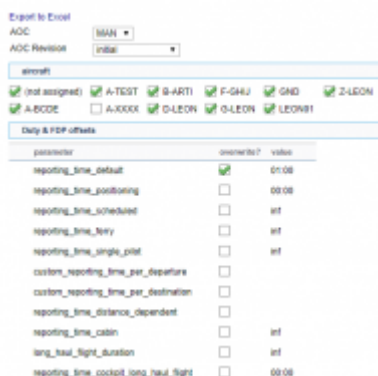


FTL Settings



FTL Settings section

This section allows you to review the **FTL Settings** that are implemented based on OM part 7.

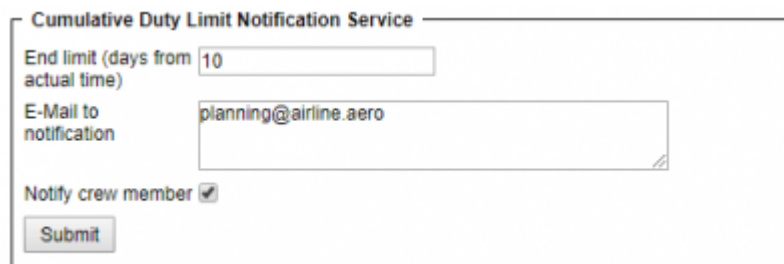
Apart from very specific settings you can also:

- **Export to Excel** - option to export the settings to excel file. The file will include the settings parameters as well as the explanation of each parameter definition.
- **AOC** - the name of the AOC. If there are more than the one you can check the settings of each by choosing the AOC you would like to see in the drop-down. This is the AOC that is chosen in the OPS > Flight tab.
- **AOC Revision** - field indicating the date of the last AOC revision (change). If it is set to 'initial', it means that this AOC applies from the very beginning.
- **Aircraft** - marked aircraft assigned by default to the chosen AOC. If ticked, this means that the FTL times will automatically apply to the Crew when the flight is created. If unticked, it means that there might be another 'AOC' created (AOC dropdown) or this AOC does not apply to this aircraft.

Cumulative Duty Limit Notification Service is explained below.

Cumulative Duty Notification

Cumulative Duty Notification is a facility that **provides information** when cumulative duty is **close to the maximum level** (just before it is exceeded).



Cummulative Duty Notification - Setup screen

There are following options available:

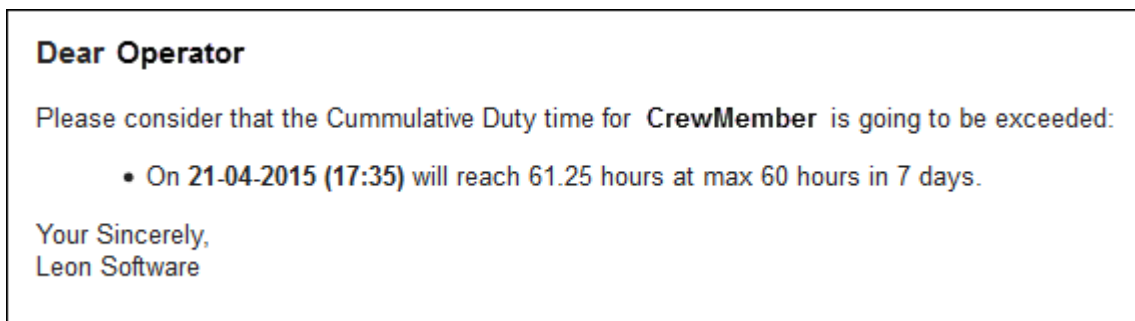
1. **End limit (days from the actual time)** - in this field input number of days forward for Leon to

check 'Cumulative duty'.

