

Panasonic TOUGHBOOK Case Study

Distribution / Retail

| Client | AIS Inc.

| Business | Vehicle inspection business for used cars and motorcycles

| Product | TOUGHBOOK CF-20

2-in-1 detachable PC that enables an easy switch from used car inspections to office work in support of inspectors' work style reforms.

AIS Inc. is a company specializing in the inspection business of used cars. It conducts inspections of both two- and four-wheel vehicles, as a fair-minded third-party institution in the used car distribution market. AIS's strict inspections are very much appreciated in the industry, obtaining a high degree of trust from customers including used car companies affiliated with major automotive manufacturers. In order to respond to an annually increasing demand for inspections, in 2003, the company introduced the rugged PC, TOUGHBOOK CF-M34. It has regularly used the TOUGHBOOK Series for over 15 years, as a means to further promote efficiency, while encouraging IT implementation at inspection sites and relevant operational efficiency. In 2017, AIS introduced the rugged 10.1-inch detachable laptop TOUGHBOOK CF-20 that can be used as both a tablet and a laptop PC, which assists with work style reforms of inspectors.



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(Above photograph) During an inspection, the PC is used as a tablet with keyboard detached. The hand strap makes it easy to hold.
(Photograph on the left) With the keyboard being used in a similar IT environment as that of an office, office work is possible regardless of location, which promotes inspection operations in the form of mobile work.

Background to introduction

A shift from a model of TOUGHBOOK series that has long contributed to IT implementation at inspection sites for its ruggedness and high performance to a detachable one with improved mobility and operability

In 2003, when AIS introduced TOUGHBOOK for the first time, a main challenge that needed to be addressed was promoting efficiency in preparing reports, following the inspection of used vehicles. Traditionally, individual inspectors wrote all inspection results on paper on site, and then retyped them in report form on a PC in the office, which meant spending a considerable amount of time preparing reports. For this very reason,

Why TOUGHBOOK CF-20 was chosen

Point 1

Rugged performance, with dust, shock and water-resistant design, which are essential for inspection sites

Point 2

Highly bright LED display that is easy to see outdoors and a battery that can be continuously used for long periods of time

Point 3

Detachable model that can be used as both a tablet and a laptop PC

they tended to outsource this office work to a typing service provider. Furthermore, there was also the issue that individual inspectors had different ways of making entries, resulting in slight but important differences. To improve both efficiency and precision, AIS took on the challenge of developing and introducing a vehicle inspection system to directly input inspection results via a laptop PC on site. Mr. Hirai reflects on the most attractive points of TOUGHBOOK, chosen as their system operation devices since that time.

"As inspection operations are conducted at many of our sites across Japan, devices need to withstand a wide variety of working environments, from Hokkaido to Okinawa. In addition, as inspections have to be conducted in a prompt manner, inspectors tended to carelessly leave binders with memo pads lying around. In particular, older inspectors with an artisan spirit would more than likely roughly handle laptop PCs as binders, with regular devices lasting only a limited time."

In this regard, the ruggedness of TOUGHBOOK, such as a high resistance against shocks and temperature changes, in addition to the dust and water-resistant design, turned out to be of great benefit. A highly bright LED display, which is easy to see outdoors and a battery performance suitable for long-hour operations were also very attractive points, resulting in the introduction of TOUGHBOOK CF-19 in 2007. Afterward, they also employed TOUGHBOOK and rediscovering a demand for keyboard input, they introduced the detachable TOUGHBOOK CF-20. As someone regularly using TOUGHBOOK and TOUGHBOOK for many years, he appraised the PCs as follows:

"I have seen and used many tablets and laptop PCs. I feel that the TOUGHBOOK series has many benefits from the viewpoint of users, with avid consideration for ease of use. It's a good fit when used as a tablet, also I find it convenient that the sliding cover of the USB port is easy to open, while the handle makes it easy to carry."

