Boundary Security

Analysis | Planning | Design

DEFENSOFT
PLANNING SYSTEMS

Innovative Planning Solutions

CRITERRA Technology

DEFENSOFT - A Global Leader in Boundary Security Planning

Threats, illegal immigration and crime make buffer zone protection a global priority. Security officials, planners and engineers play a key role in enhancing homeland security and defence. Security planners face a formidable challenge when designing defence arrays around airports, seaports, borders, military sites, oil and gas plants and other critical infrastructure. Planners have the responsibility to design defence arrays that optimize complex technological, operational, budgetary and other constraints facing them. Each security site brings a unique set of challenges. DefenSoft offers a revolutionary change in the way planning is accomplished and sets a new standard. The company offers analytical and planning tools, site modeling, analysis, and design services to perform layouts of territory and critical infrastructure sites. Placement of fences, sensor towers, response units, cameras and radar locations for each site is done by using a process of scientific and math analysis to produce low risk solutions that are presented to the security professional to examine and use.

DEFENSOFT - Cost Effective Planning- Precise Calculations

Now security planning can be accomplished cost effectively using the professional services of DefenSoft and its proprietary Lighthouse System, using CRITERRA technology. Lighthouse offers automated optimal security and communications planning that assists you in building out your security designs. Lighthouse provides precise calculations and the necessary tools to develop an end solution that can be counted upon to work when it becomes operational. Lighthouse eliminates the guesswork, reduces risk, and significantly shortens planning time by optimizing your installation plans. Your boundary security solutions will meet your operational requirements. Lighthouse let you view how effective your security plan is before deployed.

DEFENSOFT - Expert Operational Knowledge

Lighthouse from DefenSoft has been used worldwide for over seven years. The planning and operational environments include some of most hostile security environments known. Tried and tested along the borders of Asia, the Middle East, the United States, and now in Europe, Lighthouse is leading the way for security planners. Lighthouse is being used for planning security measures for major international transportation facilities; critical oil and gas assets, and military bases. Lighthouse allows you to run security scenarios, resulting in an effective security model that can be examined prior to deployment – ensuring you get the operational performance required.

LIGHTHOUSE - Boundary Security Planning System

Protecting the civilian population and critical infrastructure against acts of terrorism has become a global priority. Infrastructure designers and planners now play a critical role in enhancing homeland security and defense. Unmanned surveillance and reconnaissance devices are the backbone of many critical infrastructure sites.

Lighthouse provides a vertical automated solution for the entire survey and planning process, and plans the locations of towers, sensor heights and coverage, and response force locations necessary for timely threat interception. Lighthouse performs line-of-sight and time and space analyses on a 3-D computer model of the threat and protected areas of interest, and produces guard post, sensor, barrier, and response force positions automatically once the areas have been defined by the user.

Planners can select a wide variety of commercial radar, camera and acoustic sensors. Lighthouse can calculate sensor parameters such as coverage areas and blind spot areas for already installed sensors as well, dramatically reducing planning time, management costs and overheads. Security risk projects require precise and reliable calculations.

Lighthouse integrates a wide range of data including:

- Operational Security requirements and up to date Intelligence
- Environmental characteristics
- Facility Engineering data for existing and future planning
- Aerial and satellite mapping (GIS) data
- Existing and planned communication and power supply networks
- Radar and Camera Sensor specifications

DEFENSOFT Planning Systems

Optimal planning of device locations is complex and requires factoring many variables iteratively.

Today's boundary security planning requires precise and reliable planning, accurate calculations with the flexibility to test against both foreseeable circumstances and the unexpected. You need the ability to easily make changes for future requirements and projects based on science and math, not out dated methods or intuition.

This requires the world's most advanced, cost effective planning system backed by a global team of unsurpassed security and planning knowledge -

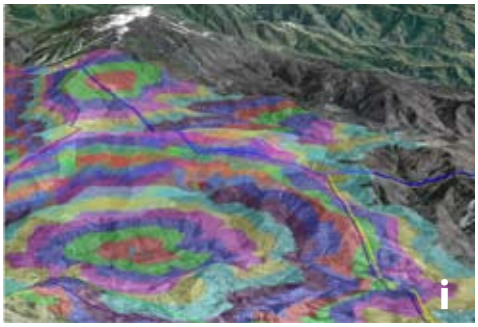
Lighthouse from DefenSoft.

Lighthouse Boundary Security Planning System plays a significant role in an integrated solution for protecting national security sites such as borders, oil and gas sites, airports, water resources, urban communities, and other critical assets.

Lighthouse incorporates proprietary algorithms that perform complex terrain analyses and optimize the boundary security solution plan.

Lighthouse integrates and displays various types of data utilizing a single platform. Multiple planners are able to collaborate their work in a server based environment.

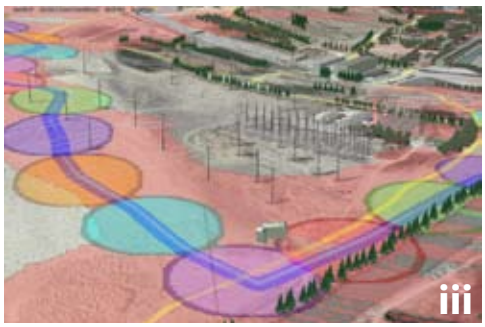
Lighthouse generates all the necessary reports for your boundary security plan. DefenSoft's Analysis & Planning Summary and Boundary Security Solution Layout Reports include sensor array coverage, threat and terrain analysis, tower locations, sensor specifications, response units' deployment, BOM, etc. Your security plan exports to GIS and CAD systems including ESRI ArcGIS™ and Google Earth™. Lighthouse integrates with command and control and other systems.

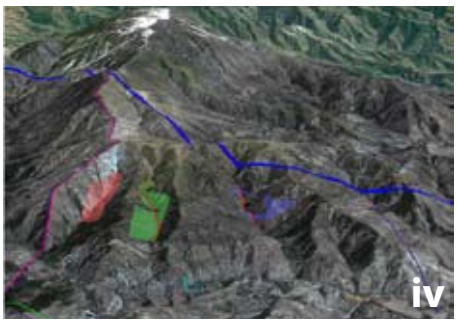


The above pictures are examples of Lighthouse: Figure i shows a typical time and space analysis used to analyze response force reaction to threats; Figure ii shows a whole project overview of an international airport used to evaluate security requirements;

LIGHTHOUSE Planning System

Planning must take into account the existing topography, facility infrastructure, future land development, obstacles, communication networks, power supply and the location of other sensors. Lighthouse from DefenSoft is designed to do this automatically and will give you an optimal buffer zone security plan.





The above pictures are examples of Lighthouse: Figure ii shows a whole project overview of an international airport used to evaluate security requirements; Figure iii shows a single radar scan which clearly shows coverage areas and blind spots along with existing CCTV coverage of the perimeter fence. These scans are used to help planner assess the need for additional towers; Figure iv shows three optimized radar scans deployed along known threat paths and is part of a much larger cross border intrusion prevention security plan. Note the clear visualization of the each scan; and Figure 5 shows the interactive 3D Model of an international airport. Lighthouse supports 3D virtual walkthroughs planners use to evaluate their security plans.

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