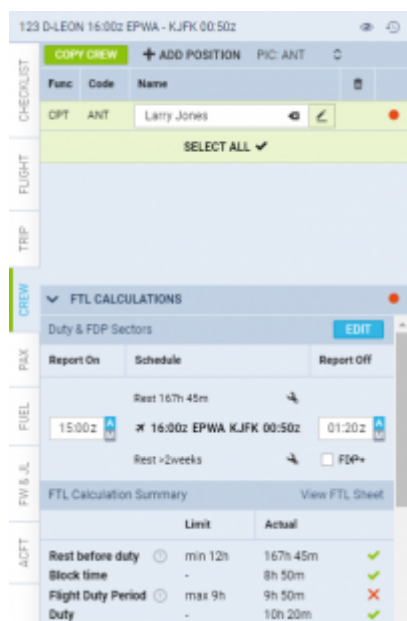
2. **E-Mail to notification** - in this field input email addresses to which notifications should be sent.
3. **Notify crew member** checkbox - if this checkbox is ticked, the notification email will also be sent to the crew member to whom the notification applies

When this is defined, a notification email is sent whenever **Cumulative duty hours** for a member of the crew are over the stated value.

Email reads:



FDP extension options



Option to plan FDP extension in CREW tab

It is possible to select an extension mode. In order to do that please contact support@leonsoftware.com

Each of the modes will affect how 'FDP extensions' should work: whether it should apply manually or only in case of violation (default setting).

There are **2 modes** to choose from in 'FTL Settings':

- **at any FDP violation** - FTL extension mode that applies FDP+ whenever FDP violation appears during realization, regardless of the plan. This means that FDP+ does not have to be planned in

order to be applied

- **at planned FDP violation** - FTL extension mode that applies FDP+ whenever FDP violation appears during both plan and realization. This means that FDP+ must be planned in order to be applied

Additionally, it is possible to apply FTL extension mode that **allows applying FDP+ manually**, even if the schedule would suggest that it is not needed. In order to activate it go to 'Flight editing' settings and activate '**Require manual enabling of FDP+**' checkbox (if this checkbox is ticked, 'FDP+' in 'CREW' tab is unticked by default).

Require manual enabling of FDP+

This will not affect any existing flights and assignments, but for all the new flights it will result in FDP+ being disabled by default, and will require manual selection of FDP+ checkbox for the extension to be enabled. However, if enabled, it will be applied regardless of any FDP violation or lack thereof.

Crew days off

There are **3 rules** that can be implemented for the purpose of days-off calculation:

- **Rule 1** - default, where a day off is one for which there are no flights, with the appropriate number of free nights
- **Rule 2** - day off is one for which there are no flights (Rule 1) and no duties defined in the roster
- **Rule 3** - day off is one for which there are no flights (Rule 1) and that day is marked as off in the roster

These options will influence the way days-off are showing on FTL Sheet and Crew Duties screen.

In order to choose any other rule but Rule 1, you should contact Leon Software Support.

Weekly Rest alternative options

Most FTL regulations contain a requirement for scheduling an extended recovery recurrent rest period once every few days, usually called a **weekly rest**. For example:

"(...) minimum 36 continuous hours, including two consecutive recovery nights, in a seven-day period."

or, more precisely:

(...) weekly rest period, being a 36-hour period including two local nights, such that there shall never be more than 168 hours between the end of one weekly rest period and the start of the next.

It is reflected in Leon's FTL Settings by `weekly_rest_min_length` (in this case, 36 hours) and

weekly_rest_max_separation (in this case, 168 hours). Other settings can be used to specify whether the weekly rest should include local nights, or whether it can be reduced, or performed outside the crew member’s home base.

However, this is rarely that simple. Some regulations allow for an alternative rest instead of the regular one, for example:

(...) rest periods will be extended at least:

- to the **36 hours** uninterrupted rest period including **2 local nights** in the course of **7 consecutive days**, or
- to the **60 hours** uninterrupted rest period including **3 local nights** in the course of **10 consecutive days**

which often leads to some confusion, especially in the case of alternating 36/60 “weekly” rest patterns.

