

## PES - Personal Eye System

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Personal Eye System (Pro) is a personal tracking, navigation and data sharing application aimed at soldiers, police, security forces, emergency services and others that need topographic navigation, tracking, blue force tracking, and common operational picture sharing. PES PRO was designed by the active soldiers, as a substitute for a traditional GPS receiver, paper map and a mobile phone.



It is designed to operate on an Android platform and uses global positioning system, or other device sensors for acquiring own position. This position is then displayed on raster map. PES PRO uses raster maps, are which for topographic navigation. It does not offer turn by turn navigation per se, such as Garmin or other navigation devices that rely on a road network data. PES PRO can use online public maps (Yahoo, Google, Open Street Maps etc.), Online WMS maps (usually provided by internal GIS departments), offline maps stored on the device in TMS (tiled format), or offline cached maps

stored while browsing online maps. Ability to use offline or cached offline maps comes very handy in areas with no 3G coverage or when cost of data transfer is a limiting factor.

### Features highlight

<p><b>Situational Awareness</b>          Fast lightweight raster map engine          Use of public online or mil. offline maps          Touch Screen interface          MGRS/DMS/UTM grid display and conversions          2525B/App6A Symbology or custom symbols          Tactical graphics support          Blue Force tracking          Navigation and Track recording          UAV tracking          Manual position          Distance measurement tools          Standard reporting</p>	<p><b>Weapons and Sensors</b>          Dedicated, shared or radio GPS          Hand Held LRF support          Weather meters support          UAV/UGV tracking and video streaming          Serial, USB, Bluetooth and BLE connectivity          Range cards          Sniper module          JTAC module</p>
<p><b>Communications</b>          Wifi or GSM/ 3G cellular NET support          MANET Layer 3 radio equipment support          Thuraya SATCOM support          ASYNC radio with P2P or software MANET          Optimized for low bandwidth VHF/HF links          Automatic on the fly CNR fallback to 3G          Customer installable encryption          Video streaming          UAV video preview          UAV full-screen video with HUD</p>	<p><b>Messaging</b>          Simple own status reporting          Standard formatted messaging          Orders with delivery and wilco reports (ACK)          Reports with delivery acknowledges          Free text messages          User configurable templates          Tactical Chat          ALERT high priority messages          Order tasks          Order status reporting</p>
<p><b>Interoperability</b>          Open API toward 3rd party systems          Interconnectable on a single unit level</p>	<p><b>Logistics</b>          Self service PES Pro server “portal”          Integrated offline or online licensing          Application locking          Maps packaging and distribution          Emergency data erase with silent reporting</p>

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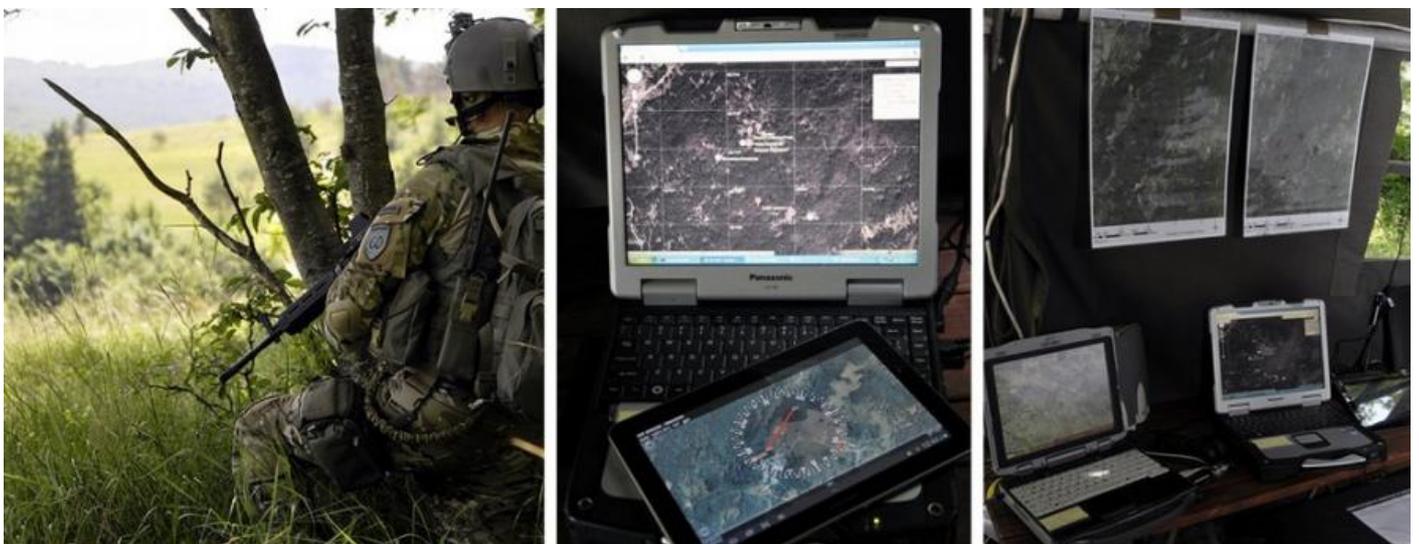
### PES Pro Position In C4I Schema

PES PRO is a member of AT Comms C4I suite. It is aimed toward execution level, and relies on BES and IHTA (Intelliger HQ Assistant) for planning, and seamlessly integrate with BES (Battle Eye System) used by the mobile units.



### Integration and connectivity

It is best suited for the C1 dismounted segment deployments in or in some tyPES PRO of vehicles. It perfectly complements our C2 segment Battle Eye System solution. PES PRO also offers seamless integration with the C2 segme and supports bi-directional data exchange with BES (Battle Eye System) and IHTA ("Intelligent HQ Tactical Assistant"), or own C4I level software or other C4I systems.



PES PRO uses IP capability of modern military radios for communication. Beside the IP layer PES PRO can communicate using an ASYNC driver (especially useful on older equipment) or WiFi and GSM / 3G cellular network.

Although being a key part of AT Commsfuture soldier programme, it can be used standalone, as a navigation tool, or dismounted commander. PES PRO is also an integral part of dismounted fire control system and JTAC tools. It can integrate with Kestrel weather stations, and Laser Range Finders to provide soldiers with adequate targeting tools.

### PES Pro Server

PES can share Common Operational Picture (COP) data, such as POI, unit positions, track reports etc. directly user-to-user, (using SMS, email or custom radio driver) or dynamically over a PES Pro COP sharing server. Later options offers military grade Blue Force Tracking, and data sharing. PES Server Pro, serves as a common operational picture database PES Pro clients can connect to the server in order to upload local tactical data, and download common operational picture

Use of Pes Server Pro is also required to operate PES Pro over GSM/3G network because of cellular network topology specifics.



PES Server PRO is designed to operate on an Windows or Linux platform and act as a central communication point, when PES Pro System is used standalone and not as a dismounted part of AT CommsC4I system. PES Server Pro holds the common operational picture database and shares this data with PES Client PRO android clients connected to the server. PES Server Pro can use map layers stored on PES Server, or maps available online. In later case an internet connection between server and internet is required.

PES Server PRO is controlled via WEB interface. Common Operational Picture view of data and map layers is also available.

### PES Technology Preview



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PES in action



▶ 0:00

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