



## Surveillance

### Base Application Description & Requirements

#### Field Application

- Built on Esri® ArcPad® technology, versions 7.1.1, 8.0 SP4 or 10 required
  - Includes standard ArcPad functionality for map navigation
  - Works with any GPS receiver supported by ArcPad (fully supported on selected Juniper Systems and Trimble hardware)
  - Simplified ArcPad interface with mosquito surveillance tools
  - Record Surveillance Activities
    - Log trap locations, landing count site locations, and dead bird locations using GPS or manual map placement
    - Record trap site surveys
    - Trap type, placement date and time, retrieval date and time, general wind speed and direction, technician name
    - Record sentinel chicken surveys
    - Sample date and time, chicken status, notes, sample ID
    - Record landing counts surveys
    - Number of mosquitoes in recorded time
  - Warning if GPS feed is lost
  - Search for and locate trap sites or flock sites based on required activity
  - Select employee name/number to log in
    - Tracks location, employee, date and time of all recorded activities
  - Access to standard ArcPad map tools
    - Standard ArcPad Tools: Zoom In, Zoom Out, Fixed Zoom In, Fixed Zoom Out, Zoom Full Extent, Zoom Next/Previous, GPS Preferences and Position Window, Rotate Map, Clear Map Rotation, Identify, Measure, Radial Measure and Map Refresh
    - Surveillance Tools: Create Sites, View Site Details, Delete Site, Create Survey, View Survey History, Zoom to Area, Find/Task List and Exit application
  - Use your own GIS base map data if you have it (e.g Zone Boundaries, District Boundary, Roads, Parcels, etc.), or use freely available GIS base map data
    - Integration with Service Request module
- Ability to create relevant interactive map for use in the Mobile Application
    - Add user specific GIS base map data such as streets and parcels
    - Create or import sites, storm drains, zones, or any other relevant map data using standard ArcMap editing tools
  - Define new flock locations, trap locations, dead bird locations, and landing count locations
  - Supervisory tools to define mobile application configuration and perform reporting
    - Configure pick lists for trap types, technicians, mosquito genus/species, bird species, bird condition and survey notes
    - Configure laboratory details (Name, Address, City, State, Zip, Contact name, Phone, Fax, Email)
    - Configure flock details (flock ID, Individual chicken IDs)
    - Lab tools
    - Speciation and abundance; Adult mosquito pooling; Pool, blood sample, and dead bird lab results
    - Generate Map Data based on a host of criteria
      - Mosquito species distribution and abundance
      - Dead bird distribution and abundance
      - Disease positive distribution and abundance
    - Create reports
      - Adult mosquito details and summaries
      - Sentinel chicken monitoring results
      - Dead bird details and summaries
      - Landing count details and summaries
      - MIR/MLE for adult mosquito lab results
- #### DataLink™ GIS
- Electronic Data Solutions Application
  - Synchronize data automatically from unlimited mobile devices
    - Support for multiple applications (Adulticide, Larvicide, Surveillance, Service Request, etc.)
  - Merge new data from Mobile Application with the existing central data repository (Esri file or SDE geodatabase)
  - Centralized application logging

#### Desktop Application

- Built on Esri® ArcGIS® 10.0
- Use standard ArcGIS Desktop tools for editing, map and data exploration, cartography, map book creation, querying, and analysis

# Sentinel™ GIS

Mobile GIS Solutions for Mosquito Control



## System Components

Sentinel GIS is compatible with and fully tested on the following hardware: –

- Juniper Systems® Archer Ultra-Rugged Field PC
- Juniper Systems® Mesa
- Trimble®'s Juno SB/SC
- Trimble®'s Nomad 900 G
- Trimble®'s Yuma
- MobileDemand®'s T7000 Tablet

*NOTE: Sentinel Adulticiding requires a 9-pin RS-232 connection. The Trimble Juno SB/SC is not compatible with Adulticiding.*

*NOTE: Other mobile devices that are compatible with ArcPad may be used with Sentinel. The hardware must be sent in to Electronic Data Solutions for testing and certification to be fully supported, and an annual support agreement must be purchased for the hardware to be supported."*

**Microsoft® ActiveSync or Mobile Device Center** – free software available for download from [www.microsoft.com](http://www.microsoft.com) (search for ActiveSync) that enables a mobile device to connect to a desktop PC. ActiveSync must be installed on each PC that will be connected with mobile devices. Version 4.5 is recommended. Windows 7 uses the Mobile Device Center rather than ActiveSync technology.

**DataLink GIS** – Automatic synchronization software that supports unlimited mobile devices. Receives and processes GIS data collected in the field, sends needed configuration files and GIS data to mobile devices. One license of DataLink GIS would be needed per organization, per physical site.

**ArcPad software** – Whatever the mobile data collection hardware may be, Esri ArcPad 7.1.1, 8.0 SP4 or 10 software provides the basis for field data collection. One license of ArcPad software is needed for each mobile collection device.

**ArcGIS Desktop 10.0** –

Standard desktop GIS for manipulating and analyzing GIS data collected in the field. One license of ArcGIS Desktop would be needed for each PC that will be used to analyze or work with GIS data.

**Sentinel GIS: Surveillance Supervisory Tools** – Specialized tools for configuration are packaged as a customized toolbar that displays in ArcMap™.

**Sentinel GIS: Surveillance ArcPad toolbars** – Specialized tools for recording site locations, recording surveys, and exploring map data are packaged as a customized toolbar that displays in ArcPad.

  
**elecdata™**  
Electronic Data Solutions®  
P.O. Box 31  
Jerome, ID 83338  
Phone: 208-324-8006  
[www.elecdata.com](http://www.elecdata.com)

**Contact your Sales Representative:**