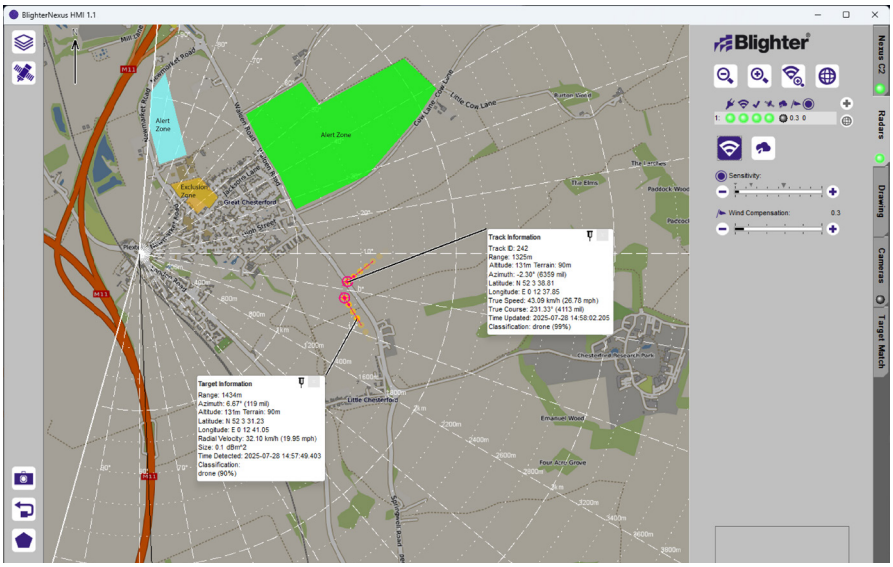
DATASHEET

# Blighter® BlighterNexus HMI




Example BlighterNexus HMI screen-shot

- Primary C2 i/f for BlighterNexus
- Simple, intuitive display and control of one or more Blighter radars
- Microsoft Windows based
- Envitia MapLink Pro mapping
- User definable alert, exclusion and action zones
- Automatic slew-to-cue of Pan/Tilt camera systems
- Automatic selection of background maps
- Display of other GPS sensors

BlighterNexus HMI is a complete PC-based software application for displaying and controlling multiple Blighter radar units and associated peripherals. BlighterNexus HMI provides users with an intuitive and simple display allowing all users to obtain the best performance from their integrated Blighter surveillance system.

**BlighterNexus HMI provides users with a simple interface to control and view one or more Blighter radars. Additional controls are available for advanced users to optimise the radar settings and the HMI display characteristics for specific applications through BlighterNexus Web-config.**

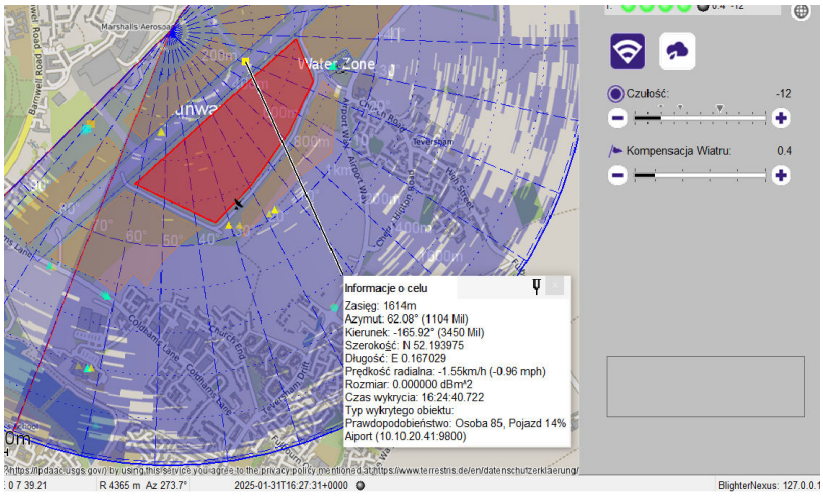
Radar targets are clearly identified as coloured markers overlaid onto a background map with key target characteristics available on a mouse click; including target location, speed and size. The colour of each target marker can be configured to represent target speed and direction or target size, allowing the operator to prioritise the targets to be observed. The user can select the duration of 'snail-trail' tracks that are displayed, allowing the path of the target to be plotted and predicted. BlighterNexus HMI can control a variety of high-performance camera and thermal imaging systems allowing the user to automatically cue the cameras to the target location.

To enable un-manned operation, BlighterNexus HMI includes user-definable alert, exclusion & action zones. An intruder entering an alert zone will generate a visible and audible alarm thereby alerting the operator to the event. Exclusion zones allow targets to be ignored within defined areas so that they do not distract the operator. Zones may be overlaid and prioritised to select or ignore specific target characteristics such as size and speed.

BlighterNexus HMI operates on a standard PC or laptop running Microsoft Windows. Typically, up to six Blighter radars may be displayed simultaneously on a single HMI. Each radar can be controlled independently to optimise it for its environment. For fixed installations each radar may be manually located on the background map, however mobile radars may use their local GPS receiver and compass to locate themselves automatically on the map. BlighterNexus HMI uses Envitia MapLink Pro mapping.

BlighterNexus HMI offers the capability to display the ground clutter map produced by the Doppler radar. The ground clutter map shows where radar reflections from static objects have been received and may be overlaid onto the background map to help easily identify radar shadow areas and predict ground cover.

# Screen-shot




**Example BlighterNexus HMI screen-shot (Polish Language)**

# Specification

**Interface**

- BlighterNexus: Dedicated secure interface

**Host System**

- Computer
  - – Workstation type PC
- Operating System
  - – Windows 11 Professional
- Display
  - – 1920 x 1080 or higher

**Human-Machine-Interface (HMI)**

- Mouse/keyboard and/or touch-screen control interface
- Multi-language support: English, Korean, Czech, Polish and Arabic (all others on request)
- Software protection:
  - – Hardware: USB & SD Card
  - – Software: MAC-Lock
- Selection of coordinate formats: Lat/Long, UTM/UPS, MGRS
- General controls
  - – Pan, zoom, rotate, default-view
  - – Enable camera
  - – Main map display area with radar scan sector and camera indicator
  - – Pop up target information box
  - – Install and name each Blighter radar (IP address and port No.)
  - – Read or set position and rotation of each Blighter radar
- Basic camera controls
- HMI display settings including:
  - – Map, target marker and clutter map brightness
  - – Target marker and clutter map persistence (snail-trail fade time)
  - – Colour mapping of target markers
  - – Visibility of other overlays
- Radar control interface
  - – Radar mode selection
  - – Wind compensation
  - – Sensitivity level
  - – Rain filter
- Maps & Charts
  - – Envitia MapLink Pro mapping
  - – Open Street Map (OSM)
  - – Map server interface
- Zones
  - – Creation of up to 30 zone polygons
  - – Up to 30 vertices per zone polygon
  - – Select either alert or exclusion type zone
  - – Priority ordering
  - – Associate sound with each zone
  - – Define min and max velocity for each zone
  - – Define min and max target size for each zone
  - – Zones alert on plots-only, tracks-only, or both

BlighterNexus HMI is subject to continuous improvement and development, and therefore specifications and features described in this datasheet are liable to change. Please contact Blighter for updates about this product.

Errors and omissions excepted. Blighter Surveillance Systems Ltd reserves the right to modify specifications without notice. Blighter radars are protected by a number of international patents. The Blighter name is an international registered trademark.

BSS-4103 ©2026 Blighter Surveillance Systems Ltd

www.blighter.com
hello@blighter.com
Tel:+44 1223 491122