



FAID[®] Version 2.0

InterDynamics has an ongoing commitment to improving the capabilities and features of its products for both experienced and 'first time' users. It is pleased to announce the release of FAID[®] Version 2.0. This version incorporates many of the suggestions received from users of FAID[®] since our previous release.

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Olympics Success

*The Delivery Vehicle
Scheduling System used by
the Sydney 2000 Olympic and
Paralympic Logistics Team
was developed and
implemented by
InterDynamics Pty Ltd.*



*InterDynamics FAID[®] Fatigue
Risk Management product was
awarded the WorkCover
SAFeWork Award 2001 in the
Information Technology Solution
category.*

From the authors of the original FAID[®] algorithm:

The authors of the original FAID[®] algorithm have been pleased to work with InterDynamics and to develop FAID[®] Version 2.0. There are several important conceptual advances in FAID[®] 2.0. The first issue is the re-conceptualisation of what FAID[®] calculates. In the past, many of our users regarded the FAID[®] score as an estimate of the likely fatigue of an employee based on the pattern of work. This has led to some confusion. In the new version we have refined our expression of what FAID[®] is measuring and aligned it more closely with the statutory requirements under most OH&S jurisdictions.

In FAID[®] 2.0, the fatigue or FAID[®] score is more correctly denoted as a measure of the 'sleep opportunity' associated with or afforded by a schedule or roster and is a proxy for fatigue due to **work-related causes**. The actual fatigue of a given individual on any specific occasion is mediated by their behaviour outside of work. The new version of FAID[®] addresses only the causes of fatigue for which an employer is primarily responsible. An analysis using FAID[®] 2.0 will assist an employer to clearly demonstrate their legal obligations under OH&S requirements to demonstrate a safe-system-of-work.

Of most interest is the shift to a safety-systems approach to reporting FAID[®] analyses based on AS 4801 and AS 4360. This approach provides a simplified fatigue 'dashboard' that enables users to measure and report whole-of-system performance using a single metric [KPI]. This is an important advance since fatigue management is increasingly seen as an integral element of the safety system of an organisation and simplified 'universal' reporting metrics are an important part of reducing complexity and improving safety performance.

InterDynamics have also included a range of new user features in this version. These features will provide valuable insights into the timing and intensity of higher fatigue exposures within a work period. It is our view that these enhancements constitute a significant advance in the analytic capabilities and usability of FAID[®].

This version is also a significant technical upgrade of FAID[®]. This version has an improved approach and refined treatment for the calculation of fatigue scores for work periods that do not start or finish on the hour.

Professor Drew Dawson and Dr. Adam Fletcher

What's New in FAID® Version 2.0 ?

NEW TERMS

The following changes of terms have been made:

<i>FAID® Score</i>	replaces 'Fatigue Score'
<i>FAID® Conditions</i>	replaces 'Risk Levels'

INDICATIVE FATIGUE CALCULATION

This version is a significant technical upgrade of FAID®. This version has an improved approach and refined treatment for the calculation of FAID® Scores for work periods that do not start or finish on the hour. It also calculates, when a Fatigue Tolerance Level (FTL) is set, the time an individual spends at FAID® Condition Levels.

INFORMATION

On every screen the user can reveal an information a display window about the section they are viewing, and it's purpose. With the option of more information; via a link to the Help file.

INPUTS

Views

Users can nominate the views displayed / available to them. A manager can save a set-up to limit access for the specific user (eg beginner, experienced).

Fatigue Tolerance Level (FTL)

The user now has the choice of selecting **None**, **One**, or **Multiple** Fatigue Tolerance Levels (FTL). When No FTL is selected, analysis of the work schedule allows for the investigation of the apparent FTL, and only displays the FAID® Scores achieved.

Task for Work Periods

There are now three choices for the Operational Task Risk category for a work period:

- Low
- Moderate
- High

(Note: The Operational Task Risk category of Extreme, used in previous versions of FAID®, has been removed.)

Errors in Work Schedule

If a work schedule includes work periods with errors, the Analysis Run process will not be available until all errors are corrected.

