Collection of geoinformatic softwares

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Commercial softwares

ArcGIS (ESRI)	*http://www.esri.com*
AutoCAD Map 3D (Autodesk)	*http://usa.autodesk.com/autocad-map-3d/*
Autodesk GIS Design Server (Autodesk)	*http://www.autodesk.com*
AED-SICAD	*http://www.aed-sicad.com/*
Bentley PowerMap (Bentley)	*http://www.bentley.com/hu-HU/*
MicroStation	(Bentley) *http://www.bentley.com/en-US/Products/MicroStation/*
ERDAS IMAGINE (ERDAS Inc.)	*http://www.erdas.com*
ER Mapper (ERDAS Inc.)	*http://70.87.108.212/Default.aspx?t=1*
IDRISI (Clark Labs)	*http://www.clarklabs.org*
ENVI (ITT Visual Information Solutions)	*http://www.ittvis.com/*
MGE	(Intergraph) *http://www.intergraph.com/sgi/products/default.aspx*
MapSphere	*http://www.mapsphere.com/*
Digiterra Map	*http://www.digiterra.hu/*
Kolibri (Intermap)	*http://www.intermap.hu*
MapInfo (Infograph)	*http://www.infograph.hu/map_hu.htm*

Open source softwares

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7 Hungarian Academy of Sciences -Institute of Ecology and Botany

OSGEO (Open Source Geospatial Foundation)   *http://www.osgeo.org/*

GRASS (Geographic Resources Analysis Support System)   *http://grass.fbk.eu/*

GDAL (Geospatial Data Abstraction Library) Utilities   *http://www.gdal.org/*

OpenJUMP   *http://www.openjump.org/*

Qantum GIS   *http://www.qgis.org/*

UMN MapServer   *http://mapserver.org/*

MapWindow   *http://www.mapwindow.org/*

ILWIS   (Integrated   Land   and   Water   Information   System)
http://52north.org/communities /ilwis

FreeTR   *http://freetr.hu*

MICRODEM
http://www.usna.edu/Users/oceano/pguth/website/microdem/microdem.htm

3DEM   Visualization   Software
http://www.visualizationsoftware.com/3dem

Free map viewers

ArcExplorer (ESRI)

MapInfo ProViewer

Volo View Express

Geomatica FreeView

ER Viewer (ER Mapper)

ViewFinder (ERDAS)

Bentley View

GeoPDF Toolbar

GeoMedia Viewer

ArcGIS

http://www.esri.com

ArcGIS lets you manage your data, maps, and geographic information within an interoperable, open, standards-based system. Use the mapping, analysis, collaboration, editing, design, and compilation tools in ArcGIS for

• Planning and analysis – Make use of hundreds of scientifically based analysis tools as well as 2D, 3D, and temporal visualization capabilities.

• Data management – Collect information that is spatially organized and allows versioning and multiple user editing. Maintain your data integrity with QA/QC tools.

• Operational awareness – Empower decision makers with simple Web-based applications that reveal key decision points in a geographic context.

• Field workforce – Give your field staff members the power to access, collect, and manage information. You can also provide them with up-to-date information that's automatically synced with office-based systems.

Desktop GIS

Desktop GIS is the platform for creating, editing, and analyzing geographic knowledge and improving your

decision making. Desktop GIS includes ready-to-use data and tools that let you build process models, scripts, and complete workflows to help you better answer questions, test predictions, and examine relationships within your data.

Server GIS

Server GIS provides fast, reliable access to your maps, imagery, models, and GIS tools. You can use it to publish your GIS resources for use in desktop, mobile, and Web applications. Server GIS is highly interoperable, can be scaled to meet increasing demand, and supports industry security standards.

Mobile GIS

Mobile GIS technology helps organizations make accurate, real-time business decisions and collaborate in both field and office environments. Wireless connectivity, geoservices, and Web mapping applications give field staff immediate access to up-to-date information. Mobile GIS expands your enterprise GIS to a variety of mobile platforms, providing better operational efficiency and situational awareness.

Developer Tools

ArcGIS provides a rich set of APIs (application programming interface) and tools to build a variety of GIS applications. This includes APIs for Web mapping, iPhone, mobile, and desktop applications. To help you license the software you need, Esri Developer Network (EDNSM) provides you with a cost-effective way to license ArcGIS products and tools through an annual subscription-based program. It includes the resources necessary to create a wide range of custom GIS solutions on every platform, including desktop, mobile, server, and the Web.

