



Introduction to *gvSIG*

as desktop GIS/SDI client



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SEXTANTE





Agenda

I. Project **Origin**

II. About **gvSIG**

III. Spatial Data Infrastructures

IV. Main **functionalities**

V. Current and **future** developments

VI. Conclusions

VII. Practical workshop **exercises**





Company presentation



- Spanish company (Valencia)
- 17 years of experience in the GIS technology sector
- Co-author of open source “gvSIG” GIS tool, together with the Valencia Regional Ministry of Infrastructures and Transport.
- Technological developments subject to the Open Geospatial Consortium (OGC) standards for web-based spatial data consultation and exchange services
- Member of the Project Management and Technical Committee.
- 90 employees





Project origin

2003: **Regional Government of Infrastructures and Transport of Generalitat Valenciana** decides to **migrate to *Free Software***.

Advantages:

- ◆ Technological **independence**
- ◆ **Quality** industrial structure
- ◆ **Freedom** to give solutions to our problems
- ◆ Capacity to develop **new functionalities** (required functionalities, users feedback)
- ◆ **No cost** for license
- ◆ **Unlimited** number of installations
- ◆ You pay for **service**
- ◆ Optimization of the **investment**





Origins of the project

No free advanced GIS was **available** at that moment.



Let's invent it.









Fast evolution: from LOCAL -----> to GLOBAL project



About gvSIG

Main characteristics

-  Development language: **Java** (Multiplatform).
-  Adheres to the guidelines of the European Union - **Inspire**.
-  Free license (**GNU/GPL**).
-  **Modular**, scalable, powerful.
-  Simple interface: **user friendly**.
-  **International**: GUI in **19 languages**, documentation in 7.

