INFOTECH
Mapping & Drafting Solutions

COMPANY BROCHURE

ISO 9001 : 2015 Quality Certification
ISO-IEC 27001 : 2013 Information Security Certification
CMMI Level 3 accredited Company

INTRODUCTION

InfoTech is India's leading IT based company providing solution to geospatial and engineering sector. InfoTech has developed a successful track record with industry proven and mature procedures focusing on successful project delivery with over 70 personnels InfoTech is a GIS driven Multidisciplinary organization that provides World class cost effective solutions.

InfoTech is a professionally managed organization dedicated to provide cost effective solutions & quality services in the domain of GIS, CAD, LiDAR and Photogrammetry. We are well equipped with domain expertise inmanpower, hardware, software and technology. InfoTech constitutes professionals drawn from various streams like engineering, applied science and geomatics.

We provide wide range of expertise geospatial services across the globe encompassing GIS, Remote sensing, Photogrammetry, LiDAR, CAD engineering and Application Development. Finding a company, you can love working for, can have a profound impact on your lifetime happiness. If you want to feel inspired, challenged, fulfilled, and happy with your work and the people you work with you first must find the company you'll love working for.

InfoTech is all about possibilities, growth, learning, teamwork and leading change. We encourage you to think different, challenge the conventional and innovate. We work hard in recognizing the value of high merit professionals and provide them exciting career experiences, abundant opportunities, impressive rewards and benefits. Every day at InfoTech, as we heartily enjoy achievements, most important day is celebrated for the success and growth of the organization over the years.

EXPERIENCE SYNOPSIS

|	PROJECTS	VOLUME
	Geological Mapping	*78000 SQKM*
	Electrical Utility Mapping	*8600 KMS*
	Cadastral Mapping	*6800MAPS*
GIS & REMOTE SENSING	Mobile Mapping	*2000 SQKM*
	Utility Mapping	*5500 SQKM*
	Land use & Land cover Mapping	*2100 SQKM*
	Image Processing	*5259 SQKM*
	AT : Framed & Digital images	*46000 IMAGES*
PHOTOGRAMMETRY	DTM editing	*29000 SQKM*
	Planimetric mapping	*14100 SQKM*
	Orthophoto: Satellite & aerial images	*57000 IMAGES*
	Architectural Services	*6700 PLANS*
CAD ENGINEERING	Engineering Services	*650 MODELS*
	Underfloor Heating & Drafting	*97000 GROUPS*
	Topographic classification	*80000 SQKM*
	Transmission line classification	*5100 MILES*
LiDAR CLASSIFICATION	Danger object report for Power lines	*570 MILES*
	DSM & Building footprint	*3000 SQKM*
	Bathymetric classification	*1170 SQKM*

LiDAR CLASSIFICATON

We at InfoTech, combines LiDAR with GIS data and other survey information to generate complex geomorphic structure mapping products, advanced 3D models/earthwork profiles, rendering of structures, and many additional high value mapping products. InfoTech offers variety of services related to post processing of LiDAR point cloud data which includes BE (Bare earth) classification, utility classification, topographic and land use classifications. We seamlessly integrate LiDAR data with other data sets, including Orthophoto imagery.

The LiDAR classification done by InfoTech is divided into following category:

- Data Calibration which includes input preparation, tile cutting etc.
- Running automated routines prepared by InfoTech (specific as per project requirement)
- LiDAR classification as per the PTC and specification shared by customer
- Planimetric feature extraction using classified LiDAR data
- LiDAR classified data updation using planimetry data as reference

Types of post processing services by InfoTech:

