ArcGIS Server based Geoportal for Managing the Adriatic Archeological Sites

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I. Context

II. Adriatlas Geodatabase

III. Architecture

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V. Demonstration

VI. Conclusion

• Atlas computerized for the antique Adriatic.

• Historical periods: Bronze Age (XI Before JC) - End of the Antiquity (VIII after JC).

• Goal: developing a Geodatabase and a GeoPortal for the Adriatic.
Context

• Archeology is the study of past human culture and behavior.

• The aim of archeology is to reconstruct human society that can no longer be directly observed.

• How can GIS enhances Archeology?
• AdriAtlas Geodatabase: modeling of geographical information about archeological sites.

• We used the modeling method HBDS (Hypergraph Based Data Structure).
Geodatabase: AdriAtlas

Modeling HBDS  \rightarrow  Geodatabase

Hypergraph Based Data Structure
GeoPortal: Architecture

Client tiers

Web tiers

GIS tiers

Data tiers

Client

Web Server

Web Application

GIS Server

Esri’s ArcGIS Server

DB Connector

DB Server

Protocol

Internet

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• Developing and publishing a set of Web Geoservices that allows:
  
  – Mapping archeological sites (WMS).

  – Updating data about archeological sites (WFS).

  – Geoprocessing data about archeological sites (WPS).
Geoservices

Diagram:

- **Web Server**
  - Consuming services

- **Server GIS**
  - Developing and publishing services
  - **Serveur BD**
    - Managing data
Demonstration

Archeology geoportal
Conclusion

- A geodatabase and a geoportal for archaeological sites of the Adriatic.

- Based on Esri’s ArcGIS Server:
  - A container of archeological Web Services.
  - Possibility of using an API to develop Web application (e.g., API for Flex).

- What is next:
  - Developing more services.
  - Implementing ArcSDE.
Thank you