# Trimble Vegetation Manager

Product capabilities document

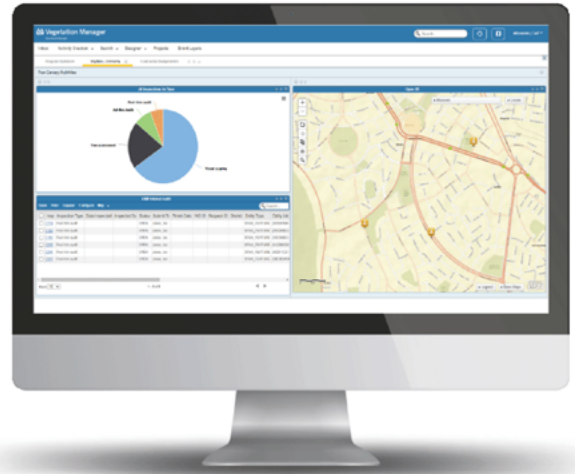# Vegetation Manager

## How We Help

### About Trimble

Trimble offers electric utilities comprehensive network and asset management solutions that drive efficiencies in investment planning, network design and construction, operations, and maintenance. The network digital twin at the core of our solutions is key to improving utilities' network reliability, system resiliency, safety, and customer service.

Trimble Vegetation Manager enables electrical utilities with overhead lines and adjacent vegetation to reduce operational expenses, minimize risk and improve compliance. It is a complete work-cycle solution for vegetation management activities, uniquely incorporating LiDAR analytics to determine work requirements then design and manage balanced field programs.

### Shared Challenges in Vegetation Management

Trimble has been supporting vegetation management for over a decade and understands key challenges facing utilities:

- Visual Patrol is limited in accuracy, on both false positives and missed issues, but LiDAR-based approaches are also difficult to get right.
- There is ongoing pressure on OPEX , but little openness to increasing risk - requiring a difficult to implement balancing act
- Budgets can be difficult to justify when it's not core business - with more than 50% of utilities reporting inadequate funds available
- Without the right systems, it is very difficult to provide clear visibility on network exposure, planned activities and levels of compliance.



## Vegetation Manager

## Key Benefits

Understanding risks and related priorities in the entire network area

Ability to make decisions based on data, as opposed to rules of thumb or past experience

Prioritized action planning with logical project entities

Efficient field work execution supported with digital workflows

Optimization of asset management costs

Purposeful utilization of your data in monitoring and reporting

# Unique Features

## Integrated LiDAR standardization

- Your tool - flexibility to use in house or provide to contractors
- Standardize suitable LiDAR from any source, more contractor options
- Identify urgent issues, span exposure & potential hazard trees
- Create an auditable record & demonstrate compliance
- Configure analysis to local statutory needs
- Informed by >200,000 miles of analysis
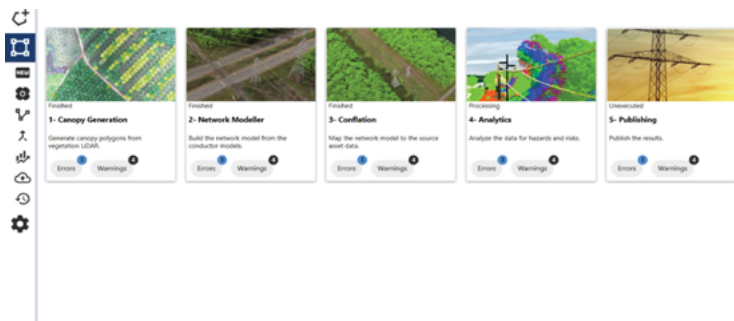


## Integrated Program Design

- Increase reliability with LiDAR-driven risk-based trim programs
- Optimize spend with accurately costed scenarios
- Reduce OPEX with targeted contractor effort
- Better target on-ground inspections for potential hazard trees
- Automatically generate projects to implement decisions



## Works From Office to Field, and Back

- Better manage budgets with risk-based planning that translates to field practicality
- Demonstrate good practice with an auto-generated, field and office audit trail
- Align to locality specific requirements with extensive user-configuration
- Communicate effectively to stakeholders, with configurable dashboards and shareable maps
- Apply your investment everywhere - work offline with Native apps for iOS and Android