The user will be informed of the number of errors present in the work schedule, and will be presented with each invalid work period in the work schedule. This function allows the user to investigate an error, change or delete the appropriate work period, then automatically they are taken to the next error. Upon completion of correcting the errors, the Analysis Run option is again available.

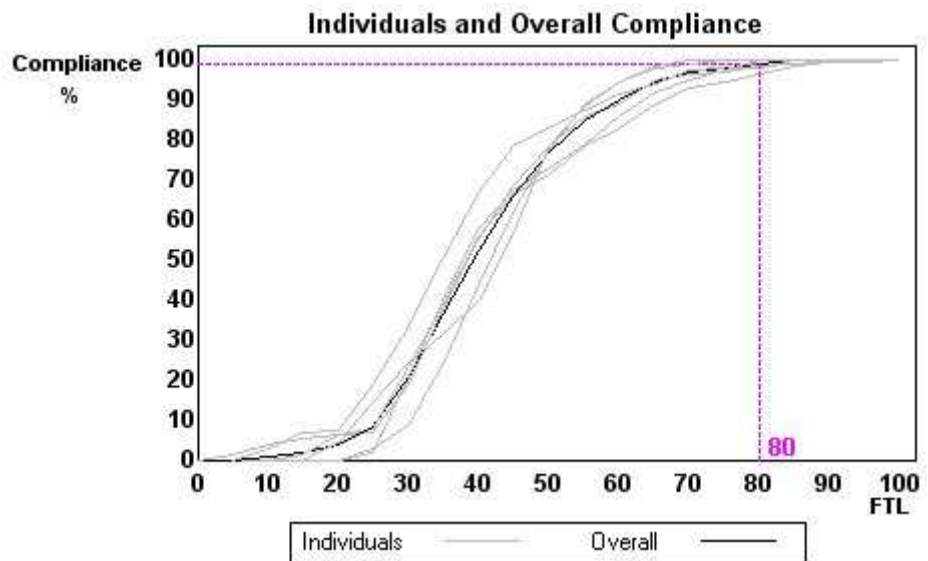
Analysis

When the user nominates the **Starting Date** for the Analysis Run the user is informed of the **History From** date from which FAID[®] will use to calculate the first week of FAID[®] Scores (because one of the specific determinants of work-related fatigue is the work history in the preceding seven days).

OUTPUTS

No FTL Selected

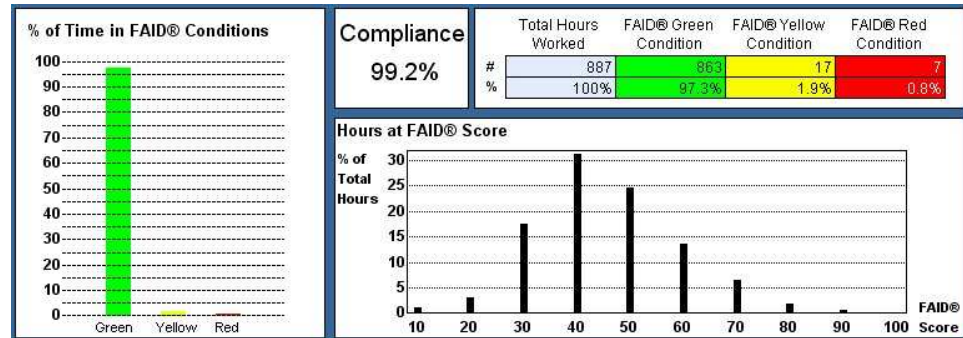
When No FTL is selected, analysis of the work schedule allows for investigation of the apparent FTL. In the Outputs a different 'dashboard' summary is presented to the user; an Indicative Fatigue Distribution plot is displayed, for Individuals and Overall, with the approximate Compliance if an FTL (adjustable by user) was used.



Example: For an FTL set at 80, overall Compliance is approximately 99%.

FTL Selected

New simplified 'dashboard' view of Indicative Fatigue Assessment Results.