- Bare Earth and full feature classification
- Powerline classification & vectorization
- Utilities corridor classification
- Bathymetry classification
- Transportation planning
- Urban planning
- Mobile mapping
- 3D Vector extraction
- LiDAR modelling & meshing
- DEM & DSM Generation
- Contours Generation
- Orthophoto Generation
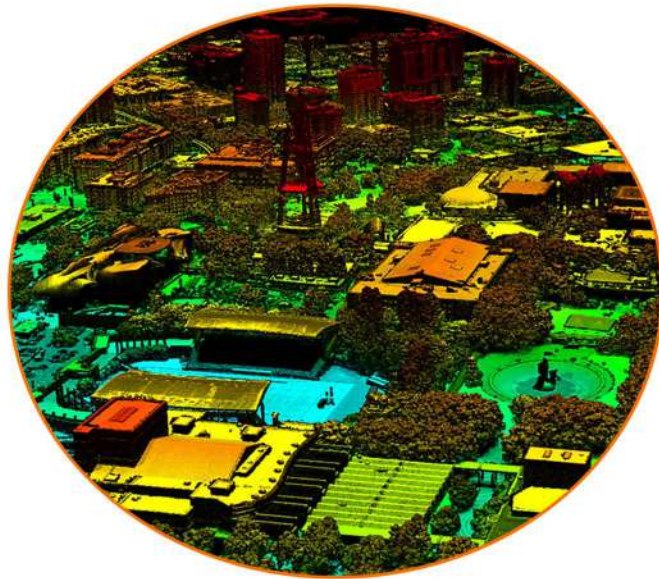
Output formats delivered by InfoTech:

LiDAR
- LAS/LAZ 1.1 to 1.4
- ASCII

Raster DEM
- ERDAS IMG
- Arc Binary
- ASCII

Imagery
- Intensity image (any raster format)
- Hill shade, slope, aspect, etc.
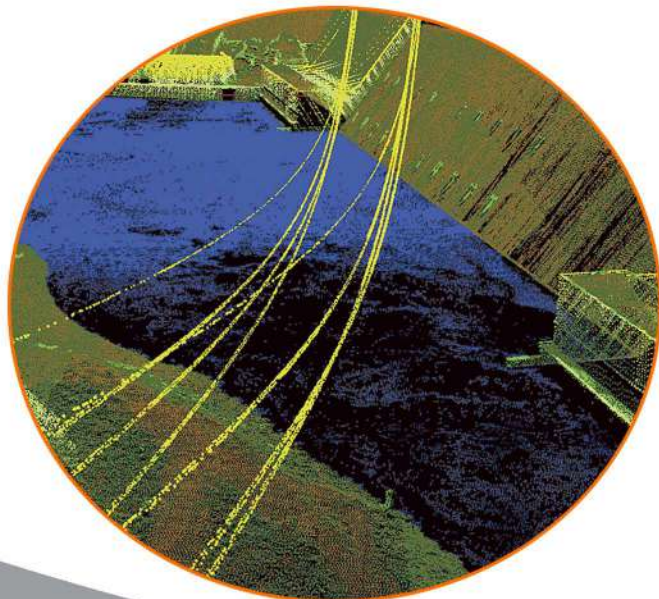
Contours
- GIS format (SHP)
- CAD format (DWG/DXF)

Breakline/planimetric
- GIS format (SHP)
- CAD format (DXF, DGN, DWG)

Metadata and reports
- Survey report
- Vertical accuracy report
- Calibration report
- Danger report (for utility)

TRANSMISSION LINE CLASSIFICATON & QC

AIM:
Project aim is to classify transmission line using provided raw LiDAR data and there after updating the classified data using generated 0.25 feet orthos and finally checking the classified/updated LiDAR data on PLS CADD and delivering PLS CADD BAK file to the customer.

INPUTS:

- Specifications document (DOC/PDF)
- Raw LiDAR data tiles (LAS/LAZ)
- Aerial images (Phase One camera output IIQ files)
- Ground Control Points (TXT/DOC & JPG SNAPSHOTS)
- Final EO parameters (TXT)
- Project AOI/Swath/Corridor (DXF/SHP/DGN)
- PTC file (TXT)

SCOPE:

- Aerial Triangulation
- Orthophoto Generation
- Planimetric Feature extraction using Orthophotos
- LiDAR classification
- LiDAR classified data updation using planimetry data
- Final LiDAR data check in PLS CADD & delivering BAK file to client

PROCEDURE:

Aerial Triangulation:
- IIQ conversion: Conversion of IIQ to TIF.
- Aerial Triangulation of images using provided EOs, GCPs & LiDAR pole base.
- Generation of final AT results.