## Proven GIS-based Asset Management

- Sit alongside >700 enterprises using our Cityworks AM foundation
- Rely on ESRI in the background, in your enterprise deployment
- Benefit from continual product improvement & robust support into the future
- Leverage the powerful relational model: link the utility forest to utility assets
- Understand asset performance: interrogate work history on trees and lines
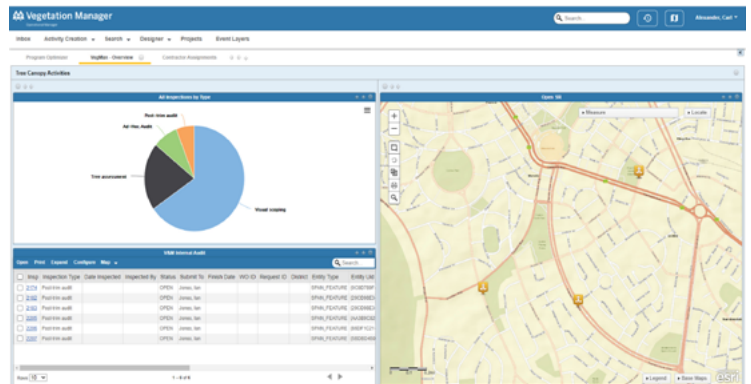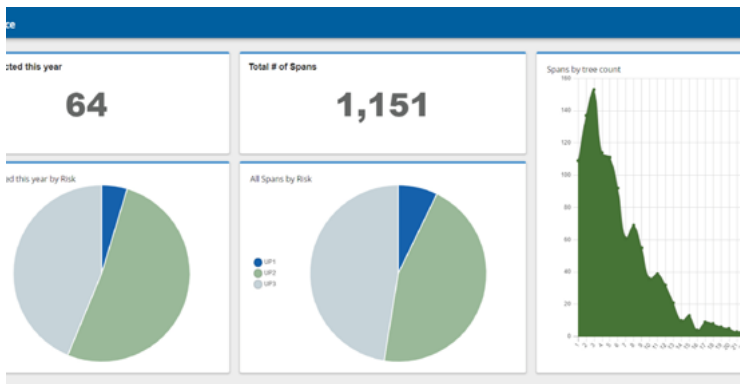
# Modules

Three functional modules implement the vegetation management workflow. These modules group the underlying capabilities, apps and technologies and are available separately or as bundles.
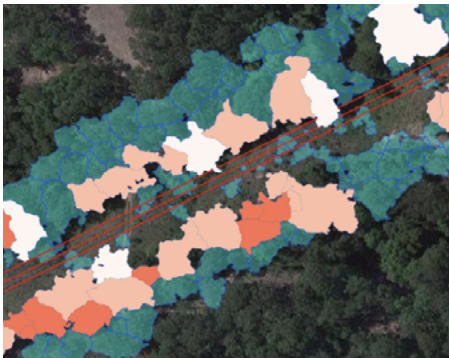
| LiDAR Analyzer | Program Optimizer | Operational Manager |
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## LiDAR Analyzer - PC App

- QC & import LiDAR, 3D line models & GIS data
- Build network model to define wires, spans bays & poles & generate tree canopy polygons from LiDAR
- Calculate clearances between trees and lines
- Identify individual trees / components and their potential to fall into the line
- Publish results to ArcGIS Server



## Program Optimizer - Web app

- Visualize the GIS-based results of analytics in maps/graphs/tables
- Assess program decisions based on input parameters (scope, trim, audit, inspect, etc).
- Test prioritization decisions impact of on budget /risk
- Define work programs then send it for work execution
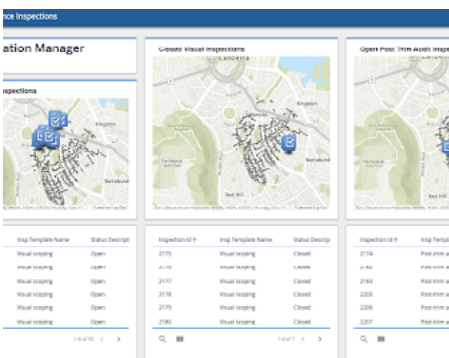


## Operational Manager - Office + Tablet Web apps & Mobile app

- Set budget against work tasks and suppliers
- Define individual projects and allocate to teams / contractors
- Issue work orders and push work to mobile devices
- Track work progress on dashboards & approve completion for payment
- Review status on maps & reports
- Summarize and report on progress

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