New terminology has been introduced to describe the outputs in FAID® :

- The scores produced by FAID® are now called FAID® Scores. A FAID® Score (FS) is indicative fatigue (inferred from estimated sleep obtained).
- FAID® Conditions are when controls need to be put in place to lower the risk to the organisation when tolerance levels are approached or exceeded.
- There are three levels of FAID® Conditions: Green, Yellow, Red.
 (Note: The highlight colouring of black, used in previous versions of FAID®, has been removed.)

A FAID® Condition is comparing the FAID® Score achieved during the work period to the work period's nominated FTL (via one FTL, or Operational Task Risk Category).

- FAID® Conditions:
 - Greater than FTL = **FAID® Red Condition**
 - Within 10 points of FTL = **FAID® Yellow Condition**
 - Less than 10 points below FTL = **FAID® Green Condition**

The new Output calculation of Time Spent at FAID® Conditions focuses on the entire work period, avoiding the focus on the Peak FAID® Score for a work period.

Multiple FTL

When Work Period's Operational Task are specified, then Task Risk can be assessed combining the FAID® Condition (Likelihood) and Operational Task (Consequence). In relation to a Risk Assessment, the Likelihood is of a fatigue related error. For example:

FAID® Yellow Condition (High) , or
 FAID® Red Condition (Low)

Key Indicators

The Key Indicator section has new Monthly Compliance view. Users can nominate the desired Compliance Level and view the work schedule's actual compliance level.

Exposure Log

New Exposure Log output display's work periods exceeding the FTL. This can be used for internal or external review / reporting purposes. A description of the Control Applied during the work period, if necessary, can be recorded in the log. The user also has the option to display work periods of the previous seven days leading up to exposure, for internal review.

Work Schedule

The user is presented for each work period the Time spent at a FAID® Condition, as well as the Peak FAID® Score, and Peak FAID® Condition achieved during the work period. The Work Schedule display can be changed by the user nominating which outputs they would like to see with the Extra Display option.

