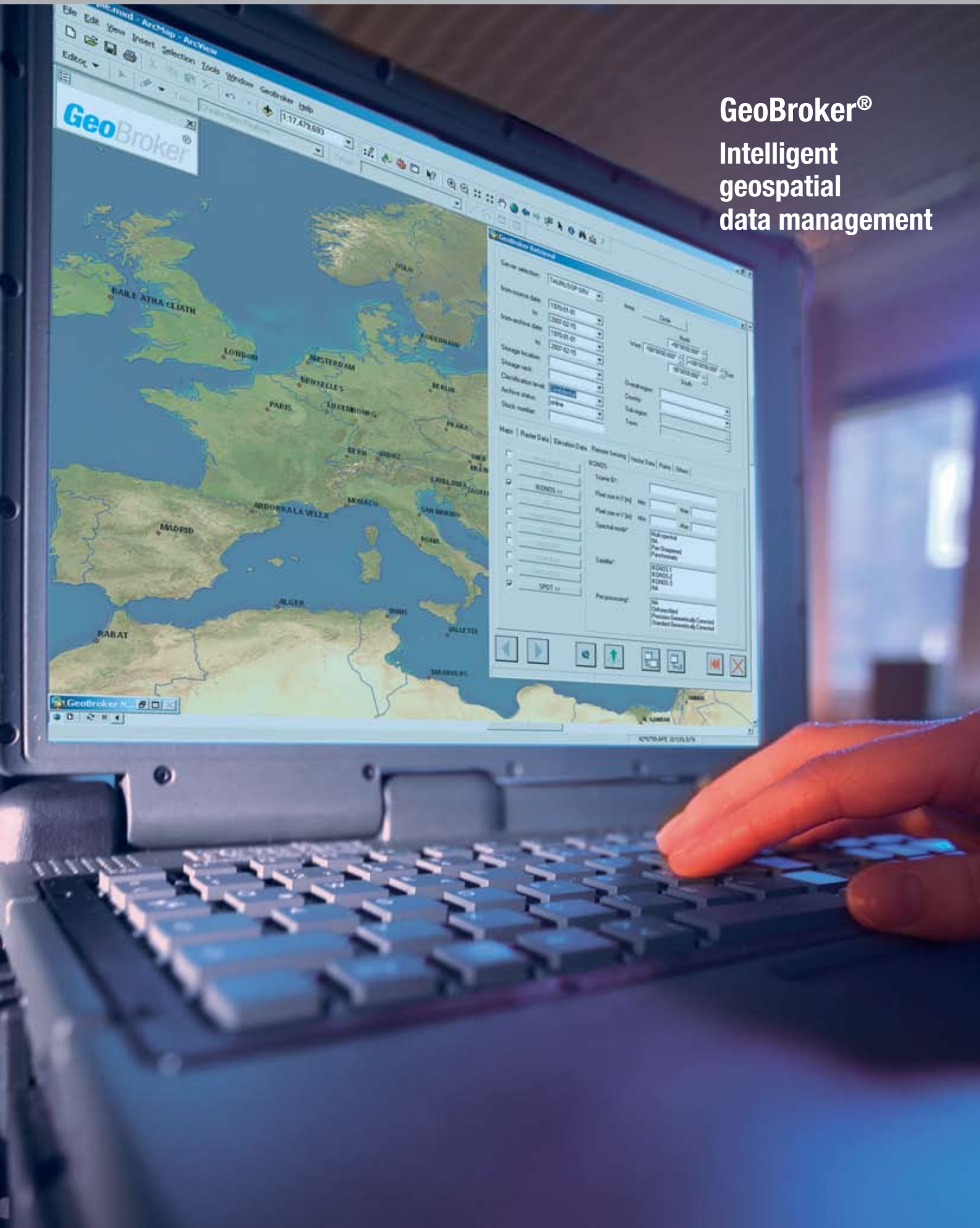


GeoBroker®
Intelligent
geospatial
data management



GeoBroker® is the intelligent, high performance solution for the archiving, management, retrieval, display and dissemination of all kinds of geospatial data and documents.

