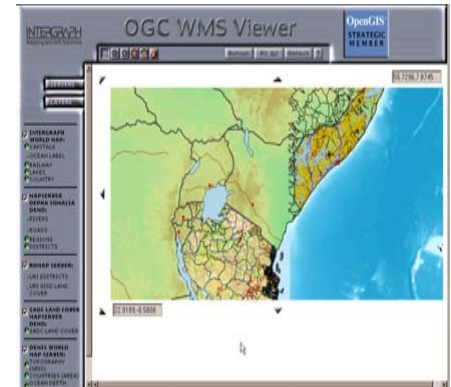


4th GML Relay

26 januari 2006



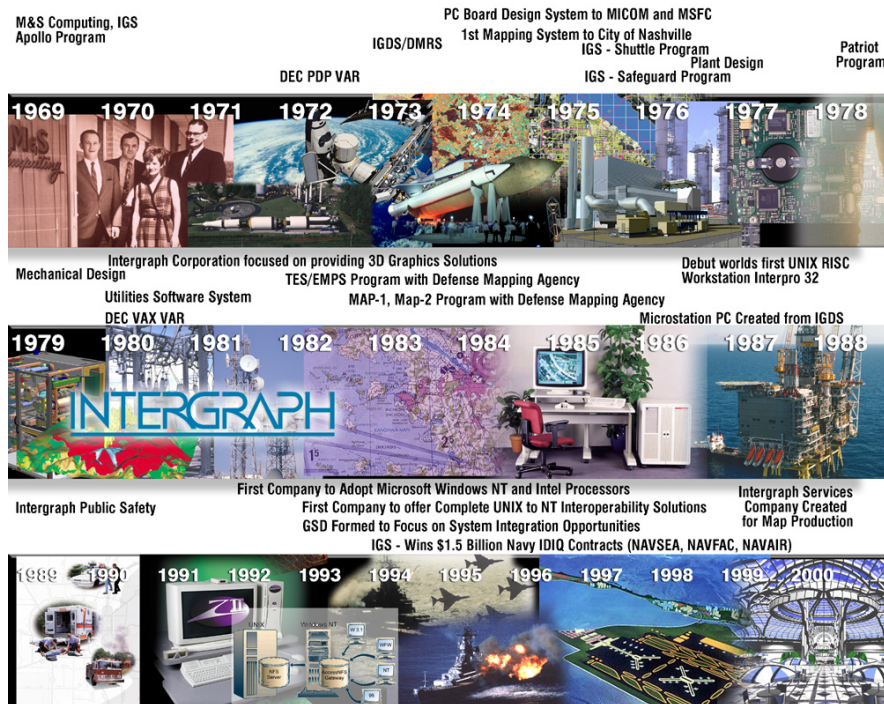
Frank Langelaan

Agenda



- Intergraph & OGC
- Interoperability
- Webservices
 - Data Interoperability & Application Interoperability
 - Web Map Service
 - Web Feature Service
- GML relay

Intergraph



- 37 years GIS experience,
 - Software & Services
 - End-to-end Solutions,
 - Specific markets
- Innovative Technology
- Totally Open GIS
- Global Presence,
 - 4300 employees in
 - 65 countries
- Large and growing customer base

Intergraph's Mission



Intergraph's proven solutions empower governments and businesses around the world to make better and faster decisions, enabling them to create and view complex information in an understandable way.

Intergraph Business Overview



Spatial Information Management (SIM)

Security, Government & Infrastructure



Geospatially-enabled security, military and infrastructure software & services

Annual Revenue: \$400 million

Process, Power & Marine



Industry-leading plant & ship design and information management software

Annual Revenue: \$150 million

- Public safety agencies protecting hundreds of millions of people around the world
- National, regional and local governments in 80% of the world's largest countries
- 39 of the 50 state departments of transportation in the United States
- 30 of the top 35 Fortune Global 500 chemical, petroleum & pharmaceutical companies

Intergraph Security Government & Infrastructure



- Total Solutions specifically for:
 - Local, Regional, Federal and National government
 - Public Safety
 - Utility & Telecom
 - Transport
 - Defense
 - Remote Sensing & Fotogrammetry

Open GeoSpatial Consortium





Principal members:

Autodesk, Inc.

Boeing S&IS Mission Systems

Department of Science & Technology

ESRI

GeoConnections Secretariat

Google

Intergraph Corporation

MapInfo Corporation

Northrop Grumman Corporation

Oracle Inc.

PCI Geomatics Inc.

US Army Corps of Engineers (ACE)

US Geological Survey (USGS) National Mapping Division

25th Septembre 1994

<http://www.opengeospatial.org/about/?page=members&view=Level>

Intergraph's relation to OGC



- Intergraph is **Founding and Principal member** of the Open Geospatial Consortium Inc. (OGC).
- Intergraph takes an undeniable lead in **supporting interoperable solutions** that “geo-enable” mainstream IT and the Web. Intergraph’s long-standing support of OGC, coupled with the top membership level, affirms its **strong commitment to open geospatial interoperability**.
- “Intergraph’s membership in OGC coincides with our commitment to provide open, extensible geospatial technology for mapping, GIS, and IT professionals in the global industries we serve,” said Preetha Pulusani, President, Security, Government & Infrastructure and **a member of the OGC board of directors**.
- Intergraph provides **significant resources** over and above those provided by other members. Special functions include taking an active role in setting the **direction of OGC technology specification activities** and facilitating the use and acceptance of its technology in markets of strategic value to the OGC and its member organizations.
- Intergraph has entered into an **agreement** to work closely with the Consortium’s members and staff to **create special programs** designed to enhance effectiveness in selected areas of OGC operation.
- Intergraph is dedicating a staff resource to OGC, focusing on advancing interoperability in the area of **Critical Infrastructure Protection**.
- Intergraph engages in strategic planning as a member of both the **OGC Planning Committee** and the **OGC Strategic Advisory Committee**. The company also participates in **OGC Technical Committee programs** to collaboratively define and approve spatial interface specifications that support interoperability.

Interoperability



OGC Interoperability & Intergraph



Interoperability Extensions - FREE!

- Applicatie interoperability met WMS, WFS, GML.

Oracle Interoperability Initiative – FREE!

