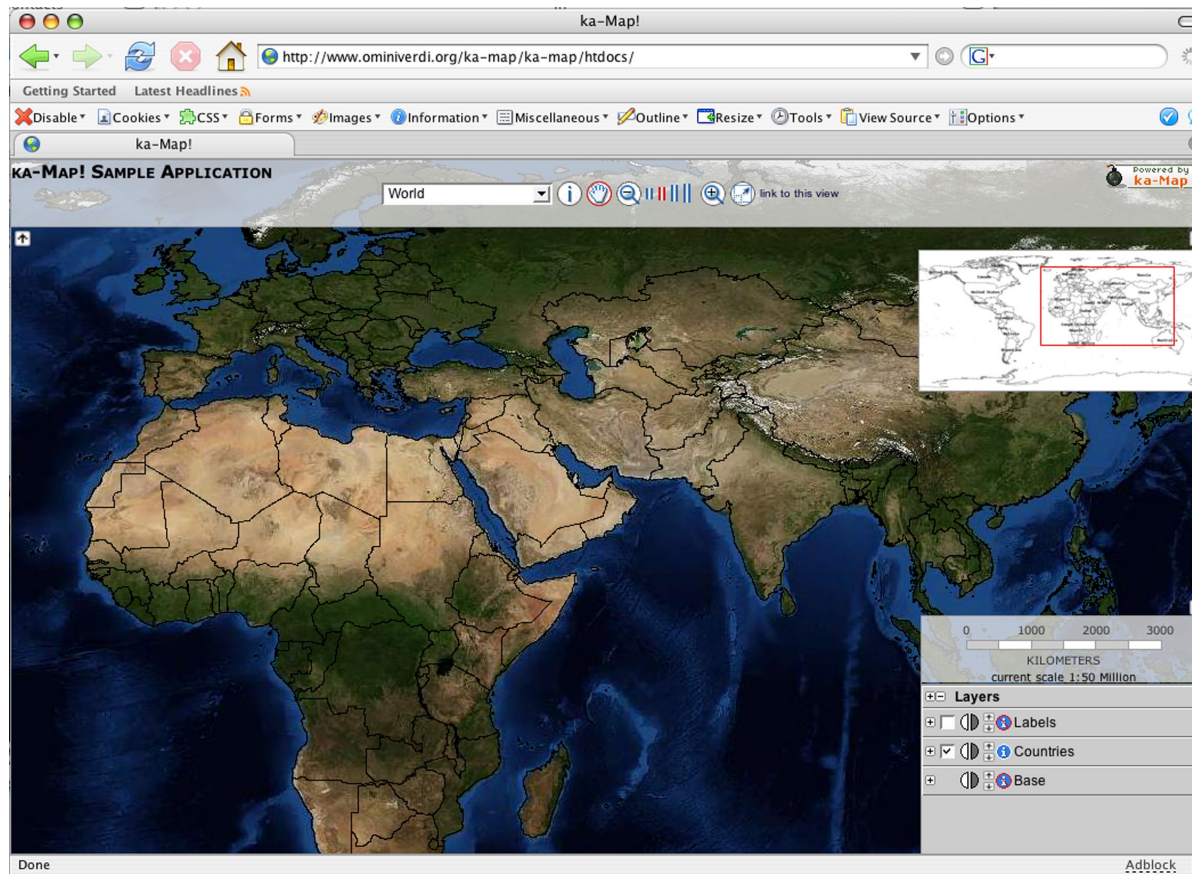




ka-Map

an interactive web-mapping application



Authors: Paul Spencer, Lorenzo Becchi





what is ka-Map?

- Key Features
 - Client Side: GUI Interactivity
 - Server Side: Tiling System



What is ka-Map?

- Other features:
 - Google-like interface
 - Continuous panning
 - No page submit
 - Interactive scalebar, legend and keymap
 - Interactive layer control
 - Keyboard navigation
 - Multiple map access



technical features

- Client Side:
 - built using AJAX principles
 - Multiple interfaces (GUIs) -> DHTML
 - extendable functionality via tool API
- Server Side:
 - flexible configuration based on MapServer
 - multiple maps, layers (groups)



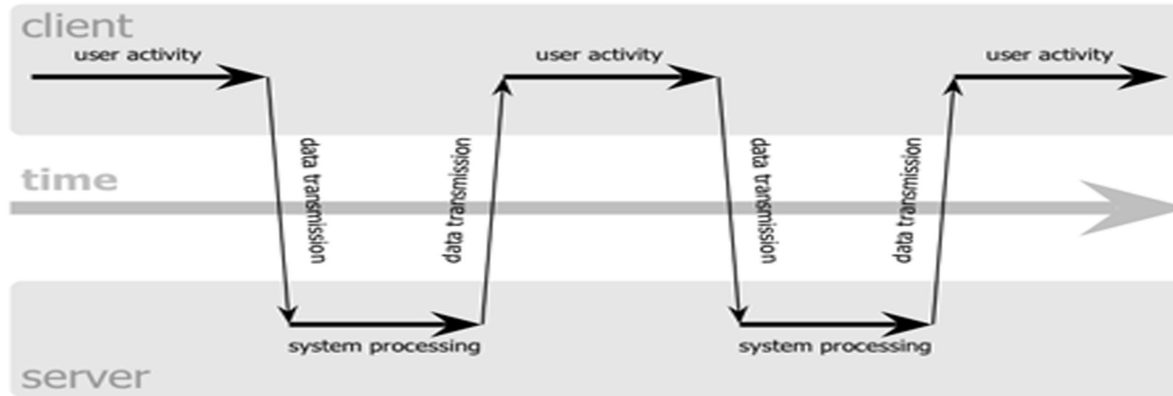
what is AJAX?

- Asynchronous JavaScript and XML
 - coined by Jesse James Garrett
<http://www.adaptivepath.com/publications/essays/archives/000385.php>
 - not a technology, but a group of technologies that are used together
 - CSS
 - DHTML
 - XmlHttpRequest (is this necessary?)
 - XML, XSL

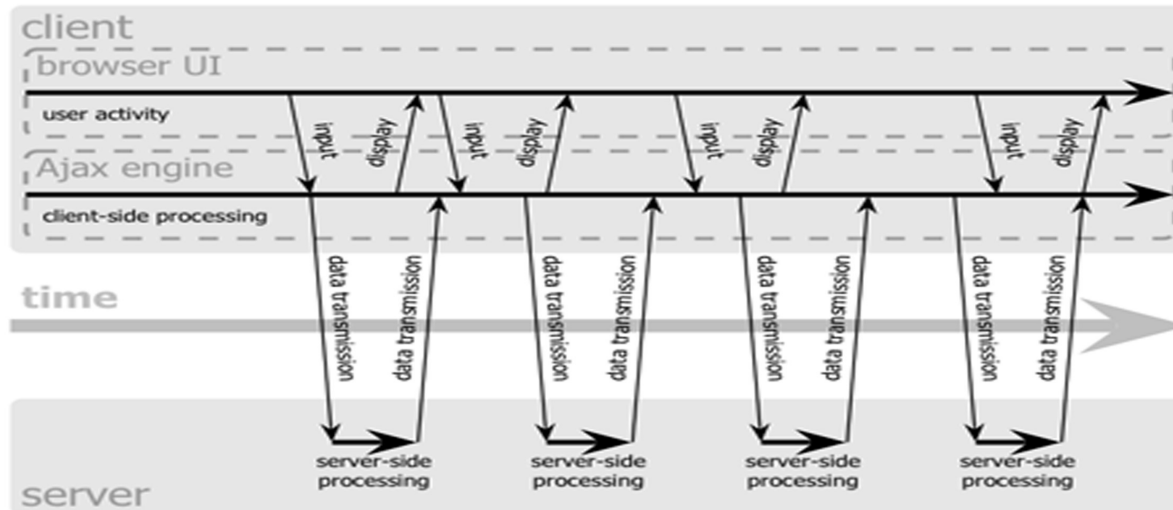


What is AJAX?

classic web application model (synchronous)



Ajax web application model (asynchronous)

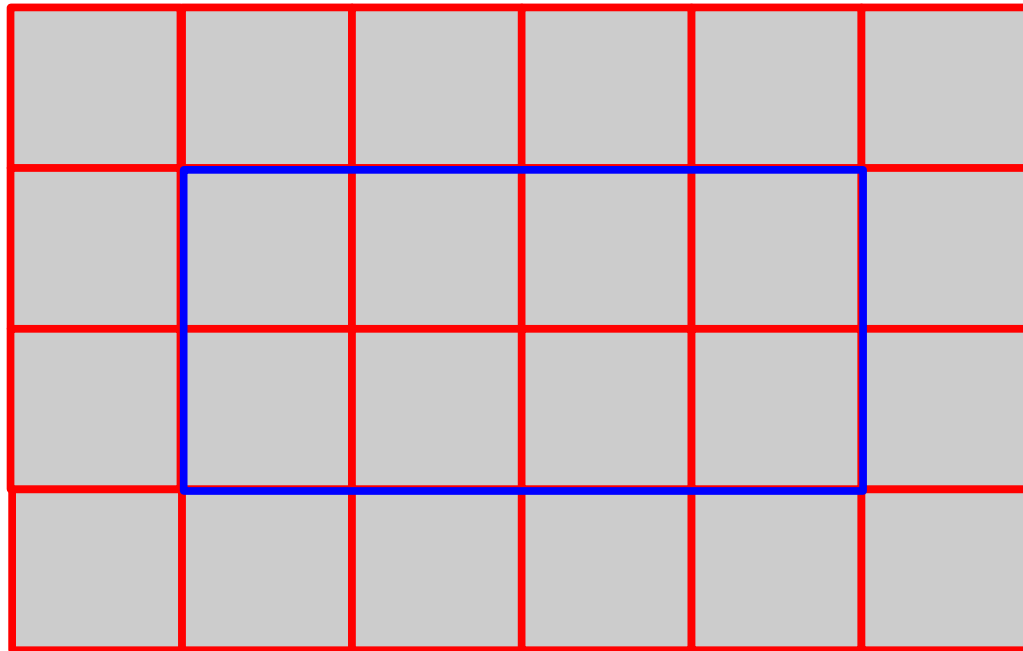


Source: <http://www.adaptivepath.com/publications/essays/archives/000385.php>



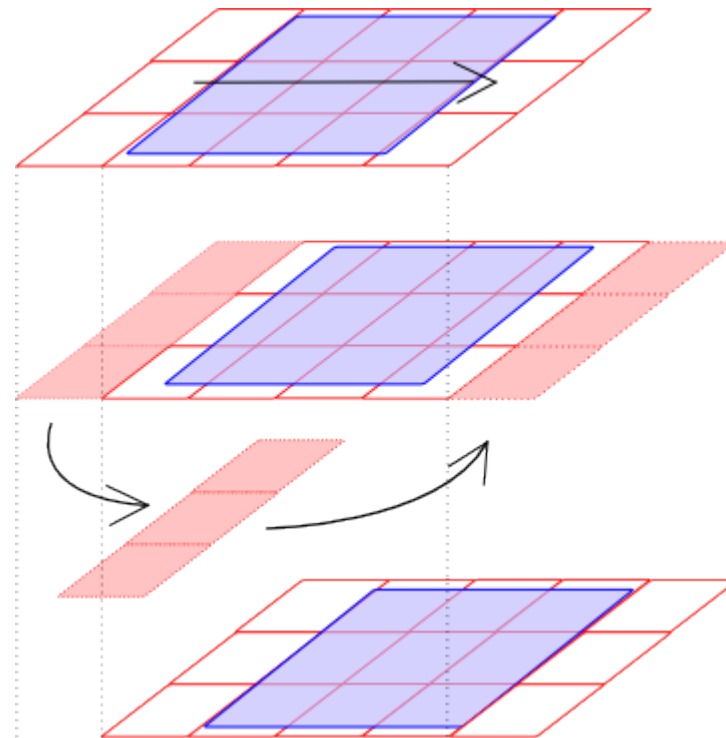
Drawing the map

- How does ka-Map use tiling system:
 - To maintain high performances only viewport tiles are downloaded from the server.





Dragging the map: railroading tiles



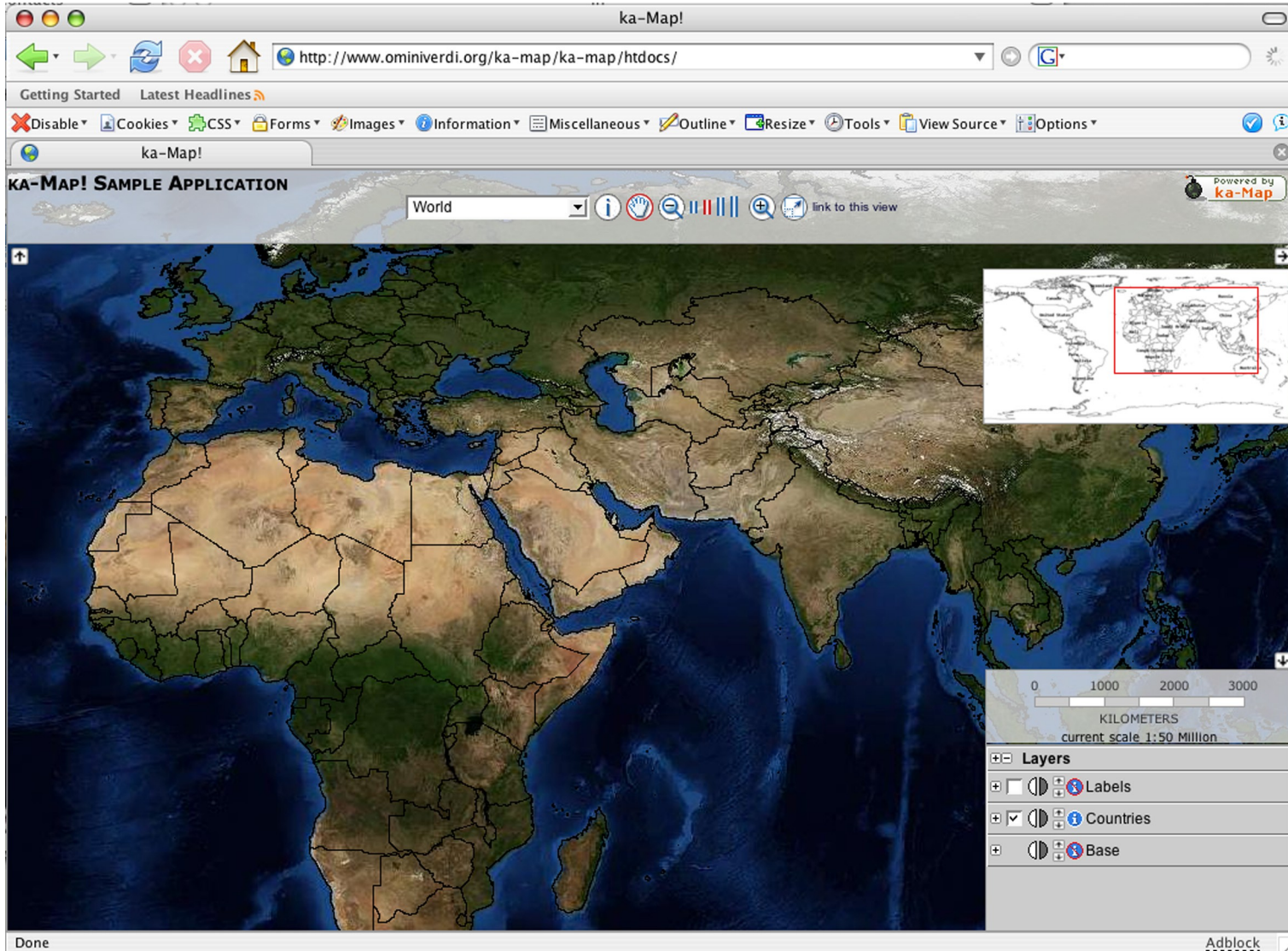


Performance related issues

- Standard Mapserver Application:
 - Drawing on the fly is too slow
 - Big traffic means poor performances
- Ka-Map tiling system:
 - Tiled images are cached on the server so maps are drawn just once
 - Big traffic affect only web server performances



Interfaces: Standard Interface





Interfaces: Embedded Interface

Ka-Map!

Ka-Map! è un'applicazione AJAX che offre una interfaccia intuitiva per navigare le mappe prodotte con Mapserver.



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