Global aim

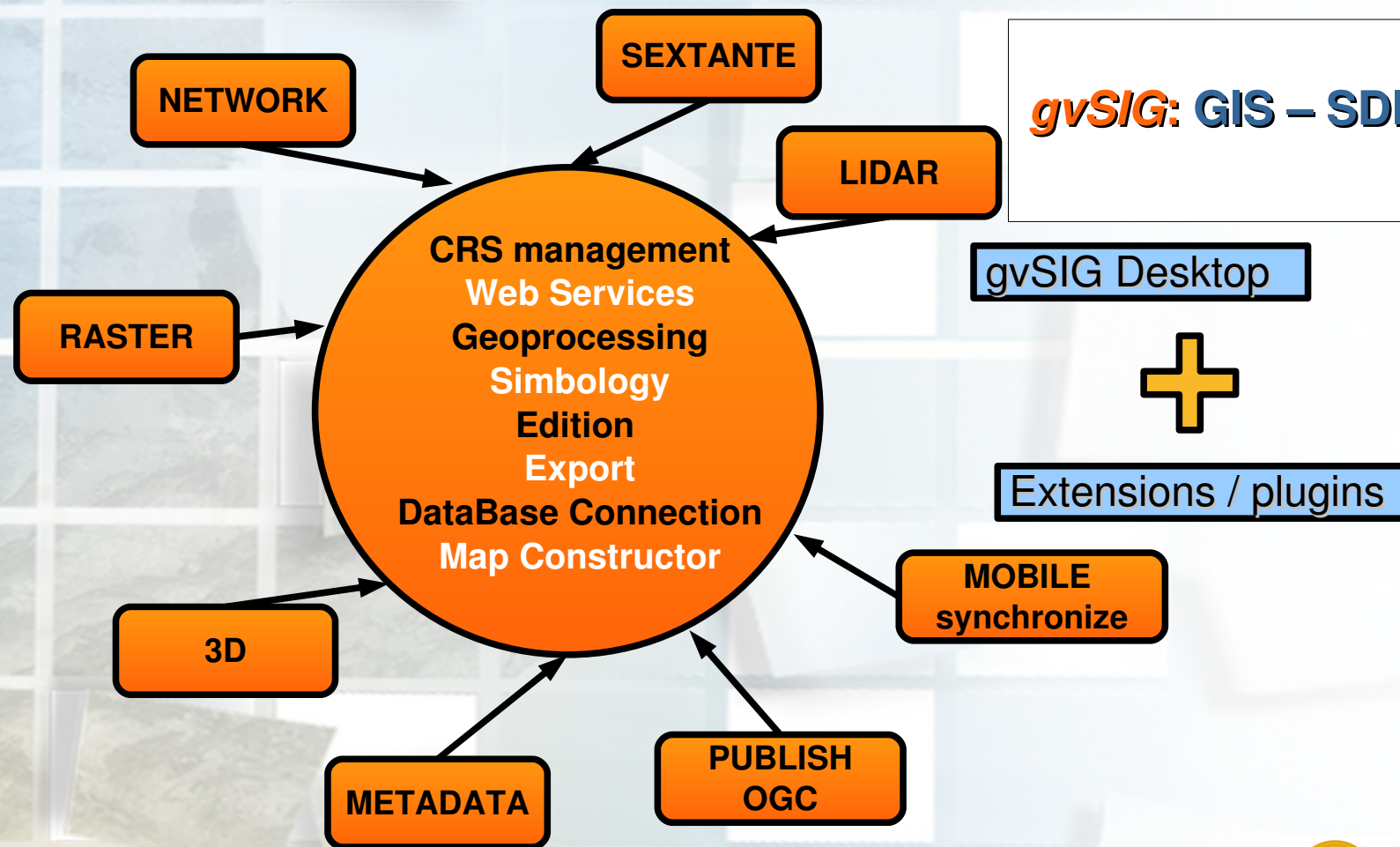


Give solutions to all needs related to the G.I. management based on the integration of free technologies.



About gvSIG

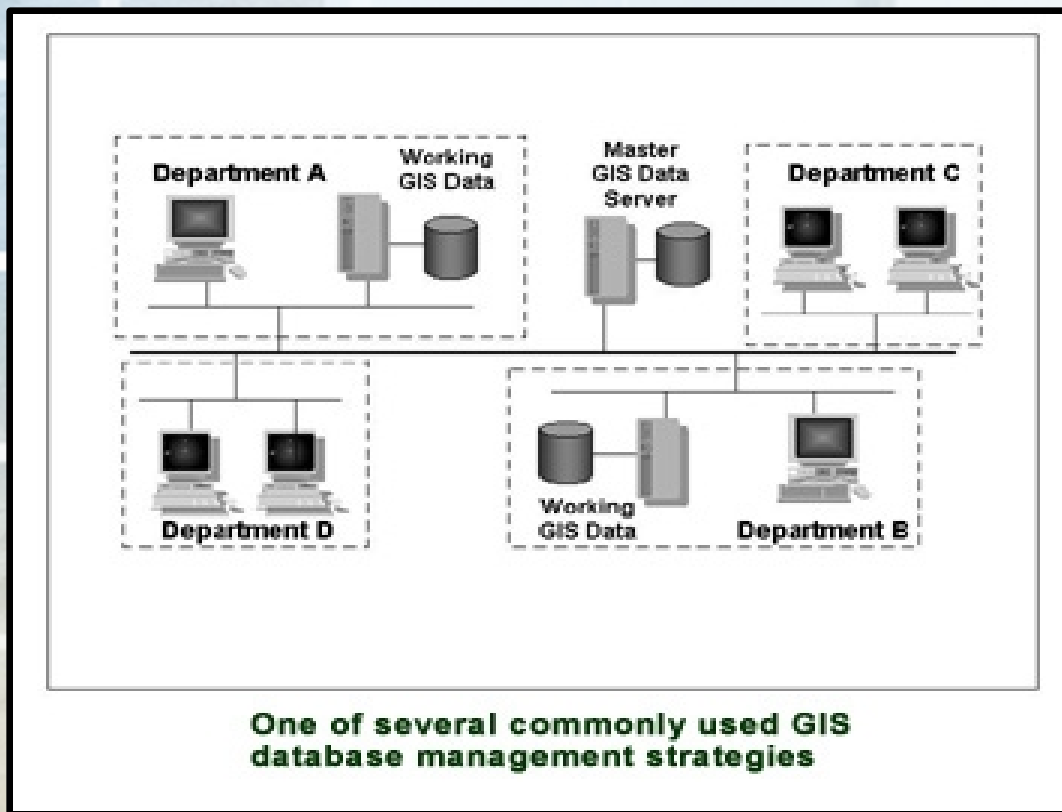
gvSIG: GIS – SDI Client





Spatial Data Infrastructures

Old model (corporate GIS)

