



Cielo™ Optimization Rules Module



Increase your air cargo system's overall performance with the Optimization Rules Module for Cielo™.

This module optimizes the operations of a facility in regards to storage, retrieval, routing and movement. By allowing areas of the facility to individually focus on a specific function, the overall efficiency of the system is increased.

katlyn.

AIR CARGO SYSTEMS SPECIALISTS

Cielo™ Optimization Rules Specifications

EQUIPMENT

ULD Handling Machinery
Roll Box ASRS

COMMUNICATION

Internal to CIELO

CONTROL

Automatic Mode

USER INTERFACE SCREENS

Vehicle Management Screen

The various types of optimization rules apply to different operations. Each rule operates individually and must be turned on manually. The system administrator determines which rule is active at any given time. Each area within the cargo facility can run its own optimization rule. As Storage optimization will generally be implemented on the import, while export will focus on retrieval optimization.

Storage optimization

When a unit is being entered the vehicle will store the unit in the closest available storage location. This optimizes the vehicles availability, by reducing the distance the vehicle must travel. This function will primarily be used when a flight has arrived and the breakdown operation takes priority. The Cargo needs to be stored quickly, as not to slow the system with unnecessary traffic.

Retrieval optimization

Retrieval optimization is a function that strategically positions the ULDs or Roll Boxes so that they are moved to a storage location that is in close proximity to the expected retrieval location, ie: workstations or RFS. This is possible if there is enough information entered with a unit when it enters the facility. Knowing ahead of time where it will be exiting the building. Then the shuffle function can position units that are flying together for the quickest retrieval.

Shuffle function

Uses slow times to initiate retrieval optimization. This function can be initiated on the vehicle management screen.

Multiple routes

Unit movement (AWBs, ULDs, Roll Boxes) will generally have a primary or most common path that is used to reach its destination. In the event that this primary path is obstructed, due to the queuing of other units or some fault, CIELO will attempt to find an alternate path to the destination. Obviously the availability of alternate paths depends on the size of the cargo facility. For each cargo facility Katlyn will analyze and work with the client to develop the rule base that is used to determine material flow through the automated areas.

Temporary moves

This function is used to process units that have a higher priority, moving other units out of the way allowing the higher priority unit(s) to be accessed. For example, if a unit is in a storage location in behind another unit. Then CIELO will issue a temporary move, moving the first unit (the one which was not requested) out of the way of the second unit (the one being requested). This is done automatically by CIELO, the operator does not need to worry himself with the fact that there is another unit in front of the one being requested.

