

Zoom-in, zoom-out

Scrolling inside the forward results in a zoom-in, focusing on the mouse's cursor position (relative); while scrolling backward results in the opposite behavior.

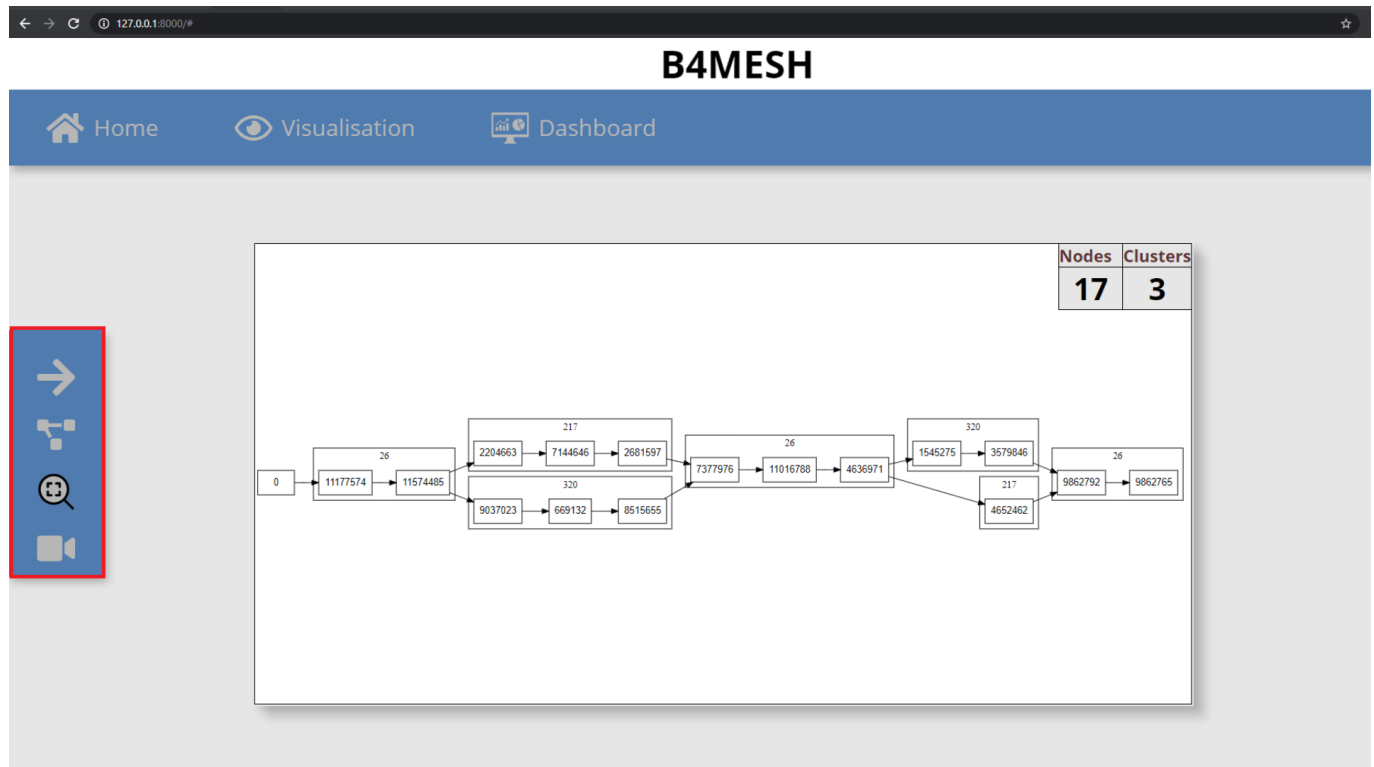


Center and zoom

Double-clicking a node results in centering it in the middle of the rendering frame, and applying an absolute zoom factor of 4.

## Toolbar

On the left of the screen we can find a menu that serves as a toolbar for visualising the graph with greater usability.



