



Adulticide

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 mobile devices that have a 9-pin RS-232 serial connector and GPS
- Simplified ArcPad interface with mosquito adulticiding tools
- Adulticide 3.0 is compatible with:
 - London Fogger
 - Clark SmartFlow
 - Curtis Dyna-Fog
 - Target/B & G Phoenix
 - New Mountain Innovations NM150 weather station

Record Fogging and other Time Card Activities

- Begin spray session or other time card activity when user logs in
 - User selects name, activity, truck, product, route (if configured), and optional weather information in order to begin a spray session
 - Weather information can be recorded from a New Mountain Innovations NM150 weather station
- Spray Session
 - In addition to user-entered information, equipment, date, time, time in session, total active ingredient (AI), and total distance are stored as session details
 - Second-by-second points store time, speed, motor counts, flow rate, GPS position and sprayer switch status (on/off)
- Other Time Card Activity
 - In addition to user-entered information, date, time, time in activity, GPS position and total distance traveled are recorded
- End Session
 - User can start another activity/session or quit the application
- GPS on mobile unit provides backup to sprayer GPS
 - 'Snail Trail' constantly recorded, even when the control box is set to manual override

User Interface

- 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.

- Adulticiding Tools: Zoom to Route, Zoom/Track GPS, Restart GPS, Show Status/Logging Screen, Stop Activity, Time in Activity, Identify Sprayer Data and Exit Application
- Proximity Warning for "No Spray Zone"
- Warning if "Off-Route"
- Warning if GPS feed is lost
- Status/Logging Screen
 - Shows Speed, Flow Rate, Sprayer Status, Connection Status
 - Toggle to Map
 - Map shows base layers, spray areas, no spray zones, spray routes, GPS 'snail trail,' current location
 - Sprayer must be off and truck stopped, unless the user has map viewing permissions while spraying
- Use your own GIS base map data if you have it (e.g. Roads, Parcels, Water Bodies, etc.) or use freely available GIS base map data

Desktop Application

- Built on Esri® ArcGIS® Desktop 10.0
- Use standard ArcGIS Desktop tools for editing, map and data exploration, cartography, map book creation, querying, and analysis
- Ability to create relevant interactive map for use in the Mobile Application
 - Define New Spray Areas
 - Define No-Spray Zones
 - Define Fog Routes
- Adulticiding Supervisory Tools
 - Configure pick lists for users, activities, trucks, and sprayers (including calibration rate)
 - Configure products, including name, mix rate, diluent, and active ingredient (lbs/gallon)
 - Configure assignments: assign entered equipment to a truck for use in the Mobile Application
- Reporting capabilities
 - Chemical Usage Report
 - Area Treated/AI Report
 - Time Tracking Report
 - All reports can be generated for a given date range, user, vehicle, chemical, area, etc.

Sentinel™ GIS

Mobile GIS Solutions for Mosquito Control



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

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 (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: Adulticiding Supervisory Tools – Specialized tools for configuration are packaged as a customized toolbar that displays in ArcMap™.

Sentinel GIS: Adulticiding ArcPad toolbars – Specialized tools for tracking field activities, recording spray sessions, and exploring map data are packaged as a customized toolbar that displays in ArcPad.


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