Generation of Orthophotos:
- DTM Generation using provided LiDAR data
- Ortho generation
- Seam line generation
- Seam line editing
- Final Tile cutting
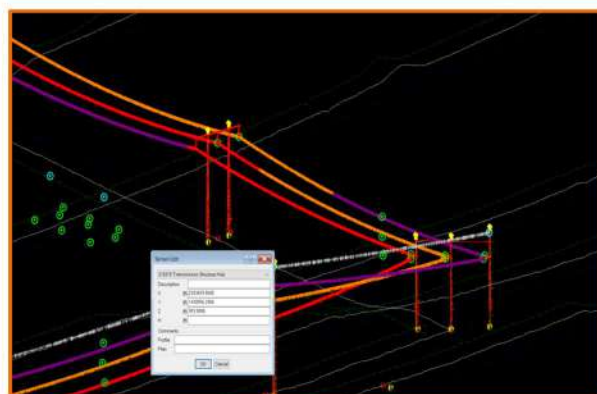
Planimetric Feature extraction: Using generated orthos features are extracted in AutoCAD/Microstation like roads,driveways, buildings, vegetation, waterways, pole base (point features), anchors (block features) etc.
Classification: Classification of raw LiDAR data based on the feature code list received fom the customer.

FEATURE CODES	DESCRIPTION
Buildings	All buildings (any type) should be classified under this head
Manmade Structures	All manmade structures to this class
Interpolated Points	
Bare Ground	The minimum ground data point density will be 8 points per sq. meter within the primary transmission right of way
Bridge	Bridges of all types
Driveways & parking lot	
Paved Roads	Only paved roads to this class
Dirt Roads	Only dirt roads to this class
Railways	Railways including station and other items
Substation equipment (above ground)	
Conductors - main line	
Shield Wire - main line	
Conductor Attachment Points	Identify conductor attachment points to the insulators
Shield Wire Attachment Point	
Groundwire - main line	
Crossings - all in one class	
Tower / Structure Tops	Identify pole top and base in addition to any guys and guy anchors
Tower / Structure Base Points	Identify pole top and base in addition to any guys and guy anchors
Underbuild	
Low Vegetation 1-3 meters	Vegetation – all Vegetation within the requisite full swath
High Vegetation 3+ meters	Vegetation – all Vegetation within the requisite full swath
Fence/Wall	All fences and walls (retaining as well) to this class
Lakes	Only lake to be classified
Ponds	Only natural and permanent ponds to be classified
Rivers	
Miscellaneous	All other miscellaneous features other than as specified in the list
Adjacent (parallel lines) - all in one class	
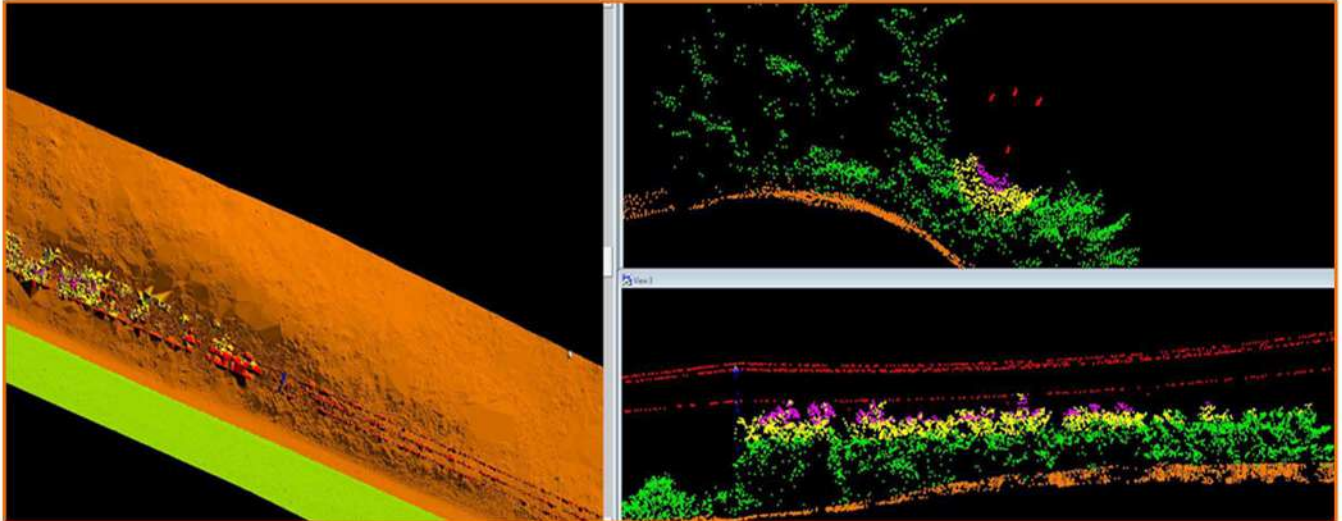
Updation of classified LiDAR data: The classified LiDAR data is updated based on planimetry data for any missing featur like road, water body etc. Also if there are any features classified wrongly (in wrong class) were modified using Planmetric data as reference.