- Data interoperability op Oracle Spatial (Oracle, LaserScan, Autodesk, MapInfo en Intergraph Interoperability Kit)

Open Interoperability Grant Program

- bevorderen van interoperability initiatieven

WMS Viewer Source Code - FREE

Open Geospatial Network

Interoperability Whitepapers



Interoperability Program

<http://imgs.intergraph.com/interop/extensions.asp>



Mapping and Geospatial Solutions

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Grant Program](#)[Interoperability
Extensions- FREE!](#)[Oracle
Interoperability
Initiative](#)[WMS Viewer Source
Code - FREE](#)[Open Geospatial
Network](#)[Interoperability
Whitepapers](#)

Interoperability Program

Download Interoperability Extensions FREE!

Intergraph Mapping and Geospatial Solutions offers the following interoperability extensions FREE, available for download from this section. You may want to bookmark this page and check back periodically for updates and notices.



For questions and feedback, please e-mail us at interop@intergraph.com.

Please make your selection

Please make your selection
GML Data Server
WFS Data Server
WMS Data Server
Export To GML Service
Export To GML Command
WMS Adapter Kit (OGC Compliant)
WFS Adapter Kit (OGC Compliant)

Intergraph-WMS Viewer Source Code - Microsoft Internet Explorer

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Address <http://imgs.intergraph.com/interop/wmsviewer.asp>

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Worldwide



Mapping and Geospatial Solutions

Overview

Open Interoperability Grant Program

Interoperability Extensions- FREE!

Oracle Interoperability Initiative

WMS Viewer Source Code - FREE

Open Geospatial Network

Interoperability Whitepapers


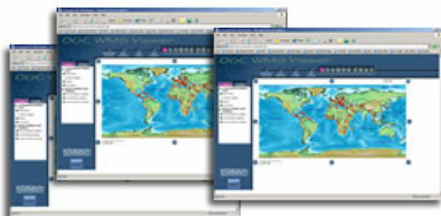
Interoperability Program

WMS Viewer Source Code

The power of open interoperability is rising to the forefront of organizations worldwide, providing an invaluable tool by helping organizations work more efficiently, moving data enterprisewide - regardless of data format or location. In keeping with Intergraph's continued commitment to promoting data access and sharing among organizations and agencies, we announce our newest interoperability initiative, which makes source code from our established Web Map Server (WMS) Viewer (www.wmsviewer.com) available to the community at large.

Sharing the WMS Viewer

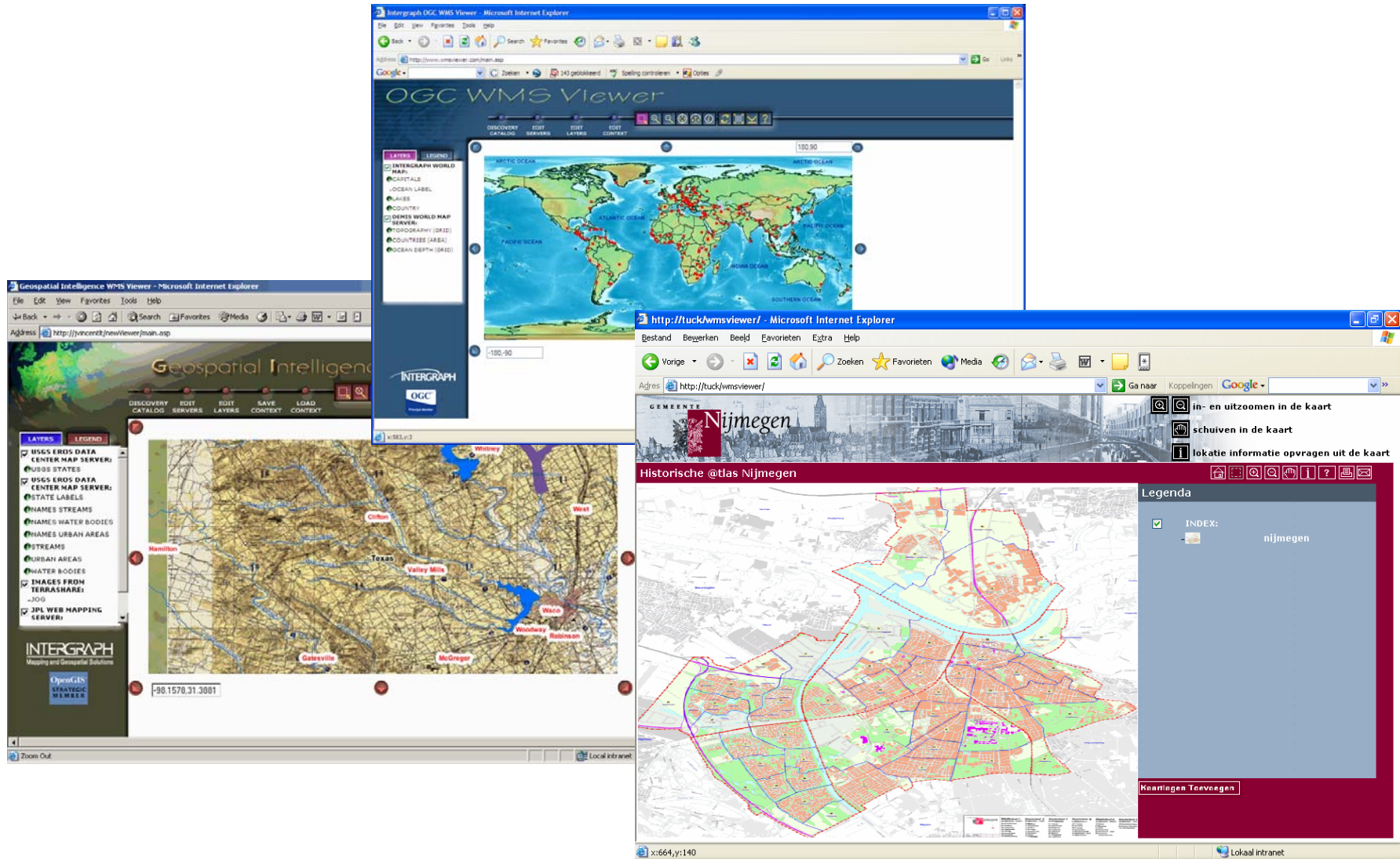
Helping professionals and enterprises simplify development of their own portal for viewing, querying, and rendering WMS source data

