



Jeppesen Crew Rostering

Increase roster efficiency and quality while shortening your roster construction process.

The optimization and flexibility of Jeppesen Crew Rostering helps airlines build high-quality rosters while reducing total costs and time-to-market, leading to increased profitability.

Jeppesen has thirty years of experience in delivering crew planning solutions to airlines globally. Today, many mid-sized airlines, as well as several of the world's largest operators are successfully using Jeppesen Crew Rostering for increased profitability, crew influence and roster construction speed.

Driving efficiency through optimization.

A state-of-the-art rostering optimizer covers as much as possible of the production (flight pairings, reserves, standbys, training, etc.) that legality and crew availability allow. But effective rostering of pilots and cabin crew is so much more. It is an act of trading multiple factors to a perfect balance, and where that perfect balance is different from month to month. Therefore the roster construction machine – the crew roster optimizer – must be able to control all necessary aspects of a high quality roster; quality from both the crew and the company perspective.

We consider optimization core to our business and we drive research to constantly improve our already world leading optimizers.

The speed of the Jeppesen optimizer and the amount of constraints it can handle translates into a faster roster construction process, which in turn extends the window of opportunity for your network department to capture additional revenue.

The optimizer allows you to run several scenarios in parallel – only available hardware sets a limit to this, and you have insight into the progress of the runs while they are running.

Preferential bidding can be tailored through several models.

The Jeppesen optimizer assigns flight trips and activities to the individual rosters, considering any already assigned activities and the latest stage of already published rosters. In addition, it can consider bids and preferences from crew members and tailor the rosters according to that information. For improved usability, we offer a web and mobile based tool for crew to enter their preferences; Jeppesen Crew Bid.

The bid award can be done according to several bid models. The most common are weighted fairshare and strict seniority.

Weighted fairshare bid model

This bid award model is the most common model in Europe and in Latin America. It is a weighted model, where crew members are able to enter as many bids as they want, but sets a priority among the bids. The award is done in a way that values each crew member equally. If required, seniority can influence the award. A common variation is the “rotating seniority model” where crew members are divided into several groups, and for each planning period the groups take turns enjoying the highest bid award priority.

Strict seniority bid model

This bid award model dominates in North America. It awards bids on a strict seniority basis.

It can handle a model where crew add weights to bids and thereby tell the optimizer what is more or less important for them. It can also apply bid groups, where crew members can enter several alternative sets of bids for trips and days off.

In addition a dynamic award model can be applied, where line type is awarded at the same time as bids for trips and days off, and where a crew member can add different bids for the cases of a flight line or a reserve line.

Jeppesen Crew Request helps you handle long term requests.

With Jeppesen Crew Request, you can publish flight trips and days off for crew to request, and keep track of quotas and request limits as well as check operational constraints before awarding or declining a request. This way long term requests are handled automatically and efficiently. Crew can follow the request processing and will often get immediate feed-back or at least within 24 hours. The tool can apply a first-come-first-served award logic or a priority logic, where crew seniority can be used to set the award priority among the crew members. With the flexibility of our system, set your own time frame limits for Crew requests. Jeppesen Crew Request is based on the same mobile technology as Crew Bid, and connects to Jeppesen Crew Rostering.

Managing change – an architecture that encourages exploration.

The architecture of Jeppesen Crew Rostering allows airline staff to maintain the system configuration so that it continuously supports the most current operational requirements – regulatory rules, union agreements and other operational considerations. Core to this is the Jeppesen proprietary modeling language Rave.

In addition, Rave allows for exploration and what-if-analysis on a constraint and regulation basis, easily answering questions such as:

“What if the part-time contracts would allow 10% more flying hours?”

“What will the new authority regulations mean to us, and what would be the most beneficial interpretation?”

“What are the downsides of guaranteeing crew members one free weekend per month?”

Continuous improvements – receive regular upgrades with improved technology.

With Jeppesen, results from our latest research and development are made available to customers as quickly as possible. The latest optimization algorithm improvements will thus arrive at your doorstep as soon as it leaves our research and quality assurance groups. Whenever convenient, you can incorporate it into your production process with increased optimization speed, and improved roster quality and efficiency as a direct result.

Fatigue Risk Management - improving crew schedules using mathematical modelling of human physiology.

In addition to optimization, Jeppesen has defined fatigue risk management as a key research area. As a result from research cooperation with Boeing and several leading scientists and institutions worldwide, Jeppesen has developed BAM – the Boeing Alertness Model. BAM has been extensively validated to accurately reflect airline crew performance and alertness levels over many different types of operations. BAM can easily be connected to the Jeppesen optimizers to actively guide the construction process creating human-friendly schedules. This way a series of night duties or extensive time zone crossings will be planned so that crew members' alertness levels are kept well within safe levels.

Support and service – rely on a trusted Jeppesen service team before and after implementation.

Jeppesen understands that not only efficient software is required to support our clients, but skilled people are key to efficient installations and after-implementation support. Therefore Jeppesen has dedicated crew management implementation and service centers in Singapore, Göteborg (Sweden) and Montreal (Canada). Post implementation support staff is dedicated to selected clients to keep focus and retain deep customer knowledge, and give targeted support.

[Learn more about what we offer.](#)

For more information about Jeppesen Crew Rostering, visit jeppesen.com/optimization.