PLS CADD checking: The final classified data is transferred to PLS CADD for final check. Classified LiDAR data is checked in detail and errors were marked and thereafter the error locations are saved and checked in Terra Scan and correction is done accordingly. Updated data is again transferred to PLS CADD and any modification if can be done in PLS CADD is updated accordingly and data is delivered in BAK format to client.

UNDERFLOOR HEATING CALCULATION & DRAFTING (liNear 19)

AIM:

Project aim is to calculate Heat load & Quick Calculation including circuit design using provided input data and delivering following different outputs to client with the help of liNear Building 19.

- liNear (PRO) file
- Calculation (PDF) file
- Design Layout (PDF) file
- liNear CAD (DWG) file for Circuits layout

INPUTS

- Project datasheet (PDF)
- Floor plans (PDF)
- Floor plan (DWG)

CALCULATION TYPE:

- Heat Load
- Quick Calculation (Panel Heating)
- Quick Calculation (Panel Heating) with Stamp (Output Table)
- Quick Calculation (Panel Heating) with draw circuits
- Quick Calculation (Panel Heating) with draw circuits till Manifold
- Heat Load and Quick Calculation (Panel Heating) with draw circuits till Manifold

SCOPE:

- Calculate Heat Load using liNear Building 19
- Calculate Panel Heating using liNear Building 19
- Draw Circuits using liNear CAD
- Stamping of circuits
- Delivery of following different outputs:
    - liNear (PRO)
    - Calculation (PDF)
    - Design Layout (PDF) and
    - liNear CAD (DWG) for Circuits layout

PROCEDURE:

Heat Load Calculation:

Heat load calculation according to the extensive Calculation procedure according to EN 12831 with the specifications in the European supplementary sheet to EN 12831 (appendix D in DIN EN 12831).

Heat load calculation according to the extensive Calculation procedure according to EN 12831 in conjunction with the German supplementary sheet 1 to EN 12831 (national appendix –NA- for Germany to DIN EN 12831).

Heat load calculation according to the extensive Calculation procedure according to EN 12831 with the specifications in the Austrian supplementary sheet to EN 12831 (ÖNORM H 7500).


Quick Calculation (Panel Heating):

For panel heating, the currently effective standards EN 1264 and EN 15377 apply. These provide the basics for a standardized calculation of the heating capacities due to the actual setup within the limits set by the standards.

