

# Introduction to DbMAP 3D server

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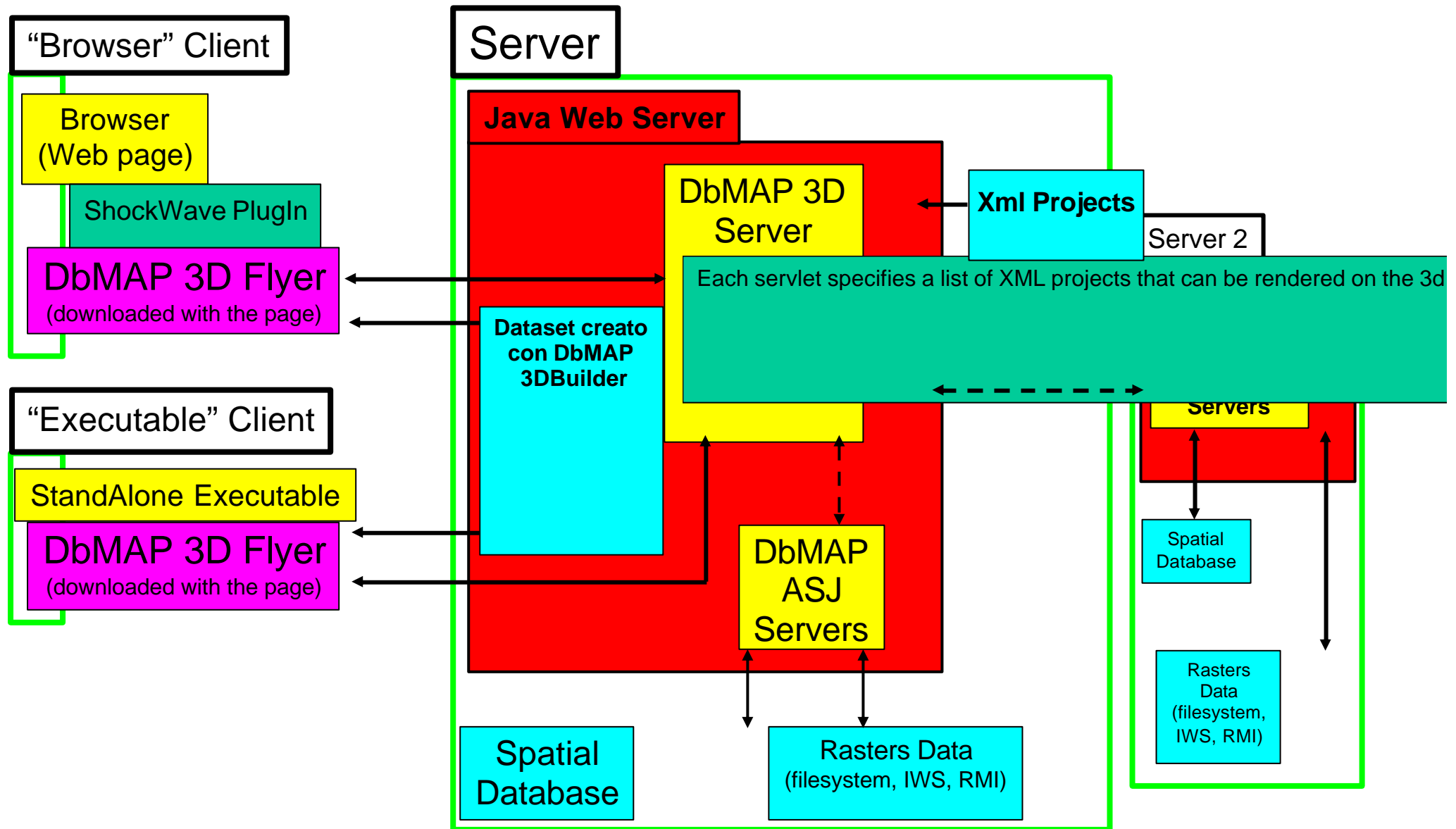
## **Introduction to 3D Architecture**

DbMAP 3D Server is an extension of DbMAP ASJ Server. It allows to render bi-dimensional XML projects (created with DbMAP ASJ Viewer/Author) on a 3D model, created with DbMAP 3D Builder tool. The client tool is a ShockWave Plug-In named DbMAP 3D Flyer. This component makes the 3d rendering in real-time.

When the web page is opening, the 3D Flyer plug-in is downloaded and run. Then, the 3d dataset, only the part regarding the current view, is downloaded. 3D Flyer, now, asks to the 3D Server to provide data of the DbMAP ASJ Viewer project to render. 3D Server calls the DbMAP ASJ Server that provides this data. The graphic information are returned back to the flyer that render it on the 3d model.

The client side application is composed by web pages and 3d Flyer. A sample application (without dataset) is provided with the servlet in the subfolder "Flyer".

To understand better the way of working of this tool, look at the following architecture.





## Details

### About Direct or non Direct

During the reading of this paragraph have a look to the Image on the next page.

The 3D Server works by getting graphic information from the DbMAP ASJ Server. The reference to the DbMAP ASJ Server to use is written inside a DbMAP ASJ XML project (created by DbMAP ASJ Viewer/Author). The list of the XML projects available for a 3D model is reported inside the Projects List XML file (created by the Administration console of 3D Server). For each DbMAP ASJ Project listed in the Projects List XML file there are two ways of working for the 3D Server (in order to get the graphic data for the rendering operations):

- Using a DbMAP ASJ Server embedded inside the 3D Server (this way prevent the use of more different databases or the connection to remote DbMAP ASJ server). We call this direct connection and it is configured in the Projects List XML file;
- Using an external DbMAP ASJ Server (the one specified for each DbMAP ASJ XML project and that can be different also for each layer). We call this NON-direct connection and it is configured in the Projects List XML file;

A direct connection to a database must be configured for the 3D Server in order to retrieve the list of labels that will allow the navigation on the 3D Map on the Client Side.

### About request of information on the 3D Map

Vectorial data rendered on the 3D Map, come from a database. The database can be of Oracle Spatial type. On the geometries stored in this kind of database can be built a spatial index. In the 3D visualization, only the layers, whose data come from geometries with spatial index, can be queried for the request of information.



***In this case Layer2 and Layer3 will***

