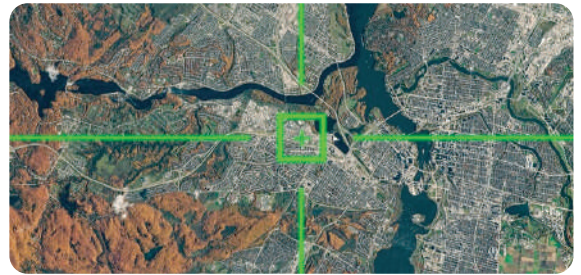# INDIGIS MICROGENESIS MIL DESKTOP

An Indigenous GIS Software Platform

INDIGIS (Indigenous Geographical Information System) is a suite of GIS components, developed indigenously by Centre for Artificial Intelligence and Robotics (CAIR) Bangalore. **MicroGenesis** has been awarded the **Technology Transfer of INDIGIS** by DRDO.

▶ **IndiGIS MicroGenesis** is designed to meet the most challenging demands in GIS analysis and visualization environment. This technology has broken the boundaries of performance to enable geospatial professionals to solve real world problems faster and more efficient than ever before. It offers a powerful platform designed to exist at the core of your geospatial business. The INDIGIS SDK has roughly 500+ API's which can be used to develop new user-specific geospatial applications, generate intelligent and innovative products by customizing based on the user requirement.

▶ **IndiGIS MicroGenesis** component suite is a set of GIS libraries, which are customisable, scalable and data centric, and cater to the specific GIS requirements of a collaborative environment. IndiGIS MicroGenesis allows users to combine geographic data from different sources, in different formats, and with different map projections, all into single environment. Using this product, you can perform complex queries on spatial, attribute and elevation data from various sources, and produce numerous views of highly sophisticated maps.

▶ **IndiGIS MicroGenesis** supports opening of map files of various formats and map data from RDBMS (PostGIS). User can access the map data by creating connections to the corresponding file or database. This is equivalent to opening map in IndiGIS MicroGenesis. The geospatial functions are optimized for performance and accuracy and are integrated to support image analysis functionalities and improves user's workflows.

PRODUCT DATUM

Basic information

Types of GIS Software	Desktop GIS
Software Description / Version	**INDIGIS MICROGENESIS - MIL Desktop**

SCOPE OF LICENSE

Types of License	Perpetual
Licensing Policy	Per Named User/User
Number of licensing included in the offered product as per defined licensing policy	1 Number
License Delivery Mode	Electronic License
Platform type	Desktop
Product Support	Updation and Upgradation for patches and bug fixes as released within the warranty and support period
Product Warranty	1 year from the date of supply or installation whichever is earlier
Training Option	Training Material
Training Duration	2 Days

PRODUCT FEATURES

Core GIS Component
In memory models corresponding to Geometry, Symbology, Feature Object, Feature Layer classes and interfaces. Comprehensive marking & overlay features. IndiGIS offers flexible, customizable, integrable and inter-operable GIS modules to create intuitive maps with add on feature for the user to tailor specific requirements.

Map Display
Generating map views from the data loaded from the spatial database and map interaction operations. Functionalities like legend creation (North Arrow, Scale Bar, and Feature Legend) are part of this module.