Draw Circuits using liNear CAD:

Upon completion of calculation liNear with AutoCAD as plugin will be used to draw circuits in liNear CAD. Complete circuits layout will be prepared for every single room/apartment available in the project. The circuits will be shown as below in liNear CAD.
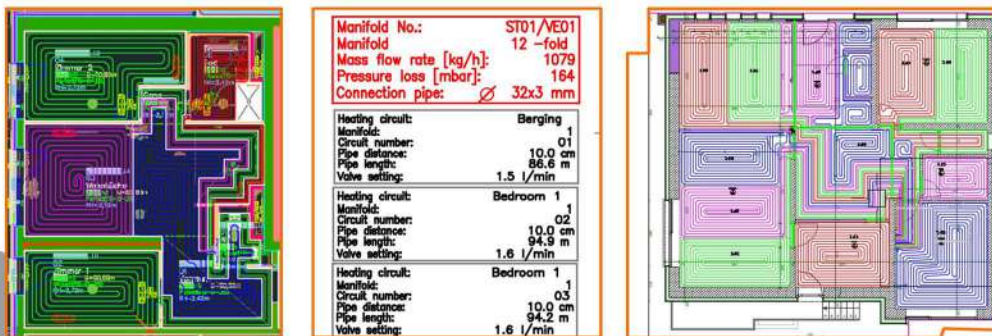

Stamping of Circuits:

Stamping of CAD plan is required as a part of specific deliverable by client. Refer below for Stamp output without circuits laid in it.

GEO-SPATIAL TECHNOLOGIES

GIS can be used as tool in both problem solving and decision making processes, as well as for visualization of data in a spatial environment.We offer full range of products and services as far as data management, application development and consulting is concerned. This intern helps our clients in successfully planning, implementing and supporting GIS technology and data at their end.

InfoTech's Geo-Spatial data is analyzed to determine:
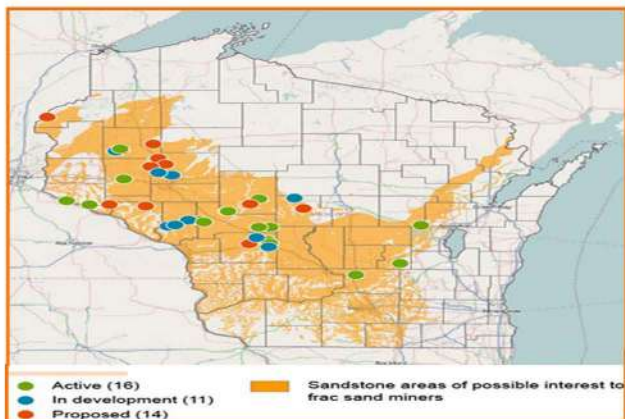
Mapping where thing are:
InfoTech's GIS mapping help map the spatial location of real-world features and visualize the spatial relationships among them. Since GIS is an important tool in this aspect so can provide great deal of information. In the screenshot we have shown a map of sand mine locations and sandstone areas in a county. We can see visual patterns in the data by determining that sand mining activity occurs in a region with a specific type of geology.
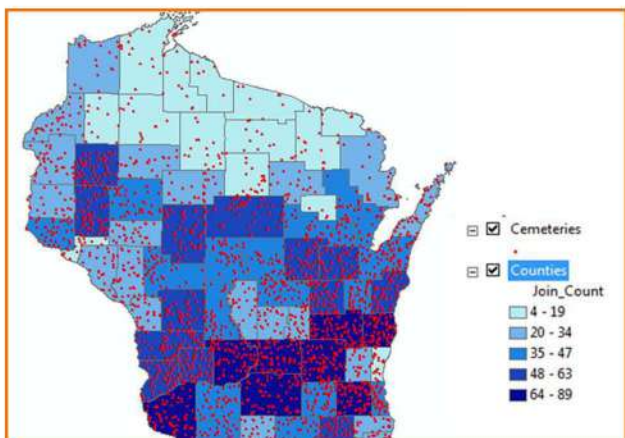

Mapping quantities:
InfoTech map quantities, such as where the most and least are, to find places that meet certain criteria or to see the relationships between places. In the screenshot we have shown a mapp of cemetery locations in a specific county. The map shows the cemetery locations as dots (dot density) and each county is color coded to show where the most and least are (lighter blue means fewer cemeteries). This will certainly help in effective planning for future.

Mapping densities:
Sometimes it is more important to map concentrations, or a quantity normalized by area or total number. InfoTech's GIS maps are providing huge help to its customers in this case by mapping densities as per requirement. In the screenshot we have shown a map having the population density of a big well known metro city of United Kingdom (total population counts normalized by the area in sq. miles of census tracts.)

