

CASE STUDY

Workplace Fatigue Management Innovation for National Rail Freight Operator

Customer: A leading Australian rail freight and logistics operator

Location: National, Australia

Industry: Long distance rail freight

nimbus Time2Work workforce scheduling solution integrates the InterDynamics 'FAID' application so this national rail freight organisation can predict and manage potentially deadly worker fatigue.

At a glance

Challenge

- Improve compliance with legislated requirements to manage fatigue of staff.
- Migrate away from reliance on a costly, time consuming and potentially inaccurate manual spreadsheets process of calculate fatigue management scores for future shifts of staff.
- Improve the flexibility of staff shift management and provide teams with greater control over their work life balance.
- Future proof their approach to shift management by enabling a software based, mobile accessed dashboard for shift management, including enabling managers to see hourly scores.

The Challenge

The customer is **one of the largest rail freight service providers in Australia. Each year it transports more than 55 million tonnes of freight nationally, and employs more than 600 staff.**

The customer's management continuously seeks ways to mitigate against risk factors for their workforce, including fatigue, which can be a major source of risk in a 24/7 transport industry like long distance rail freight.

While it is considered normal for workers, especially those undertaking shift work, to experience fatigue, methodologies have been deployed by the industry over the years to measure it and mitigate against it.

To help meet legislative staff safety requirements, the organisation uses a fatigue model called Fatigue Audit InterDyne (FAID). InterDynamics' FAID software and biomathematical model (BMM) has been an industry standard for fatigue exposure prediction and fatigue management since its introduction in the late 1990s.

In 2020, the customer deployed an innovative fatigue management and reporting solution from nimbus (nimbus Time2Work) and InterDynamics to further improve its FAID strategy.

At a glance

Solution

- Automatically update future shifts when an employee works shorter or longer than what they were scheduled with an updated FAID score.
- Shift widgets to display hourly FAID scores of employees
- Customise triggers to highlight shifts with FAID scores outside of tolerances (90+ FAID score shifts turn red, 100+ shifts go black).
- Access a dashboard to show shifts above a defined FAID score in the next 14 days.

The Challenge continued

The nimbus Time2Work solution enabled the customer to migrate away from manual spreadsheets to calculate fatigue management scores for future shifts of staff and removed the need to manually update its reporting system to account for changes to employee shifts. These previous methods were relatively laborious, cumbersome, and unproductively slow and complex.

The customer sought to improve and evolve its FAID solution to:

- Improve compliance with legislated requirements to manage fatigue of staff.
- Migrate away from reliance on a costly, time consuming and potentially inaccurate manual spreadsheets process of calculating fatigue management scores for future shifts of staff.
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The Solution

The integration of nimbus Time2Work and InterDynamics FAID application, a first in the multi-billion dollar Australian rail transport industry, now provides the customer with world's best practice fatigue management processes.

By integrating with InterDynamics FAID application, the nimbus Time2Work workforce management software enables the customer's shift managers to save time and improve productivity by enabling them to migrate from maintaining shifts manually and offline to an online, mobile app-based nimbus Time2Work platform. The solution enables the customer to take full advantage of real time integration with InterDynamics FAID Quantum and:

- Automatically update future shifts when an employee works shorter or longer than what they were scheduled with an updated FAID score.
- Shift widgets to display hourly FAID scores of employees.
- Customise triggers to highlight shifts with FAID scores outside of tolerances (90+ FAID score shifts turn red, 100+ shifts go black).
- Access a dashboard to show shifts above a defined FAID score in the next 14 days.

At a glance

Results

- Real time visibility of FAID scores to assist in the fatigue management process.
- Improved shift planning capabilities as different scheduling scenarios can be quickly tested with visibility of potential fatigue implications.
- Improved compliance with fatigue management regulations.
- Timesavings from no longer needing to maintain offline spreadsheets.
- Integration of nimbus Time2Work scheduling into the 'kiosk' based sign on/off process for workers, which they can access on their mobile phone app on their phone or at the physical 'kiosk'.

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The Result

For the first time, the customer can efficiently provide its workforce schedulers a prediction of the levels of fatigue that an employee will experience on any given shift, considering the length of the shift, times of day, any breaks scheduled into the shift, and any accumulated fatigue from shifts in the 7 days leading up to the shift in question. Schedulers use this prediction to see whether the levels of predicted fatigue remain below an acceptable threshold. Individual companies (and in some cases industry sectors) decide what the maximum acceptable FAID score should be.

This solution, accessible via an application, has improved the customer's compliance with fatigue management regulations, improved shift planning capabilities and the customer mitigate one of the risks within Occupational Health and Safety – fatigue.

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- Improved shift planning capabilities as different scheduling scenarios can be quickly tested with visibility of potential fatigue implications.
- Improved compliance with Fatigue management regulations.
- Timesaving from no longer needing to maintain offline spreadsheets.
- Integration of nimbus Time2Work scheduling into the 'kiosk' based Sign on/off process for workers, which they can access on their mobile phone app on their phone or at the physical 'kiosk'.

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About nimbus

As one of Australia's fastest growing technology innovators, nimbus is at the forefront of the future of work, providing integrated tools to optimise human endeavour, drive positive business results, and create a "live anywhere, work everywhere" world.

Through future-proofed, cloud, patent protected software, nimbus transforms employee management capabilities for location-based, remote, and work from home staff with compliance, workforce optimisation, and business continuity solutions.

nimbus' suite of Software as a Service products are deployed by some of Australia's top ASX companies, and globally by organisations and Government in the United States, the United Kingdom, Mexico, Canada and the Middle East.