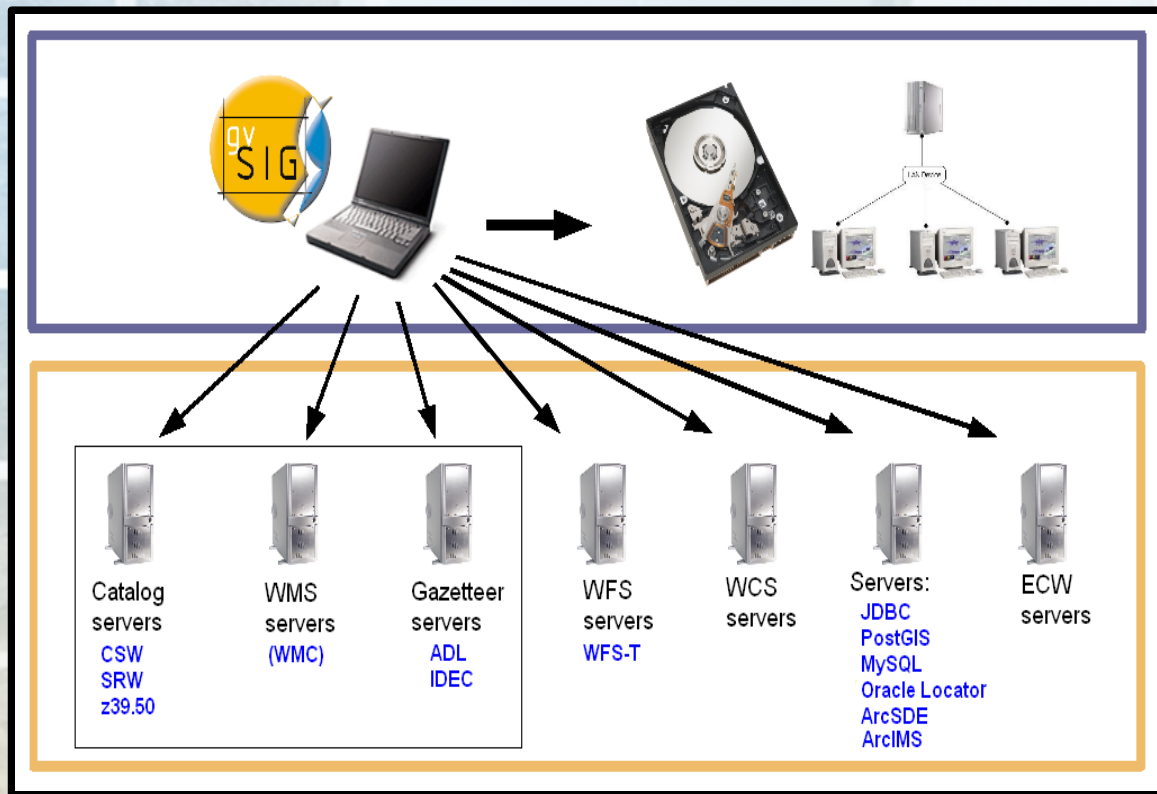


- A lot of map servers.
- Every server is optimized for “its users”.
- Creation of multiuser GIS information islands.



Spatial Data Infrastructures

New Model (SDI, distributed GIS):



- ◆ Objective: Making easy the access to the G. I.
- ◆ The system is the network (internet/intranet).
- ◆ Communication through standards (web services).
- ◆ Extended client-server model.
- ◆ Decentralized network of servers.