Digital Flood Insurance Rate Map (DFIRM) Database
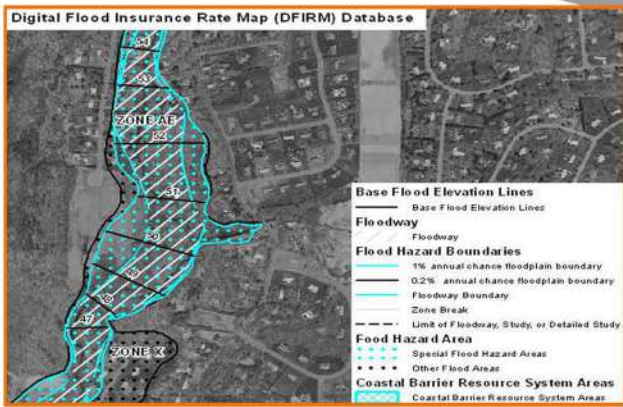
Finding what is inside:
InfoTech's GIS data can be used to determine what is happening or what features are located inside a specific area/region. We can determine the characteristics of "inside" by creating specific criteria to define an area of interest (AOI). In the screenshot we have shown a map with a flood event and the tax parcels and buildings in the floodway. We have used tools like CLIP to determine which parcels fall inside the flood event. Further, we are using attributes of the parcels to determine potential costs of property damage. These maps are very useful in effective planning and calculation of Property tax.

Regional Drive Times from Downtown Madison
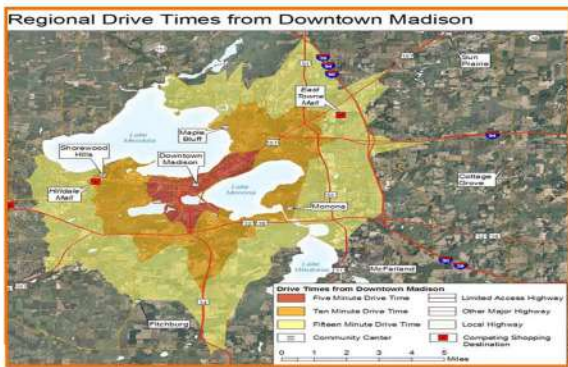
Finding what is nearby:
InfoTech is preparing GIS maps to find out what is happening within a set distance of a feature or event by mapping what is nearby using geoprocessing tools like BUFFER. In the screenshot we have shown a map of drive times from a central location in the City of Madison, WI. InfoTech have used streets as a network and added specific criteria like speed limit and intersection controls to determine how far a driver can typically get in 5, 10, or 15 minutes.

1951 Barnstable Land Cover   1999 Barnstable Land Cover
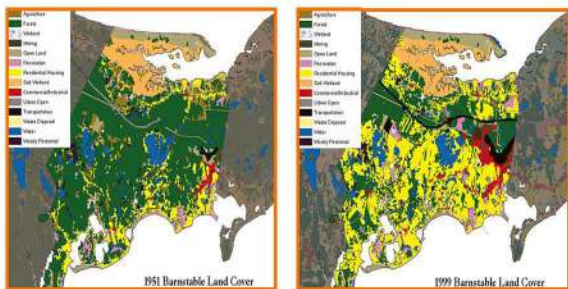
Mapping change:
InfoTech's GIS maps are proving to be a very good tool to map the change in a specific geographic area to anticipate future conditions, decide on a course of action, or to evaluate the results of an action or policy. In the screenshot we have shown a land use maps of Barnstable, MA. The map is showing changes in residential development from 1951 to 1999. The dark green shows forest, while bright yellow shows residential development. Applications like this can help inform community planning processes and policies.

InfoTech is working on four main ideas of Geographic Information Systems (GIS) re:

- Create geographic data.
- Manage it in a database.
- Analyze and find patterns.
- Visualize it on a map.

