

Specification for Procurement for Image Processing Software for Survey Department of Sri Lanka

1. Software

No	Feature	Description	Compliance Yes/No	Attachments No/Remarks
I	Software Name	(Should be mentioned by the bidder)		
II	Software Requirement	Desktop GIS/Photogrammetry and Remote Sensing software for aerial and satellite image processing, LiDAR point cloud processing, 2D/2.5D/3D outputs, automation workflows		
III	Types of Images Supported	Aerial imagery (nadir, oblique, thermal), UAV imagery, satellite imagery (optical multispectral/panchromatic), SAR/radar imagery, hyperspectral imagery		
IV	Type of camera /Sensors supported	DSLR, Medium Format Digital, RGB, Thermal, Multispectral, Hyperspectral, UAV sensors		
V	Image Type	*.JPG, *.JPEG, *.TIF, *.TIFF, *.PNG, *.BMP, *.ECW, *.IMG (satellite), *.DAT		
VI	Multi camera support	Can process images from multiple cameras of different types simultaneously in a single project		
VII	Metadata support	Supports EXIF, XMP, IMS, RTK/PPK + IMU metadata for accurate GPS/EXIF georeferencing		
VIII	Ground control points support	Import, edit, and manage GCPs to improve georeferencing accuracy		
IX	Coordinate System Support	Supports local and global coordinate systems, EPSG codes, user-defined CRS		
X	Import point cloud support	Supports *.LAS, *.LAZ, *.XYZ, *.DXF, *.DGN, *.PLY, *.E57 for LiDAR and UAV point cloud processing to generate DSMs and orthomosaics		

2. Processing

No	Feature	Description	Compliance Yes/No	Attachments No/Remarks
II	Auto-Georeferencing AAT & BBA	Supports Automatic Aerial Triangulation, Bundle Block Adjustment (Keep but clarify as optional), automatic tie point extraction		
III	Automatic point cloud generation	Generates high-density RGB/XYZ point clouds from stereo aerial/satellite imagery and LiDAR data		
IV	Point cloud classification	Automatic classification of point clouds into ground, buildings, vegetation, water, and other classes		
V	DTM/DSM extraction	Generates DSM (including above-ground objects) and optional DTM (bare-earth terrain)		
VI	Accuracy Improvement	Improves geometric accuracy using GCPs, tie points, and bundle adjustment		

3. Output Results

No	Feature	Description	Compliance Yes/No	Attachments No/Remarks
I	2D Output Results	Ortho mosaics (GeoTIFF, GeoJPG), Nadir and oblique orthoimages, Elevation / DSM maps (*.tif, *.xyz, .txt), Google Tiles (KML,HTML),Index maps (Thermal,NDVI, SAVI, DVI, etc.) in GeoTIFF/GeoJPG - Prescription maps (.tif)		
II	2.5D Output Results	Textured mesh models (*.obj, *.ply, *.fbx, .dxf), Point clouds (.las, *.laz, *.xyz, .txt), Classified point clouds (.las, *.csv), Nadir DSMs and DTMs in GeoTIFF, DSMs from user-defined orthoplane in GeoTIFF		
III	3D Output Results	Dense 3D mesh and LoD point clouds (*.obj, *.ply, *.las) - Full 3D textured mesh in *.obj, *.ply, *.dxf, *.fbx , Tiled LoD meshes in OSGB/SLPK format , Point cloud in *.las, *.laz, *.xyz, .ply , Classified point clouds (.las, .csv) ,Contour lines (.shp, *.dxf, *.dgn, .kml) ,User-defined vector objects (.dxf, *.shp, *.dgn, *.kml)		
IV	Optimized camera position / export	Orientation/International Calibration Parameters, Export aerial triangulation results in to relevant software, internal/external camera parameters, contours (*.shp, *.dxf, .pdf), vector objects (.shp, *.kml, *.dxf, *.dgn)		

No	Feature	Description	Compliance Yes/No	Attachments No/Remarks
V	Fly-through animation and flight paths	Supports creation of fly-through animations, visualization of flight paths, and 3D navigation of point cloud/mesh		

4. Language Options

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Language support	English (other languages optional)		

5. User Training

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Training	Five-day hands-on training for at least ten Survey Department users; bidder must provide trainer CVs		

6. Pricing

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Pricing	Bidders must provide pricing for both perpetual and annual license options, quoted separately. Total Cost of Ownership (TCO) must include software license, training, support, installation, and any additional costs. A detailed price breakdown must be provided.		

7. Software Update

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Software Update	Minor updates and patches delivered during warranty and post-warranty; method of delivery to be mentioned		

8. System Requirements

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
I	Operating System	Windows 10/11(64 bit)		
II	Processor	Quad-core or higher (Intel i7 or AMD Ryzen 7 recommended)		
III	RAM	Minimum 32GB (64 GB recommended for large datasets)		
IV	Storage	Minimum 1TB SSD		

9. Graphics

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
I	Graphics	NVIDIA GPU with CUDA support for accelerated processing. Specify minimum required GPU model and memory.		
II	Software Dependencies	Required software dependencies for specify software modules, including Python, CUDA, or other necessary libraries. Bidders must specify versions supported.		

10. Vendor Requirements

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
I	Installation Support	Complete installation, configuration, and testing support (on-site or remote)		
II	Post Development Support	30-90 day transition period with active technical support		
III	Documentation	Manuals, deployment guides, system requirements; SLA to be provided		
IV	Updates & Patches	Minor updates and patches provided during and after warranty		
V	Warranty	Minimum of 2 years Comprehensive warranty is required. Certification of the warranty & maintenance from the manufacture should also be submitted for evaluation.		
VI	Support Channels	Confirm support channels (email, phone, chat) and 24/7 availability		
VII	Vendor Experience	Provide years of experience and list of notable government/commercial clients		

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
VIII	Licensing	Vendor must provide details on license type (perpetual/subscription), number of users, and license model (floating/node-locked).		
IX	Delivery and Implementation	Software must be delivered within 4–6 weeks and fully installed within one week after delivery.		

11. Software Testing

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Software Testing	Short listed bidders must be able to demonstrate their complete system under different categories of processing		

12. SLA (Service Level Agreement)

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	SLA (Service Level Agreement)	Bidder should be capable of updating and upgrading software, during warranty period as well as SLA (Service Level Agreement) period. SLA plan should be given for another 3 years after 2 years warranty period. SLA cost will be taken in to account for financial evaluation.		

13. Payment

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Payment	Payment will be made upon successfully completion of the procurement and training.		

14. Final Decision on procurement

	Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Final Decision on procurement	The Surveyor General shall have the authority to determine and approve the quantity of items to be procured based on the budget, as well as to select the license type (perpetual or subscription), number of users, and license model (floating or node-locked) in accordance with the available options and project requirements. The decision of the Procurement		

Feature	Description	Compliance Yes/No	Attachments No/Remarks
	Committee shall be final and binding on all procurement matters.		

Signature of Bidder:

Company Name :

Company Seal: