

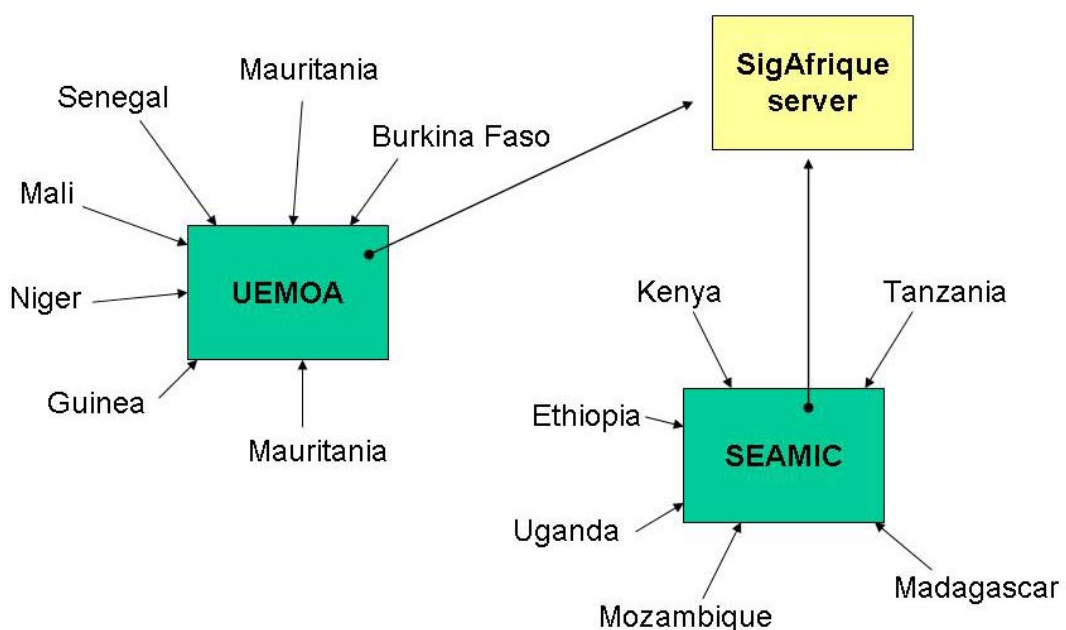
Procedures for updating and enriching the data of the official SigAfrique site

A server installed at SEAMIC and the UEMOA and equipped with tools to facilitate data update and the dissemination of geological information should enable the partner countries to enhance their geological information through the SigAfrique project. The enhanced documents can, thanks to the techniques of interoperability, be accessed on the SigAfrique Web site and form as many potentially usable information layers.

The only prerequisite is training for the server administrators in the use of the installed tools, notably MapServer. This type of training will be the responsibility of each of the two centres, as initially planned and agreed upon by the concerned organizations (UEMOA and SEAMIC). The training is relatively light; for example, a basic competence in the use of MapServer can be gained from the supplier's site <http://mapserver.gis.umn.edu/>.

1. Procedure for data updates

The partners send the completed versions of their deposit databases to their regional centre, either directly by entering the files into a specific folder on the server's 'ftp' site, or simply by e-mail addressed to the administrator. On receiving the database file, the regional administrator will validate it and enter the new versions of the databases onto the 'ftp' site of his server. The server is regularly scanned by BRGM for new databases which are then used for updating the SigAfrique project's official site data. The following diagram illustrates the mechanism.

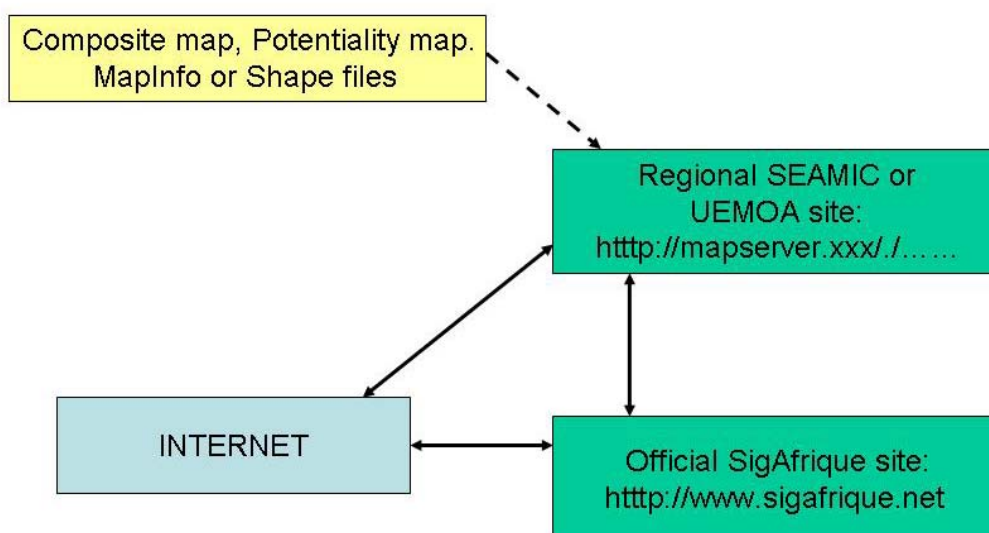


To render this procedure operational, an 'ftp' site has been set up on the servers in the directory D:\FtpSigAfrique. The structure and associated rights for the partner country accounts are the responsibility of the respective administrators of the two centres.

2. Procedure for enriching the official site of the SigAfrique project

The procedure for enriching the data on the SigAfrique project's official site is broken down into stages involving the different project actors. The partners will draw up geological documents (composite maps, potentiality maps, etc.) using one of the standard market formats (MapInfo file, ESRI's Shape file) then submit the corresponding file(s) to their regional administrator in the same way as for the databases. The regional administrator will then release these documents using the geographic MapServer package installed on his server. For this procedure to function, it is necessary for the partner submitting his geological document to also provide the administrator with a certain amount of information (metadata) concerning the document. From then on the use of these documents on the Internet can be envisaged in two ways:

- Autonomously, through direct access to their address; the end user will indicate this address in the software that he proposes to use for exploiting the layer (for example in ArcGis, or equally on a Web site using a map service capable of displaying interoperable layers);
- As an additional information layer within the SigAfrique project site; here it is the SigAfrique site administrator who will enter this address as a new layer available for display.



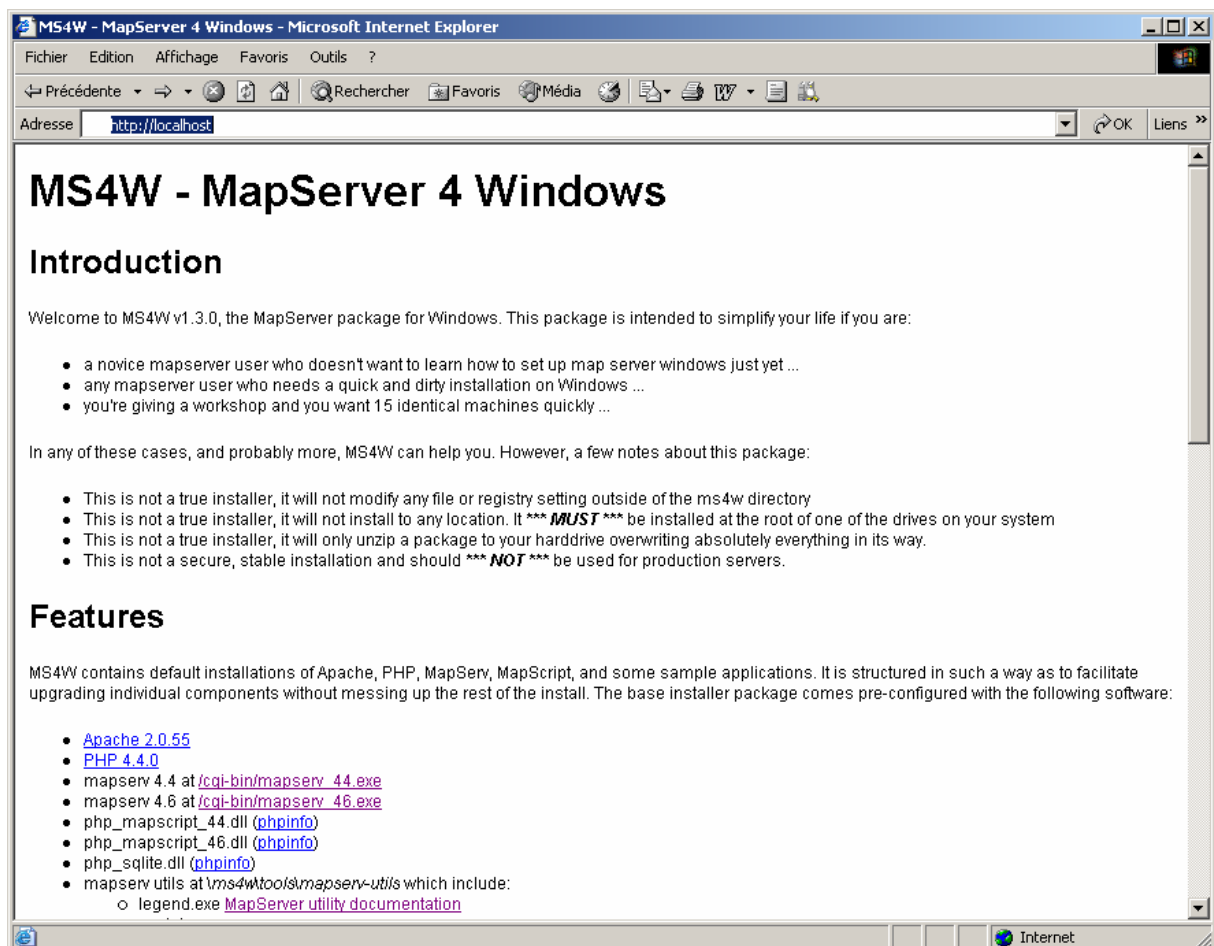
The free software installed on the servers to render this enrichment procedure operational is MapServer.