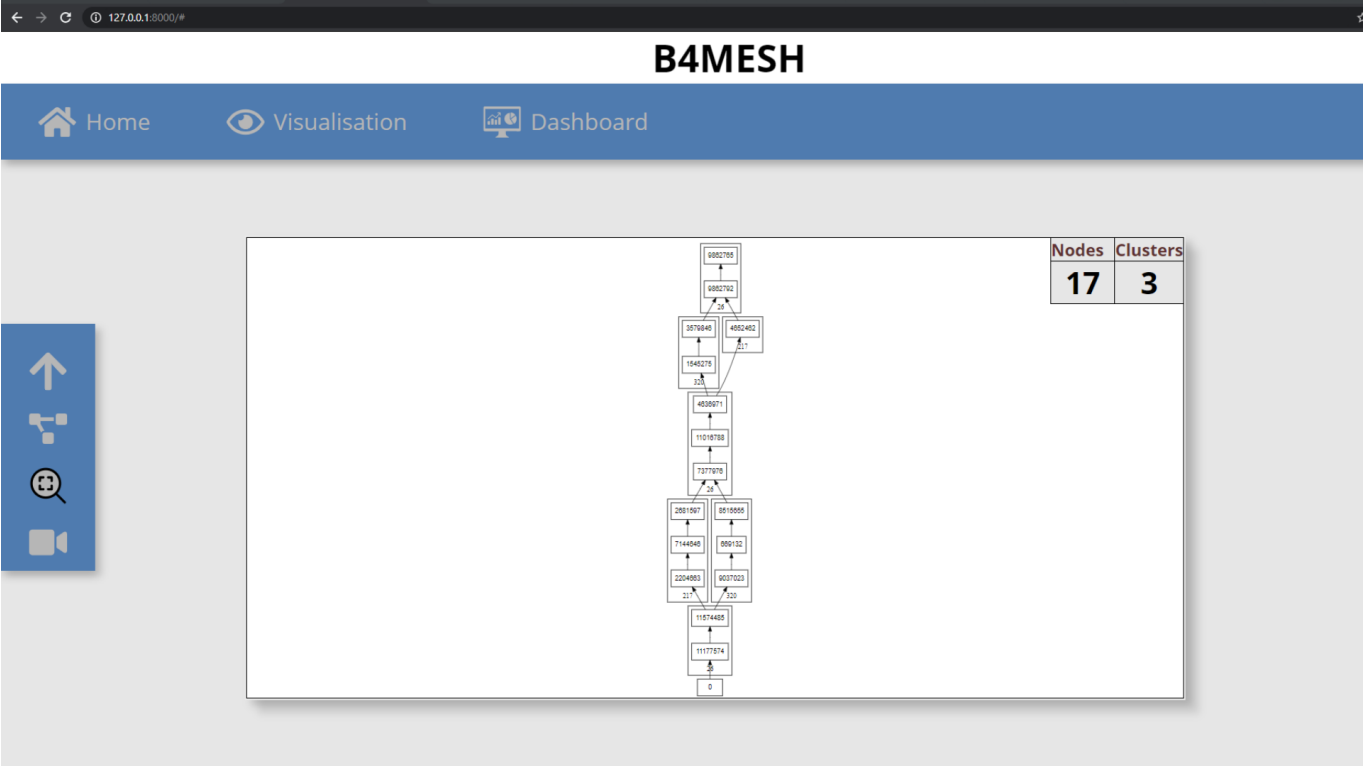
## Graph orientation

Upon clicking the icon with the arrow the graph will change its position by 90 degree clockwise. the icon will also move 90 degree and will always represent the orientation of the graph. For example if the arrow points towards East, the graph is read from left to right.

