

Handheld Terminal: Introduction Case Studies

TRIAL Company Inc.

- Location: Fukuoka, Fukuoka Prefecture (head office)
- Business: Retail, software development, distribution, product development and manufacturing
- Website: <https://www.trial-net.co.jp>
- Device used: IT-G400 (use of about 2,500 devices planned)

IT-G400 devices have been used as store terminals at hypermarkets. These devices have helped to achieve more efficient operations and improved customer service.

TRIAL Company Inc. is a retail and distribution company that is expanding across the country with its supercenters that sell items such as food and daily necessities. The company works from the concept of changing distribution through technology, and is actively engaged in using information technology, such as self-checkout carts and unstaffed nighttime shops, to run its store locations. In 2018, the company introduced the IT-G400 handheld terminal from CASIO as a store terminal that would link up with its company systems. These devices helped the company in its initiatives to lower product prices further and improve service quality through their application in making operations more efficient, such as by reducing operating costs and time.



TRIAL Company Inc. (Fukuoka, Fukuoka Prefecture)

Utility required from an industrial terminal and the high reliability that is expected from a Japanese manufacturer

TRIAL Company Inc. is expanding its integrated suburban retail locations in an area focused around Kyushu. Its stores carry a diverse range of products, such as food, daily necessities, clothing, and pharmaceuticals, and support life in the region as a lifestyle partner for clothes, food and housing. TRIAL Company Inc. has reached 232 store locations throughout Japan as of December 2018.

The company has a unique history, and got its start with its main business of software development. It has, in particular, invested great effort into making technical developments in IT specializing in retail and distribution from the time of the company's founding

in the 1980s. The expertise that the company developed in these areas is now being applied to its current store operations. We spoke to the people responsible for building the information systems for the Trial Group, Mr. Jié Chang and Mr. Yùquán Wang of TRE Inc.

“At our company, we primarily handle planning, development and operation of software products, such as software for store-operation systems and terminal-management tools at the various Trial stores. In addition to the head office in Fukuoka, we have a development headquarters in China, with a staff of 200-300 people. Working from the concept of a ‘distribution

TRIAL Company Inc.

information revolution’, we set ourselves the goal of changing the mechanisms that support shopping from the ground up, and we’re working on the software for store developments that incorporate IT and AI.” (Chang)

In addition to its software development activities, the company also has experience in outsourcing development and production of store terminals for themselves. They independently developed a “three-in-one” PDA terminal that handles operations, information and communications in a single device called the PACER, which stands for Plan, Action, Check, Education, and Recovery.

This name has been carried forward even though they have now started to use products from other companies, with the IT-G400 handheld terminal from CASIO being introduced as the latest, third-generation device known as the “PACER 3”.

“The first generation suffered from frequent breakdowns and damage, and did not have the reliability required for a device used for business. We switched to another company’s product for the second generation, but even so we encountered many defects, such as faulty LCDs and cases like sudden power shut-down. From that experience we considered introducing a model that had the latest specs from among PDAs that run the Android™ operating system. We compared terminals from several manufacturers and assigned points to various items to narrow down the candidates. Ultimately we arrived at the IT-G400 handheld terminal from CASIO.” (Wang)

When considering the different models, the team valued factors such as unit price, battery performance, durability and visibility. The company had past experience with the introduction of CASIO terminals running Windows® CE. They had no problems with maintenance or other aspects of these devices, and CASIO cleared the standard for reliability as a manufacturer.

“Another reason why we decided to choose CASIO is that they were very cordial in their dealings with us from the discussion

stages through testing. They were quick to respond, giving us the impression that there was no great distance between us. On the whole, CASIO’s maintenance services have a strong reputation for running smoothly and with a great attention to detail.” (Chang)

After a model was selected, testing was conducted over several months at actual store locations. In addition to operational basics such as scanning and touch panel entry, many aspects of the device were tested, including the operation of business apps, linkage with the system and the stability of communications. The company evaluated all of these aspects comprehensively before they decided to use the device. Full-scale introduction at various store locations began in March 2018, and the company plans to supply 2,500 devices to over 200 store locations by February 2019.



Jié Chang, general manager and company officer at System Development Division No. 4, Business Division No. 1, TRE Inc.