AutoCAD

http://usa.autodesk.com/autocad-map-3d/

AutoCAD Map 3D mapping software provides access to data needed for infrastructure planning, design, and management activities. It helps professionals working on transportation, land development, water, and power projects to more easily aggregate cadastral, utility, topographic, environmental, image, LIDAR, and asset data; better visualize and evaluate existing conditions; improve decision making by performing corridor, network, and site analysis; and exchange information with government agencies, utilities, and contractors in both CAD and GIS data formats.

Autodesk GIS Design Server

http://www.autodesk.com

Autodesk GIS Design Server is an enterprise spatial data (GIS) server that provides sophisticated data integrity, management, and analysis capabilities for organizations that need multiple users (tens to hundreds) to work concurrently on a single seamless spatial database that can also store nonspatial data. Autodesk GIS Design Server stores and manages intelligent maps and designs within a nonproprietary Oracle database, providing access to this data via desktop (AutoCAD Map 3D software) and web (Autodesk MapGuide) software.

AED-SICAD

http://www.aed-sicad.com/

http://www.sicad.com.cn/english/default.htm

SICAD means originally the computer aided design program system of Siemens (SICAD: Siemens Computer Aided Design). Afterwards a Geographical Database System was developed connecting to this system, coping with diverse GIS tasks. Different moduls cover the entire workflow from reading the survey data to printing maps.

AED-SICAD Aktiengesellschaft is a leading supplier of geographic information systems and applications, concentrating developments for customers in the market segments utilites, governmental organizations, e-government applications and other selected areas of business.

Bentley PowerMap

http://www.bentley.com/en-us/

This customizable mobile environment enables the rapid collection of field data, as-built reporting, and other field applications. Query and review your data without connection to a database server or a local database product on the field computer. Share your data with everyone who works in the field and allow them to use the redline and editing capability. Bentley PowerMap Field for Communications complements the Bentley Communications products because it shares a similar user interface and a common data model.

MicroStation

http://www.bentley.com/en-US/Products/MicroStation/

MicroStation V8i is the CAD Software used by engineers, architects, GIS professionals, constructors, and owner operators to design, model, visualize, document, map, and sustain infrastructure projects.

MicroStation is their preferred CAD software foundation because it delivers an integrated and proven suite of intuitive, interactive, and highly interoperable capabilities to the desktop.

ERDAS IMAGINE

http://www.erdas.com

ERDAS IMAGINE is the raster-centric software GIS professionals use to extract information from satellite and aerial images. The vast array of tools allowing users to analyze data from almost any source and present it in formats ranging from printed maps to 3D models.

ERDAS IMAGINE performs advanced remote sensing analysis and spatial modeling to create new information. In addition, with ERDAS IMAGINE, you can visualize your results in 2D, 3D, movies, and on cartographic quality map compositions.

The core of the ERDAS IMAGINE Suite was designed to scale with your geospatial data production needs; from IMAGINE Essentials, through IMAGINE Advantage and on to IMAGINE Professional. Optional add-on modules providing specialized functionalities are also available to enhance your productivity and capabilities.

ER Mapper

http://70.87.108.212/Default.aspx?t=1

ER Mapper is a geographic image processing software product, which runs on PCs running Windows NT, Windows 95/98/ME, Windows 2000 or Windows XP.

Using ER Mapper you can display, integrate and enhance raster data, display and edit vector data, and link with data from Geographic and Land Information Systems, Database Management Systems or virtually any other source.

ER Mapper uses a unique concept called algorithms to separate the image data from the image processing steps. The processing steps are automatically stored and edited in an algorithm file as you

use your mouse or keyboard to choose processing and viewing options. In most cases, ER Mapper works from your original image data and processes it in realtime, using the steps in the algorithm file, and the resultant image is displayed in an Image Window or output to a printer or Hardcopy device. This gives the following major advantages:

always working from original data retains the original data accuracy

processing in realtime allows you 'try it and see' flexibility

there is no need for additional disk storage for saving temporary or processed files.

Other important features are the large number of import data formats and printing devices supported.

ER Mapper's power scales with the hardware, with the ability to take advantage of new multiprocessor architectures as they become available.

IDRISI

http://www.clarklabs.org

Clark Labs offers a variety of products to facilitate the analysis of geospatial information.

IDRISI Taiga, an integrated GIS and Image Processing software solution, provides nearly 300 modules for the analysis and display of digital spatial information.

