Outdoor Touch Screens Enhance Load-Outs

USED IN KIOSKS, TERMINALS, MILLS, WEIGH STATIONS & TRANSFER STATIONS WORLDWIDE

With the many advantages to upgrading load-out systems, there are also challenges that should be addressed prior to installation. Technology has helped increase the efficiency, accuracy and safety of load-outs by allowing the drivers to check in, weigh in, get lane verification, and weigh out through an automated kiosk ticketing system. This eliminates manual transaction errors, is user-friendly, and is safer, allowing drivers to get accurate quick results with less labor. The kiosks are installed at drive-up truck height which allows the drivers to stay in their trucks. It can reduce liability, extend loading hours, improve traffic flow, and increase daily transactions and profits. It minimizes physical interactions between the scale house personnel and drivers to maintain social distancing as well.

Automated load-out solutions provide operators with clear, concise instructions at kiosks, grain terminals and feed mills worldwide. It is far more reliable than an app on a phone that depends on battery levels or unreliable internet service in remote areas. Various other operations such as cement, frac sand, chemical plants, mining, construction/timber, landfills, and transfer stations are also benefiting from these systems.

At the heart of many automated load-out and ticketing systems is a touch screen monitor. This enables the trucker to enter and receive information, tickets and reports quickly, easily and without station personnel. In order for optimal unattended operation, the interactive touch screen monitor must operate 24/7, and function properly in a wide variety of adverse

conditions. There are several very important factors to consider when selecting, building or upgrading a load-out or ticketing system. (as featured in Feed and Grain Magazine)

The Top 10 challenges for displays used in automated ticketing & load-out systems are:

1. Damage due to dirt, dust, rain, sleet, snow or UV from the sun
2. Screen is difficult or impossible to see in sunlight
3. Extreme temperature operation
4. 24/7/365 operation
5. Shock and vibration
6. Reliable operator interface
7. Compatibility / interconnect-ability
8. Specific power requirements
9. Difficult to use
10. Custom needs

TRU-Vu Monitors understands these potential challenges, and has introduced a new industrial-grade outdoor touch screen monitor which resolves all of these issues. The SRMHETRWP-15C is a 15” Sunlight Readable touch screen monitor with 1,500 nits of brightness. It features a waterproof panel-mount stainless steel enclosure. This model addresses all of the Top 10 challenges head-on:

1. Waterproof Enclosure

Weather is obviously a huge concern at every location. Rain, sleet, snow, and ice would cause catastrophic damage to standard consumer-grade touch screens. The industrial-grade SRMHETRWP-15C features a stainless steel panel-mount enclosure, rated NEMA 4X. It offers protection from dust, rain, splashing and even hose-downs. The unit flush-mounts into your wall, door or kiosk to ensure easy installation and years of reliable performance. The screen features a UV-protective coating to eliminate damage from direct, bright sunlight.

2. Sunlight Readable Screen

Drivers must be able to see and read content on the screen at any time of day. Unfortunately, standard touch screens are not bright enough to operate in direct, bright sunlight. Even sun visors and shields do not provide a reliable solution. Sunlight Readable monitors are able to display clear, sharp images even in indirect or direct sunlight without loss in image quality thanks to their higher brightness. Sunlight Readable monitors features screens with brightness of over 1,000 nits, compared to 200-300 nits for standard video monitors. Therefore, the result is an amazingly bright screen, even in direct, bright sunlight on the face of the screen.

3. Extreme Operating Temperatures

Extreme temperatures are a major concern. The displays must perform in Canadian winters and Las Vegas in the summer. The SRMHETRWP-15C is designed to operate outdoors in nearly any environmental conditions. They perform in frigid conditions or blazing heat, and will operate in temperatures from -22°F up to 185°F.

4. 24/7 Unattended Operation with Industrial-Grade Reliability

One of the many advantages of an automated load-out system is round-the-clock 24/7/365 unattended operation. The touch screens must continue to function reliably, 24 hours a day, for years to come. All of our industrial-grade monitors and designed and built to do just that.

5. Maximum Shock & Vibration Resistance

Another consideration is shock and vibration. The monitors will experience consistent vibration, as well as possible accidental impact. Consumer-grade monitors will not withstand harsh treatment. However, TRU-Vu monitors undergo a unique treatment to maximize shock and vibration resistance. Our *TRU-TUFF* process includes RTV silicone on all critical components and connections; all wires are dressed, tie-wrapped and secured; and ThreadLock is applied to all screws. This ensures ongoing reliable performance.