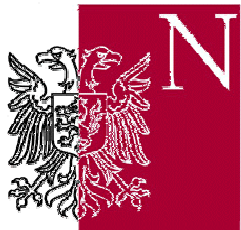


<http://imgs.intergraph.com/interop/wmsviewer.asp>

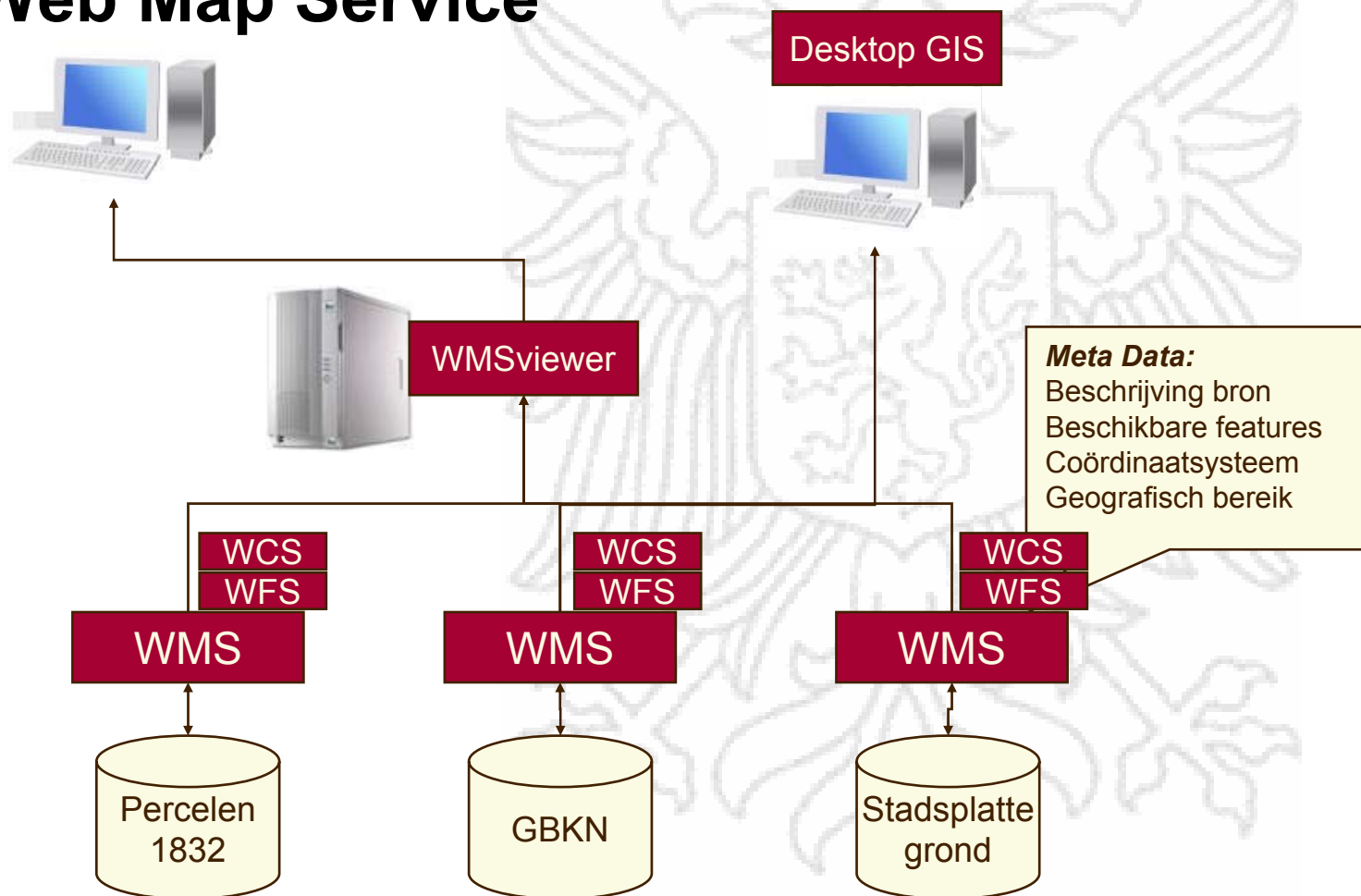
Internet

WMS viewer





Web Map Service

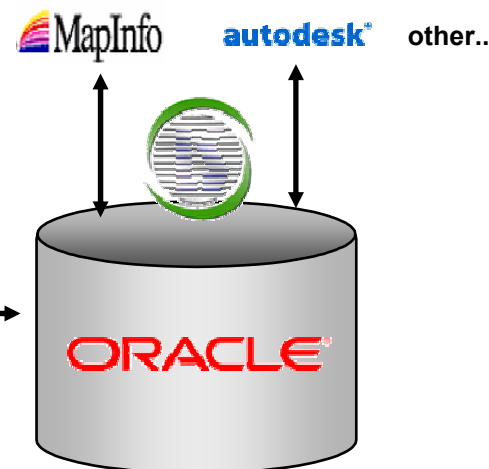
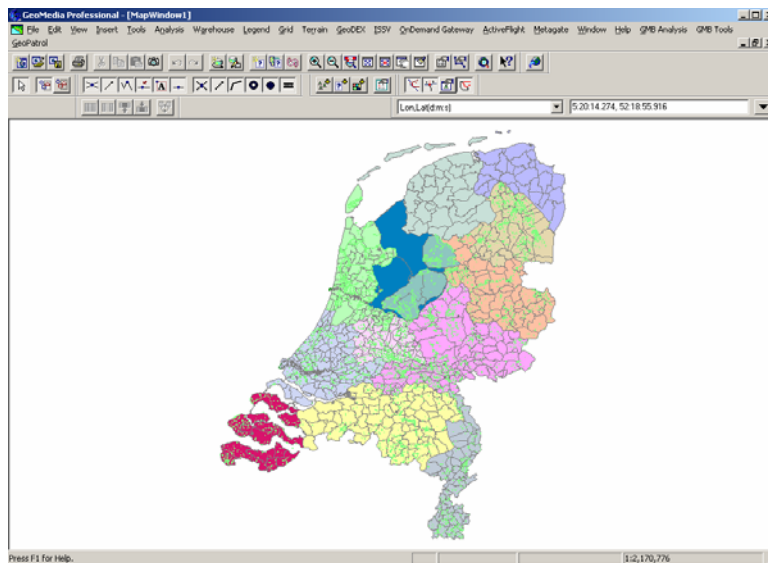