Yùquán Wang, general manager at the Store System Division, TRE Inc.

From store operations to information sharing, CASIO’s device shows potential as a multifunctional terminal in a variety of situations

Operation of the IT-G400 has moved forward at various store locations since it was introduced in April 2018. Over several months of careful and repeated testing, CASIO’s device sufficiently exhibited its performance throughout actual use.

One of the qualities of this performance is stamina. TRIAL Company Inc. presents a particularly challenging environment for the use of precision equipment, with actual use occurring throughout 24-hour business at over 200 of its 232 store

TRIAL Company Inc.

locations in Japan. The IT-G400 is able to operate for 24 hours through the use of its large-capacity rechargeable battery pack. The IT-G400 is capable of supporting extended use over multiple shifts, without the need for recharging or changing batteries.

“The long-lasting battery not only eliminates worries that work will be interrupted, but also reduces the trouble of recharging batteries, simplifying operations. This reduces the burden on employees and can improve work efficiency. Moreover, another merit of the IT-G400 is its excellent drop durability and suitability in various environments, which makes it hard to break even when subjected to rough usage. If we think about how our older models frequently exhibited defects, we’ve moved up several grades in terms of reliability.” (Chang)

CASIO’s device also ranked highly in terms of its multifunctional specifications that support various business operations, such as its scan performance. As examples of this usage, we heard about both store operations and information sharing.

“As far as store operations, a wide range of general operations can be performed from the terminal, from inventory and price checks to product-management operations like orders, returns, disposal and transfers. The terminal can also create resources such as shelf labels, discount labels and POP materials. Although input is mostly through the scanning of barcodes, we are also extremely satisfied with the IT-G400’s reading performance. I don’t have any actual measurements, but I really felt a significant improvement in the sense of speed and precision. This not only shortens operating time, but also helps with making work less stressful.” (Wang)

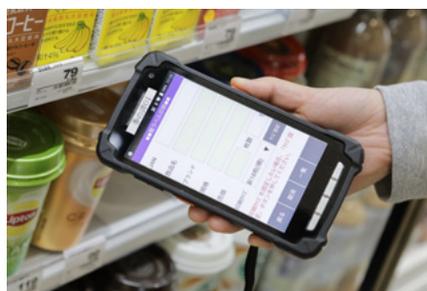
“As for information sharing, operations such as receiving instructions from the head office and sending work reports from work sites can be processed on the terminal. We are using the device to link up with an LSP to manage work and employees. We can also use the internal camera to take photos and report on things such as changes made to store displays. The terminal can also be used to access our database, which we call Tora Base, to check sales information for the store or notice boards. You can also use it to check basic operating procedures by using the online manual.” (Chang)

To perform the processing required for these operations, TRIAL Company Inc. has developed over 50 of its own apps for use with CASIO’s terminal. MDM is also developed in-house, which allows for integrated management of a very large number of devices. As for TRIAL Company’s original style, while they are of course proud of their results and expertise in software development, one can feel the company’s strong desire to change distribution through the use of IT.

Even before their goal of making operations more efficient, the company is aiming to give back to the customer in terms of visible merits like cost reductions and lower product prices that result from time savings and reductions in labor costs. In addition, the company also hopes to improve service quality by taking the time generated due to greater efficiency and allocating resources to other new work.

Looking to the future, Mr. Chang and Mr. Wang are first aiming to introduce the terminal at all store locations. They would then like to use the IT-G400 to its full potential by taking advantage of expanded communication functionality, such as voice calls and mail. In addition, there is some talk of how they would like to analyze employee workflows by obtaining position data from the terminals, which can be linked to more efficient operations.

We are now living in an era where advances in IT are effecting rapid changes in the retail industry. With its various initiatives, TRIAL Company Inc. continues to be at the forefront of changes such as customer analysis via image recognition, diversified payment systems and optimization of marketing and logistics through the use of big data. It looks like the IT-G400 is going to see greater and wider use in many different areas as a terminal that handles the core of store operations.



An image of the IT-G400 being used at the “Trial Lab Store”, a testing store located at the company’s head office.

Note: Information such as the divisions to which employees belong is current as of the date of publication.