Introduction benefits

Flexibly supports inspection operations both as an inspection support device and a personal PC

AIS introduced TOUGHBOOK CF-20 in 2017, and distributed the devices to inspectors all over Japan. In addition to vehicle inspection



As TOUGHBOOK CF-20 has a high-performance CPU, it can quickly run the vehicle inspection system that redraws developments of vehicles and other image data numerous times, without waiting time.

systems, the devices are installed with a "failure diagnosis system" that is used by connecting to a special device to check system failures in vehicles via Bluetooth. The devices are used as tablets with the keyboard detached for on-site inspection operations and as laptop PCs with a keyboard to confirm inspection request from customers and manage inspection results. In relation to inspection operations, when inspectors visit a used car dealer or other customers, they use the tablet of the device by simply detaching the keyboard on-site. They then start up the vehicle inspection system, and while visually inspecting any damage and the degrees of repair of a used car, touch damaged parts on the drawings of the car on screen to input and automatically generate a report. If there is a need to input long sentences such as vehicle information, the keyboard is attached to quickly input them. Inspections can be completed at a pace of 15 to 20 minutes per used car.

For the preparation of reports following inspection operations, it used to take as long as a week from an inspection until the sending of a report to a customer after rewriting from paper memos. Now, a report can be sent on the day following an inspection, at the latest. This has greatly contributed to an increase in the quantity of vehicles inspected, while at the same time, reducing personnel expenses involved in

preparing reports. In addition, thanks to a unification of inspection standards, variations in inspection quality have been eliminated. Inspections using the vehicle inspection system have been positively accepted by customers.

Also, TOUGHBOOK CF-20 has achieved the promotion of operational efficiency in terms of office work apart from on-site inspection operations. Traditionally, inspectors used desktop PCs in an office, which meant that they had to come to the office to do office work before and after visiting customers. This caused a heavy burden on inspectors in charge of management, such as regional managers. After the introduction of TOUGHBOOK CF-20, personal desktop PCs were replaced with them, thereby enabling all office work to be done by using the device anywhere. Mr. Wagi explains that overtime has been reduced as work styles have changed to be more efficient.

"During any spare time, we can make appointments with customers using the PC e-mail to efficiently work on the following day's operations or check request mail messages from customers during inspection intervals, which increases the number of opportunities to provide on-site inspections quickly."

Additionally, there are benefits in terms of device management. Not only there is a reduction in the burden when inspectors manage devices, but also the total amount

of software fees are reduced since such a fee to install just one device for each inspector is needed, resulting in AIS anticipating a cost advantage by using TOUGHBOOK CF-20 in the long term.

Future outlook for using TOUGHBOOK

An increase in the number of devices planned for increasing inspectors. Anticipating TOUGHBOOK CF-20 to play an active role in expanding overseas business.

Along with the promotion in operational efficiency, AIS is increasing its number of inspections on an annual basis, achieving a steady growth to 780,000 vehicles in FY2016 and 840,000 in FY2017. Mr. Hirai says that in FY2018, they are aiming for 900,000 vehicles.

"To respond to growing demand, we plan to increase the number of inspectors. In conjunction with this, we will introduce even more TOUGHBOOK CF-20 units."

AIS is now developing overseas operations in China, Thailand and Malaysia on an experimental basis. Mr. Hirai says that with the education of local staff members, they plan to utilize TOUGHBOOK CF-20 and the vehicle inspection system.

"We want to raise the level of recognition of our presence overseas. For human resource education, as it pertains to this goal, differences from Japan such as language,

culture and ideas in relation to used cars pose certain obstacles. As we have already standardized all evaluation criteria for inspections by the vehicle inspection system, this is expected to become a strong foothold going forward."



Product: TOUGHBOOK CF-20

Benefit 1

Drastic reduction in labor needed for report preparation operations
Contributing to improved inspection precision

Benefit 2

Reducing users' total overtime by 100 to 200 hours per month as a result of mobile work

Benefit 3

Information device for individual inspectors integrated into a single unit, reducing management and operational costs

*Information in the article is current as of the date the interview was conducted (April 2018).

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