Interoperability network



www.geospatial.net

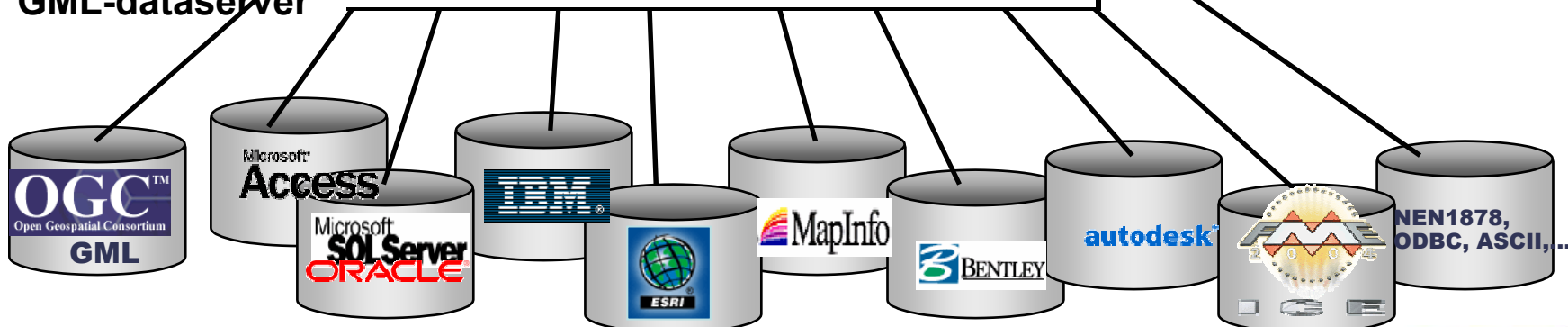
Interoperability (data)



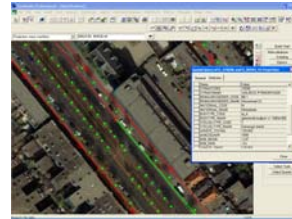
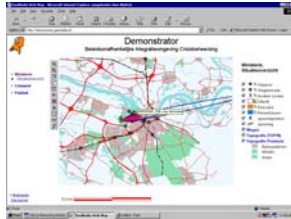
“Interoperability kit”



“GML-dataserver”



Interoperability (application)



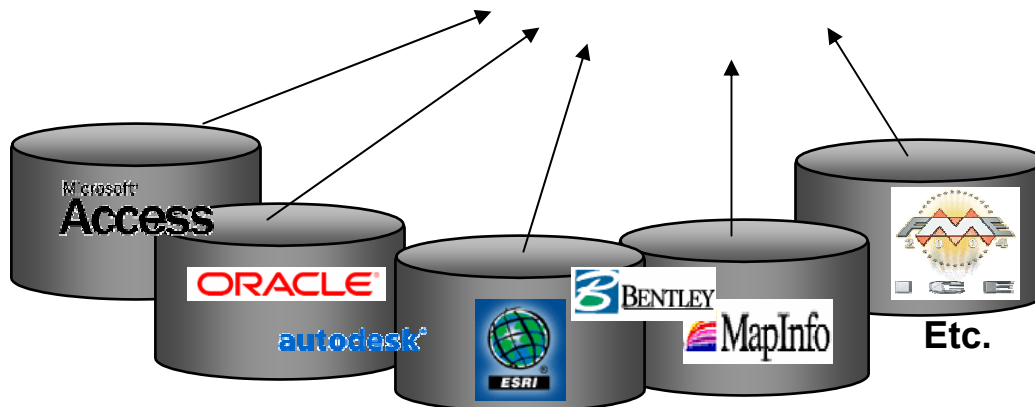
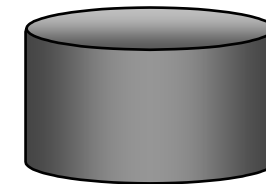
**Other Desktop and
Web applications**

WMS- , WFS datasource

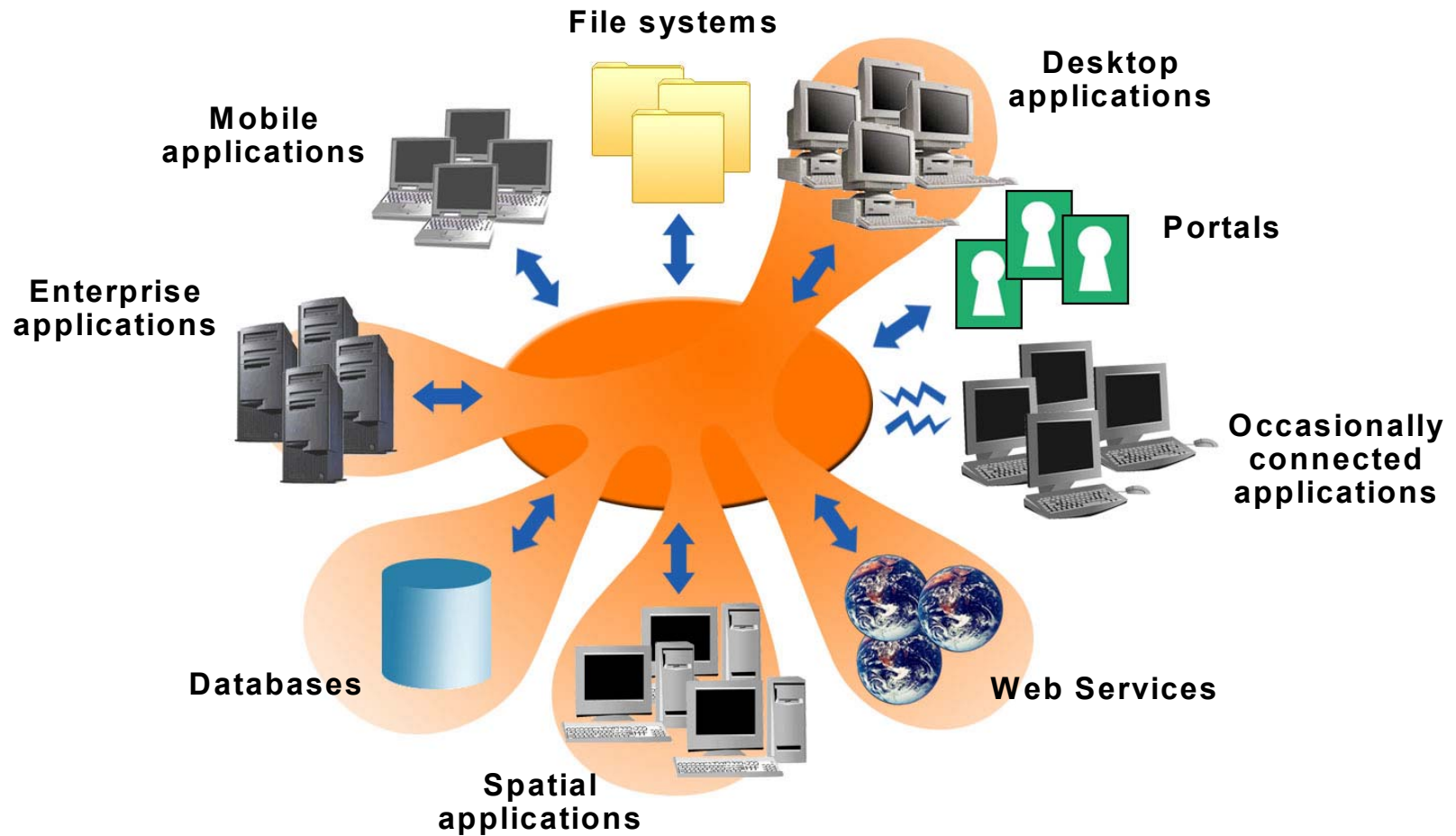
Webservices (WFS, WMS)