Query Analysis
APIs for spatial, attribute, nearest neighbor queries, buffer creation, spatial computations etc
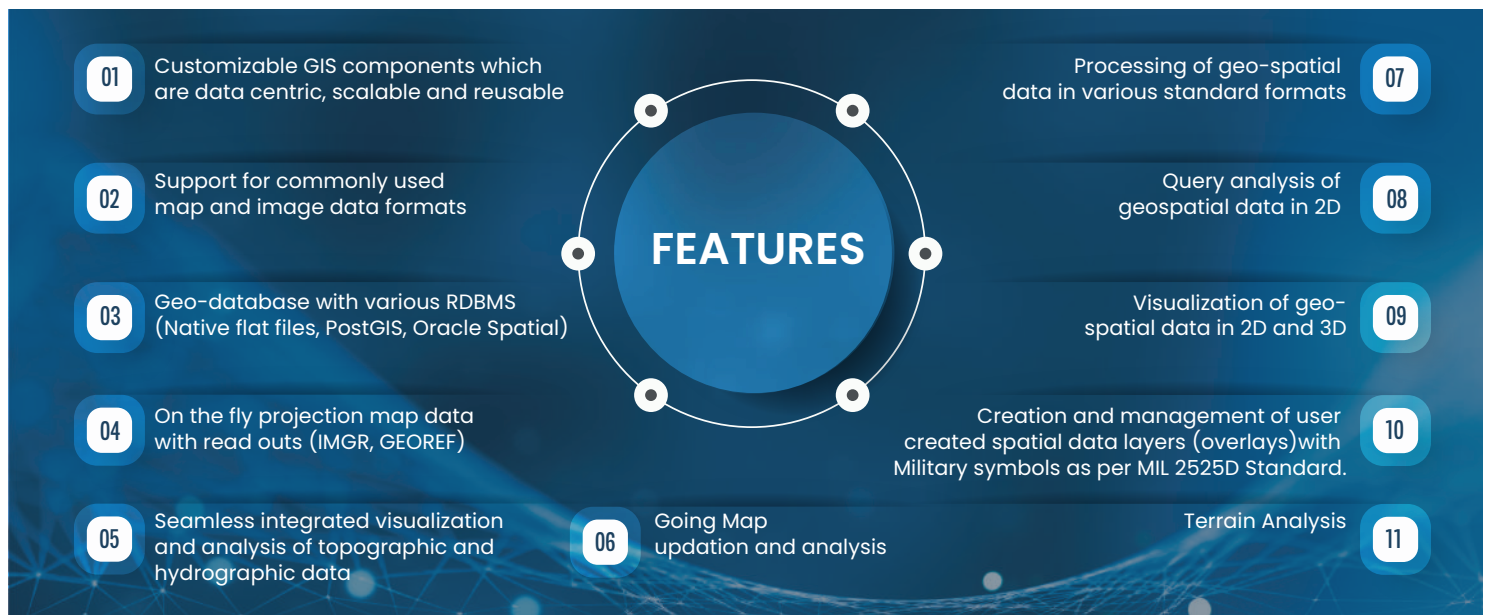
Layer Management
Functionalities for management of user created layers (overlays) are handled by this module. A repository of Mil Symbol library (SVG, PNG format) with attribute information is stored as metadata.

Map Projection & Coordinate System
Implements spatial reference system transformations corresponding to most of the standard map projection algorithms and supports on the fly projection of raster and vector data.

Terrain Analysis
Robust terrain analysis tolls includes Min / Max Elevation, Terrain/Elevation Profile, Hill Shade, Colour Coded, Steep and Gradual, Cut and Fill Analysis

FEATURES

01 Customizable GIS components which are data centric, scalable and reusable

02 Support for commonly used map and image data formats

03 Geo-database with various RDBMS (Native flat files, PostGIS, Oracle Spatial)

04 On the fly projection map data with read outs (IMGR, GEOREF)

05 Seamless integrated visualization and analysis of topographic and hydrographic data

06 Going Map updation and analysis

07 Processing of geo-spatial data in various standard formats

08 Query analysis of geospatial data in 2D

09 Visualization of geo-spatial data in 2D and 3D

10 Creation and management of user created spatial data layers (overlays)with Military symbols as per MIL 2525D Standard.

11 Terrain Analysis

BENEFITS

- 100% indigenous GIS software Technology developed by Centre for Artificial Intelligence & Robotics (CAIR), DRDO Lab
- Only Indigenous Military GIS Product developed in the country
- Only Military GIS platform having end to end GIS, Image Processing, Analysis & Visualization capabilities in an Integrated platform
- Single UI for GIS, image Processing Capabilities, 3D GIS (Hybrid Software) and other advance extension makes it quite suitable for all kinds of user needs right from basic level to advance level
- Easier to address any core level customization requirement as complete technology is available with MicroGenesis
- Since INDIGIS is indigenous technology developed by DRDO, in case of any eventuality, there is no threat to continuity of projects implemented on INDIGIS specifically if it is of national importance or in critical sectors like defence and Government

The Product is available on the GeM Portal

MINIMIUM PREREQUISITE HARDWARE / SOFTWARE

CPU configuration requirements	Intel / AMD x86 64 Bit Min 2.2 GHz minimum
Minimum Hard Disk Space Required in GB	40 GB
Minimum RAM Size required in GB	8 GB
Operating System	Linux (RHEL, Fedora, Ubuntu) or Windows 10 and above
Database	PostgreSQL
Spatial Data	PostGIS database.