Because viewing and analyzing data on maps impacts our understanding of data, we can make better decisions using GIS. It helps us understand what is where. Analysis becomes simple. Answers become clear. It makes a big impact in our life and we might not even realize. InfoTech is using the technology in various sectors like:

- Description: GIS Data LayersEnvironment
- Military & Defense
- Agriculture
- Forestry
- Business
- Real Estate
- Public safety and many more

PHOTOGRAMMETRY

Photogrammetry or aerial photography is the branch of surveying that deals with production of maps such as planimetric or topo-graphic maps by compiling number of photographs taken in that area. InfoTech deals with the post processing of Photogram-metry mapping part.

InfoTech provides below mentioned solutions to its customer under Photogrammetry head:

- Aerial Triangulation
- DTM Generation & editing
- Planimetric Mapping
- Orthophoto Generation

Aerial Traingulation: Aerial Triangulation (AT) or aero triangulation is the process of contiguous densifying and extending ground control through computational means. InfoTech is having an experience team of AT specialist working on both framed as well as digital images. We can provide all types of AT output depending on the need of our client

DTM Generation: DTM is a mathematical representation (model) of the ground surface, most often in the form of a regular grid, in which a unique elevation value is assigned to each pixel. We at InfoTech, deals with DTM/DEM generation and editing as w-ell.
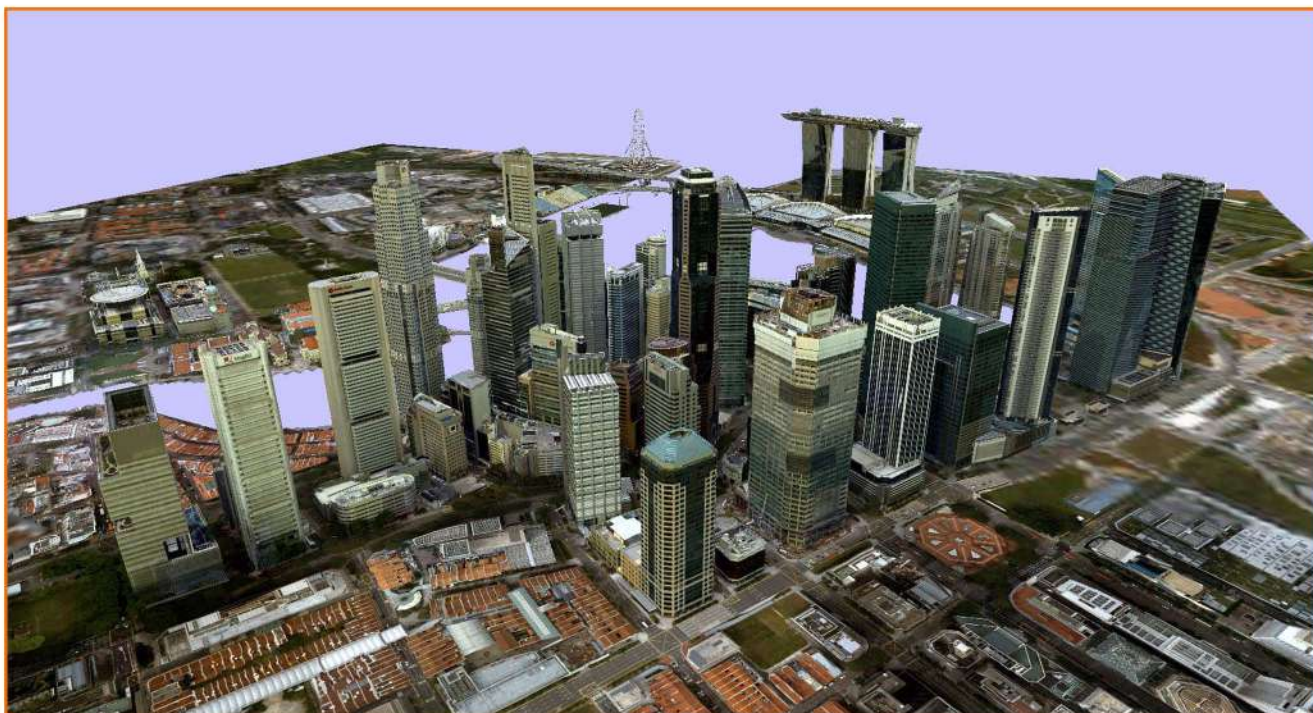
Planimetric Mapping: InfoTech is working on planimetric mapping for most of the European companies and providing them with the best quality data. We have delivered multiple projects with great detail of several planimetric features including roads, drive-ways, buildings, vegetation, waterways, pole base (point features), anchors (block features) etc.