So far this has been implemented in Leon in a way that FTL would require the basic (36-hour) rest to happen within the first 7 days following the previous weekly rest. If such rest is not scheduled in that period, FTL starts to require the alternative (longer) extended rest period. It can be illustrated with the following example:

Bart Simpson - BAS, homebase at WAW, 01-12-2020 - 17-12-2020

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Date	Duty Type	AOC	FTL day off	Duty Start	Duty End	Split off	Split on	Time zone	Rest facility	Rest before duty		Block hours	Sectors	Duty time	FDP			Rest	
										Actual	Min				Actual	Max	CD	36 h MAX	60 h MAX
01-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	40:00	12:00	00:00	0	08:00	00:00	-	-	08:00	
02-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	32:00	
03-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	56:00	
04-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	80:00	
05-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	104:00	
06-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	128:00	
07-12-2020		MAN	✓															00:00	
08-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	40:00	12:00	00:00	0	08:00	00:00	-	-	08:00	
09-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	32:00	
10-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	56:00	
11-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	80:00	
12-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	104:00	
13-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	128:00	
14-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-		152:00
15-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-		176:00
16-12-2020		MAN	✓															00:00	
17-12-2020		MAN	✓															00:00	

This default behaviour can be summarised as follows: the more duty days are scheduled, the longer the following extended rest has to be.

Recently, we encountered a **different phrasing of the weekly rest regulations**, suggesting that the opposite interpretation may actually be more appropriate:

Before beginning an FDP or standby, an FCM must have had at least 1 of the following:

- in any consecutive 7-day period before the projected end of the assigned FDP or standby: 1 off-duty period of at least 36 consecutive hours, including 2 local nights; **or**
- in any consecutive 10-day period before the projected end of the assigned FDP or assigned

standby: 1 off-duty period of at least 60 consecutive hours, including 3 local nights.

From the previous example, one can infer that the FDPs on 14-DEC and 15-DEC are actually not permitted, since there is neither a 36-hour rest in the previous 7 days (08-DEC-14-DEC) nor a 72-hours in the previous 10 days (05-DEC-14-DEC). The correct illustration would be as follows:

Bart Simpson - BAS, homebase at WAW, 01-12-2020 - 26-12-2020

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Date	Duty Type	AOC	FTL day off	Duty Start	Duty End	Split off	Split on	Time zone	Rest facility	Rest before duty		Block hours	Sectors	Duty time	FDP			Rest	
										Actual	Min				Actual	Max	CD	36 h	60 h
																		132 h MAX	180 h MAX
01-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	40:00	12:00	00:00	0	08:00	00:00	-	-	08:00	
02-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	32:00	
03-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	56:00	
04-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	80:00	
05-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	104:00	
06-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	128:00	
07-12-2020		MAN	✓															00:00	
08-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	40:00	12:00	00:00	0	08:00	00:00	-	-	08:00	
09-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	32:00	
10-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	56:00	
11-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	80:00	
12-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	104:00	
13-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	128:00	
14-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	152:00	
15-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	176:00	
16-12-2020		MAN	✓															00:00	
17-12-2020		MAN	✓															00:00	
18-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	64:00	12:00	00:00	0	08:00	00:00	-	-	08:00	
19-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	32:00	
20-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	56:00	
21-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	80:00	
22-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	104:00	
23-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	128:00	
24-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	152:00	
25-12-2020	WAW (Training)	MAN		08:00	16:00	-	-	+01:00	None	16:00	12:00	00:00	0	08:00	00:00	-	-	176:00	
26-12-2020		MAN	✓															00:00	

The new behaviour can be summarised as follows: the longer the weekly rest, the more duty days can be scheduled to follow it.

This new “forward” mode of calculating weekly rest can be enabled by setting **weekly_rest_alternative_forward**. This will only affect the regulations with an additional “alternative” definition of a weekly rest. Please contact customer support for more information.

Particular settings explanation

In this section, we explain the purpose of some of the settings:

- use_planned_reporting_in_case_of_small_delay** - applies to the following rule in OM7: *Where the delay is 4 hours or more, the maximum FDP shall be based on the more limiting time band of the planned and the actual report time and the FDP starts 4 hours after the original report time.* It works correctly when the checkboxes are marked in the FTL settings but also original STD must be kept, delayed departure inserted in 'ETD' field in the Flight Watch and reporting time changed manually. This way Leon will calculate from new reporting but 'Max FDP' based on the original reporting time

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