The Land Change Modeler is revolutionary land cover change analysis and prediction software with tools to analyze, measure and project the impacts of such change on habitat and biodiversity.

Application areas:

Land Cover Mapping, Landuse Planning, Natural Resource Management, Environmental Modeling, Ecological Analysis, Risk & Vulnerability Estimation

ENVI

http://www.ittvis.com/

ITT Visual Information Solutions (ITT VIS) creates software products that help professionals across industries access, analyze, and share all types of data and imagery.

The ENVI product family provides a variety of software solution for processing and analyzing geospatial imagery used by scientists, researchers, image analysts, and GIS professionals around the world. ENVI solutions combine the latest spectral image processing and image analysis technology with an intuitive, user-friendly interface to help you get meaningful information from imagery.

Professionals from diverse industries and disciplines, such as defense & intelligence, urban planning, mining, geology, and space science, and earth science use ENVI solutions to get quick, accurate answers to help them make decisions. The ENVI product family offers a robust suite of image processing and analysis tools to support your image exploitation workflows, and integrate with popular GIS software.

All ENVI solutions are built on IDL, the scientific programming language, used across disciplines to create meaningful visualizations out of complex numerical data. From small scale analysis programs to widely deployed applications, IDL provides the comprehensive computing environment you need to effectively get information from your data. ENVI products make it easier than ever to read, explore, prepare, analyze, and share information from imagery.

ENVI Modules:

ENVI Atmospheric Correction Module removes challenging atmospheric conditions from imagery to increase the accuracy of your final results.

ENVI Orthorectification Module accurately registers imagery to ground coordinates and geometrically corrects it to remove distortions.

ENVI NITF Module is a world-class support of the government standard NITF file format for image access, viewing processing, and analysis.

ENVI DEM Extraction Module improves image analysis workflow by creating spatially accurate, 3-D data representations.

SARscape Modules for ENVI allows to read, process, analyze, and output SAR (Synthetic Aperture Radar) data to integrate with other remotely sensed data and geospatial tools.

Modular GIS Environment (MGE)

http://www.intergraph.com/sgi/products/default.aspx

MGE (Modular GIS Environment) is the professional geoinformatic system of Intergraph. It covers practically all the GIS application areas from 3D analysis to mapping, and supports the characteristic workflows. Due to modular construction the system adaptable to the user's requirements.

By means of built-in data servers, MGE supports the following dataformats: ArcInfo, ArcView, Oracle Spatial Cartridge, MGE, MGDM, MGSM, FRAMME, MicroStation, AutoCAD, MapInfo.

MGE moduls:

Digital Aerial Camera Systems

Industry-leading technology from Intergraph includes flight and sensor management systems and image capture using our medium- and large-format digital aerial cameras. Intergraph's image acquisition solution captures high-quality digital imagery, providing superior image quality even in reduced light conditions.

G/Technology

Intergraph's G/Technology is a feature-rich application platform designed to meet the geospatial resource management needs of utilities and communications companies. It is based on Intergraph's knowledge of utilities and communications company requirements collected during our more than 35 years serving these industries.

GeoMedia

The GeoMedia product suite is a set of well-integrated applications that provide you with the full breadth of geospatial processing capabilities needed by industries, such as governments and transportation agencies for map production, infrastructure management, and land management. Utility and telecommunications companies, as well as defense and intelligence organizations, also rely on this product suite for data analysis, data sharing, and map production.

Image Scout

Image Scout enables quick and accurate broad area search operations on digital imagery, providing the tools to quickly build image mosaics and direct searches using geospatial data. Once points of interest are identified in the imagery, related images can be exploited using electronic light table functionalities to chip, enhance, and mensurate image elements.

ImageStation

The ImageStation® digital photogrammetric software suite serves government, commercial photogrammetry, and mapping agencies worldwide by enabling you to process digital photogrammetry workflows, including project creation to orientation and triangulation, 3D feature collection and editing, digital terrain model (DTM) collection and editing, and orthophoto production using aerial and satellite sensors.

TerraShare

The TerraShare family of products is a client/server, enterprise geospatial content access solution, enabling the management and structure of data files (image data, elevation data, as well as other georeferenced and non-georeferenced data) within an enterprise. It consists of several server and client side modules to integrate a storage infrastructure with end-user production and exploitation tools.