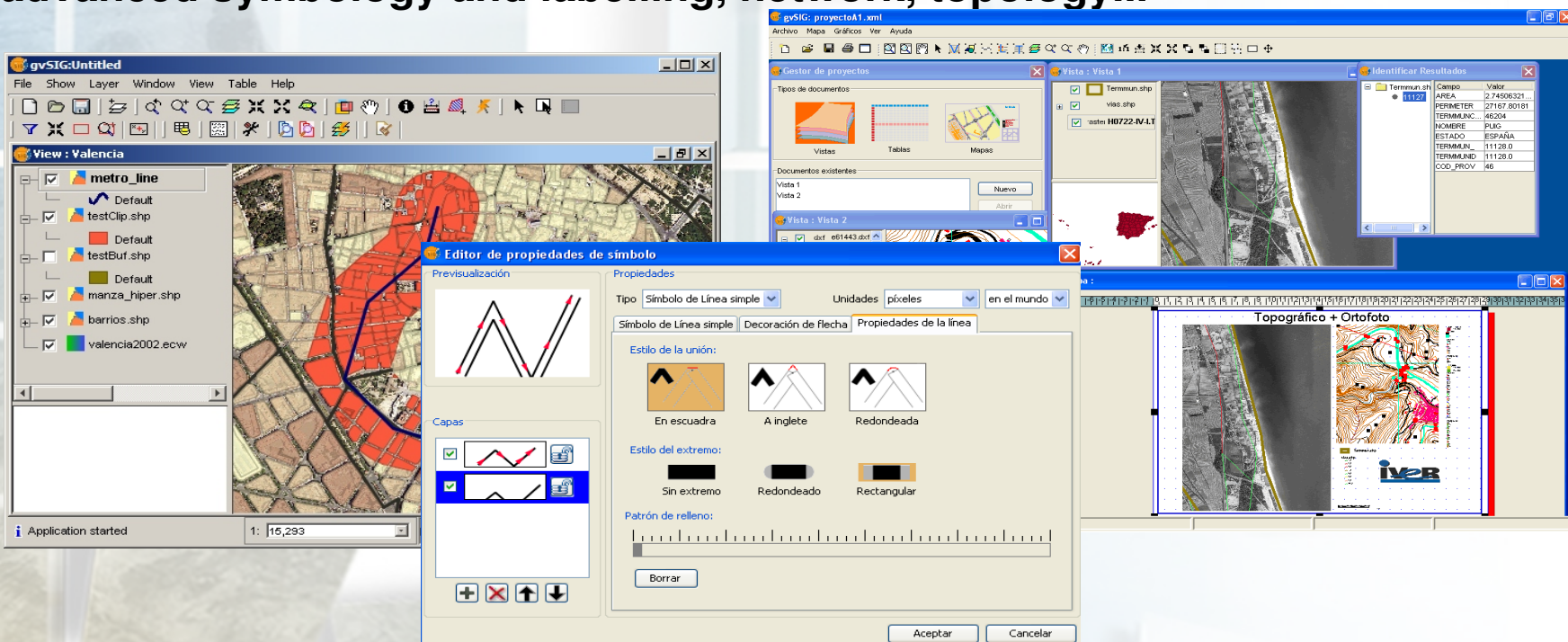




Main functionalities

gvSIG, Integrated management: **vector GIS**

Tool to manage geographic information, mapping edition, geoprocessing, advanced symbology and labelling, network, topology...