**Other WMS, WFS
Webservices**

**GeoMedia
WebMap**



Service Oriented Architectuur (SOA)



Interoperability & Intergraph



Interoperability between products and data

Open architecture maximizes configuration flexibility and extendibility via customization

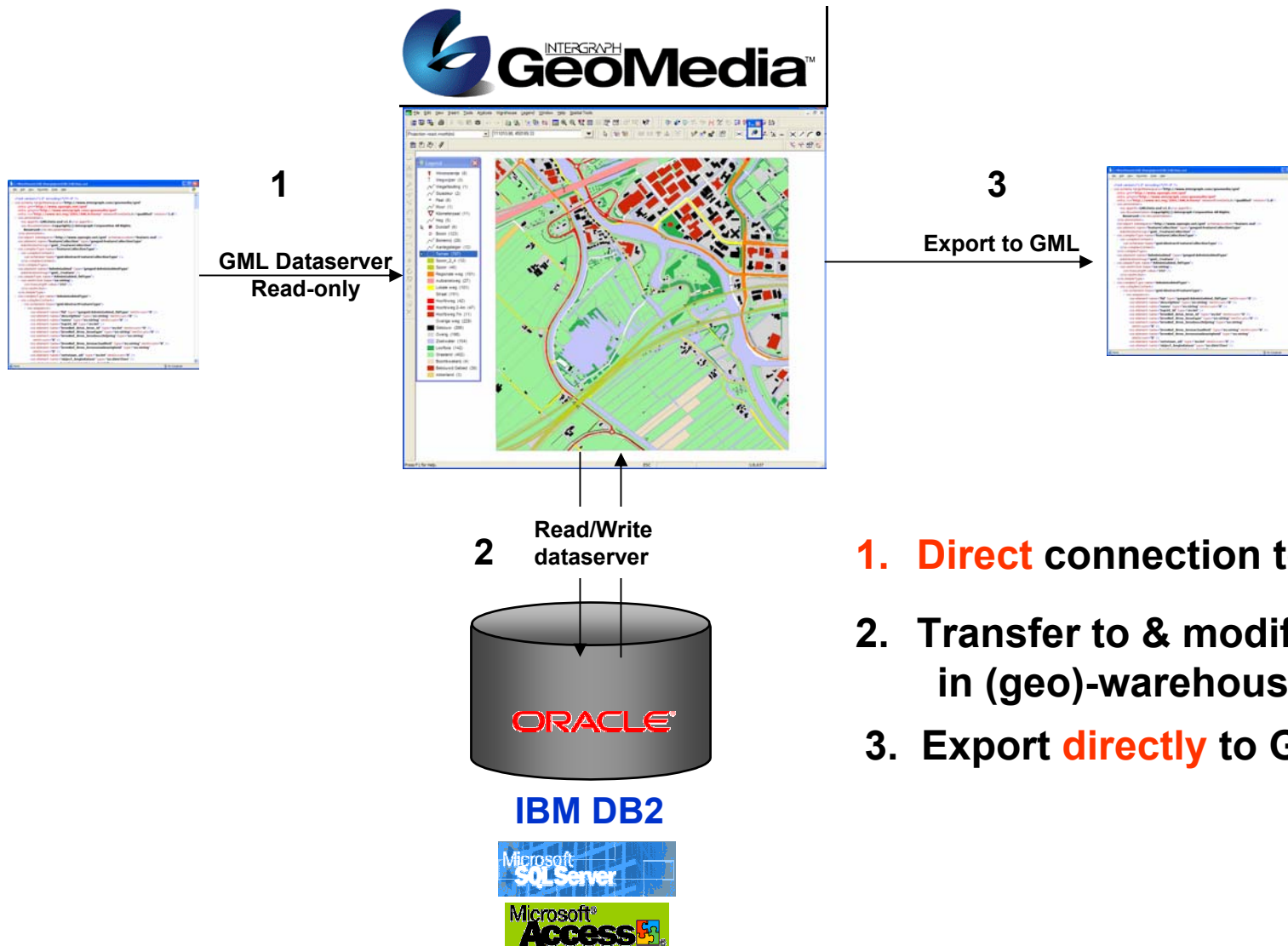
Only SQL between *you and your data*

Only a URL between *you and the world's data sources*

GML-relay

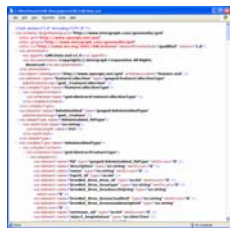


GML Relay Workflow



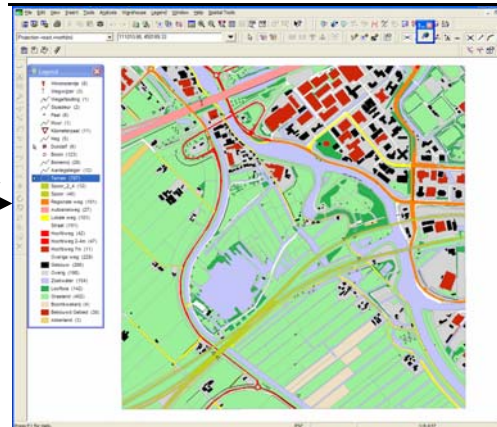
1. **Direct** connection to GML-file
2. Transfer to & modify in (geo)-warehouse
3. Export **directly** to GML-file

