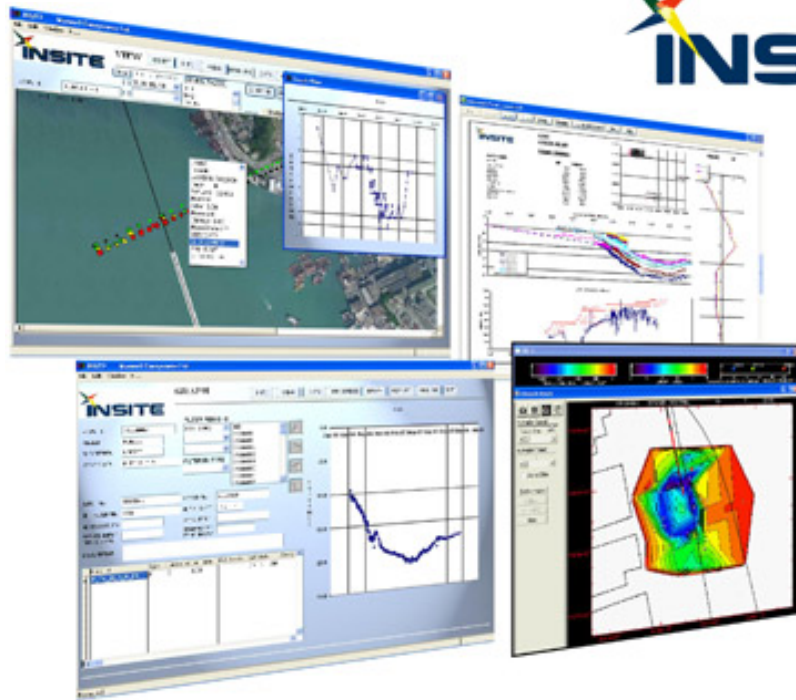




- Proven
- Comprehensive
- Intuitive and User Friendly
- Relevant
- Flexible
- Timely



Tailor made GIS systems for construction design, supervision and monitoring.

System Description

Architecture

Flexible client GIS system comprising access to the following layers:

- SUMMARY and AUDIT
- VIEW
- DATA and MAINTENANCE
- GROUP
- GRAPH
- PROGRAMME and PROGRESS
- REPORT and VISUALISER

Other layers can be provided as required.

Platform

Windows Vista, XP, 2000, ME

Architecture

VFP 9.0 SQL engine featuring super fast Rushmore technology
Stand alone and LAN versions
No third party software required except MS Office
Built in GIS (supports all raster image files)

GIS

Based on custom GIS platform with zoom, pan, region of interest functions
Any referencing system can be used (image, map, drawing, in plan or elevation). Allows different horizontal and vertical scales.
Interactive GIS objects – points and boreholes, interactive query and summary of data and graphs
Data highlighted by colour and size relative to triggers or magnitude.
Construction progress displayed.
Constantly updated as data changes.
Drag and drop functionality for easy adjustment and setup.
Historical review of data at any time

Data types

27 built in instrument types including:
Settlement points, settlement plates, casagrande, pneumatic and

vibrating wire piezometers, recharge wells, rod extensometers, multipoint borehole extensometers (rod and MEX), inclinometers, vibrating wire instruments strain gauges, crack gauges, load cells, tilt meters and electro levels, 3D points, convergence monitoring, hydraulic profile gauges...

Other instruments can be added as "general" type

Combine instruments to form new instruments using custom "GROUP" facility (eg. Tilt, distortion, stability etc.)

Data input

Built in ergonomic features (individual, multi records, input by group)
Input from files (xls, csv, txt, dbf) to any predefined custom structured format.
Automatic import of industry standard formats including:
Cambell, Datataker, RST, Geokon, Slope Indicator, Soil Instruments, Leica, Topcon and many more.....
Over 40 predefined import formats.
Interactively define data import from any dataloggers – multiple channels.

Data audit and control

Internal audit of data for integrity checking
Alert, action and alarm triggers for each instrument (absolute or function e.g alarm = f(x) where x = depth of excavation, distance from tunnel face etc.)
Colour coded GIS and table display by trigger
Display and reporting
Export raw data to Excel at any time for custom analysis.
Browse the data or view as graphs.
Uses Office Automation to produce full content comparative graphs and reports written directly to Excel for editing and sharing as required.
Send reports direct to your contacts lists using Office Automation and MAPI.

Analysis

Produce multi-plots of data to allow comparison.
Animate the data: Sophisticated interpolation and timeslicing engines get rid of holes in the data enabling animation of the construction progress to show the relationships between instrument reading and construction parameters.
Forecasting tools help predict future trends and assist decision making.
Load prediction data from analyses (Flac, Plaxis, Sigma/W, Seep/W etc) and compare results vs. prediction.
Set alarms as functions of predictions

Hardware Requirements

Pentium 4, 1 GHz or faster, 512MB RAM
2MB L2 Cache, at least 1028 x 768 display preferably higher.