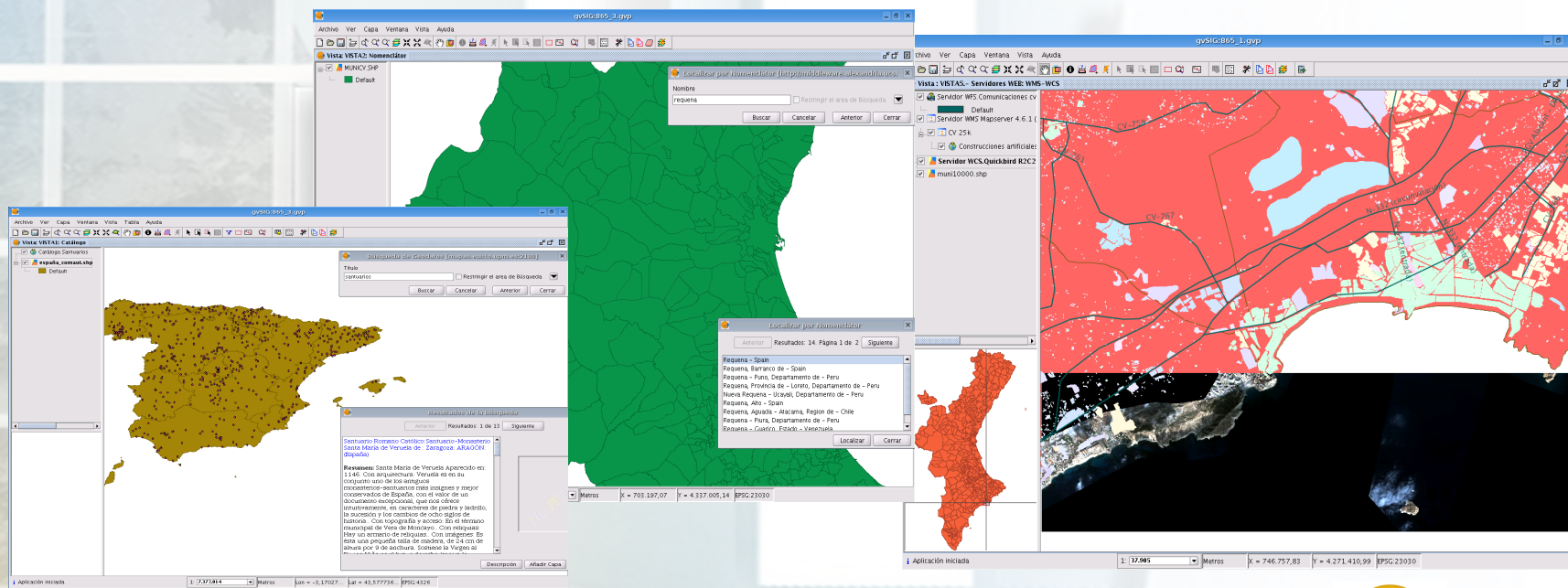




Main functionalities

gvSIG, Integrated management: **SDI Client**

Display and query services (WMS, WCS, WFS, WMC, ArcIMS servers),
searching services (Catalogue client) and location services (Gazetteer client).
Publishing and Metadata extensions.





Main functionalities

gvSIG, Integrated management: **CAD editing**

Tool for advanced vector editing: drawing geometries, snapping, explode and join, editing vertex, ...

The screenshot displays the gvSIG software interface with several windows open:

- View: Valencia**: Shows a map with a green polygon and a red point labeled "Final point".
- commands stack**: Lists recent actions such as "Modify Move handlers", "Add POLYLINE", and "Modify MOVE".
- Table: Table of attributes: manza_hiper.shp**: A table with columns NSE3_2, NSE3_3, NSE4_4, SUPERFICIE, and a path column. The selected record is highlighted in yellow.
- HiperLink**: A window showing a photograph of a building at night.

NSE3_2	NSE3_3	NSE4_4	SUPERFICIE	
0.0	0.0	0.0	40.0	c:\temp\Mestalla
0.0	0.0	0.0	0.0	c:\temp\EstacionN
0.0	0.0	0.0	102.0	c:\temp\EstacionNorte
0.0	0.0	0.0	732.0	D:\Servidor\grafica\demost\Mapas\sv\cartografia\valencia\mapa
0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	



Main functionalities

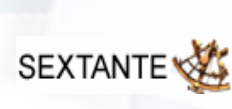
gvSIG, Integrated management: **Raster analysis**

Georeferencing, Histogram view, Remote sensing, ...

The screenshot displays the gvSIG software interface with several key components:

- Histograma:** A window showing a histogram of pixel values. The x-axis represents pixel values from 0 to 250, and the y-axis represents frequency from 0 to 60,000. Below the histogram is a table with columns: Banda, Mínimo, Máximo, Media, Mediana, and Número de píxeles.
- georeferenciar:** A window for georeferencing a point. It includes fields for X (114.99), Y (608.95), longitud (727196.1872), and latitud (4366569.6183). It also shows Res X, Res Y, and RMS values, all set to 0.0.
- Main Map:** A large map window showing a satellite-style image with a red crosshair indicating a selected point.
- Layers Panel:** A panel on the right showing loaded layers: 'huerta.jpg' and 'valencia2002'.

**Collaboration with
SEXTANTE project**

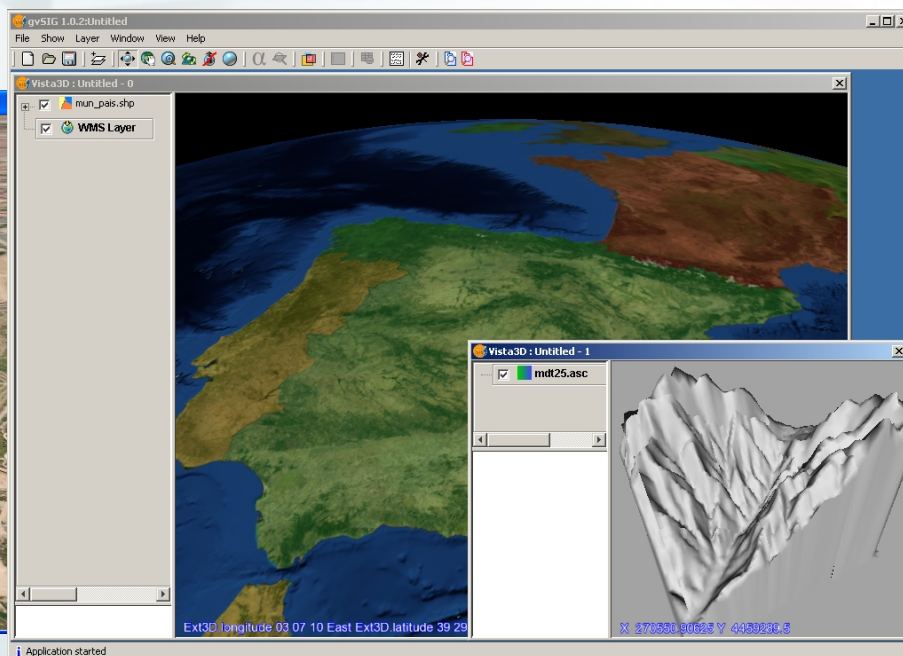
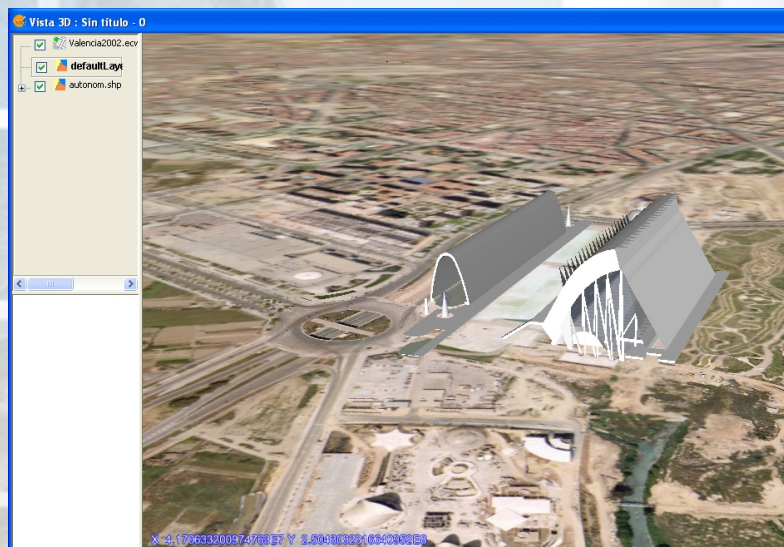




Main functionalities

gvSIG, Integrated management: **3D**

Access to 3D characteristics, animation (video), ...

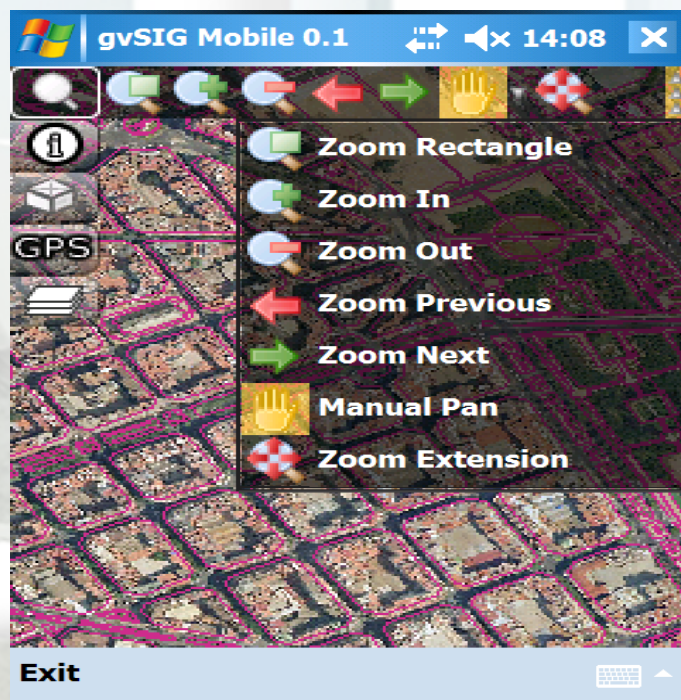




Main functionalities

gvSIG, Integrated management: **Mobile devices**

Integration of gvSIG into mobile devices: Cell phones, PDA, Tablet PC...





Current and future developments

- **gvSIG 4D (temporal GIS)**
- **Connection with sensors**
- **Surveying**
- **Stereo**

.....