MapSphere

http://www.mapsphere.com/

MapSphere is a mapping software for Windows that:

- downloads maps and satellite images from different sources (OpenStreetMap, Terraserver, LandSat, and others)
- stores all the mapping data on the hard drive for offline use
- represents the map in 2D and 3D modes
- supports GPS-receivers to track your current position
- displays the location of other users and their GPS tracks
- provides a chat to discuss your travels
- geo-references your photos according to your track and uploads them to your personal trip page
- shows tracks, photos, and chat messages on the map

Digiterra Map

http://www.digiterra.hu/

DigiTerra MAP is a high level integrated geoinformatic software for professionals. Suitable for developing large geographical databases both with vector and raster map files, digital terrain models and attribute data connecting to spatial entities. The software includes all tools managing these tasks: integrated thematic mapper, tools for mapping and analyzing data, digital image processing and surface modeller, relational database management system and report builder. The software is effective in processing geographical data in different areas: real estate register, forestry, landscape planning, environmental deterioration and nature protection, water management, public utility register system, local government tasks, sociological and business-analyses.

DigiTerra Map is built up in modular way accomodating to demands of diverse users. The basic software ensure the general mapping, geoinformatic, database managing, report building and map printing functions. Additionally, different moduls are available for the individual specialities.

DigiTerra Map includes the following moduls: basic software and vectorial analyses, terrain modelling (3D), furthermore digital photogrammetry and raster processing. This structure makes possible for the users paying only for the actually used modules.

Kolibri

Geoinformatic products developed by the InterMap Kft.:

Kolibri MAP

Kolibri PRO

Kolibri IMS

Kolibri FORTE

MAGTER

e-Atlasz

Kolibri MAP – basic geoinfomatic software, an easy-to-use application for visualization and analyses of spatial data taking aim at wide range of users. The product includes the most often used geoinfomatic functions. Hungarian databases and standards were also taken into consideration at the construction of the software. The finished databases and analyses can be published directly on the internet by the InterMapServer. The install CD also includes valuable regional and settlement scale maps of Hungary, and database on the world countries.

Kolibri Professional – professional geoinfomatic software, expanding the functionality of KolibriMAP with special editing, maintaining, mapping functions, web-integrating functions, import feasibilities, developer and programmer surfaces.

Kolibri InterMAPServer the Kolibri basic geoinfomatic software for limitless users on intranet / internet surface. Based on thin client architecture, the serversoftware can be used through a simple web browser from the client side. InterMAPServer user surface is easy to acquire and understand, while it uses the solutions applied generally on internet surfaces.

Kolibri FORTE (Process Oriented Settlement Management for E-governments) is suitable for settlements with some hundred habitants or also for big cities in configure effective applicable and cost efficiently introducable office routine and registry systems. Introducing FORTE systems the local governments can achieve an administration with high level services.

Hungary e-Atlasz – contains the traffic roads and railways, and the street networks of the settlements for the whole county. The map could be enlarged with continuously widened content, from a review map of the country to the street and housing block level.

MapInfo

http://mapinfo.varinex.hu

MapInfo Professional is a complex geoinformatic system with high functionality, yet with easy usage, and suitable for data analyses as well as for designing. The biggest advantage of the software is to simply and quickly discover spatial relationships of data, thus business analyses and planning works could be carried out simply. Through the software we can visualize our spatial data on maps, thus take them clear and faster analysable. There have been configured more solutions for publishing maps and applying in business performances.

Possibilities for data access:

MapInfo Professional ensure a built-in assistance to open and display many data format as Microsoft Excel, Microsoft Access, Oracle, Microsoft SQL Server etc., in geoinformatic environment.

Wide range of data editing and creating funcionalities make enable editing attributes and data tables directly in the software, e.g. a data editing MapCAD modul of CAD-system.

Display quality is one of the biggest forces of the MapInfo Professional software for a long time. Display options can be changed presently. Thus display styles, colours, area and point selections could be modified with one click. Thematic maps could be prepared on the base of present attribute data, with areal or individual toning as with circle, column or other diagram methods and many other biult-in or optional thematic ways. Preparing certain thematics you can use the built-in summarizing, average or weighted average calculation options. That way marketing areas can be simply classified, or areas with special possibilities or market trends can be discovered.

Sharing results MapInfo Professional offers several solutions. Exporting spatial and attribute data is possible in many formats. Furthermore, we can publish our maps in standard image formats, or also in PDF managing map layers. The individual maps could be transport in Microsoft Office products only with one click.