GML Relay Workflow



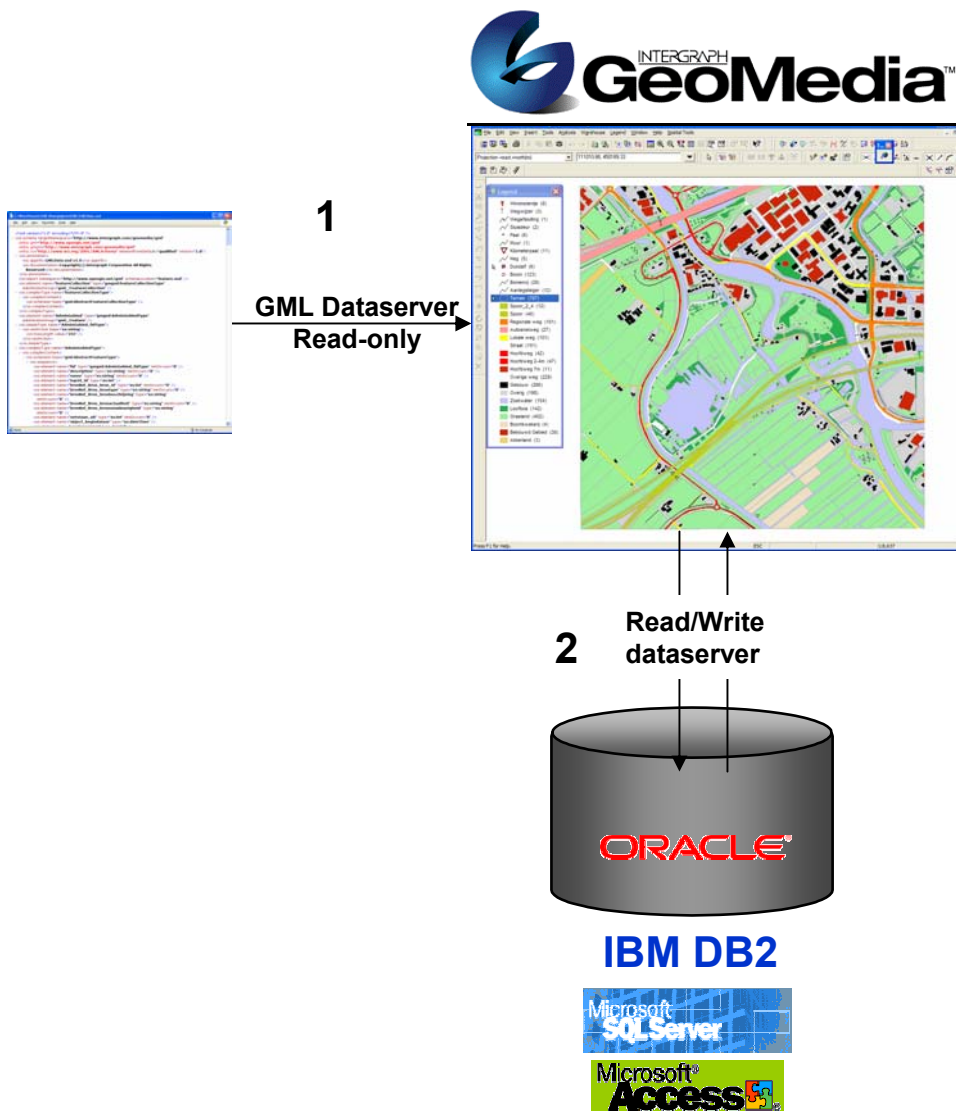
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GML Dataserver
Read-only

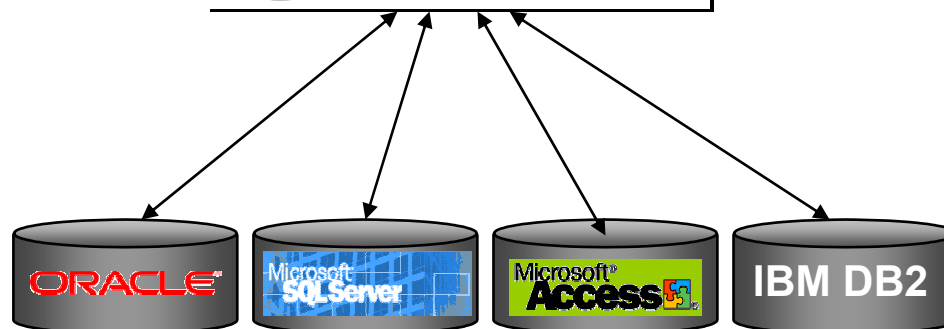
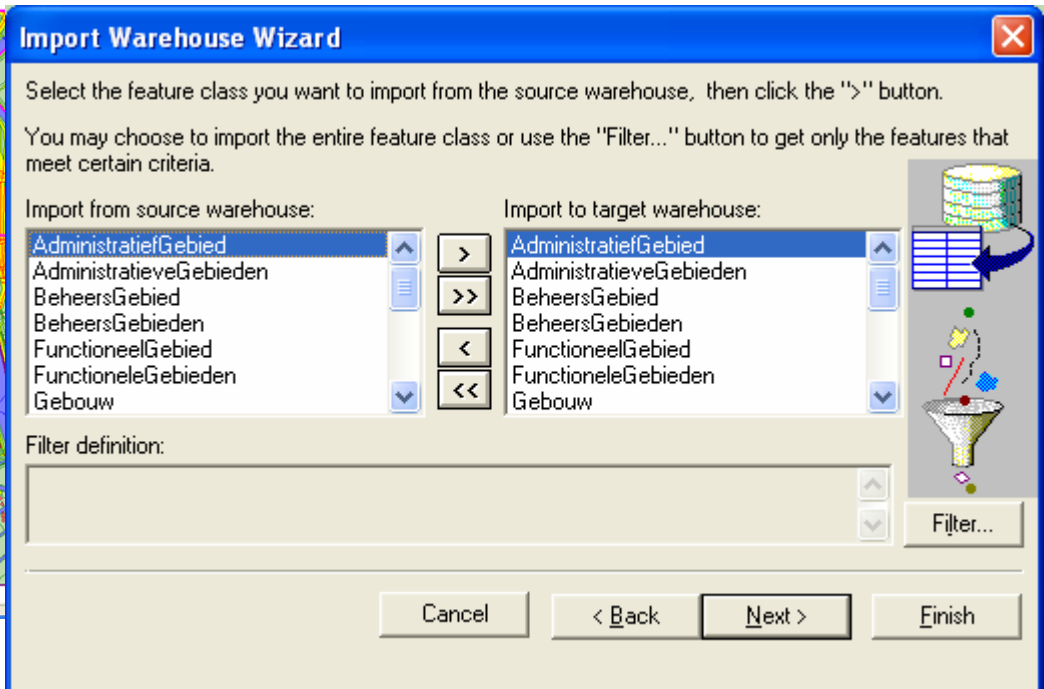
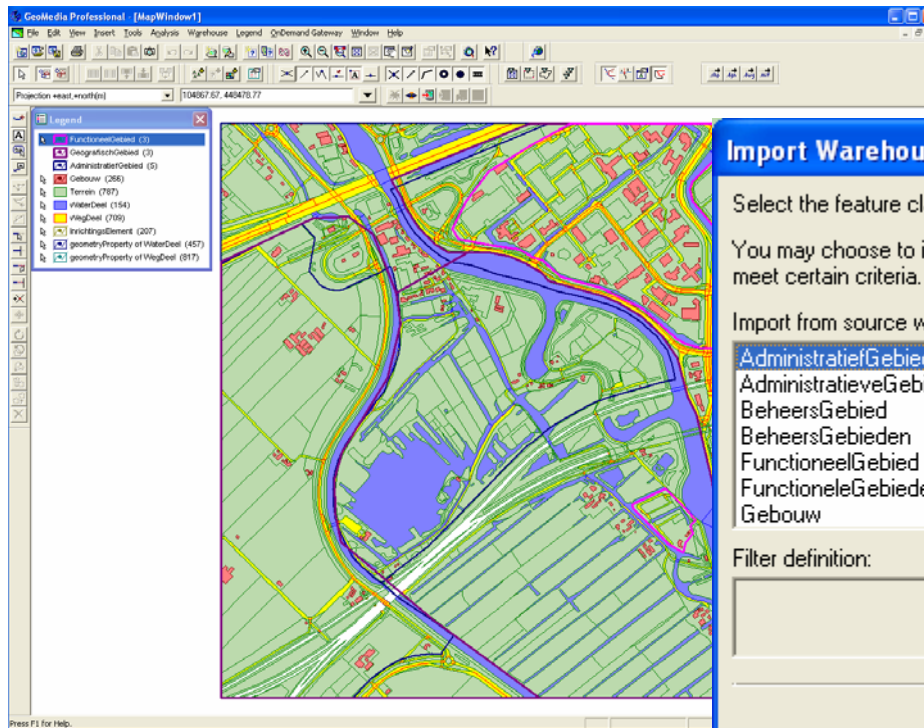


1. Direct connection to GML-file

GML Relay Workflow



- 1. Direct connection to GML-file**
- 2. Transfer to (geo)-warehouse**



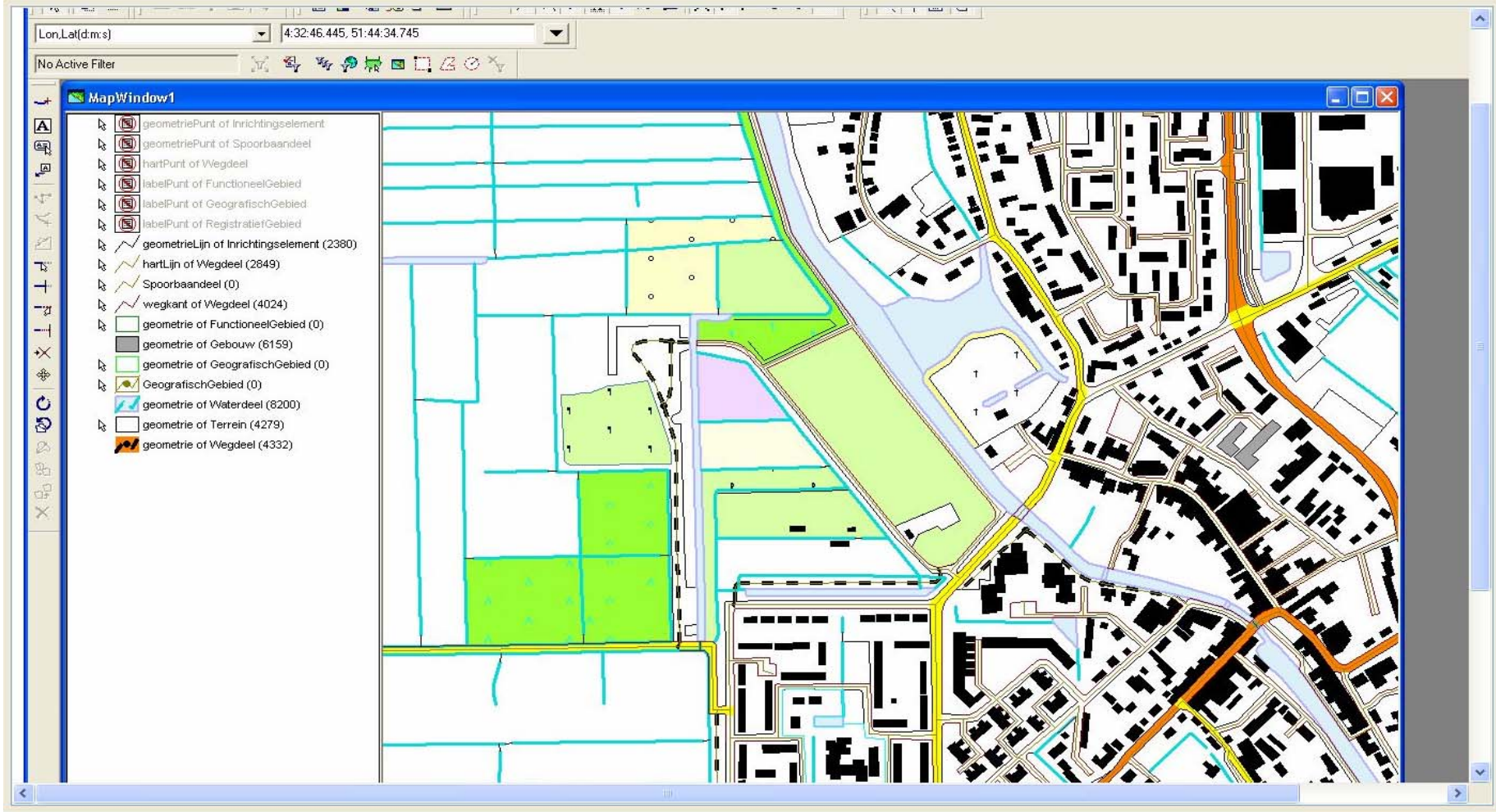
Prinscreen Top10 symbologie, terrein - Message (HTML)