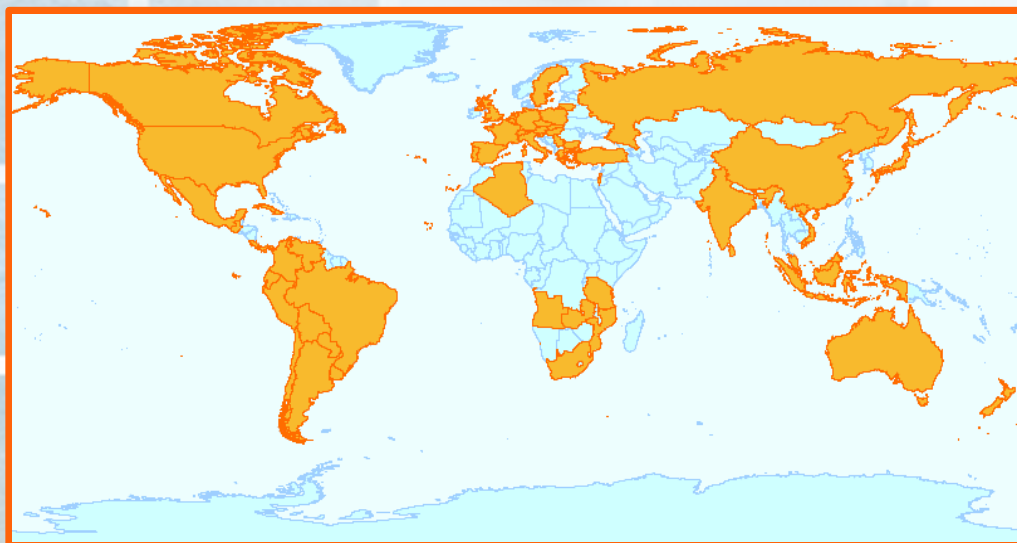
- ***Community contributions***



“*gvSIG* is a way that we can build together”



Dimension of the project



- **Mailing lists:**
 - **Users list: 1374**
 - **Developers list: 660**
 - **International list: 584**
 - **Italian list: 184**
- **Known countries with registered users: 44**
- **Known countries where gvSIG has been downloaded: 61**



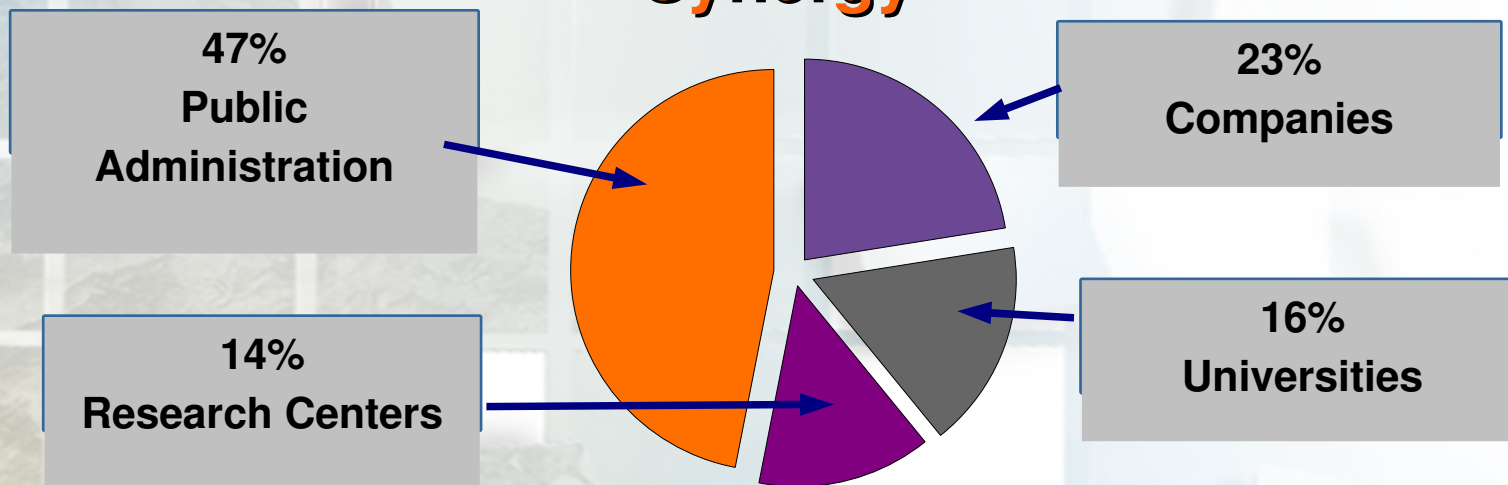


Dimension of the project

Collaborations:

More than 100 public and private organizations, from Spain, Europe and LatinAmerica.