GeoBroker® allows data input from diverse sources and media, automated metadata extraction, data conversion to standard formats, efficient data and workflow management, online and nearline data storage, graphically supported data retrieval, data delivery and dissemination via internet or intranet.

Highlights

- ▶ Automated data retrieval, management and dissemination
- ▶ Standardised end-to-end workflows
- ▶ Distributed production
- ▶ Centralised or distributed databases
- ▶ Rapid visualisation
- ▶ Online geo-consulting
- ▶ Quick delivery of geospatial information

User Friendliness

GeoBroker® can be easily customised and tailored to user needs as well as to existing hardware equipment and software environments. Due to its user friendliness, GeoBroker® can be easily used even by employees without GIS or IT expertise.

Applications

GeoBroker® is in operational use at civil and military authorities. Typical applications are:

- ▶ Acquisition, verification and dissemination of geospatial data for public authorities, armed forces and intelligence agencies
- ▶ Set up and management of large worldwide geospatial and image archives
- ▶ Planning and support of civil and military crisis operations
- ▶ Geospatial data preparation for the generation of 2D/3D simulation databases

Benefits

- ▶ Increased productivity
- ▶ Improved user services
- ▶ Shorter response times
- ▶ Reduced costs
- ▶ Quick delivery of geospatial information
- ▶ Graphical, web-enabled information system allows specific searches for distributed geospatial data available worldwide

The GeoBroker® Principle



GeoBroker® Features

Functionality

- ▶ Automated data input with metadata extraction and conversion into standard formats (e.g. GeoTIFF)
- ▶ Metadata and vector data storage in an object-relational database
- ▶ Geospatial data (mass data) storage in a file system or SAN archive
- ▶ User management
- ▶ Graphically supported and alphanumerical search in central or distributed databases
- ▶ Data retrieval and distribution via the Internet or Intranet

