Public utilities

EM-I10J aids the rescue mission of fire emergency

Challenge

For natural disasters, production accidents, social security incidents, and other emergency rescue missions, the overall goal is to decrease the damage from accidents, including casualties, property loss, and environmental damage. Therefore, the entire rescue must be urgent and instant. However, harsh conditions of search and rescue, chaotic on-site scenes, and limited rescue resources undoubtedly make rescue missions much more challenging, which not only tests the physical fitness of the rescuers, but also demands higher durability and stability for equipment that executes mission instructions.

Solution

The EM-I10J rugged tablet PC is designed with a robust body and excellent performance, and equipped with the client's self-developed 3D modeling software, and integrates various rescue equipment. It precisely locates the rescue position through a GPS satellite system, quickly collects and transmits on-site data to the command center in real-time through the fast and stable networks, and then outputs a clear display of the on-site simulated situation on its high-definition and high-brightness screen. With the stable operating performance, EM-I10J is helpful for rescuers to more accurately assess the on-site situation and make the best rescue plans.

Benefits

The EM-I10J rugged tablet PC shows outstanding performance in waterproof, dust-proof, and anti-fall. It can operate normally in extreme temperature environments and is resistant to bumps, which reduces loss and subsequent maintenance costs. The highly compatible EM-I10J connects with various rescue equipment and integrates multiple functions to complete a comprehensive set of emergency on-site data collection. With integrated precise GPS positioning capabilities and multiple networks, it provides an accurate data basis for the command center to make wise judgments and rescue instructions, offering excellent and reliable technical support, greatly improving rescue efficiency while minimizing accident losses.

EM-I10J
Rugged Tablet PC

Challenge

Emergency scenes are affected by uncontrollable factors such as large fires, spaces, and network signals. In addition, the visibility at the fire site is extremely poor due to the pervading smoke from the fire, and there are various dangers lurking in the dark. Issues like how communication terminals can be waterproof, explosion-proof, and drop-resistant to adapt to various environments, how rescue operations can be unaffected by interference, and how communication networks can avoid interruption, directly and severely threaten the effectiveness of the rescuers' actions, as well as personal and property safety. Therefore, equipment used for emergency rescue tasks is required to have a higher level of robustness, stability, and screen visibility than ordinary equipment.

The client is a fire department in a certain region. Before using products of Emdoor Information, they used old-fashioned fire emergency rescue equipment which could only provide limited, approximate positioning and could not display images and transmit data in real-time, resulting in a communication gap between the command center and the front-line emergency rescue scene, which greatly limits the implementation of rescue tasks. To complete a full on-site emergency data collection and return process, more equipment with different functions is needed to meet the requirements of emergency rescue. However, it cannot be operated by one rescuer. With such many separate devices, a complete set of standard emergency rescue equipment often requires 5-6 rescuers to perform data collection, which undoubtedly increases the burden of rescue resources. Moreover, if rescuers want to complete tasks at the fastest speed and in the shortest time, in addition to overcoming harsh environments, they also need to rely on highly accurate positioning guidance to avoid getting lost, leading to delays or even failure of the rescue. Therefore, a device that combines a robust body and precise positioning with a high-definition display becomes a key to ensuring the smooth progress of rescue missions.

Solution

To ensure that fire emergency rescue operations proceed smoothly without being affected by equipment, the client has set his sights on the rugged computer market from ordinary consumer smart tablets. After conducting rigorous usage tests on rugged mobile devices from multiple companies, they ultimately adopted the EM-I10J rugged tablet PC as the terminal equipment for displaying and executing rescue instructions.

Solution of EM-I10J

The EM-I10J rugged tablet PC, with its reliable robustness, is not affected by smoke-filled and complex front-line emergencies. Its hard-sealed body, crafted with exquisite craftsmanship, can isolate water and dust particles, adapting to harsh fire emergency environments and bumps while maintaining stable operation. With outstanding operating performance and high compatibility, a single tablet can connect to various rescue equipment, supporting multiple functions at the same time, such as voice playing, high-definition image display, thermal imaging, life sign detection, etc., to integrate a complete rescue plan. Its high-brightness 10.1-inch screen, combined with the customer's thermal imaging system and 3D modeling software, can smoothly output high-definition images and vital sign information on the scene in smoky and low-light environments, and simulate the scene situation, making the entire rescue scene situation clear in a glance. The EM-I10J's excellent GPS positioning function more accurately measures distances and locations, guiding rescuers to the accurate location to implement rescue quickly. Rescuers can communicate and transmit the data collected from the rescue site to the command center in real time through its extensive coverage of WIFI, 4G, and Bluetooth. Then the commanders can make accurate judgments of the rescue scene and give clear instructions based on the returned information to achieve the maximization of rescue effects.

Benefits

Highly integrated, efficiency improved

The EM-I10J rugged tablet PC powered by an excellent Intel processor and Windows 11 operating system, has reliable system compatibility. Previously, the rescue on-site data collection that required more devices and more personnel can now be easily and efficiently completed by one person with an EM-I10J rugged tablet PC, increasing deployment efficiency by 50% compared to the previous solution, reducing subsequent adaptation and maintenance costs, and making more rescue resources available for effective use and deployment.

Robust and stable operation

The EM-I10J rugged tablet PC has passed rigorous military test standards and a 1.22-meter drop test, achieving IP65-level performance in waterproof and dust-proof. It can operate normally and efficiently at extreme temperatures from -20° C to 60° C, enough to withstand high temperatures, moisture, dust, or bumps and falls in the fire emergency scene, helping rescuers to focus on the execution of missions without worrying about device failures.

Multi-networks for seamless communication

The EM-I10J rugged tablet PC is coupled with dual-band WIFI, 4G LTE, higher-speed Bluetooth 5.0, and other network communication modules. Stable network signals and multi-channel automatic switching can transmit data information quickly, solving the problem of inefficient communication between the front-line and command center, ensuring that rescue instructions are not limited by space and signal interruption, and carrying out rescue operations more smoothly.

Accurate positioning for a rapid rescue

With multi-satellite positioning navigation systems like GPS and Glonass, the EM-I10J rugged tablet PC can measure distances and positions more precisely, compensating for the limitations of visibility, and improving the efficiency and accuracy of the entire rescue task, as well as the success rate of personnel rescue.