Synergy





Project Website

www.gvsig.gva.es

Conselleria de Infraestructuras y Transporte

jueves, 14 de diciembre de 2006

Correo Contacto Mapa web

Valencià English

Buscador

gvSIG

- Saludo del conseller
- ¿Qué es gvSIG?
- Conoce el proyecto
- Descargas
- Documentación
- Espacio de comunicación
- FAQ's - Preguntas más frecuentes
- Boletín de noticias
- Enlaces de interés
- Glosario
- gvPONTIS: Proyecto de Migración a Software Abierto

Destacado

Última versión estable. gvSIG 1.0

Noticias

Lunes, 04 diciembre 2006

gvSIG 1.0 estable disponible

Desde el proyecto gvSIG nos complace anunciar la esperada liberación de gvSIG 1.0 estable, con lo qu...

más información

SERVICIOS

- Artículos y ponencias
- Colaboraciones
- Descargas de gvSIG
- I Jornadas de gvSIG
- Manuales
- Notas de versión
- Requisitos previos

PROYECTO COFINANCIADO POR LA UNIÓN EUROPEA FONDO EUROPEO DE DESARROLLO REGIONAL

Número de accesos: 3216085 (desde 3/8/2004)

gvPONTIS

Conselleria de Infraestructuras y Transporte

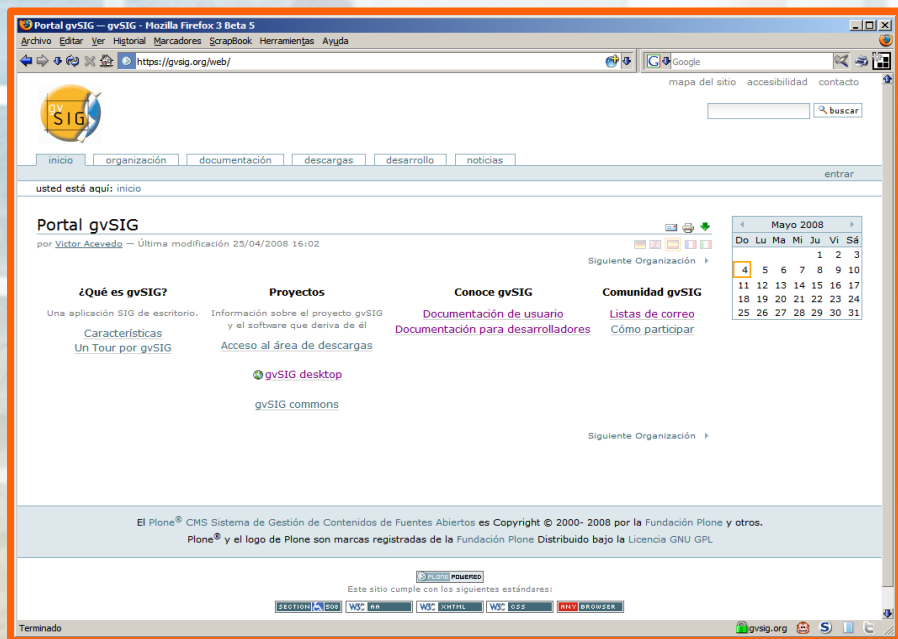
2as Jornadas SIG

- Downloads of gvSIG Desktop and gvSIG Mobile
- Courses and tutorials
- Reports
- Lists of distribution
- Road map



Towards an open organization

Put the project in the hands of the **community**:
www.gvsig.org



- User & technical documentation available
- Plugin repository for the community
- All the builds in development available
- Mailing lists for the community
- Collaborative testing
- Open subversion repository:

<http://subversion.gvsig.org/gvSIG/>



Conclusions

- ▶ Great power and versatility of the **OGC web services**.
- ▶ Great added value given by a **mature Desktop GIS/SDI** client like **gvSIG**.
- ▶ **Easy extension and improvement** of the application.
- ▶ The **community** is growing.



Thanks for your attention!!



More about gvSIG at: www.gvsig.gva.es
www.gvsig.org

Subscribe to **mailing lists** for info and support.

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