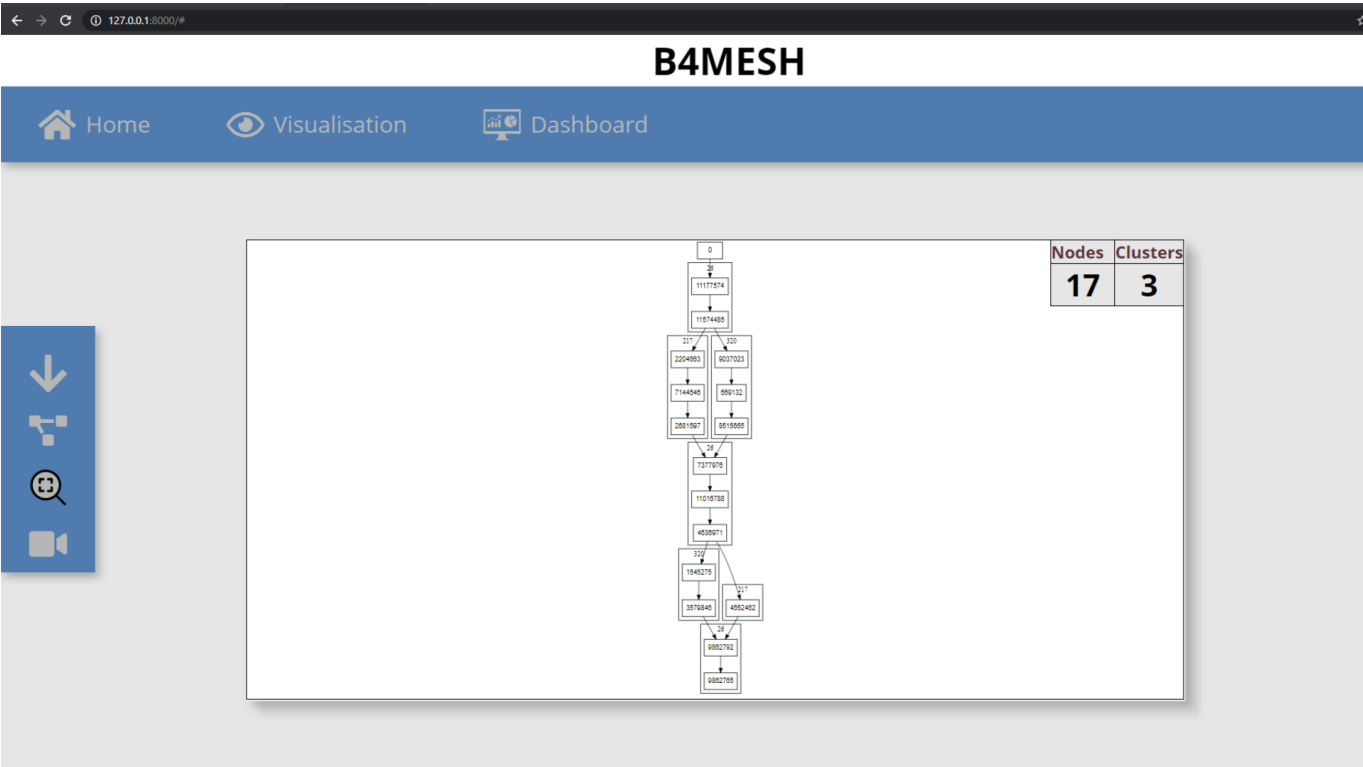
We can have these four different orientations:

- Top-down
- Bottom-up
- Left-right
- Right-left

Here, **bottom-up** :