Open source softwares

OSGEO

http://www.osgeo.org/

The Open Source Geospatial Foundation created to support and build the highest-quality open source geospatial software. Their goal is to encourage the use and collaborative development of community-led projects.

GRASS

http://grass.fbk.eu/

Geographic Resources Analysis Support System is free Geographic Information System (GIS) software used for geospatial data management and analysis, image processing, graphics/maps production, spatial modeling, and visualization. GRASS is currently used in academic and commercial settings around the world, as well as by many governmental agencies and environmental consulting companies. GRASS is an official project of the Open Source Geospatial Foundation.

GDAL Utilities

http://www.gdal.org/

Geospatial Data Abstraction Library is a translator library for raster geospatial data formats that is released under an X/MIT style Open Source license by the Open Source Geospatial Foundation. As a library, it presents a single abstract data model to the calling application for all supported formats. It also comes with a variety of useful commandline utilities for data translation and processing.

OpenJUMP

http://www.openjump.org/

OpenJUMP is an open source Geographic Information System (GIS) written in the Java programming language. It is developed and maintained by a group of volunteers from around the globe. OpenJUMP started as JUMP GIS designed by Vivid Solutions.

Qantum GIS

http://www.qgis.org/

Quantum GIS (QGIS) is a user friendly Open Source Geographic Information System (GIS) licensed under the GNU General Public License. QGIS is an official project of the Open Source Geospatial Foundation (OSGeo). It runs on Linux, Unix, Mac OSX, and Windows and supports numerous vector, raster, and database formats and functionalities.

UMN MapServer

http://mapserver.org/

MapServer is an Open Source platform for publishing spatial data and interactive mapping applications to the web. Originally developed in the mid-1990's at the University of Minnesota, MapServer is released under an MIT-style license, and runs on all major platforms (Windows, Linux, Mac OS X).

MapWindow

http://www.mapwindow.org/

The MapWindow GIS project includes a free desktop geographic information system (GIS) application with an extensible plugin architecture; a free GIS ActiveX control; and a free fully C# GIS API called DotSpatial.

ILWIS

http://52north.org/communities/ilwis

Integrated Land and Water Information System (ILWIS) is a remote sensing and GIS software which integrates image, vector and thematic data in one unique and powerful package on the desktop. ILWIS delivers a wide range of features including import/export, digitizing, editing, analysis and display of data, as well as production of quality maps. ILWIS software is renowned for its functionality, user-friendliness and low cost, and has established a wide user community over the years of its development. Even after its last commercial release in 2005, its user community has remained active, both within and outside ITC.

FreeTR

http://freetr.hu

FreeTR is a free map editor system, with which you can easily create, edit and convert digital maps. It desposes of DXF and DAT input and output, and in root position it stores data in its original data format of *.ftr extension. Developer placed user in the first position, resulting in a clear-cut operating surface, simple operability and the quick graphics. You don't need install software, it works also from a pen-drive. It is compatible with Windows XP, Vista, Windows Se7en, and also with Linux based operation systems with the Wine Project accessory.

MICRODEM

http://www.usna.edu/Users/oceano/pguth/website/microdem/microdem.htm

MICRODEM is a freeware microcomputer mapping program written by Professor Peter Guth of the Oceanography Department, U.S. Naval Academy. It requires a 32 bit version of Windows (NT/2000/XP or 95/98/ME). You may freely use MICRODEM with no restrictions.

MICRODEM displays and merges, digital elevation models, satellite imagery, scanned maps, vector map data, GIS databases, from sources such as US Geological Survey, National Imagery and Mapping Agency, Census Bureau, National Ocean Survey, British Ordnance Survey, Landsat TM, SPOT.

3DEM Visualization Software

http://www.visualizationsoftware.com/3dem

3DEM for Win95/98/ME/2000/XP and Windows Vista has the capacity to produce 3D terrain images and flyby animations by leveraging data sources readily available. The terrain visualization software offers the ability to merge multiple DEMs to provide high-resolution overhead maps and 3D projections of large areas. Latitude and longitude coordinates are shown on all overhead map displays. Both Lat/Lon and UTM coordinates are supported, allowing display and measurement of position to high accuracy. GPS receiver waypoints, routes, and tracks can be read via serial interface and displayed on 3D images and flybys of the terrain, allowing visualization of the path of a trek through the wilderness.

While the author of the 3DEM software has ceased development for the application, it is still available for download in its current form.