

# TPAC Rostering

TPAC Rostering is an advanced solution to all transport rostering needs.

## Capabilities

TPAC Rostering is entirely configurable, and so can be used to allocate any type of activities including:

- ➔ Patterns
- ➔ Leave
- ➔ Training

The solvers are configurable to take into account skills requirements for each sector. This can be used for applications including:

- ➔ Languages
- ➔ Crew position requirements
- ➔ Route qualifications

Solvers can be used individually or combined into multiple stages using different rules for each stage. Two main solvers are provided:

- ➔ Fair share preferential
- ➔ Sequential

## Fair share preferential solver

The fair share preferential solver is used to provide a fair share assignment while taking into account crew preferences. Rules determining preference weighting and the definition of “fair” are configured using TPAC Rules.

## Sequential solver

The sequential solver is used when strict allocation ordering is a requirement of the rostering rules. A typical example would allocate patterns for one crew member at a time in seniority order according to their preferences.

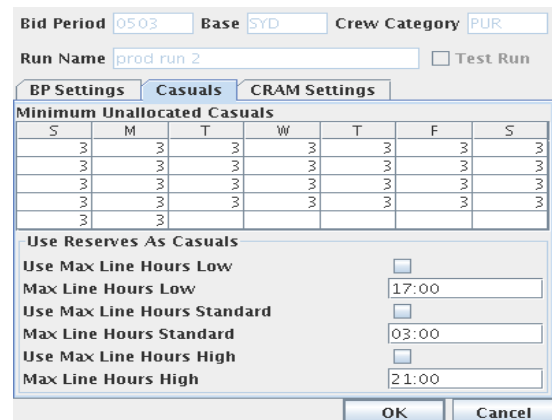
## Rules

Specification of legality and rostering rules is provided using TPAC Rules. This ensures flexibility and visibility while also allowing centralized administration and change management.

## Architecture

The rostering engine is available as a module or as an integrated system in a J2EE environment using Oracle Reports™ and a Java Graphical User Interface.

## Run Parameter Configuration



The dialog box shows configuration for a run. Key fields include:

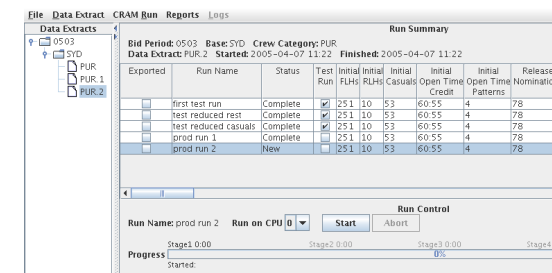
- Bid Period:** 0503
- Base:** SYD
- Crew Category:** PUR
- Run Name:** prod run 2
- Test Run:**

There are three tabs: **BP Settings**, **Casuals**, and **CRAM Settings**. The **Casuals** tab is active, showing a table for **Minimum Unallocated Casuals** with columns for days of the week (S, M, T, W, T, F, S) and rows for different crew categories. Below the table, there are checkboxes and input fields for:

- Use Reserves As Casuals:**
- Use Max Line Hours Low:**  (Value: 17:00)
- Use Max Line Hours Standard:**  (Value: 03:00)
- Use Max Line Hours High:**  (Value: 21:00)

Buttons for **OK** and **Cancel** are at the bottom right.

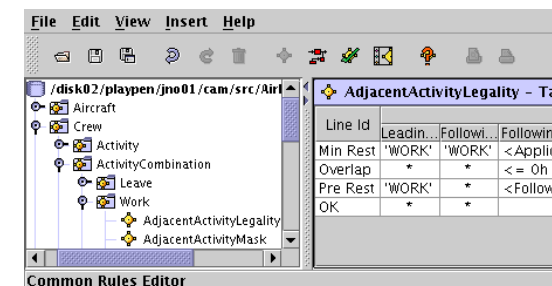
## Run control



The Run control window displays a **Run Summary** table with columns: Exported, Run Name, Status, Test Run, Initial Run, Initial FLHs, Initial RLHs, Initial Casuals, Initial Open Time, Initial Open Time Patterns, Release, and Pick. The table lists several runs, including 'first test run', 'test reduced rest', 'test reduced casuals', 'prod run 1', and 'prod run 2'.

Below the table, there is a **Run Control** section with a dropdown for 'Run Name: prod run 2', a 'Run on CPU' dropdown, and 'Start' and 'Abort' buttons. A progress bar at the bottom shows the status of four stages (Stage1, Stage2, Stage3, Stage4).

## TPAC Rules editing



The screenshot shows the **Common Rules Editor** window. The left pane shows a tree view of rule categories: Aircraft, Crew, Activity, ActivityCombination, Leave, Work, AdjacentActivityLegality, and AdjacentActivityMask. The right pane shows the **AdjacentActivityLegality** rule configuration table:

Line Id	Leadin...	Followi...	FollowingAc
Min Rest	'WORK'	'WORK'	<= Applicabl
Overlap	*	*	<= 0h
Pre Rest	'WORK'	*	<Following.
OK	*	*	