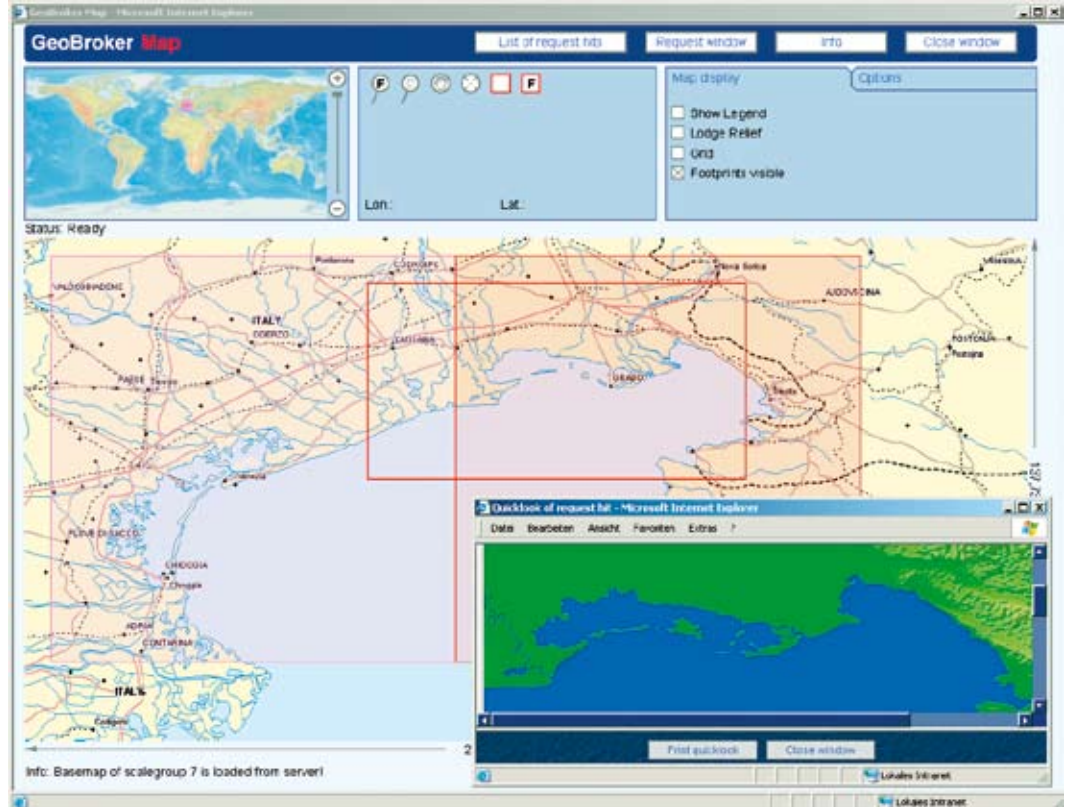
Architecture

- ▶ Open Windows-based client-server architecture
- ▶ Object-oriented modular software design, based on (D)COM technology
- ▶ Scalable multi-user multi-server system
- ▶ Web service with SVG map display for external seats (Internet/Intranet)
- ▶ Metadata export according to ISO/TC211 No. 19115
- ▶ Integration into GIS software such as GeoMedia Professional or ArcGIS

GeoBroker® Modules

GeoBroker® is available in the following modules with a German or English user interface:

- ▶ GeoBroker® Archiver
- ▶ GeoBroker® Map
- ▶ GeoBroker® WebServer
- ▶ GeoBroker® Webmap Service



GeoBroker® Web Front -End

- ▶ GeoBroker® SVG Map Viewer
- ▶ Plug-Ins: DFAD data server, DFAD export, SHP export, VMap-DFAD converter, SVG world map
- ▶ Point data: TP, NavP, PP, MP, RP
- ▶ Meteorological data: METGM
- ▶ Analogue map material
- ▶ Others: dias, videos (MPEG, AVI), dossiers, evaluation reports, special maps

Data Formats

- ▶ Aerial and satellite images: IKONOS, QuickBird, SPOT, IRS, Landsat, Radarsat, ERS, JERS, TIFF, GeoTIFF
- ▶ Raster data: ADRG, ASRP, CADRG, CRP, GeoTIFF, KMRG, MRG, PCMAP, RLE, USRP
- ▶ Vector data: VPF (VMap, FFD, DNC), S57, DFAD, SHP, DGN
- ▶ Matrix data: DTED, GTopo, DHM, DSM, SRTM, DEM
- ▶ Simulation data: OpenFlight, SEDRIS
- ▶ Location data: NGA Gazetteer, PCMAP Gazetteer

