COMEDAT

SAUDI COMEDAT COMPANY LIMITED

Saudi Comedat ensures highest levels of stock control and site safety with custom inspections from Assettagz.

Operating safely and effectively in the harsh conditions of the remote Saudi Arabian desert means maintaining the highest levels of organisation. Saudi Comedat needed a flexible solution where numerous individual inspections could take place every day.

Initially looking for an automated solution to help with stock control and maintenance inspections on its equipment, Saudi Comedat now has a mobile asset management solution that uses over 40 customised inspections, meaning it is flexible enough to work across people, equipment, accommodation and working zones. Using **Assettagz**, Saudi Comedat now carries out over 3000 individual inspections each month.

"**Assettagz** has become part of our daily life and we have seen clear improvements within five key areas of the day-to-day running of the mine:

1. Plant & equipment maintenance
2. Stores & stock control
3. Health, safety & environmental compliance
4. Employee briefings
5. Equipment costing & charging

Due to its success, **Assettagz** will be implemented on all mines operated by Saudi Comedat in the future." Says Ben Tiley, Management Accountant at Saudi Comedat.

"The original intent had been to utilize RFID purely for the store and stock control, however, the benefit to the site health, safety, environmental & maintenance soon became the core of the project that has continued to grow and evolve."

Ben Tiley, Management Accountant

Background

Saudi Comedat Company Ltd. is a surface mining company based in the Middle East. Located in the remote Northern region of Al Jalamid, Saudi Arabia, the site is anticipated to become the world's largest phosphate mine.

Operating in one of the most hostile environments on the planet, Saudi Comedat is committed to the highest levels of Health & Safety and stock control for both the well-being of the staff and the high-value mining equipment used on site.

The issue

"Working in such remote conditions means we have to know exactly where we are with supplies", explains Ben Tiley. "We can't just order a delivery of fuel when we run out as it takes can take days or even weeks to get supplies here across the desert. More importantly, the harsh nature of the environment we operate in makes safety a top priority for us."

In order to ensure the highest level of control around stock and safety, the company was looking for an automated solution that would help them to meet its stock and stores objectives and HSE (Health & Safety Executive) obligations.

Fleet, accommodation units and key working areas are all tagged.

The Solution

Assettagz is a mobile asset management solution that uses rugged Psion handheld computers together with Radio Frequency ID (RFID) tags to give Saudi Comedat full control and visibility of its assets. The custom inspections facility allows inspections forms to be tailored to Saudi Comedat's specific requirements meaning they can capture the exact results needed.

Why choose 4hSolutions?

Saudi Comedat chose **Assettagz** from 4hSolutions for two main reasons as Garnet Hampson, Technical Director at 4hSolutions explains: "Given the harsh operating conditions, our solution offered two clear advantages; RFID technology and rugged hardware.

RFID tags are much more robust and can withstand harsher environments than barcodes. They can also be read through dirt and sand, don't require direct line of sight and aren't affected by sunlight. Plus they are available in many different shapes and sizes for different uses.

We also deploy hardware that has been designed to work in extreme conditions. The rugged nature of the Psion WorkAbout Pro 3 meant they were ideal for the Saudi Comedat implementation."

Ben and his team now carry out over 40 individual types of inspections ranging in frequency from 6 hourly to 6 monthly.

Phased approach

Assettagz was initially employed at Saudi Comedat to make Health and Safety improvements through automating plant & equipment maintenance and stores and stock control. However, quickly seeing the benefits that RFID-based asset management brought to the table, phase 2 was to extend its use to the daily inspections of the mines, workshops and accommodation zones.

Phase 3 of the project has been to include tracking staff and costs. Saudi Comedat can now:

- monitor the allocation of fuel to assets

- assign assets to individuals for accountability

- track attendance of individuals at daily task and SHE (Safety, Health & Environment) briefings through RFID enabled ID badges.

- monitor the allocation of plant to specific tasks for cost analysis

Ben and his team now carry out over 40 individual types of inspections ranging in frequency from 6 hourly to 6 monthly.

Implementation

Assettagz was implemented in May 2010 after testing took place with 2 handheld devices and Low Frequency RFID tags.

Once the principles of operation were proven, development could begin and the inspections were tested and in use one month after the concept was conceived.

A Saudi Comedat mechanic prepares to scan a rigid dump truck for the daily inspection.

How it works

1. Rugged Psion WorkaboutPro handheld devices are fitted with an RFID Low Frequency Reader, wireless LAN connection and GSM/GRPS.

2. Heavy duty RFID tags are bolted at easily accessible positions on the vehicles and structures. Tags can be read at a safe distance.

3. Once the item has been scanned and identified via the RFID tag, inspections are performed in the field and results are captured directly onto the handheld computer.

4. Upon synchronization the data is uploaded to a web-hosted database managed by 4hSolutions and is immediately available to view centrally on the web-based application via any internet enabled computer.

5. A full history of inspections and results that can be reported on as required is provided.

6. When an asset is marked as needing attention or fails an inspection, Assettagz produces an email notification to selected managers. Assets that fail inspection are also flagged as 'do not use'.

7. To complete this process, a twice-daily email is sent out to managers detailing all inspections that are overdue.

The results

- The morning inspections are now done significantly quicker that the previous paper based versions and Saudi Comedat have **reduced inspection times by 25%**.

- Whilst inspection times have been reduced, the key benefit is the **immediate notification of inspection failures and passes** that require attention.

- Plant and operational departments can **plan maintenance with minimal disruption** to the business.

- Timely and correct preventative maintenance help to reduce the risk of catastrophic failure. This has a cost saving on major spare part replacement and maintains higher plant utilisation, which has a **direct impact on business turnover.**

> "Being able to customise our inspections with Assettagz means that we get total transparency and a clear audit trail so key aspects of this remote business can be closely managed from anywhere in the world."

Ben Tiley

Business Benefits

Assettagz allows Saudi Comedat to:

- **Increase management control and reporting**

- **Improve plant utilisation through preventative maintenance**

- **Reduce major component repair and replacement costs**

- **Speed up inspection times**

- **Save labour and management time**