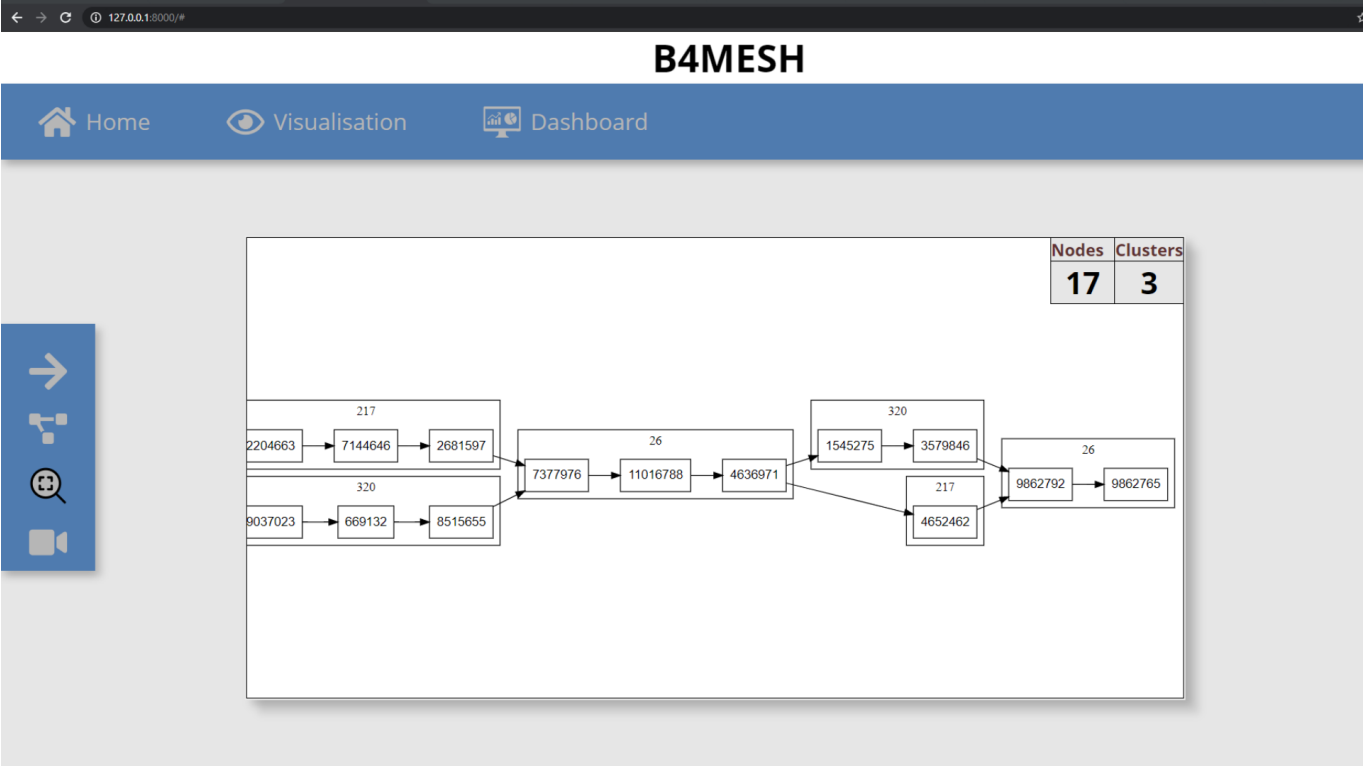
Here, top-down :