Extra Display

- Task
- Peak FAID® Score
- Peak FAID® Condition
- Non-Work
- Work

Extra Display chosen

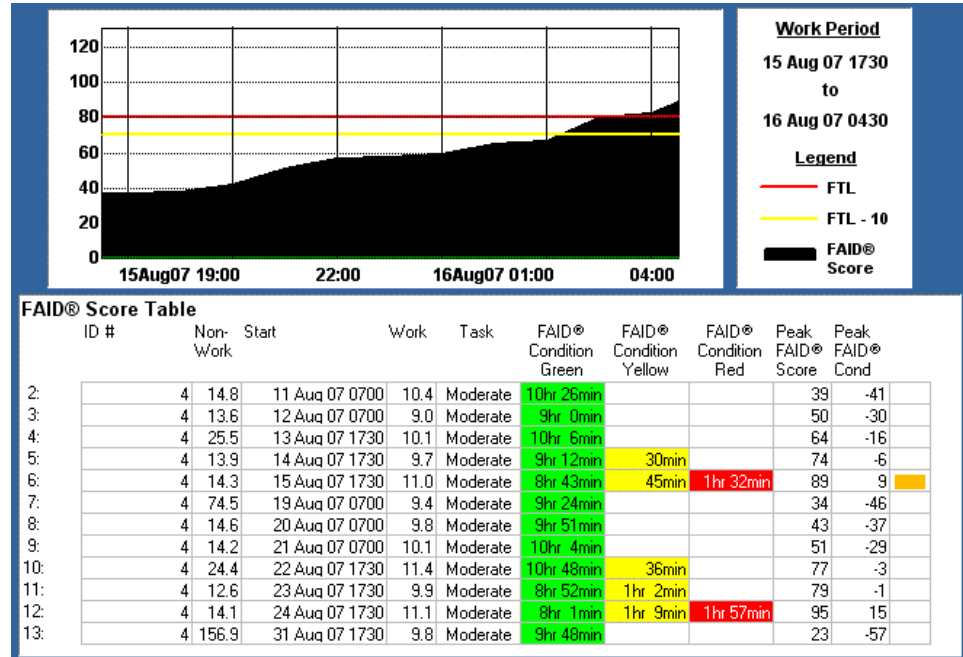
ID #	Start	End	FAID® Condition Green	FAID® Condition Yellow	FAID® Condition Red	Peak FAID® Score	Peak FAID® Condition	Work
1:	3	10 Aug 07 0700	10 Aug 07 1601	9hr 1min			25	-55 9.0
2:	3	11 Aug 07 1730	12 Aug 07 0330	10hr 0min			44	-36 10.0
3:	3	12 Aug 07 1730	13 Aug 07 0301	9hr 31min			57	-23 9.5
4:	3	13 Aug 07 1730	14 Aug 07 0230	9hr 0min			61	-19 9.0
5:	3	15 Aug 07 0700	15 Aug 07 1705	10hr 5min			59	-21 10.1
6:	3	16 Aug 07 0700	16 Aug 07 1618	9hr 18min			67	-13 9.3
7:	3	17 Aug 07 0700	17 Aug 07 1730	10hr 22min	8min		71	-9 10.5
8:	3	20 Aug 07 1730	21 Aug 07 0246	9hr 16min			43	-37 9.3
9:	3	21 Aug 07 1730	22 Aug 07 0401	10hr 31min			57	-23 10.5
10:	3	22 Aug 07 1730	23 Aug 07 0354	10hr 24min			66	-14 10.4
11:	3	24 Aug 07 0700	24 Aug 07 1630	9hr 30min			57	-23 9.5
12:	3	25 Aug 07 0700	25 Aug 07 1648	9hr 48min			66	-14 9.8
13:	3	26 Aug 07 0700	26 Aug 07 1706	9hr 35min	32min		74	-6 10.1
14:	3	29 Aug 07 1730	30 Aug 07 0441	11hr 11min			54	-26 11.2
15:	3	30 Aug 07 1730	31 Aug 07 0230	9hr 0min			53	-27 9.0
16:	3	31 Aug 07 1730	1 Sep 07 0342	10hr 12min			66	-14 10.2
17:	4	10 Aug 07 0700	10 Aug 07 1615	9hr 15min			29	-51 9.3
18:	4	11 Aug 07 0700	11 Aug 07 1726	10hr 26min			39	-41 10.4
19:	4	12 Aug 07 0700	12 Aug 07 1600	9hr 0min			50	-30 9.0
20:	4	13 Aug 07 1730	14 Aug 07 0336	10hr 6min			64	-16 10.1
21:	4	14 Aug 07 1730	15 Aug 07 0312	9hr 12min	30min		74	-6 9.7
22:	4	15 Aug 07 1730	16 Aug 07 0430	8hr 43min	45min	1hr 32min	89	-9 11.0

Work Schedule displayed

Individual Work Schedule

When investigating the individual work schedules, in the Indicative Fatigue section, the user can review graphically the FAID® Scores achieved during the work period. If an FTL has been selected; the time spent in FAID® Condition is also displayed, as well as when it occurs.

The user can step up, or down, through the work periods viewing the change in FAID® Scores.



Individual Work Schedule and Plot

Printing

The Printing option has been enhanced to allow users to create their own report styles, by nominating the outputs they want. The user can also have a cover page including such details as: Title, Organisation, Date of Report, Analysis Run details, and the FTL used.

For more, FAID® Version 2.0 is now available at <http://www.faidsafe.com>



Faid® Safe

Faid® Safe is a fatigue safety system that is built on three levels of protection and designed so that all industrial organisations can establish adequacy of current and future controls that protect against inherent fatigue hazards.

Faid® Safe is based on a holistic diagnosis of operational, capacity and cultural exposures, coupled with the development of primary, secondary and tertiary safeguards.

Faid® Safe is offered as the global benchmark for services assisting the fatigue safe systems market and recognises that irrespective of the support tools that are adopted, a comprehensive Risk Engineering based fatigue safe system is required in order to adequately manage fatigue risks.

For further details on these products and services contact InterDynamics on +61 7 3229 8300 or email to faid@interdynamics.com .