



**HARMONY**  
GEOSPATIAL ANALYTICS

MAKE IT UNIQUE, KEEP IT SIMPLE

株式会社ハーモニージオスペシャルアナリティクス



## WELCOME!

We are living in geospace, and everything is happening in geospace. We use geospatial technologies to capture, analyze, and visualize the world with Geographical Information Systems (GIS).

We provide geospatial solutions to industries in urban and regional planning, transportation planning, disaster management, environment conservation, and any other solutions related to geospace.

We develop applications for surveying, data conversion, urban big data analysis, spatial modeling, computer simulation, and research toolboxes (RTXs).

## SERVICES

### I. GEOSPATIAL DATA ACQUISITION

#### Ground Surveying

- GPS-embedded surveying
- Individual or group surveying
- Online or offline surveying
- Mobility data collection
- Designing a survey form
- GIS database creation
- Statistical analyses and visualization
- Survey report generation
- AI-based solutions (identification of building types, floors, construction materials, and counting the people, cars, and crops)

#### Data Conversion

- Digitizing and Map to GIS layer creation
- Automatic Features Extraction



PID	EV_ID	DATE_TIME	UP	DOWN	DUR.	CELL_ID
2608405F8E	1048	20151201155914	446	440	1394	00414010003300561
A808575F87	1048	20151201160658	0	0	0	01414011003401651
3CD94C5F8C	1048	20151201160554	64	194	610	01414011002401315
3CD94C5F8C	982	20151201160556	63	5624	11687	01414011002401315
CD04806F35	1048	20151201090220	25478	30365	45173	01414011000907402
CD04806F35	982	20151201090221	25478	566903	434232	01414011000907402



### II. BIG DATA PROCESSING & SPATIAL ANALYSIS

#### Big Data Processing

- Big data cleaning and formatting
- Big data mining and spatial analysis
- Predictions (using machine learning algorithms for both spatial and non-spatial data)

#### GIS and Spatial Analysis

- Big data to geodatabases
- Spatial aggregation and segregation
- Network distance interpolations
- OD matrix/zone/flow generation
- GPS tracking data analysis and
- more ...

### III. GEOVISUALIZATION AND APPLICATION DEVELOPMENT

Geovisualization and interactive spatial analysis for:

- GPS tracking data, human mobility data, weather tracking data, etc.
- Digital Cartography
- 3D visualization

#### Application Development

- Web mapping and interactive spatial analysis
- Spatial Modeling
- Computer simulation
- Customized applications development



### PRODUCTS



### II. GEOBIG-RTX

Fully Graphical User Interface (GUI) for handling of big data with GIS Research Toolbox for:

- Big data preprocessing for cleaning, formatting, dealing with missing data, more...
- Big data subsetting by ID, location, Date, Time, Events, feature selection, ranking, and prediction
- GIS Analysis for GIS layer creation
- Spatial aggregation and segregation
- Network distance and interpolation
- OD matrix/zone/flow generating, and more...
- Geovisualization for mobility data, GPS tracking data, space-time data, ,etc.
- Interactive spatial analysis and simulation generated from space-time data, and more...)

### EDUCATION

Harmony e-Learners: <https://harmony-geospatial-analytics.com/elearners> (under construction)

### CONTACT US

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### I. GEOSURV-RTX

Geospatial data acquisition software for:

- GPS-embedded surveying
- Individual or group surveying
- Designing a survey form
- GIS layer conversion and integration
- Survey data analysis
- Mapping and interactive analysis
- Survey data visualization (space-time mobility)
- Report generating
- AI-based solution for automatic counting (people, cars, crops, etc.)
- Survey video editing, enhancing, format conversion, etc.