File Edit View Insert Format Tools Actions Help

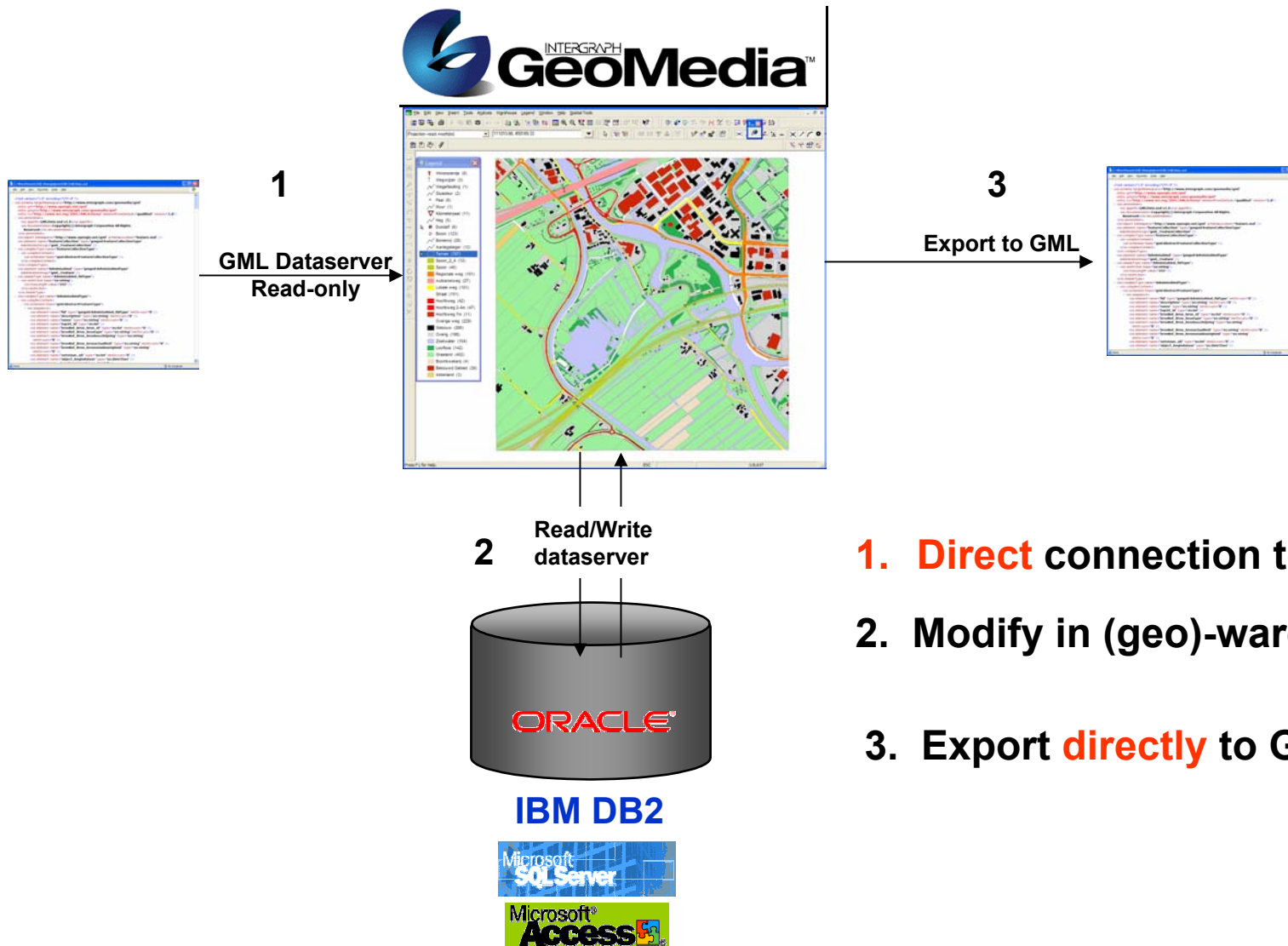
Reply Reply to All Forward

From: Dillisse, Ian
To: Langelaan, Frank
Cc:
Subject: Prinscreen Top10 symbologie, terrein

Sent: Fri 1/20/2006 6:10 PM



GML Relay Workflow



- 1. Direct** connection to GML-file
2. Modify in (geo)-warehouse
3. Export **directly** to GML-file

Export to GML

Export To GML

Features to export

Connections and queries:
GML Cadcorp

Feature classes:

- ☐ FunctioneelGebied
- ☐ Gebouw
- ☐ GeografischGebied
- ☐ Inrichtingselement
- ☐ RegistratiefGebied
- ☐ Reliëf
- ☐ Spoorbaandeel
- ☐ Terrein

Spatial Reference System (SRS)

Coordinate system file:
C:\Program Files\GeoMedia Professional\Coord

☒ Swap coordinate order

Export files

GML data file:
C:\DOCUME~1\fglange\LOCALS~1\Temp\GML

GML schema file:
C:\DOCUME~1\fglange\LOCALS~1\Temp\GML

Export options

GML version: GML 3.1

Output namespace and prefix:

GML base schema:

☐ Bounding box per record ☐ Preserve input field sequence

☐ Export 3D coordinates

Batton transfer to.....

