

SAINT LOUIS  SUCRE
The Marseille factory
ALERT PROVIDES A REFINED SOLUTION



Opened in 1950, Marseille's Saint Louis Sucre factory is both a refinery and a packaging plant. Here are a few key figures:

- 42,000 tonnes of white sugar cubes
- 10,000 tonnes of cane sugar (brown sugar) specialities.
- 274 staff on the site on a permanent basis, including 160 in packaging.
- 3 sets of silos allowing 30,000 tonnes of sugar to be stored.

No margin for error...

A structure such as this requires a robust material handling process that precludes interruptions. Close monitoring is crucial, because in the event of interruptions the entire production chain of the section in question is affected and effectively stopped, which leads to a loss of product volume.



A single operator is in charge of the entire material handling process. One of the obligations of his job is to carry out inspection rounds. During these itinerant phases, the operator can access the various control screens set up around the site. However, he must also be alerted as

quickly as possible in the event of an alarm being triggered, regardless of his location, rather than just relying on these mandatory inspection rounds. That is why Alert has been integrated into the process, in tandem with monitoring software. The monitoring of material handling is network managed using PCVue.

A different Alert configuration for each requirement

Certain alarms have been grouped together by type, in keeping with the distribution of the company's circuits. The duty manager is thus able to view the status of the different

alarms at section level, together with its implications. Thanks to this contextual view, he is able to carry out a diagnostic and organise his priorities.

The user has chosen to set up Alert solely to manage crucial alarms. It has therefore been possible to rank the different variables, and restrict their number.

The alarm message comes in the form of an SMS on the mobile phone of the duty manager, via the internal DECT network. DECT was chosen in this case because of the presence of radio frequency sensitive variators: equipment with a high power rating cannot be used in close proximity to these devices. The SMS that is sent is identical to the message created in PCVue.



Previously, duty staff had been equipped with pagers. However, these pagers could not display more than two sets of 8 characters. As a result, faults (major faults only) had to be coded in PCVue so that they would not exceed the maximum number of characters. Duty staff carried a lexicon in their pocket, which would effectively allow them to “translate” any messages received. With this system, the company ran the risk of exposing itself to considerable time wastage and

confusion.

Essentially, it was Alert’s ability to use the messages previously created in PCVue that made it possible to switch from pagers to mobile phones without the need to start from scratch. With Alert, duty staff can now access the message in its entirety.

Material handling managers (1 person in each of three 8-hour shifts) are no longer alone in using the Alert system: the electricians involved in programming the plant’s automated systems have also adopted it. Alert is also used via sensors fitted to trucks in order to manage the evacuation of waste, in other words the sugar residues expelled during the production process.

In the particular case of Saint Louis Sucre, Alert is intended solely as a help tool: duty staff do not use it to control processes or acknowledge alarms directly, as internal procedures do not allow a section to be operated by telephone.

In fact, alarms are acknowledged indirectly and automatically via the actions undertaken to resolve faults where they occur. The duty manager actually goes to the breakdown location himself and resolves the problem. To do so, he sets the material handling circuits to “automatic recovery” mode and then launches the restart procedure. It is the action taken to address the breakdown that enables the alarm to be acknowledged. Indeed, when a breakdown is repaired, the fault message disappears from the PCVue control screen and the alarm is acknowledged in Alert thanks to the synchronisation of the 2 systems.

Alert: Maximum effectiveness, minimal risk



Thus, Alert has made it possible to minimise the risks that lead to the most serious consequences, which in turn has led to major time and cost savings. For example, if a dust extractor breaks down, all the installations in the section in question must be shut down, as the

presence of dust can increase the likelihood of explosions. Alert has made it easier to anticipate this type of risk, making it possible to avoid the type of emergency situations where one is reduced to assessing the damage and where every minute spent repairing installations generates significant losses for the company. Faults can therefore be managed preventively with serenity and, most importantly, in time; which is far easier than doing so after the fact, under pressure and too hastily. The refinery processes 860 tonnes of sugar each day and sends this volume to the packaging plant to be processed via the material handling circuit. These 860 tonnes per day illustrate the stakes involved in maintaining the continuity of the material handling process, as well as the value added Alert is able to bring in this context.

Alert stands out for its flexibility on various levels: the company retains the freedom to adapt its use of the product to its internal constraints. For instance, Alert was able to adapt in order to inform an operator of a fault without requiring telephone acknowledgement. The software was also able to group alarms together as it saw fit. The set-up process itself is user-friendly and the tool's overall operation is very simple: *"Alert is easy for a novice to use"*.

In addition, the software is highly flexible, both in terms of the modifications and updates it can undergo, and in terms of the monitoring software it can be coupled with. As a result, it can be integrated quickly: *"Alert worked first time"*.

On top of this, it was very easy to install because the pre-existing database allowed the information gathered previously to be migrated directly, without the need to start from scratch.

The result is an estimated time saving of 30 minutes when handling faults. Considering the quantities being handled, this is far from negligible, as it translates into a saving of 18 tonnes each time a problem has to be addressed...