The two regional servers are equipped with MapServer for Windows (MS4W) and GMap Sample Application.

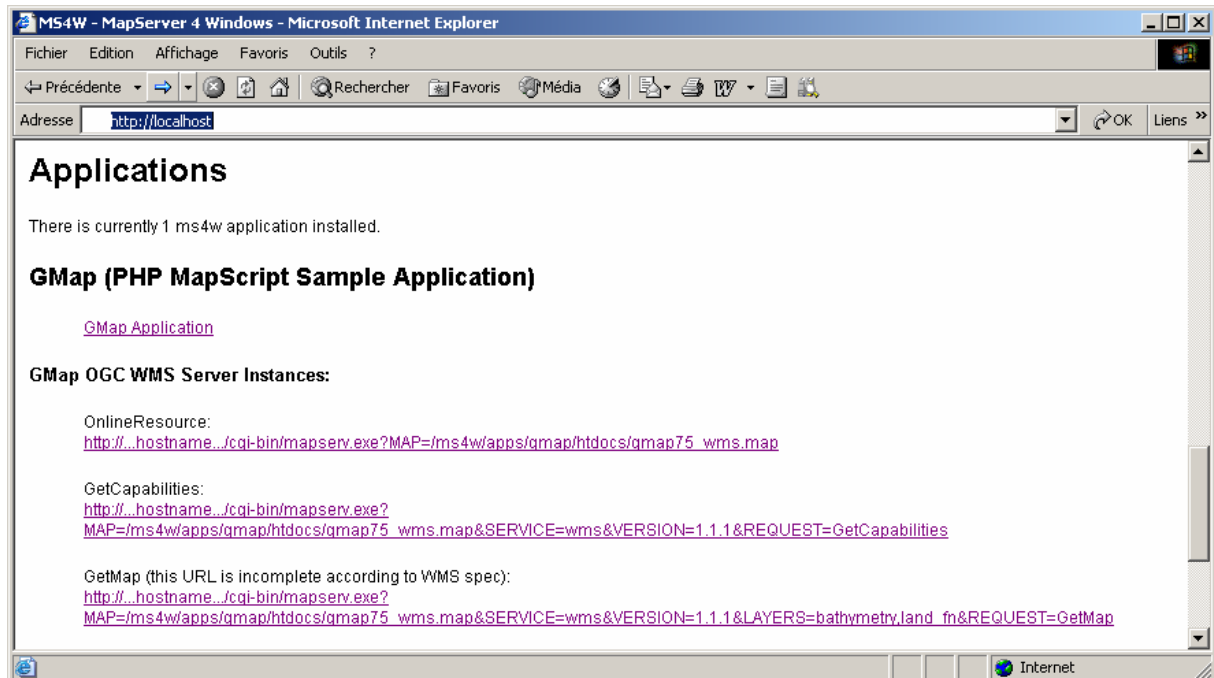
The directory C:\Download contains the two zip files used for the installations:

- ms4w_1.3.0.zip MapServer for Windows (MS4W)
- gmap_ms4w_ms46.zip Gmap Sample Application

A page describing the elements installed on the Apache server can be accessed on the server using the command <http://localhost>.



The chapter on Applications contains many examples of the use of MapServer. Two examples in particular illustrate the data enrichment procedure as fixed by the SigAfrique steering committee.



An example of an autonomous application including many tools (zoom in, zoom out, pan, layer management, etc.) is available by clicking on the line:

[GMap Application](#),

The data used by this application are information layers relating to Canada (bathymetry, drainage pattern, land use, etc.).

An example of a resource that could be used in cascade on the SigAfrique Web site is given by URL GetMap:

[http://hostname/cgi-bin/mapserv.exe ?
MAP=/ms4w/apps/htdocs/qmap75_wms.map&SERVICE=wms&VERSION=1.1.1&LAYERS=bathymetry.land
fn&REQUEST=GetMap](http://hostname/cgi-bin/mapserv.exe?MAP=/ms4w/apps/htdocs/qmap75_wms.map&SERVICE=wms&VERSION=1.1.1&LAYERS=bathymetry.land_fn&REQUEST=GetMap)

The above command gives access to the Canada bathymetry and land-use layers.