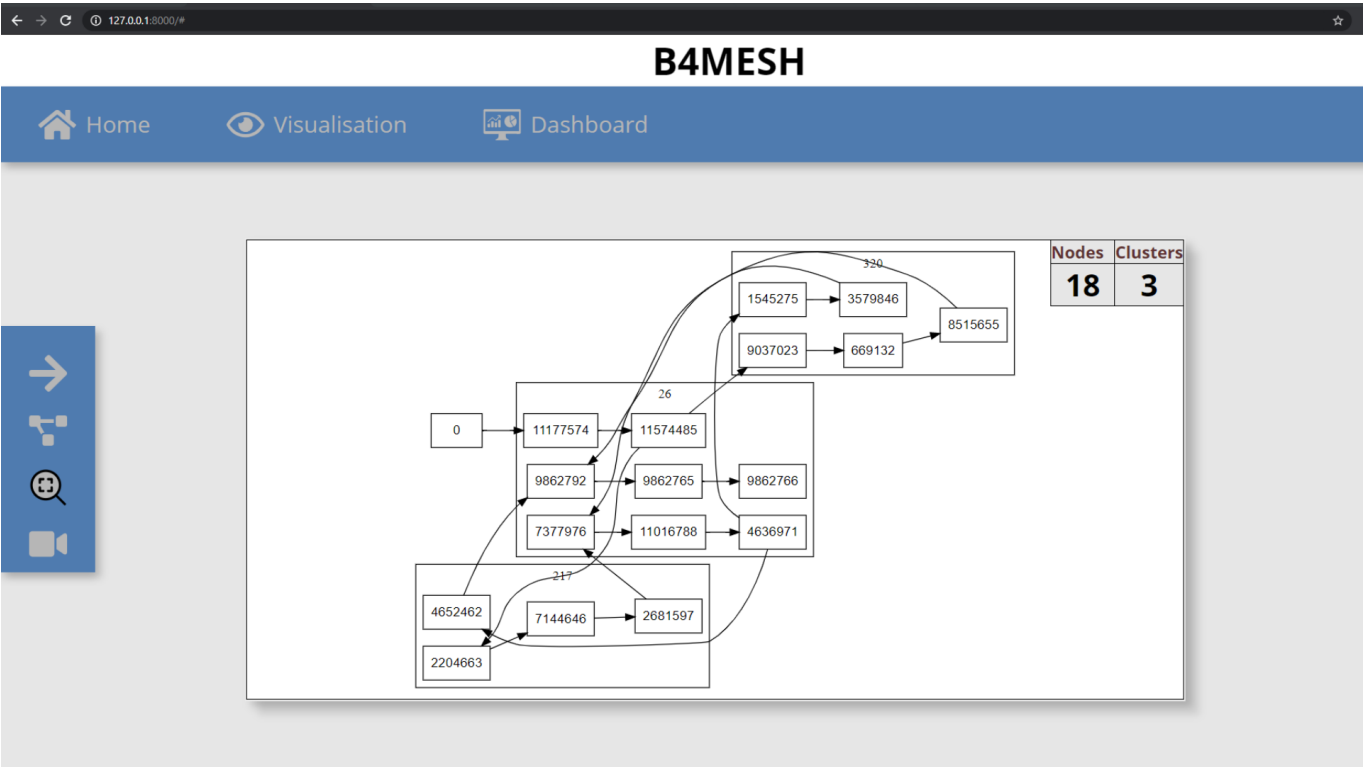
Change view

The second button on the toolbar let the user change between two different views.

The one by default is a view based on event and time, it is the common way of watching a blockchain.



the second view is a view of the blockgraph where the block are regrouped by cluster .



Reset zoom (*auto-fit*)

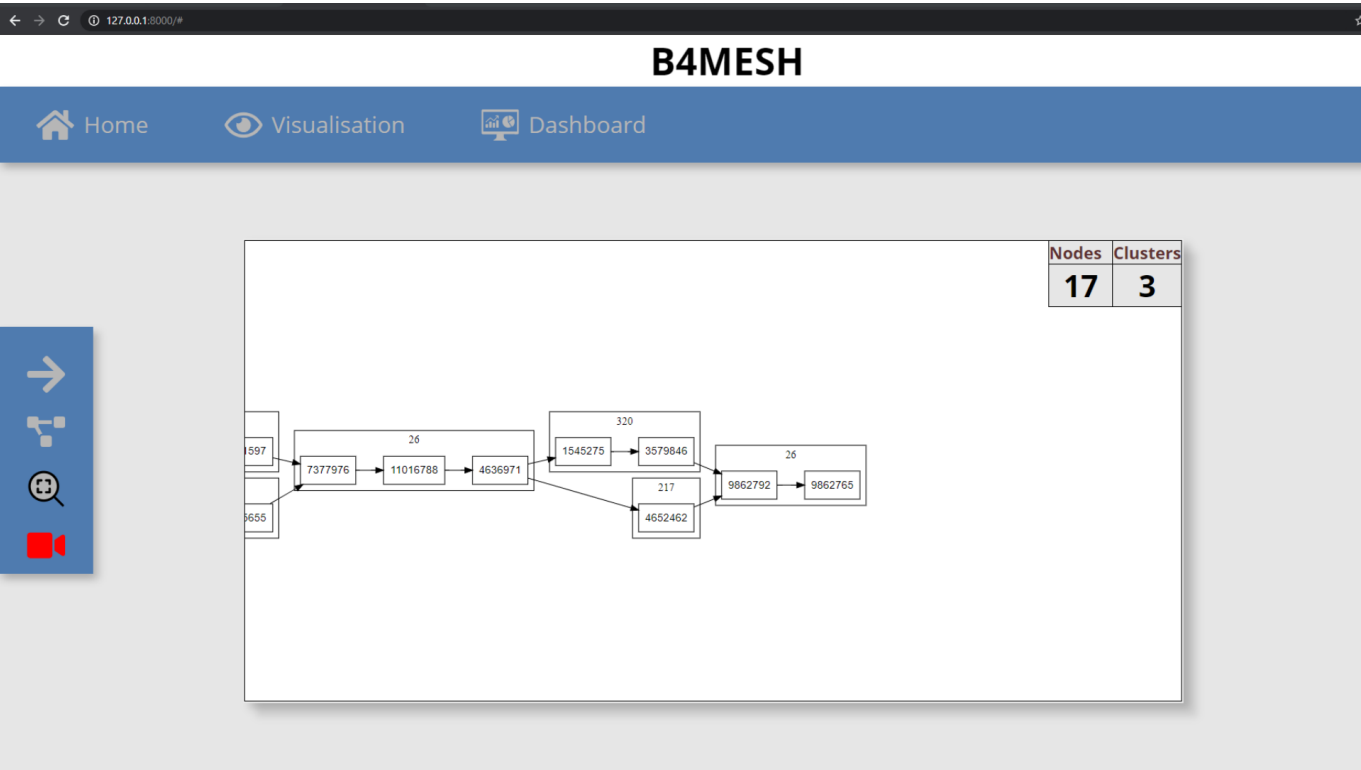
the third button will reset the current zoom,  
so the entire graph would fit in the rendering frame.