6. Dependable Touch Screen Interface

There are 5 major types of touch screen technology available: 5-wire resistive, surface capacitive, projected capacitive, surface acoustic wave, and infrared. Which should you choose? The 5-wire resistive touch will offer the greatest combination of benefits for use in automated load-out systems:

- Can be activated with virtually any object (finger, stylus, gloved hand, pen)
- Has tactile-response feel
- Low power consumption
- Resistant to surface contaminants and liquids (dust, oil, grease, moisture)
- Easy to use

7. Seamless Integration

With both analog and digital video inputs, this model will easily connect to and work with nearly any new or existing

systems. (additional inputs are also available). Unique panel-mount design is far easier to install than competitive models.

8. 12-24VDC, or 100-240VAC

Many terminals, stations and systems prefer the safety of DC power. This model operates on both 12 or 24VDC. An optional AC adapter enables it to run on 100-240VAC.

9. User- Friendly

In order for the automated system to be a success, the operator interface must be easy for the truckers to use. This touch screen has the ability to be programmed with any type of user interface

10. Customized Options

Although the SRMHETRWP-15C was specifically designed and built to meet the many demanding needs of an outdoor automated load-out system, we understand every project may have unique demands. We can customize nearly any aspect of this touch screen to meet your needs. Just ask!

Dan Burgdorf of Integrated Technology Solutions exclusively uses TRU-Vu outdoor panel-mount monitors and touch screens in their Premier Ticketing system. The versatility of the wide operating temperature range (-22° to +185°F)has allowed them to successfully deploy their systems in the harshest of weather conditions. From the heat of the highland deserts of West Texas to the coldest regions of Wisconsin, TRU-Vu has allowed them to standardize their product without having to deploy multiple different monitors for the outdoor conditions. This allows them to stock items without worrying about what region they are headed to; this saves the end customer money and shortens lead times.

The TRU-Vu outdoor Sunlight Readable panel mount monitors and touch screens feature over 1,000 nits of brightness, 5 times brighter than standard video screens. This enables users to see clear, sharp images even in direct sunlight. TRU-Vu also applies a unique protective UV-resistant coating to every screen. This ensures that the surface of the monitor or touch screen will not degrade or deteriorate over time, due to direct, harsh sunlight, as is the case with many competitive models used in the past.

Integrated Technology Solutions designed and developed the Premier Ticketing solution to address the functional shortcomings of other load-out software that under-performed. Premier Ticketing provides a comprehensive package that meets and exceeds customer requirements and expectations.

Premier Ticketing utilizes a state of the art back-office interface for reporting and billing and optimizes communications with PLC backed load-out hardware, all while giving operators a crisp and concise overview of load-out operations within the facility.

Through the years, ITS' premier ticketing package can give customers the power and flexibility to optimize a facility that may load-out only a few trucks a day, to mega load-out facilities capable of 8 lanes loading out simultaneously from a single PC and operator. By utilizing RFID technology for driver scan cards, Premier Ticketing is able to remember the drivers' requested drop weights and find open orders they may have already been assigned to. All of this technology comes together to minimize driver check-in time and total load cycle time. It reduces interaction and manual inputs from load-out staff and provides clear instructions to the driver on where to proceed to and what to do when they arrive at the next point. By integrating with site safety systems, the system is able to provide load-out staff with a safer environment by waiting for staff to be clear of the truck before providing lane assignments or printing bills of lading.

Premier Ticketing solutions prides itself on using stainless steel, modular construction builds in their outdoor enclosures. By utilizing stainless steel construction, customers won't have to worry about their hardware rusting away should a driver hit, graze or scratch their kiosks. By using monitors from TRU-Vu, should a screen get damaged, customers are able to send

their monitors for repair at a facility in the Midwest. Quick repair turnaround allows site operators greater hardware availability. By using a separate industrial hardened PC in our enclosures, this allows end users to swap out monitors and other components without being forced to involve the IT department, saving money and time.

Integrated Technology Solutions (ITS) started operations in 2004 as a St. Louis, MO based consulting firm and has grown to serve customers nationwide. ITS develops and deploys custom solutions for their customers ranging from their Premier Ticketing system ("The first ticketing system designed 100% from scratch for the Sand Industry"), to their ITS ERP Data Portal (a customizable web application), to Manufacturing Control Systems.

For more information on the ITS Premier Ticketing system click here.

ITS is a full-service IT systems and services provider – contact us for more info:

636-464-7888 x 200

ITS WEBSITE

The same characteristics and performance of the SRMHETRWP-15C outdoor waterproof panel-mount touch screens are available with screen sizes from 8.4" to 27". In addition to load-out systems, they can also be used for truck scales, quarries, control gates, printers, and automated ticketing kiosks for frac sand, cement and other flowable aggregates.

For more information on this or any other TRU-Vu industrial-grade monitors and touch screens, please visit TRU-Vu Monitors website or call 847-259-2344.