Orthophoto Generation: We have delivered thousands of images after Orthophoto processing done to our various satisfied client across the globe. We provide complete orthophoto solution starting from DTM generation to tile cutting.

- DTM/DEM Generation
- Ortho generation
- Seam line generation
- Seam line editing
- Final Tile cutting

CAD ENGINEERING

InfoTech offers complete solutions for engineering CAD drafting services which enables us to offer solutions to pre-construc-tions planning and design validation to architectural construction and engineering organizations. We specialized in BIM solutions, 3D BIM modeling as well as integrated project delivery services. InfoTech ensures high level of quality in building ser-vices models, drawings and spatially coordinate building structure. We also offer drafting services for under floor heating & cooling and solar panel.

InfoTech provides following services:

- CAD drafting services
- BIM
- Construction document
- Electrical & Piping Modeling
- 3D Modeling
- MEP drafting
- PDMS (Plant Design Manageme System)
- Floor Plans
- Ducting layout
- Solar Panel Drafting Service
- Walk Through/Animation

Our BIM Services include:
- Architectural BIM Modelling Services
- Cost Estimation & Planning
- MEP BIM Modelling Services
- Point Cloud
- Revit Family Creation

Our Architectural services include:
- Floor Plans
- Building Sections
- Door-Window Details
- Floor Framing and Roof Framing Plans
- Roof Sections

Our CAD Drafting Services Include:
- Architectural Drafting Services from a free hand sketch
- Cad Conversion form a PDF/ paper drawing
- Editing CAD files from mark-ups
- Correcting CAD standards
- Conversion between CAD and other platforms/software
- CAD Documentation services

Our CAD modelling Services :
- Mechanical engineering
- Electrical engineering
- Software engineering
- Manufacturing engineering
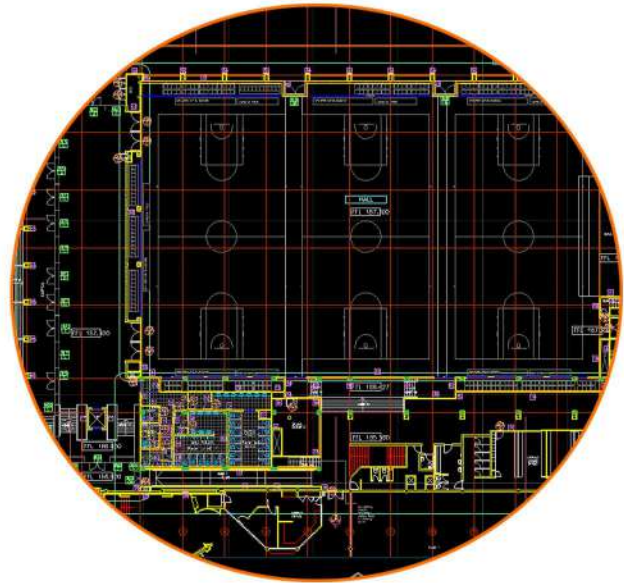
WHY InfoTech?

- Top Professionals at Work

- Meeting the Deadline Always

- Fast Response

- Assured business continuity.

- Providing Long term support since 1999 to Partners & Global Customers.

- Customized workflows with a Partnership Approach.

- Quality, Experience & Cost Effective Sub-Contracting.

- Value Added, Robust and Scalable Operations.

- Short learning curve, Operations Quality Management.

- No-obligation Trial, Being the Best!

- ISO 27001 standard company

Prompt >>>> Precise >>>> Perfect

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