NB : However, the current orientation is preserved.

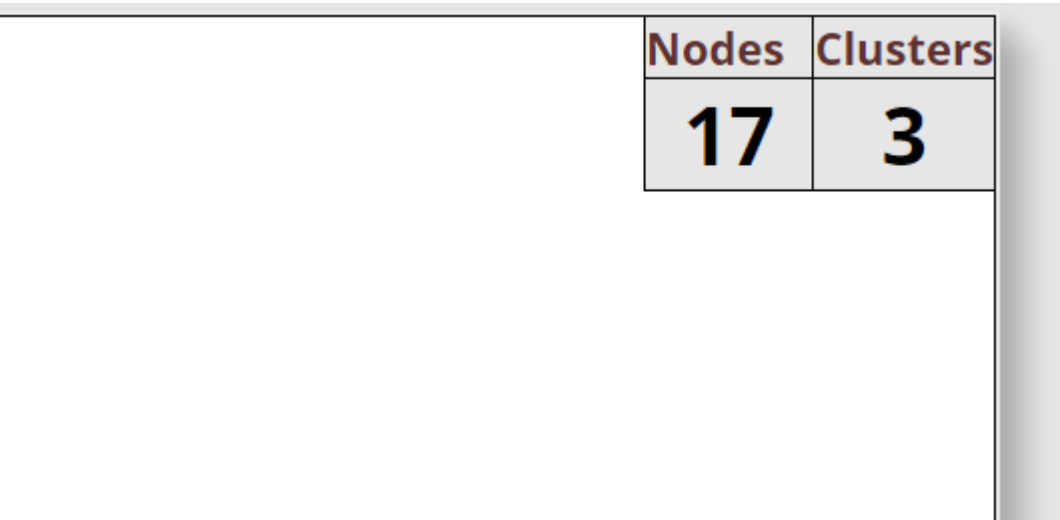
Automate camera

the last button allows the user to have the camera moving automatically. which means it will always center towards the freshest (not always last) element of the graph on the rendering frame.

This is meant to allow live visualization of large, dynamic graphs without manual pan/zoom.



Information bar



In the upper-right corner, some useful informations about the graph currently rendered are displayed.

- Nodes's count
- Clusters's count

Optimizations

- You are guarantee that no rendering are performed when the tab is hidden.
- No rendering are performed if polled datas are the same as the ones already rendered.

## Security

- Be warned that the last polled datas are always stored in **JS** cache, after a JSON-to-DOT conversion. This is a D3 rendering requirement.