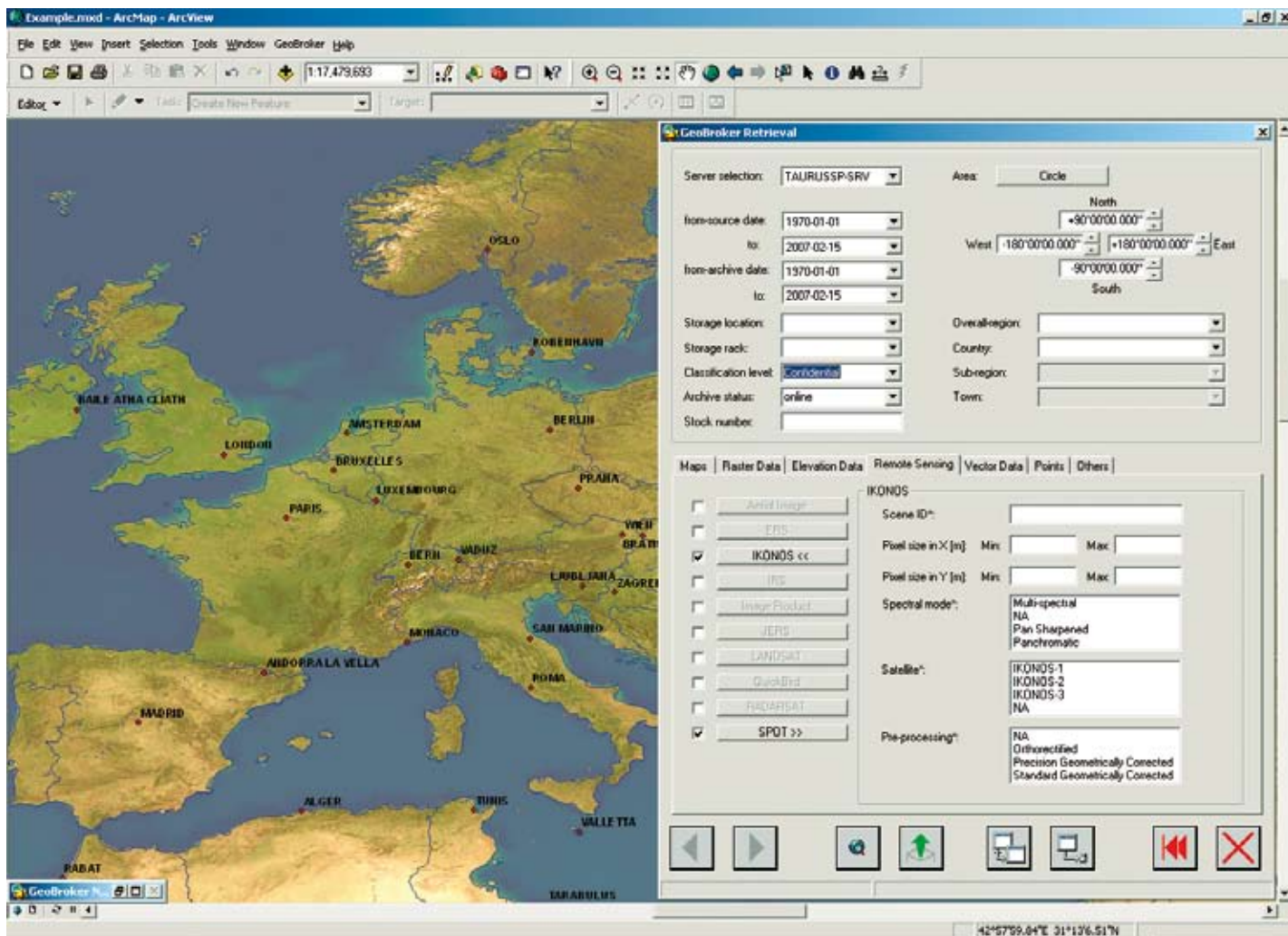
System Requirements

- ▶ Standard PC
- ▶ Operating system: Windows XP, 2003
- ▶ RDBMS: Oracle 9i or higher
- ▶ Viewer: GeoBroker® Map (ESG) or GeoMedia Professional (Intergraph) or ArcGIS (ESRI)
- ▶ Web viewer: GeoBroker® SVG Map (ESG)
- ▶ Browser: Internet Explorer 5.5 or higher

ESG Services

ESG offers comprehensive services for the entire system lifecycle:

- ▶ Requirements analysis, compilation of specifications
- ▶ Software design, prototyping, implementation and customizing
- ▶ Rollout with installation and configuration
- ▶ Briefing/training for administrators and users
- ▶ Software maintenance and modification



GeoBroker® with ArcGIS Front-End

PROJECTS (Selection)

Central Archiving and Information System for AGeoBw

The Bundeswehr Geoinformation Office (AGeoBw) manages geospatial data and maps, mainly from current and potential crisis regions, with GeoBroker®. GeoBroker® is primarily used as a metadata information system to inform users within the German Armed Forces of available geospatial information.

Central Mission Planning TAURUS Missile

GeoBroker® is a fundamental component in the central mission planning for the modular missile TAURUS KEPD350. Workflow-supported information is derived from the geospatial data base for image-based navigation during the air-to-ground missile's flight and target approach.

Data Base Generation System for the Army

In the German Army's combat simulation centre GeoBroker® is used to manage a joint geospatial data pool, from which – with the help of special GIS workflows – terrain databases for the Army's simulation systems are derived.

EU Crisis Early Warning

Within an EU study on crisis early warning a demonstrator has been built, in which – with the use of GeoBroker® - geospatial data for a crisis scenario are exchanged taking into account international standards (ISO, OGC) and made available together with data from other sources in the form of a "Common Relevant Operating Picture" (CROP).

GeoBroker® is a registered trademark of ESG Elektroniksystem- und Logistik-GmbH